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# BRITISH RAILWAYS

LONDON MIDLAND REGION

Sectional Appendix to Working Timetable and books of Rules and Regulations

SOUTHERN SECTION

EUSTON JUNE, 1969 BY ORDER of the GENERAL MANAGER

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# BRITISH RAILWAYS

## LONDON MIDLAND REGION

Sectional Appendix to Working Timetable and books of Rules and Regulations

# **SOUTHERN SECTION**

EUSTON JUNE, 1969 BY ORDER

of the

GENERAL MANAGER

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Colwich to Macclesfield  Norton Bridge Junction to Stone Junction  Etruria Junction to Hanley (Single Goods Line)  Kidsgrove Central to Crewe South Junction  Lawton Junction to Sandbach Station (Goods Lines)  Birchenwood Colliery to Kidsgrove Liverpool Road (Single Goods Line)  Stoke Junction to Caldon Quarry (Goods Lines)  B.I.S. Siding to Leek Brook Junction (Single Goods Line)  Leek Brook Junction to Leek Yard (Single Goods Line)  Milton Junction to Heath's Junction (Goods Lines)  Stoke-on-Trent, R. Hyde & Son's Sidings to Pratt's Sidings (Single Goods Line)	106-109 109 110 110-111 111 112 112-113 113 114 114 115
CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES	
Craven Arms, Crossing (W.R.) to Crewe, South Junction Shrewsbury, Sutton Bridge Junction to Abbey Goods (Single Goods Line) Shrewsbury, Sutton Bridge Junction to Aberystwyth Cruckmeole G.F. to Minsterley (Single Goods Line) Dovey Junction to Pwllheli Devil's Bridge to Aberystwyth (Vale of Rheidol) Abbey Foregate to English Bridge Junction (Loop Line) Shrewsbury, Crewe Junction to Saltney Junction Gobowen South to Nantmawr Quarry Sidings (Goods Lines) Croes Newydd South Fork to Croes Newydd East (Single Goods Line) Croes Newydd North Fork to Minera Lime Works (Goods Lines) Fishponds Sidings to Broughton Forge G.F. (Single Goods Line) Brymbo Middle to Vron Sidings (Single Goods Line) Wrexham General North to Wrexham Exchange Wrexham Central North to Cadbury's Siding (Single Goods Line) Wrexham Central North to Dee Marsh Junction Brymbo Junction to Gatewen Colliery Sidings (Single Goods Line) Dee Junction to Dee Branch (Single Goods Line)	115-118 119 119-121 121 121-124 124 125-127 128 129 129-130 131 131 131 132 132-133 134 134
CREWE TO BIRKENHEAD AND BRANCHES  Crewe North Junction to Chester No. 6. Chester No. 1 to Acton Grange Junction Frodsham Junction to Halton Junction Chester No. 4 to Birkenhead, Canning Street North Chester No. 5 to Chester No. 6 Hooton South Junction to Helsby Junction Hartford Junction (C.L.) to Dee Marsh (North) Junction Mouldsworth Junction to West Cheshire Junction (Single Goods Line) Mickle Trafford (C.L.) to Mickle Trafford Chester (Northgate) East Junction to South Junction Chester (Northgate) South Junction to Liverpool Road West Junction Dee Marsh Junction to Seacombe Junction Liverpool Central L.L. to West Kirby Hamilton Square Junction to Rock Ferry Station Bidston East Junction to New Brighton Station Mersey Docks & Harbour Board Estate to Birkenhead North No. 2 (Goods Lines)	135–136 136–137 138 138–139 140 140–141 141–142 142 143 143 143–144 144–146 146–147 147

#### List of Lines-continued

List of lines in the sequence used throughout the book	Page No. relating to Table A
CHESTER TO HOLYHEAD AND BRANCHES	
Chester No. 6 to Holyhead Station	147–151
Mold Junction No. 1 to Mold, Synthite Siding (Single Goods Line)	152
Penyffordd to Hope Junction (Siding)	152
Prestatyn Station to Dyserth (Single Goods Line)	153 153–154
Llandudno Junction to Trawsfynydd C.E.G.B. Siding	
Menai Bridge to Caernaryon	155
Gaerwen to Amlwch (Single Goods Line)	155
LONDON, ST. PANCRAS TO TRENT AND BRANCHES	
London, St. Pancras to Trent Station North Junction	156–166
King's Cross (L.T.) to Carlton Road Junction	167
Engine Shed Junction to Harringay Park Junction (E.R.)	167–168
Gospel Oak Station to Junction Road Junction	168 169
Cricklewood Junction to Acton Wells Junction (Goods Lines)	169
Brent Junction No. 2 to Dudding Hill Junction (Goods Lines)	170
Neasden Junction to Neasden South Junction (Goods Lines)	170
Willesden to Acton Canal Wharf (Single Goods Line)	170
Luton, South to Dunstable (Goods Lines)	171
Luton, South to Vauxhall South G.F. (Single Goods Line)	171
Cardington to Bedford Junction (Single Goods Line)	172
Bletchley to Bedford, Goldington C.E.G.B. Siding	172–173
Higham Ferrers to Irchester Junction (Single Goods Line)	174
Wellingborough, London Road to Wellingborough Junction	174
Islip Sidings to Kettering Junction (Single Goods Line)	175
Kettering Station to Loddington (Siding)	175 175–178
Glendon South Junction to Syston South Junction (via Manton)	173–178
Ashwell Sidings G.F. to Cottesmore (Single Goods Line)	179
Melton Junction to Old Dalby (Single Goods Line)	179
Holwell Sidings to Welby Sidings West G.F. (Siding)	180
Wigston South Junction to Glen Parva Junction	180
Syston East Junction to Syston North Junction (Goods Lines)	180

#### List of Lines-continued

List of lines in the sequence used throughout the book	Page No. relating to Table "A"
TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES	
Trent Station North Junction to Newark Castle (E.R.)  Lenton South Junction to Lenton North Junction (Goods Lines)  Mansfield Junction to Trowell Junction  Radford Junction to Shirebrook (West) Sidings (E.R.)  Basford Junction to Cinder Hill (Single Goods Line).  Bestwood Park Junction to Bestwood Park Colliery (Single Goods Line)  Bestwood Park Junction to Calverton Colliery (Single Goods Line)  Kirkby Sidings to Metal Box Co's. Siding (Single Goods Line).  Mansfield South Junction to Rufford Colliery Sidings (E.R.) (Single Goods Line).  East Leake to Nottingham, Weekday Cross Junction  Gotham Sidings Branch (Single Goods Line).  Aslockton (E.R.) to Netherfield Junction (with Newark Line)  Rectory Junction to Cotgrave Colliery (Goods Lines)  Rectory Junction to Gedling Colliery (Goods Lines)  Colwick West Departure Line (Single Goods Line)  Colwick, East Junction to Colwick Estates (Single Goods Line)  Netherfield Junction to London Road Junction (via Trent Lane Junction)	181–184 185 185 186–188 188 189 189 190 190–191 191–192 193 193 194 194 194–195 195
Trent Lane Junction to Weekday Cross Junction	195
TRENT TO CHESTERFIELD (E.R.) AND BRANCHES	
Trent Station North Junction to Chesterfield, Horn's Bridge (E.R.)  Trent Junction to Toton Junction (H.L. Goods Lines)  Attenborough Junction to Meadow Lane Junction (Goods Lines)  Stanton Gate North to Stanton Gate Old Works (Siding).  Stanton New Works Sidings to West Hallam G.F. (Single Goods Line)  Stanton New Works Sidings to West Hallam G.F. (Single Goods Line).  Heanor Junction to Ormonde Colliery (Siding)  Codnor Park Junction to Swanwick Sidings (Siding)  Pye Bridge Junction to Kirkby Station Junction  Pinxton North to Bentinck Colliery L.W.S. (Single Goods Line).  Langton Colliery G.F. to Bentinck Colliery (South) E.W.S. (Single Goods Line)  Bentinck Colliery Sidings to Bentinck Colliery (Midland) E.W.S. (Single Goods Line)  Blackwell South Junction to New Hucknall Colliery (E.W.S.) (Goods Line).  New Hucknall Colliery to New Hucknall Sidings (Single Goods Line).  Blackwell East Junction to Pleasley East G.F. (Goods Line).  Sutton Colliery Junction to Sutton Colliery (Single Goods Line)  Avenue Sidings to Williamthorpe Colliery (Single Goods Line)  Alma Junction to Holmewood Colliery Branch Junction (Siding).	195–198 199 199 200 201 201 201 202 202 203 203 203 204 204 205 205
TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES  Trent Junction to Clay Cross South (via Derby)  Trent Station North Junction to Sheet Stores Junction Chaddesden South Junction to Derby Junction (Sidings) Little Eaton Junction to Denby, Street Lane Crossing (Single Goods Line) Duffield Junction to Wirksworth Incline (Single Goods Line) Ambergate South Junction to Matlock	205–207 208 208 209 209 210

#### STANDARD SPEED RESTRICTIONS

When passenger trains are running late, Drivers must endeavour to make up time, with due regard to the braking power of the locomotive and train and provided all speed restrictions are strictly complied with and the maximum permissible speeds indicated are not exceeded.

Drivers of freight trains when running late must endeavour to make up time provided all speed restrictions are strictly complied with and the maximum speeds shown on page 95 of the General Appendix or the maximum permissible speed for the section of line concerned are not exceeded.

Trains must not exceed the speeds set out below, except where otherwise shown in Table "A":-

			peed i.p.h.
1.	On double lines when passing through junctions between parallel lines or through crossover roads, or when entering or leaving slow, goods, loop platform or bay lines.	h ·	15
2.	On single lines when passing through loop connections		15
3.	When receiving, delivering or exchanging Train Staff or Electric Token by hand .		10
4.	When receiving, delivering or exchanging Train Staff or Electric Token by means of lineside receiving or delivery apparatus	of	15
			4.

Except where otherwise shown, trains not conveying passengers when running on goods lines must not exceed 45 m.p.h. at any point.

Except where otherwise shown, passenger trains when running on goods lines must not exceed 20 m.p.h. at any point.

Mixed trains must not exceed 25 m.p.h.

Diesel Electric Shunting Locomotives must not exceed 15 m.p.h. when shunting, working a train or trip, or running light.

#### SPEED OF LOCOMOTIVES RUNNING LIGHT

Electric and Diesel main line locomotives when running light, must not exceed 65 m.p.h.

Where a lower speed than 65 m.p.h. is laid down in Table "A", in the Weekly Programme of Engineering Operations, or for a particular type of locomotive, such speed restriction must be complied with.

When, for mechanical reasons, a locomotive requiring to run light is incapable of attaining the appropriate maximum speed shown above, the Depot Superintendent concerned will advise the Divisional Control Room, who will instruct the Signalmen on the line of route accordingly.

#### STANDARD LOCOMOTIVE HORN CODES

The following horn code applies at all stations, junctions and sidings not otherwise specially provided for in Table "A" or in the Local Code shown in Table "E".

To avoid annoyance to passengers at stations and residents near the railway, Drivers are requested not to use the horn more than is absolutely necessary to ensure safe and efficient working in compliance with the Rules and Regulations.

Description						Number of blasts
*Main or Fast Lines						1 long.
*Line next to Main Line (Slow or Goods)						2 long.
*Line next to Slow or Goods						3 long.
(One additional long blast to be given for from the Main Line.)	each ac	lditiona	l line fa	rther a	ıway	
*These codes to be given when approace necessary to indicate when ready to proceed of			Dange	er or v	vhen	
Approaching geographical junctions and requi	ring to	proceed	throug	h iunci	tion:-	_
†On Main Line and requiring to proce	_	-				1 long, 1 short.
†On Main Line and requiring to proce						1 long, 2 short.
†On Slow or Goods Line and requiring	g to pro	oceed to	left			2 long, 1 short.
†On Slow or Goods Line and requiring	g to pro	oceed to	right			2 long, 2 short.
†These codes to be given at signal b junction, unless otherwise shown in Table	e "A".			trolling	the	
To or from Goods Line or Slow Line or L	oop an	d Main	Line	• •		5 short.
To cross from Main to Main	• •		• •		• •	4 short.
To or from Bay or Platform Lines				• •		1 crow, 1 long.
Down Main or Fast, Slow or Goods or Lo	_		_	• •	• •	1 crow.
Down Main or Fast, Slow or Goods or Lo	-	-	_	• •	• •	2 short, pause, 3 short.
Up Main or Fast, Slow or Goods or Loop	_	_		• •	• •	3 short, pause. 1 short.
Up Main or Fast, Slow or Goods or Loop			_	• •	• •	3 short, pause, 2 short.
Up Sidings to Down Sidings or vice versa	• •	• •	• •	• •	• •	3 short, pause, 3 short.
Train ready to leave Sidings	• •	• •	• •	• •	• •	2 short, pause, 1 short.
Shunt from Sidings to Main Line	• •	• •	• •	• •	• •	2 short, pause, 2 short.
To or from Locomotive Depot/Siding	• •	 		• •	• •	2 short.
Express trains requiring fresh locomotive at		topping	place	• •	• •	3 crows.
‡Fire on line side	• •	• •	• •	• •	• •	1 crow, 1 long, 1 crow.
‡To be repeated when passing next Perm Box or Crossing Keeper's Hut.	anent V	Vay Me	n, Stat	ion, Si	gnal	
Distress Signal	• •	••	••	• •	••	Series of short blasts on the high note of the horn.
Locomotive is clear of points which require to	be turn	e <b>d</b>				1 short.
Train or locomotive has been shunted clear of	points	leading	from o	ne run	ning	
	-					1 crow, 1 short.
Train or locomotive has been shunted clear of				69)		
Before starting train assisted by locomotive					••	2 crows.
•		•	. , ,			



#### N

#### TABLE "A"

#### LIST OF SIGNAL BOXES, RUNNING LINES, Etc.

Direction in which information is shown—Down (unless otherwise stated)

#### Explanation of References-

Main running lines (double line)	
Main running line (single line)	
Passenger Line (Absolute Block unless otherwise shown)	
Goods Line (Permissive Block unless otherwise shown)	
Passenger Line signalled in both directions (No Token)	-•-
Goods Line signalled in both directions (No Token)	

- "A"-Absolute Block on Goods Line
- "P"-Permissive Block on Platform line for passenger trains
- "PF"-Permissive Block on Passenger line for freight trains
- " NB "-No Block
- "T.C.B." —Track Circuit Block: running lines completely track circuited.
- "T.C.B.(G)" —The equivalent of Permissive Block on Goods Lines.
- "T.C.B. (P)"—the equivalent of Permissive Block on Platform Lines for passenger trains.
- "T.C.B. (PF)"—the equivalent of Permissive Block on Passenger Lines for freight trains.

DPL-Down Passenger Loop

DGL-Down Goods Loop

UPL-Up Passenger Loop

UGL---Up Goods Loop

CL—Crossing Loop

DRS-Down Refuge Siding

URS-Up Refuge Siding

L. & V.-Locomotive and Brake Van

C-Run-back catch points

CW-Run-back catch points controlled from Signal box

S-Spring trailing points

U-Unworked trailing points

IBS-Intermediate Block Section Signal

L.C.—Level Crossing

see General

Appendix

(pages 21 and 22

N-Tunnel where restriction on trolleys applies-see Table N

P1—P2—See respective tables for conditions applicable to these level crossings P4—See respective tables for conditions applicable to these level crossings

US-Unstaffed passenger station

### LONDON EUSTON TO CREWE AND BRANCHES

Description of Block Signalling	Stations and	Dista betw Sign Box	veen nal	Ru <b>nn</b> Line		Re	ops nd fuge ings	Perma spe restric mi per l	ed tions, les	Catch points spring or unworked trailing points	Down	Locomo L—Loi	ng S—S	
on Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position otherwise	Main Slow or or Fast Goods	or	Slow or Goods	
	LONDON EUSTON TO CREWI EUSTON TO WILLESDEN 6 n WILLESDEN 6 m.p. TO COPPE EUSTON TO ROADE JUNCTI RUGBY MIDLAND TO CREW RUGBY MIDLAND TO TAMW ARMITAGE TO COLWICH MILFORD & BROCTON TO C	a.p. ENHAL ON /E VORTE	L JUN	CTION				80 100 75 45 75 90 75	80 100 75 45 75 75 75	MAXIMUM PERMISSIBLE SPEED OF MAXIMUM PERMISSI	ON MAIN : ON SLOW I ON GOOD ON SLOW ON SLOW	AND FA LINES S LINES LINES LINES	ST LIN	IES IES
,	Euston Station		-		0			20 20	20	All lines leaving or entering station between Over down Empty Carriage lne	en 0 and 0½ 1	m.p.		
			ļ	Engine line No. TCB (G) TCB (G) TCB (G)	ty carriage line	3		40	40	Fast and Slow Lines between ½ m.p. and	South end	} of Primro	se Hill t	unnel
TCE	Park Street Tunnel (162 yards)			line	Empty				20	Over up Engine lines Nos. 1 and 2		:		
	Camden Junction		ļ	arriage line	тсв				30	Over up Empty Carriage line				
	(Controlled from Euston.) (See page 18 for Primrose Hill line, page 19 for D. C. Electric line).	1 (Junct to Prim Hill li	ion irose	Empty ca	-				15	Slow line, through junction to Primrose Hill				
	Primrose Hill Tunnel (1182 yards on fast lines) (1175 yards on slow lines)							55	55	Fast Lines between South end of Primro	se Hill tunn	el and 2}	m.p.	
	Kilburn High Road					U&DGL UGL	104 104							
	Queens Park Station (slow lines only)		}			UGL	104	İ						

On Main Clotter Block	Description of Block Signalling	Stations and	Distance between Signal Boxes		ning nes	aı	ops ad uge ings	Perma spe restric mil	ed tions, les	Catch points spring or unworked trailing points		Do		L—L	otive horn	code hort For
Controlled from Willesden (Grom Buston)   Controlled from Willesden (Grom Willesden)   Controlled from Willesden (Grom Willesde	Main Lines (Dots Indicate Block		M. Yds.	Up	Down		Wagons	1	Up	Position	(Rising unless otherwise shown)	Main	Slow	Main or	Slow	701
		Kensal Green Tunnel (320 yards)  West London Junction (Controlled from Willesden) (See page 20 for Kensington line) Willesden (See page 22 for Carriage Shed South line.)  Junction for Acton Canal Wharf (Controlled from Willesden) (See page 170 for Acton Canal Wharf line).  Junction for City lines (Controlled from Willesden) (See page 21 for Kensal Green Jn. lines.)  Brent Sidings (Does not signal fast or slow lines.)  Wembley Central Station (Controlled from Willesden) (See page 23 for High Level	3   1488  -   819 5   1134 (from Euston)  -   357  -   14  -   864 -   1235 (from Willesden)	Low Level Goods TCB•  LOW Level Goods TCB•	1 Through	UGL	38		15	Over Low Level Goods line: CW. Down Low Level Goods line, 143 yards before reaching signal WN117.  C. Down Low Level Goods line, 465 yards before reaching signal WN42.	s Level	low line	es			

<sup>\*—</sup>TCB(G) between signals WN29 and WN34. †—TCB(G) between signals WN137 and WN117, WN117 and WN86.

	Harrow & Wealdstone Station (Controlled from Watford Jn.)		720	] !   !!		   		25	25	Through connections between fast and slow lines
	Bushey & Oxhey Station					DRS (slow)	54	90	90	Fast lines over curves between 16 and 17 m.p.'s
	Watford Junction (See page 20 for Camden Jn. (D.C. Electric) line, page 24 for St. Albans Abbey line.)	11   (fr	1616 863 rom esden)			URS	54	15	İ	Slow line through junction to St. Albans
	Watford Tunnel (1m. 55 yards on fast lines) (1m. 230 yards on slow lines)							70	70	Slow lines at Watford Tunnel north end between 19½ and 20 m.p.'s
	King's Langley and Abbott's Langley Station					UGL	124		;	
TCB	Apsley Station			TCB	TCE	,				
ТСВ	Hemel Hempstead and Box- moor Station (Controlled from Watford Jn.)	7	343		ICE	DRS	43	20	20	Through connections between fast and slow lines
	Berkhamsted Station	<u> </u>			Ì			90	90	Fast lines over curves, between 27½ and 28 m.p.'s
	Northchurch Tunnel (349 yards)									
	Tring Station (Controlled from Watford Jn.)	7	301			UGL	54 (fast) 87			
		i İ				DRS (fast) DRS (slow)	(slow) 47 30 & 38			
	Cheddington Station						•			
	Leighton Buzzard Station (Controlled from Bletchley.)	8	917					80	80	Fast lines over curves between $40\frac{1}{2}$ and $41$ m.p.'s
			Ì			1		20	20	Through connections between fast and slow lines
	Linslade Tunnel (283 yards on down fast line.) (287 yards on up fast line and slow lines.) Junction with Chord line (Controlled from Bletchley.) (See page 25 for Flettons Siding line.)	İ	1605							

<sup>\*-</sup>TCB (G) between signals BY27 and BY30,

	Heyford 4 (Controlled from Rugby.) Stowe Hill Tunnel (491 yards.)  Kilsby Tunnel (1m. 656 yards)  Hillmorton Sidings 13 (Controlled from Rugby.)		20 80	80	S. Up line, 322 yards after passing signal RY25 (Normal lie for main lines)  Over Weedon curves between 68\frac{3}{4} and 70\frac{1}{2} m.p.'s  C.W. Up goods, 1115 yards before reaching signals RY 282
TCB	(See page 29 for Northampton   35 line,)	H. TCB (P)	25 30 25 15 20 25 45 25 60 25 15	25 45 25 25 25 15 20 20 45 15 45 45 25 30 60 60	Main and fast lines between 82 m.p. and 83½ m.p.'s  On all goods lines except where otherwise shown  Down main to down platform  Up fast to up Northampton  Up platform to up main and up main to up Northampton  No. 8 Bay to up main  On platform lines  On up and down engine line  Through scissors crossings between down fast and down platform  Through scissors crossings between up fast and up platform  Down platform to down fast at North end of station  Up fast to up platform at North end of station  Slow lines between North end of station and 83½ m.p.  Over No. 2 up goods line  Down slow to down fast  Through junction down fast to down Birmingham  Down fast to down slow  Through junction down goods to down Southam  Up fast to up slow (South of junction with up Birmingham line)  Up Nuneaton fast to up Nuneaton slow (North of Bridge 279)  Up slow to up Birmingham  Up Nuneaton fast to up Nuneaton slow (North of Bridge 279)  Between 83½ m.p. and Rugby South flyover (Bridge No. 274) on main and fast lines  Slow lines between 83½ and 84 m.p.'s  C.W. Up goods 2 line 403  yards before reaching signal RY 154  C.W. Up goods 1 line 132  yards after passing signal RY 178  Slow to main  Fast lines round curve between 89 and 89½ m.p.'s

_											· · · · · · · · · · · · · · · · · · ·					
tio B Si	escrip- on of llock ignal- ling	Stations and	Distraction Distra	veen nal	Run Lir		ar Ref	ops id uge i <b>n</b> gs	spe restric	ctions, les	Catch points spring or unworked trailing points	Do		Locom L—L	otive horong S-	rn code -Short For
In B	on Main Lines Dots dicate Block Josts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradier (Rising unless Position otherwis shown) 1 in	Main or	or	Main or Fast	Slow or Goods	
	ı	LONDON EUSTON TO CREW	E, CC	PPEN	NHALL JU	NCTION-	cont.	ļ		l	1		1		1 1	
		Shilton (Controlled from Nuneaton)	3	553			DGL	120	İ				:			
		Attleborough (Controlled from Nuneaton.)	4	644		TCB (G)			!							
		Nuneaton (See page 47 for Coventry line, page 99 for Wigston North Jn. line.)	1 14 (fr Rug	352 866 om by)	TCB (G) No. 5 Platform TCB (P & PF)▶●	No. 1 Platform -TCB (P & PF)→ No. 2 Platform TC-TCB (P & PF)			10 60	10 60	Round curves and through junctions platform line Through station, slow lines between 9				from ma	in line or No. 1
	TCB	(See page 31 for Weddington Jn. line, page 100 for Water Orton line.)  Atherstone	5	711	TCB  TCB  TCB	TCB	DRS URS	32 51	25 25 15 70 60 90	25 15 70 60 90	Down slow to down fast Down fast to down slow Up fast to up slow Through junction, to and from Mark Fast lines through station between 10 Slow lines through station between 10 Fast lines between 102½ and 103½ m	2 and 10: 02 and 10	orth 24 m.p.:	,,		
	•	Polesworth	4	442	•	•	DRS	51							İ	
	ТСВ	Amington (Controlled from Tamworth L.L.)	1	614	TCB	ТСВ	DGL	135					1			į
		Tamworth L.L	2 3 (fre	om [	•	•	'		25 25	25	Fast to slow Slow to fast Slow to main					
	ТСВ	Coton Crossing	Pole wor	h)	:					30	Main to slow					
i	TCB			ļ	ļ			' !	95	95	Over curves between 1121 and 113 r	n,p.'s	ļ			

escrip- on of Block ignal-		Dista betw Sign	een	I	Running Lines	aı	ops id uge	Perma spe restric mi	ed tions,	Catch points spring or unworked trailing points						orn code —Short
ling	Stations and	Box					ings	per l	our			Do	wn	U	p	For
on Main ines Dots dicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up		Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	LONDON EUSTON TO CREW	E, CO	PPEN	HALL JU	NCTION—cont.	I										
•	Queensville	2 ;	1555 1300		•				20	Up fast to up slow					ĺ	
TCB	Stafford No. 1 (See page 45 for Birmingham line.)	(from Milf	ord 🔡	TCB				60 60 20 25	60 60 30 20 25	All lines over curve between C Through junction between Tree Through junction up fast line Through crossover between up Through all other junctions, in	nt Valley i to Birmin and dow	fast line igham 'n slow	es and fa lines	ast lines		
тсв	No. 2 (Signals through siding and up goods line only.)		268			<b>'</b> ,					 			ļ		
•	No. 4	1	500	• • •	$  \bullet \bullet \bullet \bullet  $			20		Down fast to down slow	!				Ì	
тсв		(fro No.		No. 1 P'form -TCB(P & PF) No. 4 P'form -TCB(P & PF)	No. 3 P'form  -TCB(P & PF)  No. 6 P'form  -TCB(P & PF)			20	20	Entering and leaving "up and down platform 3, and up pla	i down''   tform 1	goods,	"up and	d down'	' platfor	rm (No. 6),
TCB	No. 5 (See page 32 for Venables line.)	_	550	TCB	ZĘ ZĘ ZĘ TCE			20	20	Entering and leaving "up and down platform 3 and up plat	down'' form 1	goods,	"up and	d down'	' platfo	rm (No 6),
		5	334	<del>-</del> 1				90	90	Fast lines between 137½ and 14	40½ m.p.'s	3				
•	Norton Bridge Junction (See page 109 for Stoke line.)		Š	Recess line TCB				25	25	Down slow to down fast and d	own fast t	o reces	s line			
										CW. Recess line 524 yards before reaching signal NB 9 (facing to up trains) CW. Recess line 508 yards before reaching signal NB 11 (facing to down trains)						
- f l				TČB	TCE	3		!   90	90	Fast lines between 146 and 1			ì	i		

	Madeley (See page 32 for Madeley Chord line.)	11	44					C. Up fast line, 1,086 yards before reaching signal MY.27.
TCI				тсв	TCB			C. Up fast line, 855 yards before reaching signal MY.105.
				I Ch	ICB			C. Up fast line, 957 yards before reaching signal MY.107. C. Up fast line, 626 yards 177
								before reaching signal MY.109. C. Up slow line, 1,198 yards before reaching signal MY.108.
TÇI	Betley Road	3	422	тÇВ	TCB			NI I - 100.
TCI	Basford Hall Junction (See page 33 for Sorting Sidings Goods lines.)	3	196	TCB	TCB	25		Through junction to Sorting Sidings
	Crewe South Junction (See page 118 for Craven Arms line, page 111 for Kidsgrove Central line.)	1	840	line—> line— P & PF)— P & PF)— P & PF)—	P & PF)	20	20 20	Through junction to Stoke Through junction to Shrewsbury All lines through station from South Junction to North Junction
P & PF	Crewe Station "A" (Signals No. 1 down lines only.)		484	←—No. 3 Platform line—> ——No. 6 Platform line— -No. 5 Platform line (P & PF)— -No. 4 Platform line (P & PF)—	No. 1 Through line (P & PF)  No. 2 Platform line (P & PF)  No. 2 Platform line (P & PF)			
	Crewe North Junction (See page 135 for Birkenhead line and Northern Section Appendix for Manchester line.)	(from			Z V Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z		20 20 20	All lines through station from North Junction to South Junction Through junction to Manchester Through junction to Chester
TÇI			,	TCB	ТСВ			
•	Coal Yard (See page 33 for Independent lines.)		979	TÇB	TCB;	30		Down slow to down fast
TCH	Coppenhall Junction (See Northern Section Appendix.)	2	633	•		50 50	50 50	Down fast to down slow Down slow to down fast Up fast to up slow Up slow to up fast
TCE				тсв	тсв			

Description of Block Signal-ling	Stations and					Re	ops nd fuge ings	restric mi	tions,	Catch points spring or unworked trailing points	Locomotive horn code L—Long S—Short  Down Up			
on Main Lines Dots idicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.			Gradien (Rising unless Position otherwis shown) 1 in	Main S	low Ma or or oods Fa	or	
	BROAD STREET No. 2 TO C BROAD STREET NO. 2 TO I DALSTON JUNCTION TO C. DALSTON JUNCTION TO C. CAMDEN ROAD JUNCTION SOUTH ACTON JUNCTION	DALSTO AMDEI AMDEI	ON JI N ROA N ROA OUTH	UNCTION AD JUNCT AD JUNCT I ACTON	TION JUNCTION	1	:	35 45 40 60 45	35 45 40 60 45	MAXIMUM PERMISSIBLE SPEE MAXIMUM PERMISSIBLE SPEE MAXIMUM PERMISSIBLE SPEE MAXIMUM PERMISSIBLE SPEE MAXIMUM PERMISSIBLE SPEE	D ON No D ON No D ON M	. 2 LIN	ES ES	INES
•-•	D 104 - 4 N - 1	—	132	•	Where for are named	ur running i No. 2 lin	lines are les (or fasi	shown dines) of lines	between and thos	Broad Street station and Camden Road e on the right-hand side are named No.  Leaving and entering Broad Street passenger station when passing No. 1 box Broad Street No. 1 to 3 m.p.	1 lines (or	the lines slow line.	on the left-	hand side
•	Non-Ton Word	–	182	•					25	Between ½ m.p. and Broad Street No. 1 box.			i	
•	Dunloe Street (Nos. 1 and 2 Down IBS, 850 yards from Dunloe St. No. 2 Up IBS, 823 yards from Dalston Jn.)	2	1122							C. No. 2 up line, 250 yards before reaching I.B. distant signal.				
•	Dalston Junction	–	1606	•				25	25	Between Dalston Junction and Dalston Western Junction.				
•	Dalston Western Junction (See page 17 for Victoria Parl (E.R.) line.)	–	452											

		(Down IBS, Nos. 1 and 2 lines, 515 yards from Dalston Western Junction, Up IBS, Nos. 1 and 2 lines, Controlled by Dalston Western Junc. box, 680 yards from Canonbury Station box.)			2.2.1			1		C. No. 2 down line, 306 yards before reaching I.B. home signal.	155		
		Canonbury U.S	-	1311						C. No. 2 down line, 421 yards before reaching home signal. C. No. 1 down line, 332 yards before reaching home signal.	155 155		
				!						C. No. 2 down line, 204 yards before reaching starting signal.	155		
		Canonbury Junction (Signals No. 1 lines only.) (See page 17 for Finsbury Park (E.R.) line.)		397				25	25	No. 1 lines through junction to CW. No. 1 down line, 264 yards before reaching home signal. (Worked from Canonbury Station box.)	and fron 91	n Finsbury Park	
13		Highbury and Islington U.S		558						C. No. 2 down line, 697 yards before reaching home signal.	91		
3		Caledonian Road and Barnsbury U.S (Signals No. 2 lines only.)		816					ļ	CW. No. 1 down line, 719 yards before reaching York Road Jn. distant signal. (Worked from Highbury Station box.)	87		
							i			C. No. 2 down line, 643 yards before reaching home signal.	96		
		ı	ļ							C. No. 2 down line, 280 yards before reaching home signal.	96		
	•	York Road Junction	-	690	• #	•		į		İ			
		St. Pancras Sidings (Controlled from York Road Jn.) (See page 17 for Goods & Mineral Jn. line, and for N.L. Incline line.)		419									
			(from Road					30	35	No. 2 line round curve through	Maiden	lane	

1	Descrip- tion of Block Signal- ling	Stations and	Dista betw Sign Box	veen nal	Rum Lir		ar Ref	ops id uge ings	Perma spe restric mil per h	ed tions, les	Catch points spring or unworked trailing points	ı	Do	own	L-		horn code S—Short
I	on Main Lines (Dots ndicate Block Posts)	Signal Boxes	M.	Yds.	Up	Dow <b>n</b>	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	or	Slow or Goods	
	1	BROAD STREET No. 2 TO OL	D KE	w Ju	NCTION-	-cont.							1				
		Camden Road U.S			1 1	1			20	20	All lines between Camden Roa	nd and Ca	mden F	 Road Jui 	nction		
	•	Camden Road Junction (See page 18 for Primrose Hill line.)	_	536	•	•			20	20	Between Camden Road Juncti Town West	ion and k	Kentish				
		Kentish Town West U.S							45		Between Kentish Town West	and Fine	hley R	oad, exc	ept thr	ough G	ospel Oak Station
11		Gospel Oak U.S (See page 168 for Junction Road Jn. line.)	1	252					35	15 35	Through junction to Junction I Through station C. Down line, 530 yards before reaching home signal.	Road Jn. 98			1L 2S		No. 2 line at Camden Road Jn. or Broad Street line. No. 1 line at Camden Road Jn. or Victoria Park line.
	•	Hampstead Heath U.S		<b>76</b> 6	1						C. Down line, 440 yards before reaching home signal.	98		,			
		Hampstead Heath Tunnel (1166 yards) N.															
	•	Finchley Road and F. U.S	1	303						45	Between Finchley Road and Ko	entish To	wn Wes	st except	t throug	 gh Gospe 	el Oak Station
		West End Lane U.S															
		Brondesbury U.S (First down IBS, 1,550 yards from Finchley Road Station.)									C. Up line, 1,250 yards before reaching Finchley Road starting signal.	204					

Brondesbury Park U.S (Second down IBS, 1 mile 790 yards from Finchley Road Station.)  (Up IBS, 1 mile 405 yards from							
Kensal Green Jn.)  Kensal Rise U.S							C. Down line, 550 yards 176
į				İ			before reaching down outer home signal.
Kensal Green Jn (See page 21 for Willesden L.L. Station line, and for City lines.)	2	954					CW. Up line, 500 yards before reaching starting signal.
					35	35	Between Kensal Green Junction and East end of Willesden H.L. Station
					25		Through junction to Willesden L.L. Station
					15		Through junction to City lines
Willesden U.S.					4	4	Entering or leaving Kensal Green Sidings
High Level Junction (See page 21 for Mitre Bridge Jn. line.)	_	595			20 15 30	20 30	Through Willesden H.L. station Through junction to Mitre Bridge Junction Between Willesden High Level and Old Oak Junction
							C. Up line, 424 yards before reaching home signal.
Old Oak Junction		584		• A	20	25	Through Junction
Acton Wells Junction (See page 21 for Acton Yard (W.R.) line, page 169 for Cricklewood Jn. line)	-	637	•	•			CW. Up goods line, 340 510 yards before reaching Old Oak Jn., home signal.
			,		35 25 30 20	35 25 30 20	Through junction to and from Acton Central Through junction to and from Acton Yard Through junction from and to Acton Canal Wharf Through junction to and from Old Oak Loop lines C. Up line, 604 yards, before reaching outer home signal

t S	escrip- ion of Block ignal- ling	Stations a <b>nd</b>	Distance between Signal Boxes		Ru <b>nn</b> ing Li <b>n</b> es		Loc ar Ref Sidi	ıd uge	Permanent speed restrictions, miles per hour		Catch points spring or unworked trailing points		Down		Locomotive ho		orn code —Short For	
fr	on Main Lines (Dots idicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down		Standage Wagons L. & V.		Up		Position    Caradient (Rising unless otherwise shown)   Fast   Goods						
		BROAD STREET No. 2 TO OI	D KE	ew Jui	NCTION-	-cont.	į								 			
		(Down IBS, 938 yards from Acton Wells Jn. box. Up IBS, controlled by Acton Wells Jn. box, 823 yards from Acton Central station box.)							<b>.</b>		C. Up line, 458 yards before reaching I.B. home signal	132						
		Acton Central U.S. (Level Crossing)	1	100				<u> </u>	20		C. Up line, 579 yards before reaching outer	n and Sou	ith Act	on Junc	tion, fro	om 2 to	2 <del>1</del> m.p.'s	
10		South Acton Junction U.S (See page 22 for Gunnersbury Station line.)		1363		l			25		home signal.  Through junction to Gunnersh	bury		<u> </u>			;	
	•	Bollo Lane Crossing	_	268													•	
		Kew East Junction (See page 22 for New Kew Jn. line.)	_	1070					15 10		Through junction to Old Kev Through junction to New Kev	v Junction v Junction						
Ł	•	Old Kew Jn. (S.R.)		792					20	20	Through junction			<u> </u>				
Γ		VICTORIA PARK STATION (E.	R)T	O DAI	STON W	ESTERN J	IUNCTIO	N										
	į	VICTORIA PARK STATION T							35	35	MAXIMUM PERMISSIBL	.e speei	)	Ì				
	_	Victoria Park Station (E.R.)		f t	, HESTEI				25	25	Through Victoria Park June	tion and	: İ	İ			Channelsea.	
	Ī	Totolia Tark Station (Lift)			i						over curves at Stratford junction, 0m. 0chs. to 0m	end of a. 20 chs.			IS 2L		Canning Town, Victoria Dock and	
												[ •					Thames Wharf. Temple Mills. Devons Road	
													11 20		20 IL		Sidings. Finsbury Park	
ļ											!		1L 4S	ļ			St. Pancras Sidings. Camden Yard.	
				1				li .		1		1						

Descrip- tion of Block Signal- ling	Stations a <b>nd</b> Signal Boxes	Stations and	betv Sig	ance veen mal xes	Running Lines		ar Ref	ops nd Tuge ings	Perma spec restrict mil per h	tions, es	Catch points spring or unworked trailing points		Locomotive horn c L—Long S—Sho			
on Main Lines (Dots ndicate Block Posts)		М.	Yds.	Up	Down	□ Descrip-	Standage Wagons L. & V.	l	Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	or	or	or	
]	CAMDEN ROAD JUNCTION TO CAMDEN ROAD JUNCTION	O EU	USTON AMDE	i, CAMDI N JUNCI	EN JUNCT	ION	  -  -	25	25	MAXIMUM PERMISSIBLI	E SPEEL	)		į		
•	Camden Road Junction (See page 14 for Broad Street to			i I			! ! !	 	<b>20</b>	Through junction				r		
•	Old Kew Jn. line.) Hampstead Road Junction		383		ding ding	İ	į	15	15	Between Hampstead Road June	etion and	Camde	en Junct	ion with	slow lines	
тсв	Primrose Hill Station  Camden Yard Shunting Frame (Signals goods and down arrival sidings only.)	_	488		No. 2 Arrival Siding					C. Down line, 275 yards before reaching home signal.	162					
	Camden Junction (Controlled from Euston.) (See page 3 for Euston to Crewe line, page 19 for Watford Jn. (D.C. Electric) line)		I159 (From Hamp-stead Road Jn. to Junction with Slow lines) 1111 (From Hamp-stead Road Jn. to Junction with D.C. Electines)					20	20	S. Down (D.C.) Electric line junction trailing points, 274 yards before reaching signal SH.7 (Normal lie for Broad Street.)	40	ind juno	etion with	h Eustoi	n D.C. elec	ctric lines

	CAMDEN JUNCTION TO WATE	OR	D JUNCTION (D.C. ELECTRIC LINES)			
	CAMDEN JUNCTION TO WAT	FOF	RD JUNCTION	60	60	MAXIMUM PERMISSIBLE SPEED
•	Camden Junction (controlled from Euston.) (See page 3 for Euston to Crewe line, page 18 for North London line.) Primrose Hill Tunnel	_		30	30 20	Between junction in slow line at 1½ m.p. and North end of Primrose Hill Tunnel Between junction in electric line at South end of Primrose Hill Tunnel and junction in North London line
	South Hampstead No. 2 Ground Frame Kilburn High Road No. 2 Ground Frame	_				
	Queen's Park Station L.T (Auto Electric)		1350			
	No. 3	_ !	387	45	45	Between Queen's Park and Kensal Green, 41 1L 2S London Transport line.
	Kensal Green Station	-	1060	30		Between 5 m.p. and North End of Willesden L.L. Station
	Kensal Green Tunnel (317 yards.)			ļ		
	Willesden L.L. Station (See page 21 for Kensal Green Jn. line.)	_	1643		20 30	Through junction to Kensal Green junction  Between North end of Willesden L.L. Station and 5 m.p.  IL 1S  Kensal Green Jn.
	Harlesden Tunnel (147 yards)			<u> </u>		
	Harlesden Station	-	1158			
	Stonebridge Park Station		1668			
	Power House Ground Frame	-	664	40	40	Round curve between tunnel under main line and Wembley Station
	Wembley Central Station Ground Frame	_	1164			
	North Wembley Station	-	1419		i	
	South Kenton Station	-	1013	:		
	Kenton Station	!	1520			
	Harrow and Wealdstone No. 2 Ground Frame	1	200	30	30	Round curve North of Harrow Station
	Headstone Lane Station	1	258			· 

#### LONDON EUSTON TO CREWE AND BRANCHES—continued

т							i		·								
	escrip- ion of Block Signal-		Dista betw Sign	veen	Rum Lin		ai Ref	ops nd fuge	Perma spe restric mi	ed tions,	Catch points spring or unworked trailing points	:			Locomotive horn code L—Long S—Short		-Short
-	ling	Stations and	Bo				Sid	ings	per l	nour	- 2		Do	wn	U	Jp	For
1	on Main Lines (Dots ndicate Block Posts)	Signal Boxes	M.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position c	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	!	CAMDEN JUNCTION TO WAT	rfor	D JU	NCTION (I	o.c. elec	TRIC LI	NES)—co	nt.	1	,		I	ı	I	1 1	
	Illing.	Hatch End Station Ground Frame	_	1306													,
	Signa	Carpenders Park Station	1	<b>70</b> 6													
	natic	Bushey & Oxhey Station	1	605					30 15	30 15	Through Station Round curve between 161 m.p	o. and Wa	: atford I	High St	reet		
	Semi-Auton	Watford High Street Station (See page 23 for Croxley Green Jn. line.)		1646	:				35	25 35	Through junction to Croxley G C. Up line, 12 yards before reaching signal RBE 6. Also controlled from box. Between Watford High Street	66		5 chains			
	Auromatic and Semi-Automatic Signalling	Watford Junction (See page 5 for Euston to Crewe line.)	_	1028		-			15	15	C. Down line, 170 yards before reaching signal WF5. C. Down line, 165 yards before reaching signal RWF7.	84 84					
ľ		NODELL DOLL HISIOTEON (WI	D \ T'	O 1177T	LECDEN		· · · · · · · · · · · · · · · · · · ·		· ·		· · · · · · · · · · · · · · · · · · ·	-					
		NORTH POLE JUNCTION (W.) NORTH POLE JUNCTION TO					į		30	30	   MAXIMUM PERMISSIBLE	E SPEEI	)	į	!		
		North Pole Junction (W.R.)		_		! !					C. Down line, 610 yards before reaching signal MB33.	52		   	1L 4S		L.M.R. trains.
		Mitre Bridge Junction (See page 21 for High Level Jn. line.)		814	,	:			20	20	Between Mitre Bridge Junctio		Villesde	n 	2S 2S 1L 2S		Milk dock to main. High Level.
		West London Junction (Controlled from Willesden.) (See page 4 for Euston to Crewe line.)	_	625		<u> </u>			15		Through junction						

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes		Distance Running between Lines Signal Boxes			ar Ref	Loops sj and restr Refuge n Sidings per		anent ed tions, les nour	Catch points as, spring or unworked trailing points		own	Locomotive h		
Main Lines (Dots Indicate Block Posts)	<b>3</b>	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.	į	Up	Gradient (Rising (Rising unless Position otherwise shown)	Main or	Slow or Goods	or	or	
	SOUTH ACTON JUNCTION TO	o GU	NNER	SBURY ST	ration (s	.R.)									
	SOUTH ACTON JUNCTION T	o gu	JNNE	RSBURY S	STATION	•	ı	60	60	MAXIMUM PERMISSIBLE SPEED	•				
• !	South Acton Junction (See page 16 for Broad St. to Old Kew Jn. line.)	_	_		 	I	:		25	Through junction				 	
	Bollo Lane Junction (Level Crossing)		265		!			!							
• 1	Gunnersbury Station (S.R.)		581					15	15	Through junction and station					
			·			ļ	:		: 			<u>i</u>	<u> </u>		
	KEW EAST JUNCTION TO N	EW K	EW J	UNCTION	(S.R.)	1		i	1						
:	KEW EAST JUNCTION TO N	EW K	CEW J	UNCTION	Ī.	:		10	10	MAXIMUM PERMISSIBLE SPEED					
	Kew East Junction (See page 16 for Broad St. to Old Kew Jn. line.)	:	_	i	:.	:			i	CW. Down line 110 yards 167 after passing home signal			:	•	
	New Kew Junction (S.R.)		537	<u> </u>		i		:	<u>i</u>		i i				
	WILLESDEN TO WILLESDEN	CAR	RIAGE	E SHED S	OUTH (CA	RRIAGE	LINES)								
	WILLESDEN TO WILLESDEN	CAR	RIAG	E SHED S	OUTH	! 	:	15	15	MAXIMUM PERMISSIBLE SPEEI	)	:		ļ	
• NB	Willesden (See page 4 for Euston to Crewe line)  High Level Sidings Shunting		1057	Z • H.L. departure	H.L. arrival			!				:	:		
	Frame. (See page 23 for High Level Arrival line) Carriage Shed South	!		·н				;   	i   		: : 	; }			

#### LONDON EUSTON TO CREWE AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sign Box	veen nal	Run Lir	ning nes	ai Ref	Loops and re Refuge		anent eed etions, les nour	Catch points spring or unworked trailing points		Dυ	wn	L_	omotive -Long Jp	horn code S—Short
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	Down	Up		Gradient (Rising unless otherwise shown) 1 in	Main or	or	or	Slow or Goods	
	WATFORD JUNCTION TO ST	, ALE	BANS	ABBEY		ļ 		:								
	WATFORD JUNCTION TO ST	ALB	ANS	ABBEY				50	50	MAXIMUM PERMISSIBI	LE SPEE	D				
TCB	Watford Junction (See page 5 for Euston to Crewe line.)							:	15	Through junction						
	No. 3	_	439											1S 3L 1S 2L	i	Carriage Shed to No. 12 platform. Carriage Shed to No. 11 platform.
	Watford North U.S. (L.C.) (P.2)													1L 3S		Yard.
	Garston U.S	·													! !	
	Bricket Wood U.S															
	Park Street and Frogmore U.S. (L.C.)	:										1L		1L		At ½ mile distant
	St. Albans Abbey U.S	6	648						į							

- [		BLETCHLEY TO FLETTON'S SIDING (DOWN GOODS CONNECTING LINE	Ξ)	J	
		BLETCHLEY TO FLETTON'S SIDING	15	_	MAXIMUM PERMISSIBLE SPEED
	тсв	Bletchley, Junction for connecting line (Controlled from Bletchley.) (See page 5 for Euston to Crewe line.) Fletton's Siding (Controlled from Bletchley.) (See below for Bletchley to Bicester line.)			
		BLETCHLEY TO BICESTER LONDON ROAD No. 1 (W.R.)			
		BLETCHLEY TO BICESTER LONDON ROAD No. 1	45	45	MAXIMUM PERMISSIBLE SPEED
	•	Bletchley (See page 6 for Euston to Crewe line.)	10	10	Through junction and round curve, 0 m. to ½ m.p.
2	ТСВ	Fletton's Siding — 1052 (Controlled from Bletchley.) (See above for down goods connecting line, page 26 for flyover line.)  Fletton's Siding — 1052 (Junction with connecting line — 345	25	25 25	Through junction to and from Bletchley Through junction to flyover
		Swanbourne Sidings (Junction with flyover) 2 334 2 1731 (from Bletchley)			C. Down line, 1 mile 958 yards before reaching distant signal. C. Down line, 652 yards before reaching starting
		Claydon Station (Level 8 388 Crossing).			signal.  1L At ½ mile distant.
	•	Claydon L.N.E. Junction 1 876 (See page 38 for Marylebone line.)			
	•	Launton Station (Level 4 789 Crossing).			IL IL At ½ mile distant
	•	Tubbs Lane (L.C.) Bicester London Road No. 1 2 390 (Level Crossing) (W.R.)			1L 1L At ½ mile distant

Descrip- tion of Block Signal- ling	Stations and	bety Sig	ance veen nal xes	Run Lir		ar Ref	ops id juge ings	Perma spe restric mil	ed itions,	Catch points spring or unworked trailing points	1	Do		Locom L—Lo U	otive horn	code nort
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.		Up	Down	Descrip- tion	Standage Wagons L. & V.			Position	Gradient (Rising unless otherwise shown) 1 in	Main	or	OL	Slow or Goods	
!	BLETCHLEY, FLETTON'S SII				ALL (FLY	OVER LI	INES)	25	25	MAXIMUM PERMISSIB	IE SPEE(	1	× ,	İ	!	
Flyover line TCB	Bletchley, Fletton's Siding (Controlled from Bletchley.) (See page 25 for Bletchley to Bicester line.)  Summit of flyover (See below for Fenny Stratford flyover line.)		1488							CW. Down line, 530 yards before reaching signa BY 22						
Fly	Denbigh Hall (Controlled from Bletchley.) (See page 6 for Euston to Crewe line.)	1	84							CW. Up line, 495 yard before reaching signa BY 81	223		j			
	BLETCHLEY, SUMMIT OF F	LYOV	ER TO	FENNY :	STRATFO	RD (FLYC	OVER LI	NES)	1	I.			¦	1	1 1	
	SUMMIT OF FLYOVER TO	FENN 	Y STR	ATFORD			; 1	25	25	MAXIMUM PERMISSIE	BLE SPEE	D				
Flyover line TCB	Bletchley, Summit of flyover (See above for Fletton's Sidin to Denbigh Hall line.)								 							
Flyon	Fenny Stratford U.S. (Level Crossing) (See page 172 for Bletchley to Bedford line.)	į	1700		i				İ	S. Up line, 1,120 yard before reaching signa BY 24	s 129 I	:	!			

#### ROADE JUNCTION TO RUGBY MIDLAND (VIA NORTHAMPTON) ROADE JUNCTION TO RUGBY MIDLAND (VIA NORTHAMPTON) 75 MAXIMUM PERMISSIBLE SPEED ON MAIN OR FAST LINES 50 MAXIMUM PERMISSIBLE SPEED ON SLOW LINES Roade Junction ... ... C. Up line, 936 yards 200 (Controlled from Rugby.) (See before reaching signal page 6 for Euston to Crewe RY14 line.i C. Up line, 908 vards before reaching signal RY223 C. Up line, 1,053 yards before reaching signal RY224 TCB C. Up line, 1,141 yards before reaching signal Hunsbury Hill Tunnel... N111.103 (1,152 vards) C. Up line, 1,936 yards before reaching signal NHII.105 C. Up line, 740 yards 200 before reaching signal NH1.108 Northampton Castle No. 1 ... 6 23 (See page 29 for Hardingstone Between 651 m.p. and Northampton Castle No. 1 box, round curve 20 | 20 | Through junction from and to Roade Jn. line.) From up platform line to Roade line 20 All lines through Northampton between Nos. 1 and 3 boxes 30 CW. Down platform line, 400 420 yards before reaching signal NH2.7 Northampton Castle No. 2 ... -- 563 Northampton Castle No. 3 ... — 368 All lines through Northampton between No. 3 and 1 boxes Between Northampton No. 3 box and 67 m.p.

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes	bety Sig	tance ween gnal oxes		ning nes	a Re	ops nd fuge ings	restric mi	anent ed ctions, les hour	Catch points spring or unworked trailing points	į	Do	wn	L-L	notive hornong S—!	
Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	•	Up		Gradient (Rising unless otherwise shown)		Slow or Go <b>o</b> ds	or	Slow or Goods	
•	ROADE JUNCTION TO RUC Northampton Castle No. 4 . (See page 30 for Market Har- boro' line.)		HDLA1   892	1 1	ORTHAM • • •		cont.		İ	C. Down line, 1,385 yards before reaching signal	230					
ТСВ				: <u>1</u>						NH4.112 C. Down line, 1,082 yards before reaching signal NH4.113 C. Down line, 997 yards before reaching signal	230					
										NH4.115 C. Down line, 1,035 yards before reaching signal NH4.116 C. Down line, 1,046 yards before reaching signal	230					
										NH4.118 C. Down line, 1,313 yards before reaching signal NH4.120 C. Down line, 1,070 yards before reaching signal	230					
тсв										NH4.122 C. Down line, 1,224 yards before reaching signal NH4.124 C. Down line, 1,175 yards before reaching signal	230					
	Long Buckby Station (Controlled from Northampton Castle No. 4.)	8	1341			DRS URS	38 54			NH4.126 C. Down line, 1,128 yards before reaching signal RY269 C. Down line, 1,382 yards	230	!				

TCB	Watford Lodge 3 (Controlled from Rugby.)	3   169   UGL	72		i :
ГСБ	Watford Tunnel (115 yards)				
	Crick Tunnel (595 yards)				
	Hillmorton Sidings 4 (Controlled from Rugby.)	4 73 — — — — — — — — — — — — — — — — — —	40	From 84½ m.p. to Rugby box CW. Down goods, 631 80 yards before reaching	
•			30 25 25	Signal RY 75.  Down Northampton to down fast Down Northampton to down goods Down Northampton to No. 8 bay	

NORTHAMPTON CASTLE NO. 1 TO HARDINGSTONE JUNCTION (GC	OODS LI	NES)					
NORTHAMPTON CASTLE No. 1 TO HARDINGSTONE HINCTION		30	30	MAXIMUM PERMISSIRI E SPEED		1	

	NORTHAMPTON CASTLE No. 1 To	) HARDINGSTONE JUNCTION	30	30	MAXIMUM PERMISSIBLE SPEED
•	Northampton Castle No. 1 — (See page 27 for Roade Jn. to Rugby line.)		20	20	Between Northampton Castle No. 1 and Bridge Street Junction
A					The direction of the line from Northampton Castle No. 1 to Duston Junction North is "up".
•	Duston Jn. North —	590			
A •	Bridge Street Junction —	389			CW. Up line, 245 yards before reaching Duston Junction North home signal.
•	Bridge Street Level Crossing	663			
A	Hardingstone Junction (Level — Crossing)	792			

Descrip- tion of Block Signal- ling	Stations and	Distance between Signal Boxes	Running Lines	an Ref	ops nd fuge ings	Perma spe restric mi per l	tions, les	Catch points spring or unworked trailing points		. Down	Locomotive he Local S-	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Yds.	Up Down	Descrip-	Standage Wagons L. & V.	İ	Up	Position	Gradient (Rising unless otherwise shown)	Main Slow or or	Main Slow or or Fast Goods	
	NORTHAMPTON CASTLE NO	. 4 TO MAR	RKET HARBOROUGE	-[	i '							
	NORTHAMPTON CASTLE NO	. 4 TO MAR	KET HARBOROUGI	1		30	30	! Maximum pe <b>rmissible</b>	! E SPEED			
	Northampton Castle No. 4 (See page 28 for Roade Jn. to Rugby line.)		ii		: ! :	· .						
•	Boughton Level Crossing  Merry Tom (L.C.)				!			C. Down line 291 yards after passing signal box.	204	II.	H. :	At ½ mile distant
: 		. 3 941										
• .	Lamport Ironstone Siding	. 1 844			1	i						
!	Hanging Houghton (L.C.)	.*			!					11.	11.	At ½ mile distant.
}	Isham (L.C.)	· 1	; ;	:		:			:	iL :	IL.	At § mile distant.
•	Lamport Level Crossing	. 1 748		URS	77				į	;		
	Draughton (L.C.)					:		C. Down line, 625 yards before reaching home signal	130	11. :	fL .	At ½ mile distant.
	Green Lane (L.C.)				•					1L	IL	At ½ mile distant.
l	Kelmarsh Tunnels (531 yards)		i li				i					
•	Kelmarsh	3 1153	İ	URS	21							
- - 	Clipston & Oxendon (Level Crossing)	i 388	i									

		Oxendon Tunnels (453 yards on down line.) (462 yards on up line.)  Little Bowden Level Crossing 2   1196  Market Harborough 1 74 (See page 163 for St. Pancras to Trent line.)	20		C. Up line, 1,000 yards 100 before reaching Oxendon tunnel.  C. Up line, 120 yards after passing signal box. 106  Through junction to Leicester
		RUGBY MIDLAND TO SOUTHAM (SINGLE GOODS LINE)		<u>!</u>	<u> </u>
		RUGBY TO MARTON JUNCTION MARTON JUNCTION TO SOUTHAM	30 20	30 20	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	•	Rugby Midland  Trent Valley Jn  (Controlled from Rugby) (See page 7 for Euston to Crewe line, page 40 for Stafford (via Birmingham line.) Bilton Siding East G.F — 1374		25	Through junction
31	One train working *	(via Birmingham line.) Bilton Siding East G.F — 1374  Marton Jn 8 1636			
		End of Southam Branch 3 956			* Staff least by Yord Foremen at Burby
ļ	***************************************	NUNEATON TO WEDDINGTON JUNCTION	erse at Marton Jn.	· <del>*</del>	* Staff kept by Yard Foreman at Rugby.
		NUNEATON TO WEDDINGTON JUNCTION	30	30	MAXIMUM PERMISSIBLE SPEED
	T.C.B.	Nuneaton — — (See page 8 for Euston to Crewe line.)	15	15	Through Junction CW. Down line, 515 yards before reaching signal WJ.13.
	[ ]	Weddington Jn 1 713 (See page 96 for Abbey Jn. to Moira West Jn. line.)			
	i				

<sup>†</sup> The line between Holditch Colliery and Silverdale Crossing is a Through Siding worked in accordance with the "One Train Working" Regulations. Trains reverse at Apedale Junction to proceed to Holditch Colliery. There is an extension from Apedale Junction to Brampton Siding (867 yards) on which a speed restriction of 15 m.p.h. applies.

<sup>\*</sup> Trains reverse at Madeley Chord.

	!	CREWE, BASFORD HALL JUNCTION	NCTION TO COAL YA	ARD (INDEPENDENT )	LINES) 25	25	MAXIMUM PERMISSIBLE SPEED
	PF	Crewe Basford Hall Junction (See page 11 for Euston to Crewe line.)	28	Down arrival			
		Sorting Sidings South (Signals up lines and down arrival line only.) (See below for N.S. Sidings line.)	- 412 • NB	PF	1		
	PF	Sorting Sidings Middle Up (Signals up slow goods and up arrival lines only)	- 555 • • • • NB NB	independent			
	PF	Sorting Sidings Middle Down (Signals down fast and down slow independent lines and Warehouse Road only.)	(from Sorting strict	work by A. Warchouse			
33	PF	Sorting Sidings North (See page 34 for Gresty Lane Goods lines.)	Down)   H H H H H H H H H H H H H H H H H H	PF			
		Salop Goods Junction (See page 34 for Gresty Lane lines and for Manchester Independent lines and for Chester Independent lines.)  Down Tunnel (326 yards) N Up tunnel (292 yards) N Coal Yard (See Northern Section Appendix	l — 1729 I		15 15 15	15 15	Through junction between down fast and down Salop lines Through junction down Salop to down Liverpool line Through junction down slow to down Manchester line Through junction up Manchester to up Liverpool line Through junction up Liverpool to up Salop line
	:	CREWE, SORTING SIDINGS S SORTING SIDINGS SOUTH T	OUTH TO N.S. SIDING N.S. SIDINGS	GGS (GOODS LINES)	20	20	MAXIMUM PERMISSIBLE SPEED
	See page 320	Crewe Sorting Sidings South (See above for Independent lines.)				 	
	See	N.S. Sidings (See page 111 for Kidsgrove C, to Crewe South Jn. line.)	1 79				

## LONDON EUSTON TO CREWE AND BRANCHES—continued

Description of Block Signalling on	Stations and	bety Sig	ance ween mal xes		inning Lines	ar Ref	oops nd fuge lings	spe restric mi	anent eed ctions, iles hour	Catch points spring or unworked trailing points		Do		L—L	otive hoong S—	
Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position of s	Gradient (Rising unless therwise shown) 1 in	or	Slow or Goods	Main or Fast	Slow or Goods	
	CREWE, SORTING SIDINGS N	ORT	н то	GRESTY	LANE No.	1 (GOOE	)S LINES	<b>.</b>						1		
	SORTING SIDINGS NORTH	ro Gi	RESTY	LANE	No. 1			20	20	MAXIMUM PERMISSIBLE	SPEED	)	!			
	Crewe Sorting Sidings North (See page 33 for Independent lines.)	_	-			:									•	
•	Gresty Lane No. 1 (See page 118 for Craven Arms to Crewe South Jn. line.)	<u> </u>	615					10		Through junction						
	CREWE, GRESTY LANE No. 1	TO S	YDNE	EY BRIDO	GE JUNCTIO	)N (INDI	EPENDEN	IT LIN	ES)						<del></del>	
	GRESTY LANE No. 1 TO SYI	DNEY	BRID	GE JUN	CTION	1		25	25	MAXIMUM PERMISSIBLE	SPEED	)		ĺ		
•   PF	Crewe Gresty Lane No. 1 (See page 118 for Craven Arms to Crewe South Jn. line.)															
тсв	Salop Goods Junction (See below and page 33 for Independent lines.) Tunnel (416 yards) N Sydney Bridge Junction (controlled from Sandbach Station (See Northern Section Appendix.)	1	33					15 15	15	Through junction with down far Through junction to down Live Through junction	ast line verpool li	ine				
	CREWE, SALOP GOODS JUNE	CTION	OT P	NORTH	JUNCTION	(INDEPE	NDENT 1	LINES)	<u>'</u> )	<u> </u>				'		
	SALOP GOODS JUNCTION TO	ои с	RTH 3	JUNCTIO	N			25	25	MAXIMUM PERMISSIBLE	SPEED	)		!		
•	Crewe Salop Goods Junction (See above and page 33 for Independent lines.)								15	Through junction with up Mai	nchester	line				

## LONDON MARYLEBONE TO CLAYDON AND BRANCHES

	LONDON, MARYLEBONE TO CLAYDON L.N.E. JUNCTION	:			
ľ	MARYLEBONE TO AYLESBURY	:	70	70	MAXIMUM PERMISSIBLE SPEED ON MAIN AND FAST LINES
ſ	HARROW ON THE HILL TO WATFORD SOUTH JUNCTION	 	60	60	MAXIMUM PERMISSIBLE SPEED ON L.T. LOCAL LINES
,/	AYLESBURY TO CLAYDON L.N.E. JN.	·	45	45	MAXIMUM PERMISSIBLE SPEED
•	Marylebone	:		15	From signal box to platforms
	Lord's Tunnel (238 yards) N.				C. Down line 1,034 yards 196 before reaching signal D23
ГСВ	St. John's Wood Tunnel (1278 ; yards) N.	:	40	40	Between London end of St. John's Wood tunnel and 204 m.p.
					C. Down line, 910 yards 100 before reaching signal D34
	Hampstead Tunnel (694 yards) N.		50	50	Between 204 and 202 m.p.'s
•					C. Down line, 530 yards 95 before reaching signal D.45.
			:		C. Up line 563 yards before 95 reaching signal U.61
TCB		÷			C. Up line, 605 yards before 90 reaching signal U.73
	Neasden South Jn 4 1527 (See page 38 for Northolt Jn. East line, page 170 for Neasden Jn. line)	: · ·	40		Through junction to Wembley Hill

<sup>\*</sup> Controlling subsidiary boxes at Harrow South Jn. (280 yards) and Harrow North Jn. (745 yards).

			Northwood Hills Station	İ				-			! 	C. Down main, 417 yards 106/117 before reaching intermediate stop signal A.864
			Northwood Station (J.F.)									C. Up local, 417 yards 150 before reaching outer home signal JE 24
Board.	semi-automatic cionalling	mane signaming			natic signalling		natic signalling					C. Up main, 417 yards before reaching intermediate stop signal A.865. C. Up local, 417 yards before reaching intermediate stop signal JFX.783.
London Transport Board.	bue.		Moor Park Station (JG) (Crossover)		Automatic and semi-automatic signalling		Automatic and semi-automatic signalling					C. Up main, 462 yards before reaching Moor Park station starting signal JGX.869 C. Up local, 417 yards before reaching intermediate stop signal A.791A.
	Automatic	THO THE	Watford South Junction (controlled from Rick-mansworth.) (JJ)		Aut	-	Aut	!		50	50	Through Watford South Jn. to 723 yards North of Watford North Jn. 373 yards South of Rickmansworth Station to 488 yards South of Watford South Jn.
1		•	Rickmansworth Station (JP)	7	130			DRS	48	25	25 50	723 yards North of Watford North Jn. to 370 yards North of Rickmansworth Station 400 yards North of Rickmansworth Station 970 yards South of Chorley Wood Station to 400 yards North of Rickmansworth Station
		•	Chorley Wood Station (JS) (Signals for down line only.)	2	187							C. Down line, 1,139 yards before reaching starting signal JS.18.
			Chalfont & Latimer Station. (Controlled from Amersham) (JT)			<u> </u>						C. Down line, 610 yards before reaching home signal JT.81.
semi-			Amersham Station (JW) (Down IBS controlled by Great Missenden Station Box 2 miles 1,444 yards from Amersham Station Box.)	4	453			DGL	50			C. Down line, 715 yards before reaching starting signal JW.71
Automatic and semi- automatic signalling	on up line.									35 15 15		C. Down line, 680 yards 105/172 before reaching starting signal JW.72 Through connection down main line to No. 2 platform Through goods loop Through connections No. 2 platform to reversing sidings and down main line
4.8	· {		Great Missenden Station	5	303			DRS	56		-	C. Down line, 514 yards 226 before reaching home signal.

Stations and on Signal Boxes   Sidings   per hour   Down   Up   For   Main   Slow	Descrip- tion of Block Signal-	•	Distance between Signal	Running Lines	Re	ops nd fuge	Perma spec restrict mil	eđ tions,	Catch points spring or unworked trailing points					notive horn	
Indicate Block Posts   Post   Up   Position   Chaylon   Up   Position   Chaylon   Ch	on Main Lines	Stations and Signal Boxes				Standage	per h	iour		(Rising	-			·	For
(Up 1BS, 1,549 yards from Wendover Station Box.)  Wendover Station 4 1212  C. Up line, 735 yards before reaching intermediate Block home signal.  C. Up line, 743 yards before reaching home signal.  C. Up line, 743 yards before reaching home signal.  C. Up line, 117 to the signal of the signa	Indicate Block		M. Yds.	Up Down			Down	Up	Position	otherwise shown)	or	or	or	or	
Box.)  Wendover Station 4 1212  Wendover Station 4 1212  C. Up line, 743 yards before reaching home signal. C. Up line, 1 mile 668 yards before reaching distant signal.  Stoke Mandeville Station  C. Up line, 808 yards before reaching distant signal.  C. Up line, 808 yards before reaching signal U.36.  Aylesbury South 4 594  (See page 39 for Princes Risborough line.)  Through station and curve at South end and North end Down line to up hay  Up by to up main From branch platform  Claydon L.N.E. Junction  CW. Single line, 142 yards 220 reports for Bletchley to Bicester)  Claydon L.N.E. Junction to down		LONDON MARYLEBONE TO	CLAYDON L	.N.E. JUNCTION-	-cont.										
Stoke Mandeville Station  Stoke Mandeville Station  Stoke Mandeville Station  Stoke Mandeville Station  C. Up line, 1 mile 668 yards before reaching distant signal.  C. Up line, 808 yards before reaching signal U.36.  Aylesbury South 4 594  (See page 39 for Princes Risborough line.)  Through station and curve at South end and North end Down line to up bay  Up bay to up main  From branch platform  Claydon L.N.E. Junction  Claydon L.N.E. Junction  Claydon L.N.E. Junction  Claydon L.N.E. Junction  Claydon L.N.E. Junction  Cov. Single line, 142 yards 220  after passing junction  points (facing to down	And the second s								before reaching inter- mediate Block home	117					
(See page 39 for Princes Risborough line.)  15 Down line to up hay Up bay to up main From branch platform  15 Between 157 m.p. and Claydon L.N.E. Junction CW. Single line, 142 yards 220 (See page 25 for Bletchley to Bicester)  15 Between 157 m.p. and Claydon L.N.E. Junction CW. Single line, 142 yards 220 after passing junction points (facing to down	signalling line	Wendover Station	4 !212						reaching home signal. C. Up line, I mile 668 yards before reaching distant					!	
(See page 39 for Princes Risborough line.)  15 Claydon L.N.E. Junction Claydon L.N.E. Junction (See page 25 for Bletchley to Bicester)  15 Down line to up bay L.N.E. Junction CW. Single line, 142 yards 220 after passing junction points (facing to down	on up	Stoke Mandeville Station								117					
(See page 25 for Bletchley after passing junction to Bicester) after passing junction points (facing to down	<u> </u>	(See page 39 for Princes						15	Down line to up bay Up bay to up main	South end	and N	orth end			
	Electric	(See page 25 for Bletchley	11 1411		I :		15	15	CW. Single line, 142 yards after passing junction points (facing to down		Junctio	on 			
		•	ON TO NORT	HOLT JUNCTION	EAST !		70	70	MAXIMUM PERMISSIBL	E SPEED					
NEASDEN, SOUTH JUNCTION TO NORTHOLT JUNCTION EAST 70 70 MAXIMUM PERMISSIBLE SPEED		Neasden South Jn. (See page 35 for Marylebone to Claydon L.N.E. Jn. line.) page 170 for Neasden Jn. line.	i		 			40 15	CW. Down goods, 231 yards before reaching Neasden North home signal No. 60. Through junction from Wemb Through junction to Neasder						

	! 	Neasden North Jn (See below for Wembley Stadium Loop line.)  Wembley Hill Station	— 639 — 1639				30 15 50 25	30	Fast to slow line Through junction to Wembley Stadium Loop Slow line from Neasden North Jn. to Neasden South Jn. Slow line from Neasden North Jn. to Blind Lane Through junction on slow line C. Down slow, 620 yards   140 before reaching outer home signal.
	•	Blind Lane	901	• •				50	Slow line from Blind Lane to Neasden North Jn.
		Sudbury & Harrow Road Station.			!				
	•	Sudbury Hill Station	1 1456		DPL UPL	39 40			
		South Harrow Tunnel (204 yards) N. Northolt Park Station						25	From 0½ to 1½ m.p.'s
			2 1037	•				_	C. Up slow, 621 yards 108 IS 1L Main line at Blind
		,							before reaching starting signal.  Round curve under Paddington line.  Line. Slow line at Blind Lane
	:		i ;	4 1 1			25 25	35	Round curve under Paddington line.  To fast and slow lines (through facing and trailing junctions)  From fast and slow lines (through facing and trailing junctions)
39	:	WEMBLEY STADIUM LOOP STADIUM LOOP	1 1				15	-	MAXIMUM PERMISSIBLE SPEED
	Automatic and semi- automatic signalling.	Neasden North Jn (See above for Neasden South Jn. to Northolt Jn. East line.)	_   _	;   					C. Loop line, 322 yards before reaching signal LIA
ŀ	natic	Wembley Stadium Station	_ 1196						
			1 652 (distance			İ			
	- 13	Jn. to Northolt Jn. East line.)	round Loop)	(Sing	le line wor	ked in clo	i ockwise	direct	ion only.)
-	<del></del>	PRINCES RISBOROUGH (W.R.	) TO AYLESBU	RY SOUTH		<u> </u>	40	40	MAXIMUM PERMISSIBLE SPEED
	ſ •	PRINCES RISBOROUGH TO	AYLESBURY SC	OUTH			40	40	
	token	Princes Risborough Station (W.R.) Monks Risborough & Whiteleaf.					15	15	To and from Aylesbury
	Electric	Little Kimble	į						
	_ [	Aylesbury South (See page 38 for Marylebone to Claydon L.N.E. Jn. line.)	6 1684			į	20 15	20	To and from Branch platform To down main

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES

Descrip- tion of Block Signal- ling		Dista betw Sig Box	reen nal		ning nes	aı	ops id uge	restric mi	anent eed ctions, iles hour	Catch points spring or unworked trailing points	ļ	Do	;	L—L	ong S	orn code —Short
on Main Lines (Dots ndicate Block Posts)	Signal Boxes		Yds.	Up	Down	Descrip-	Standage Wagons L. & V.			Position ot	radient Rising unless therwise thown) 1 in	Main or		Main or Fast		For
	RUGBY MIDLAND TO STAFFO RUGBY MIDLAND (83½ m.p.) BIRMINGHAM TO BUSHBUR BUSHBURY JUNCTION TO S' RUGBY MIDLAND TO STAFF	TO B Y JUI TAFFO	IRMI NCTIO ORD	NGHAM DN No. 1	INGHAM)			100 75 90 45	100 75 90 45	MAXIMUM PERMISSIBLE MAXIMUM PERMISSIBLE MAXIMUM PERMISSIBLE MAXIMUM PERMISSIBLE	SPEED SPEED	ON	MAIN MAIN	LINE	S	
ТСВ	Rugby Midland, Trent Valley Junction (Controlled from Rugby.) (See page 7 for Euston to Crewe line, page 31 for Southam line.)  Brandon Ballast Pit (Controlled from Rugby.)	-				DGL	70	60	60	before reaching signal RY.177.	.p. 130 Level			-		
тсв	Coventry. (See page 45 for Learnington line, page 46 for Nuneaton line.)  Canley Station (L.C.)	10	822	No. 1 Plat- form line TCB 	No. 4 Plat- form line TCB   ★-→		·	90 25 25 25 25 25 20	90 25 15 25 20	Fast lines through station (93½ at Down main to "down and up" sl Up slow to up main Through junction to Leamington, No. 4 platform to down fast Up main to up slow Through junction to Nuneaton Down slow to down main Through facing crossover between	fast and	(Platford slow	lines	ines		
	Wakefield (L.C.) Tile Hill Station (L.C.) (Controlled from Coventry) Beechwood Tunnel (300 yards)		1	ļ		DGL	48					1L 1L		IL IL		At 1 mile distant

	Berkswell Station (L.C.) (Controlled from Coventry.)	DRS	65	95	95	Round curves between 98½ and 99½ m.p.'s IL IL At 1 mile distant.
TCB	Lea Hall Station  Stechford Junction (Controlled from Birmingham (New Street.) (See page 47 for Aston line.)  15 71 (Junction with up Aston line.)  15 731 (Junction with down Aston line.)	I hrough Siding		20		Through junction to Aston
Stour Lines	Grand Junction  (Controlled from Birmingham New Street.) (See page 49 for Curzon St. line, page 69 for Wolvercot Jn. line.)  Proof House Jn. (Controlled from Birmingham New Street.) (See page 50 for Aston Jn. line.)  †—From Grand Jn.			30	20	Up Derby line to Saltley Up Derby line to St. Andrew's Junction All lines from Grand Junction (112 m. p. Stour line Station end of New Street South Tunnel  C. Down Stour line, 639 yards before reaching Signal NS.154 C. Down Derby line, 720 yards before reaching signal NS.151.  Through junction to Vauxhall:

## RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES -- continued

Descrip- tion of Block Signal- ling	Stations and	Distance between Signal Boxes	Running Lines	· a Re	oops nd fuge lings	Perma spe restric mi per	ed tions, les	Catch points spring or unworked trailing points		Dow		Locomotive horr L—Long S—S Up	
on Main Lines (Dots indicate Block Posts)	Signal Boxes	M. Yds.	Up Do	Descrip- wn tion	Standage Wagons L. & V.	Down	Up	Position o	therwise	or	or	Main Slow or or Fast Goods	
R	RUGBY MIDLAND TO STAFFO	ORD No. 1	(VIA BIRMING	IAM)—contini	ied.	:							
	New Street South Tunnel (278 yards).					10	10	All lines from the Station end of Stour line and 41 m. 32 ch. I All lines between the Station of North Tunnel	Derby line end of Ne	e) w Street	t Souti	Tunnel and the	Station end of the
TCB(P)	Birmingham New Street (See page 102 for Blackwell (W.R.) line.)	— 1636 (From Down Stour Jn.) 19   446 (from Coventry.)	12 2 6 6 5 2 7			10	10	All lines between the Station of Suffolk Street Tunnel	nd of Ne	w Street	t Soutl	a Tunnel and the	e Selly Oak end of
	The two main running lines thro directions.	ugh Birmin	gham New Street	Station are No	o. 3 and N	o. 4 pl	atform	lines. No. 3 platform line is a	ın up line	only ar	nd No.	4 platform line	is worked in both
ТСВ	New Street North Tunnel (750 yards.)	İ	:					C. Down line, 640 yards	100	:			
				l I	: '		: 	before reaching signal NS.305.		i	:		
	Up Siding G.F (Controlled from Birmingham New Street.)	1 430				60	60	Between 1 and 1½ m.p.	:	; ; ;	:		
	Soho South Jn (Controlled from Birmingham New Street.) (See page 51 for Perry Barr South Jn.)	<b>—</b> 1118				25		Through junction to Soho Ro	ad		ļ		

		Soho North Junction (Controlled from Birmingham (New St.) (See page 51 for Soho East Jn. line.)	7	14 'mg T.C.H	3.	: : :		65	65	S. Down line, 468 yards before reaching signal NS. 334.  Through Soho North Junction Through junction to Soho Road CW. Down line, 1,220 yds. 279 before reaching signal NS. 339.	:         
		Smethwick Rolfe Street Station			1	!	1	55	55	Between 3½ and 3½ m.p.'s	
	TĊB	Galton Junction (Controlled from Birmingham (New St.) (See page 75 for Stourbridge Jn. North line.	1 5	69 — TCI (G)	3			35		Through junction to Smethwick West	
		Spon Lane (Controlled from Birmingham New Street.)	_ 10	Through Siding			<b>\$</b>	 		C. Up line, 720 yards 160 before reaching signal NS.349.	
43		Oldbury Station Albion		Three				60	60	Between 5 m. 70 ch. and 6 m. 10 ch.	
		Dudley Port Station (Controlled from Birmingham New St.)	3	78 (C) HOLL	TCB (G)					C. Up line, 690 yards 224 before reaching signal NS. 485. C. Down line, 824 yards 539 before reaching signal	!
		Watery Lane (L.C.) (Controlled from Wolverhampton.)	- 8	83			 	!		NS. 365.	:
		Tipton Station (L.C.) (Controlled from Wolverhampton.) (See page 57 for Tipton Curve	i   ·	09				15		Through junction to Tipton Curve	
		line.)  Bloomfield Junction (Controlled from Wolverhampton.)	: !	98 :		DRS			15	Through junction to Wednesbury	
		(See page 57 for Wednesbury line.) Coseley Station		:		:	i	:		CW. Down line, 513 yards 440 before reaching signal WN. 278.	

Descrip- tion of Block Signal-			ance veen nal	Run Lir		aı	ops nd fuge	Perma spe restric mi	ed tions,	Catch points spring or unworked trailing points					otive horn	
ling on	Stations and Signal Boxes	Во	xes			Sid	ings	per l	hour	; !		Do	wn	U	jp	For
Main Lines (Dots ndicate Block Posts)	Signal Boacs	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	or	Main or Fast	Slow or Goods	
	RUGBY MIDLAND TO STAFFO	RD N	o. 1 (V	IA BIRMIN	IGHAM)—	cont,										
TCB	Deepfields G.F (Controlled from Wolverhampton.)	1	641	Through Siding N B						C. Up line, 1143 yards be- fore reaching signal WN.277.	165					
	Spring Vale Sidings (Controlled from Wolverhampton.)		1117	Th Sidin		DRS	29									
	Monmore Green G.F (Controlled from Wolverhampton.)	1	580			:				C. Down line, 523 yards before reaching signal WN.112.	187					
† ● TCB	Wolverhampton (See page 61 for Portobello Jn. line.)	12	1201 om ing- m	No. 2 Platform TCB (P&PF)   ← → ►		D & UGL	57	30 15	30 15 15	Round curves between 12½ a Through junction to Portobe Through Station between 12¾ CW. Up line, 610 yards before reaching signals WN.97 and WN.99.	llo Juncti	on				
	North Junction (Controlled from Wolverhampton.) (See page 62 for Shrewsbury line.)	_	918					45 60	60	Through junction to Oxley Between Wolverhampton and C. Up line, 527 yards before reaching signal WN.63. C. Up line, 531 yards before reaching signal WN.61. CW. Up line, 477 yards before reaching signal WN.253.	d Bushbur 100 94 94	У				

		Bushbury Junction (Controlled from Wolverhampton.) (See page 49 for Stechford Jn. line, page 64 for Cannock Road Jn. line.)		229	Through Siding			50	45 30 15	Through junction from and to Wolverhampton Through junction to Bescot Through junction to Cannock Road
		Four Ashes (Controlled from Wolverhampton.)	4	858		UGL	60	 		
	TCI	Littleton Colliery	3	71		DGL	60			
	Ì	Penkridge Station (Controlled from Stafford No. 1.)		1447		DGE	00			
		Rickerscote (Controlled from Stafford No. 1.)	3	1664	TCB				40	Through Junction up slow to up main S. Down line, 837 yards 642 before reaching signal SD.1.99. (Siding points.) (Normal lie for siding.)
	•	Stafford No. 1 (See page 10 for Euston to Crewe line.)	15 (fr Wo	1468 1140 rom olver-	C			30 25	60 30	(Normal lie for siding.) Slow line Stafford No. 1 to Rickerscote Up fast to up slow Through junction to down fast Through junction to down slow
45		LEAMINGTON SPA TO COVE	NTR	Y						
		LEAMINGTON SPA TO COVE	ENTR	XY				60	60	MAXIMUM PERMISSIBLE SPEED
	•	Leamington Spa (See page 67 for Wolvercot Jn. to Grand Jn. line.)	_					40	20 40	Through junction from Coventry Between Leamington Spa and Milverton
	•	Milverton Station	-	1484				: !		
ctoker	∫ e	Kenilworth Junction	4	873				45		Between Kenilworth Junction and Coventry
Flectric token	TCI	Gibbet Hill	1	1296		UGL (Worked in both direc- tions.)	60		:	S. Down line, 533 yards before reaching starting signal.
	•	Coventry (See page 40 for Rugby to Stafford line.)	2	302			į	15 20	45	Between Coventry and Kenilworth Junction Through junction to fast line Through junction to "down and up" slow line (Platform 4)

## RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES—continued

Descrip- tion of Block Signal-		Sign	een nal	Run Lir		a Refu		Perma spec restrict mil	ed tions, <b>e</b> s	Catch points spring or unworked trailing points			Locomotive horn L-Long S-S	hort 
ling on Main Lines (Dots ndicate Block Posts)		Bo:	yds.	Up	Down	Descrip-	Standage Wagons L. & V.	]		Gradien (Rising unless Position otherwis shown)	Main or	or	Main Slow or or Fast Goods	For
	COVENTRY TO NUNEATON	1				1								
	COVENTRY TO NUNEATON					:		60	60	MAXIMUM PERMISSIBLE SPEE	D			
• !	Coventry Coventry (See page 40 for Rugby to Stafford line.)	: : : : :		TCB(G)				20 50	15 25 20 50	Through junction to slow line Through junction to fast line Through facing crossover between up a Over curve between Coventry and Co	nd down	n lines Road		
ТСВ				<b>Y</b>						CW. Down line, 475 yards before reaching signal CY51.				
										C. "Down and up" goods 429 yards before reaching signal CY 47 (facing to up trains.)			:	
	Coundon Road (Level Crossing)	1	854							'		i	: :	
	Webster's Siding	1	23					i i		<u>.</u>			! İ	
				į								I		
						1								
				 			]			!	İ			

		Three Spires Junction (See below for Gosford Green line.) Bedlam Gates (Level Crossing) Foleshill Gas Works Siding Hawkesbury Lane Station (Level Crossing) Newdigates Siding Griff Junction		347 424 504 190 155 96			15	Through junction to Gosford Green.		Not stopping at Hawkesbury Lane.
47	Through Sidings	Nuneaton (See page 8 for Euston to Crewe line.)  GOSFORD GREEN TO THREE GOSFORD GREEN TO THREE Gosford Green	SPIR SPIR	RES JUNCTION	DDS LINES)	30	30	Through junction  MAXIMUM PERMISSIBLE SPEED  CW. Up line, 516 yards 143 after passing home signal. Through junction.		
	TC	Aston Junction (with Vauxhall line) (Controlled from Birming-ham New Street.)	BUSH	240 line)		75 30 60 30 20	75 30 20 60 30 20 20	MAXIMUM PERMISSILBE SPEED ON MAIN LINES MAXIMUM PERMISSIBLE SPEED ON GOODS LINE Through junction  Between Stechford and Aston except where otherwise shown S. Down line, 775 yards 575 before reaching signal NS.427.  Round curves between 2½ m.p. and Aston Junction Through junction from and to Stechford  Through junction to Vauxhall fast line Through junction to Vauxhall slow line	S	

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES-continued

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes	bety Sig	ance veen mal xes	Run Li	nning nes	a: Ref	ops ad uge ings	Permi spe restric mi per	ed tions,	Catch points spring or unworked trailing points,	:	Dow	——-i	L—L		orn code —Short —For
Main Lines (Dots Indicate Block Posts)	<u>-</u> 	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position otherw	g M ise (a) F	ain S or ast G	or	Main or Fast	Slow or Goods	
	STECHFORD JUNCTION TO E	USH	BURY	JUNCTIC	N—cont.	!	i	. 1	·	: 1	1	1				
	Aston Junction (with Lichfield line) (Controlled from Birmingham New St.) (See page 53 for Lichfield City line.)	-	288			ı		20 45	45	Through junction to Lichfield Through junction to and from Besc	ot					
	Witton Station Witton Goods (Controlled from Birmingham New St.)		1587			DGL	55									
тсв	Perry Barr Station  Perry Barr South Junction  (Controlled from Birmingham New Street.)  (See page 51 for Soho Road line.)		1314	TCB(G)				60 20	60	Through station and junction  Through junction to West Junction						
	Perry Barr North Junction (Controlled from Birmingham New Street.) (See page 52 for Soho Road line.)		1001	T		DGL	55		20	Through junction to West Junction						
	Great Barr Station  Newton Road Level Crossing  Bescot Down Tower (Signals "down and up" goods line only.)		223	TCB(G)	<b>∢</b> TCB (G) <b>≯•</b>						1	L		1L		At ½ mile distant.

C	Bescot Junction (Controlled from Walsall.) (See page 54 for Wichnor Jn. line and page 57 for Bescot Curve Jn. line.)  Darlaston Junction (Controlled from Walsall.) (See page 58 for Walsall line.)	Perry Barr North Jn.)	60 30 15	60 40	Through junction to and from Darlaston Through junction to Walsall Through junction to Wednesbury  Through junction to Walsall	1L	When approaching Bescot Station.
ТСВ			30		Through junction to Wolverhampton	1L	At ½ mile distant.
	ton.) (See page 61 for Wolverhampton line.) Wednesfield Heath Tunnel (179 yards)  Bushbury Junction (Controlled from Wolverhampton.)		40	15	Through junction to Cannock Road Junction Through junction		
49	(See page 45 for Rugby to Stafford line, page 64 for Can- nock Road Jn. line.)  BIRMINGHAM, GRAND JUNC	TION TO CURZON STREET (SINGLE	GOODS LINE)				
	GRAND JUNCTION TO CUR	ZON STREET	10	10	MAXIMUM PERMISSIBLE SPEED		
TCB(G)	Grand Junction (Controlled from Birmingham New St.) (See page 41 for Rugby to Stafford line.)  Curzon Street (See page 50 for Proof House Jn. to Aston Jn. line.)						

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Distance between Signal Boxes	Run: Lin		Lo- ar Ref Sid	id uge	Perma spe restric mi per	ed tions, les	Catch points spring or unworked trailing points	-	Do			ong S-	rn code -Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	(R ur Position others show	radient Rising Inless nerwise nown)	Main or Fast	or	Main or Fast	Slow or Goods	
	BIRMINGHAM PROOF HOUSE	JUNCTIO	N TO ASTO	N JUNCTI	ON										
	PROOF HOUSE JUNCTION TO PROOF HOUSE JUNCTION TO VAUXHALL (0 m. 70 ch.) TO	HXUAV C	ALL `	70 ch.)	[ [ 		60 20 75 50	60 20 75 50	MAXIMUM PERMISSIBLE S MAXIMUM PERMISSIBLE S MAXIMUM PERMISSIBLE S MAXIMUM PERMISSIBLE S	SPEED SPEED	ON ON I	GOOD FAST L	S LINI JNES	ES	
TCB	Birmingham, Proof House Jn. (Controlled from Birmingham New St.) (See page 41 for Rugby to Stafford line.)	_   _		TCB(G)			50	20 50	before reaching signal NS.82. CW. "Down and Up" goods line, 100 yards before reaching signal CS.3	Junctio	on and	0 m. 30	ch.		
	Curzon Street (Signals goods lines only.) (See page 49 for Grand Jn. line.)	- 172	TCB(G)	TCB(G) Through Siding						60					
	Vauxhall and Duddeston Station (Controlled from Birmingham New Street.)	- 806	Д — — ТСВ	TCB TCB					before reaching signal NS.141 CW. Up goods 464 yards before reaching signal CS 52	238					
	Aston Junction (Controlled from Birmingham New Street.) (See page 47 for Stechford Jn. to Bushbury Jn. line.)	1 506					45 45	15	Through junction fast to main Through junction slow to main Through junction to Windsor Str	reet					
													:		

	SOHO SOUTH JUNCTION TO	PERI	RRY BARR SOUTH JUNCTION				
	SOHO SOUTH JUNCTION TO	PER	RY BARR SOUTH JUNCTION		55	55	MAXIMUM PERMISSIBLE SPEED
	Soho South Jn (Controlled from Birmingham New Street.) (See page 42 for Rugby to Stafford line.)	_			25	25	Between Soho South Junction and Soho East Junction
TC	B Soho East Junction (Controlled from Birmingham New Street.) (See below for Soho North Junction line.)		624		20	20	Through junction C. Up line 950 yards before reaching signal NS.315
	Soho Road (Controlled from Birmingham New Street.) (See page 52 for Soho Pool Wharf line.)		1476		10 45	10 10 45	Through junction to Soho Pool Wharf Through crossover between down and up lines Between 1m. 50 ch. and 1 m. 70 ch. C. Up line, 950 yards before reaching signal NS.285.
	Hamstead Tunnel (125 yards)			İ			
	Perry Barr West Junction (Controlled from Birmingham New Street.) (See page 52 for Perry Barr North Jn. line.)	1	354		20	20	C. Up line, 650 yards before reaching signal NS.283.  Between Perry Barr West Junction and Perry Barr South Junction CW. Up line, 540 yards before reaching signal
	Perry Barr South Junction (Controlled from Birmingham New Street.) (See page 48 for Stechford Jn. to Bushbury Jn. line.)		866				NS.278.
	SOHO EAST JUNCTION TO S	ОНО	NORTH JUNCTION				
	SOHO EAST JUNCTION TO S Soho East Junction (Controlled from Birmingham New Street.) (See above for Soho South Jn. to Perry Barr South Jn. line.)	ОНО	NORTH JUNCTION		20	20	MAXIMUM PERMISSIBLE SPEED
TĆ	В						CW. Up line, 323 yards before reaching signal NS.317.
	Soho North Junction (Controlled from Birmingham New Street.) (See page 43 for Rugby to		382		10		Through junction
	Stafford line.)						

## RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES-continued

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sig Box	reen nal	Rum Lin		Lo ar Ref Sid		Perma spe restrict mil per h	ed tions, les	Catch points spring or unworked trailing points	ı	Do			otive horn	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	SOHO POOL WHARF TO SOI	HO R	OAD	(SINGLE C	OODS LI	NE)		1	ı	I			1		1 1	
İ	SOHO POOL WHARF TO SOF	IO RO	DAD					10	10	MAXIMUM PERMISSIBL	E SPEEI	<b>)</b>				
One train working	Soho Pool Wharf	_									}   					
SIO NOW	Soho Road (Controlled from Birmingham New Street.) (See page 51 for Soho South Jn. to Perry Barr South Jn. line.)		1213													
	PERRY BARR WEST JUNCTIO	n то	PERI	RY BARR N	iorth ju	INCTION										
)	PERRY BARR WEST JUNCTIO	N TC	PERI	RY BARR	NORTH JU	JNCTIO	<b>V</b>	55	55	MAXIMUM PERMISSIB	LE SPEE	D 				
TCB	Perry Barr West Junction (Controlled from Birmingham New St.) (See page 51 for Soho South Jn. line.)									CW. Up line, 370 yards	75					
•	Perry Barr North Junction (Controlled from Birmingham New St.) (See page 48 for Stechford Jn. to Bushbury Jn. line.)		645	:		DGL	69	20		before reaching signal NS.279. Through junction						

	WINDSOR STREET GOODS TO ASTON JUNCTION	i i		f		I
NE	WINDSOR STREET GOODS TO ASTON JUNCTION  Rocky Lane Bridge — — — — — — — — — — — — — — —	Departure line		C. Arrival line, 23 yards before reaching Aston side of No. 2 (Rocky Lane) Bridge C. Arrival line, 560 yards before reaching goods yard stop signal.  Through junction	IS IL	Approaching signal.
	ASTON JUNCTION TO LICHFIELD CITY No. 1		1			
	ASTON JUNCTION TO LICHFIELD CITY No. 1	60	60	MAXIMUM PERMISSIBLE SPEED		
	Aston Junction — — — (Controlled from Birmingham (New Street.) (See page 48 for Stechford Jn. to Bushbury Jn. line.) (Up IBS, 1 mile 71 yards from Erdington box.)	35 45	20 35 45	Through junction Between Aston Junction and 0 m. 30 ch. Between 0 m. 30 ch. and Gravelly Hill		
TĊ	B Gravelly Hill Station					
•	Erdington 2 350			C. Down line, 1,564 yards before reaching down home I signal.		
				C. Down line, 1,275 yards before reaching down home 2 signal.		
	Chester Road Station (Up IBS, 1 mile 580 yards from Sutton Coldfield Station box.)	50	50	Through station		

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES—continued

Description of Block Signalling	Stations and	Dista betw Sig Box	veen nal	Run Lir		ar Ref	ops ad fuge ings	Perma spe restric mil per h	ed tions, es	Catch points, spring or unworked trailing points	}	Do	wn	Locom L—L	ong S-	orn code —Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	1	Up	Position (Ri un Position othe sho	erwise		Slow or Goods	Main or Fast	Slow or Goods	
•	ASTON JUNCTION TO LICHFII Wylde Green Station (Down IBS, 1 mile 980 yards from Erdington box.) Sutton Coldfield Station (Sutton Coldfield Tunnel, 172		1273	No. 1—cont.	E			30 40	30 40	Through Station Between Sutton Coldfield and F	Four C	) Jaks				
•	yards.)  Four Oaks Station  Butlers Lane Station (Down IBS 1 mile 690 yards from Four Oaks Station box.)	1	608								00					
	Blake Street Station (Up IBS 2 miles 640 yards from Shenstone Station box.)							50	50	passing up IB home signal	00					
•	Shenstone Station (See page 55 for Bescot Jn. to Wichnor Jn. line.)	3	424 572					50 40 20	50 40	Between Shenstone and Lichfield Round curves approaching and Through junction	• ,				-	nd 12½ m.p's.
1	BESCOT JUNCTION TO WICE							60	60	MAXIMUM PERMISSIBLE S	SPEED					
ТСВ 	Bescot Junction (Controlled from Walsall) (See page 57 for Bescot Curve line, page 49, for Stechford Jn. to Bushbury Jn. line.)	-	 					45	30 45	Through junction Between Bescot and Walsall Box						

1													
T	CB	Walsall (See page 79 for Droitwich Spa (W.R.) line, page 58 for Darlaston line.)	_	1484	TCB	TCB				20	Through junction to Darlaston Junction		
ТСВ	(P)	Walsall Station Park Street Tunnel (143 yards)	_	1420		TCB  Down Platform  Loop TCB (P)			20	20	All lines through station		
	СВ	Ryecroft Junction (Controlled from Walsall.) (See page 58 for Birchills Power Sidings line, page 59 for Rugeley line and page 101 for Castle Bromwich line.)		892	TC   B	T   CB			50 15 20 15	50	Slow lines through junction Through junction to Birchills Power Sidings Through junction to Rugeley Through junction to Castle Bromwich		
		Cartbridge (Level Crossing)									iL	1L	At ½ mile distant.
	•	Rushall (Level Crossing)	1	394						;			
:	•	Norton Junction No. 1	2	130			DGL (NB)	40			C. Down line, 1 mile 64 yards before reaching		
		Anglesea Sidings	2	536			URS	41			home 1 signal. C. Up line, 1 mile 97 yards before reaching distant signal.		
	•	Fossway Road Crossing	2	1665							1L	1L	At ½ mile distant.
		Lichfield City No. 1 (See page 54 for Aston Jn. line.)	1	599	•	•			20	20	Through Station and junction		
į		Lichfield City No. 2		357	•	• .			50		From Lichfield City No. 2 to Burton Old Road Leve C. Up line, 820 yards before reaching home signal.	d Crossing	
		Burton Old Road (L.C.) (P2)			•					50	From Lichfield Trent Valley Junction to Burton Old	Road Level	Crossing
		Lichfield Trent Valley Junction (Level Crossing.) (See page 56 for Lichfield T.V. line.)	1	400	,		URS	36		20	Through junction to Lichfield Low Level C. Up line, 466 yards before reaching home signal.		

Descrip- ion of Block Signal-	Stations and	bety Sig	ance veen mal xes	Run Lir	ning nes	Rei	ops nd fuge ings	Perma spe restric mi per l	ed tions, les	Catch points, spring or unworked trailing points		Da	 own	Loca L—	-Long	horn code S—Short
ling on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	1	Standage Wagons L. & V.			Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow	Main or	Slow or Goods	
1 1	BESCOT JUNCTION TO WICH	INOR	JUN	CTION—co	ent.	1			ı		1	ı	:	1	1 .	
	Brookhay (L.C.) (P2)															
•	Alrewas Station (Level Crossing)	3	1624											1L 1S 1L 2S		Four Oaks line. Armitage line.
•	Wichnor Junction (See page 83 for Derby to Birmingham line.)	1	875					15	15	Through junction to and fro	m Burton					
	LICHFIELD. TRENT VALLEY	JUNG	CTION	TO LICH	IFIELD T.	V. (SING	LE GOO	DS LIN	(E)							
						•	i									
	LICHFIELD, TRENT VALLEY	JUN:	CTIOI 	N TO LICH 	HFIELD T ↓	.V.		20	20	MAXIMUM PERMISSIBL	.E SPEEL	)	į			
A.	Lichfield Trent Valley Junction (See page 55 for Bescot Jn. to Wichnor Jn. line.)	JUN		N TO LICE	HFIELD T	.v.		20	20	MAXIMUM PERMISSIBI	E SPEEL					

1	BESCOT CURVE JUNCTION TO BESCOT JUNCTION (GOODS LINES)			1
TCB (G)	BESCOT CURVE JUNCTION TO BESCOT JUNCTION  Bescot Curve Junction (Controlled from Walsall.) (See page 79 for Droitwich Spa (W.R.) to Walsall line.)  Bescot Junction (Controlled from Walsall.) (See page 54 for Bescot Jn. to Wichnor Jn. line and page 49 for Stechford Jn. to Bushbury Jn. line.)	15	20 15	MAXIMUM PERMISSIBLE SPEED Through junction CW. Down line, 379 yards before reaching signal WL.31. CW. Up line, 510 yards before reaching signal WL.44. Through junction  91 91 91 Through junction
	WEDNESBURY TO BLOOMFIELD JUNCTION WEDNESBURY TO BLOOMFIELD JUNCTION	30	30	MAXIMUM PERMISSIBLE SPEED
Electric Token	Wednesbury (Level Crossing) (See page 79 for Droitwich Spa (W.R.) to Walsall line.)  Princes End (Level Crossing) 1 1452		20	Through junction from Princes End CW. Down line, 470 yards before reaching starting signal. CW. Down line, 355 yards before reaching signal PE6.
57 TC	(Controlled from Wolverhampton.) (See below for Tipton line.)	20	20	Through junction in all directions  C. Up line, 652 yards 100 before reaching signal PE19.
	Bloomfield Junction (Controlled from Wolverhampton.) (See page 43 for Rugby to Stafford line.)	15		Through junction
	TIPTON STATION TO TIPTON CURVE JUNCTION			
	TIPTON STATION TO TIPTON CURVE JUNCTION  Tipton Station	20	20	MAXIMUM PERMISSIBLE SPEED
TC	(Controlled from Wolverhamp- — — ton.)		15	Through junction C. Down line, 782 yards before reaching signal PE19.
	Tipton Curve Junction — 435 (Controlled from Wolver-hampton.) (See above for Wednesbury to Bloomfield Jn. line.)			

Descrip- tion of Block Signal- ling	Stations and Signal Boxes	betv Sig	ance ween mal xes	Run Lir		Rei	ops nd fuge ings	Perma spe restric mi per l	æd tions, les	Catch points spring or unworked trailing points	,	Do		L—L	notive horong S	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	м.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	WALSALL TO DARLASTON J	UNCI	ION													
TCB	,	-	TION					40	40 20	MAXIMUM PERMISSIBI	LE SPEEI					
	WALSALL, RYECROFT JUNC	rion	то н	BIRCHILLS	POWER	SIDINGS	(THRO	UGH S	IDING	5)						
	RYECROFT JUNCTION TO E	IRCH	HILLS	POWER S	IDINGS	!		20	20	MAXIMUM PERMISSIB	LE SPEEI	D	!			
Through sidings	Ryecroft Junction (Controlled from Walsall.) (See page 55 for Bescot Jn. to Wichnor Jn. line, page 59 for Rugeley line, page 101 for Castle Bromwich Jn. line.)								15	Through junction						
Th	Birchills Power Sidings  End of line		572 697							C. Down through siding, 1 mile 140 yards before reaching signal PS.36.	480					

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		WALSALL, RYECROFT JUNCT	TON	то в	RUGELEY No. 1		í	1	
		RYECROFT JUNCTION TO R	UGEI	LEY N	lo. 1		60	60	MAXIMUM PERMISSIBLE SPEED
	тсв	Ryecroft Junction (Controlled from Walsall.) (See page 55 for Bescot Jn. to Wichnor Jn. line, page 58 for Birchills Power Sidings line, page 101 for Castle Bromwich Jn. line.)	. <del></del>				45	20 45	Through junction from Cannock  CW. Down line, 1,500 76 yards before reaching signal BH.13. C. Down line 200 yards 76 after passing signal BH.13 Between 0½ and 2 m.p.'s C. Down line, 725 yards before reaching signal
	•	Bloxwich (Level Crossing)	2	343	URS	82	25	25	BH.6 Between 2 m.p. and 2 m. 30 ch.
		Essington Wood Sidings	1	970		į			C. Up line, 346 yards before reaching distant signal.
							15	15	Between 6 miles 36 ch. and 7 miles 65 ch.
20							30	30	Between 8½ and 8½ m.p.'s
	•	Hednesford No. 1 (See page 60 for Cannock Wood Sidings line.)	5	915					C. Down line, 596 yards before reaching home signal.
	•	Hednesford No. 2		377					
		Hednesford No. 3		549			15	15	C. Up line, 542 yards before reaching home signal.  Between Hednesford No. 3 and Brereton Siding, 10 miles and 11 miles 22 ch.
	•	Brereton Siding	3	1178				:	
	•	Rugeley No. 1 (See page 9 for Euston to Crewe line.)	1	120			25		CW. Up line, 670 yards before reaching starting signal (home 1 signal for Brereton Sidings).  Through junction  To "down and up" platform line.

#### RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES-continued

Descrip- tion of Block Signal- ling	Stations and	bety Sig	ance veen nal xes	Run Lir	ning ies	a Re	oops nd fug <b>e</b> lings	spe restric mi	anent eed ctions, lles hour	Catch points, spring or unworked trailing points	I	Do	 own	L—L	notive h	orn code —Short —For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down		Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or	Slow	
	HEDNESFORD No. 1 UP SIDI						SINGLE	GOOD:	S LINI	E) (RAWNSLEY BRANCH)  MAXIMUM PERMISSIBL	E SPEED		:			
Frain staff and ticket and special instructions (see page 338)	Hednesford No. 1 Up Sidings (N.C.B. Cabin.) (See page 59 for Ryccroft Jn. to Rugeley line.)															
ain staff and t instructions	Sanders Level Crossing	1	580									1L		1L		At ½ mile distant.
Tr.	Cannock Wood Sidings (Weighing Machine Office.)		822													

	PORTOBELLO JUNCTION TO PORTOBELLO JUNCTION TO					50	50	MAXIMUM PERMISSIBLE SPEE	ED
	I MILE POST TO WOLVERHA STOUR VALLEY LINE)	AMPT	ON H.L.	(JUNCTION WITH	·	35	35	MAXIMUM PERMISSIBLE SPEE	D D
TCE			927				30	Through junction. C. Down line, 510 yards before reaching signal WN.268. C. Down line, 468 yards before reaching signal WN.266. C. Down line, 486 yards before reaching signal WN.126. C. Up line, 597 yards before reaching signal WN.265.	
	Heath Town Sidings (See below for Wednesfield line.)  Wolverhampton H.L (See page 44 for Rugby to Stafford line.)	_	927 891			15		Through junction	
	WOLVERHAMPTON H.L., HEA	тн т	FOWN SII	DINGS TO WEDNESF	IELD (SING	LE GO	ODS L	INE)	
	HEATH TOWN SIDINGS TO	WEDI	NESFIELD			40	40	MAXIMUM PERMISSIBLE SPE	∃D
ain ing	Wolverhampton H.L.  Heath Town Sidings  (See above for Portobello Jn. to Wolverhampton line.)		_					CW. Single, 51 yards after 100 passing connection from Wednesfield Road Sidings (facing to up trains.)	
york	Wednesfield	1	495						

### RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES—continued

Descrip- tion of Block Signal- ling		betw Sig	ance ween mal xes	Run Lir	ning nes	ar Ref	ops ad fuge ings	Perma spe restric mi per l	ed tions, les	Catch points, spring or unworked trailing points	Do	 wn	L—L	otive horn	
on Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	1	Up	Gradient (Rising unless Position otherwise shown)	Main	or	Main or Fast	Slow or Goods	
	WOLVERHAMPTON H.L. NOR	тн ј	UNCI	TON TO S	SHREWSBU	JRY SEV	ERN BRI	DGE J	UNCT	ION					
	WOLVERHAMPTON H.L. NOF STAFFORD ROAD JUNCTION						JN.	45 90	45 90	MAXIMUM PERMISSIBLE SPEEI MAXIMUM PERMISSIBLE SPEEI					
TCE	Wolverhampton H.L. North Junction (Controlled from Wolverhampton.) (See page 44 for Rugby to Stafford line.)	-						10	45 10	Through junction Through connections to and from Her C. Up line, 550 yards before reaching signal WN.63. C. Up line 496 yards before 98	bert Sti	reet Go	ods De	pot	
•	Stafford Road Junction (Controlled from Oxley.) (See page 64 for Cannock Road Jn. line.)	_	1177					45	45 30	reaching signal WN.57.  Through junction to and from Wolve Through junction to Cannock Road					
	Oxley	(from terms)	610 n Wol- mpton			UGL DGL	85 55	60	60	Round curve between 143 m. 30 ch. and C. Up line, 740 yards before reaching home 2 signal. C. Up line, 1,299 yards before reaching home 1 signal.	143 m.	40 ch.			
	Birches & Bilbrook Station	H.:	L.) 												
	Codsall Station	3	264							C. Up line, 3 miles 216 yards before reaching home signal.					
	Albrighton Station							80	80	Between 150 m. 76 ch. and 151 m. 18 c	ch.				
•	Cosford Station	4	1331			DGL UGL	60 60			C. Up line, 240 yards after passing advanced starting signal.					
•	Shifnal Station	3	0			DGL UGL	56 23			C Down line, 670 yards before reaching home signal.					

Madeley Jn (See page 65 for Buildwas line.)	2	314		:			10	80	From 154 m. 35 ch. to 154 m. 21 ch. Through junction to Lightmoor Junction C. Down line, 1,278 yards before reaching home signal.
Hollinswood Sidings	1	77			UGL	50			C. Down line 560 yards before reaching home signal.
Oakengates Tunnel (471 yards) N							:		C. Up line, 513 yards before reaching home signal.
Oakengates Station			İ				;		
Down IBS 1 mile 1,104 yards from Hollinswood Sidings.									
Up IBS 2 miles 298 yards from Wellington No. 2.									C. Up line, 1 mile 787 yards before reaching Hollins-wood Sidings home signal
New Hadley U.S		:							S. Down main, trailing connection from Donning- (falling)
Wellington No. 2 (See page 65 for Donnington line.)	3	1685	_	<del>-</del> 			50 25	25 50 10	ton line.  Through junction to Donnington  Main lines through station between 161 and 161? m.p.'s  Platform lines through station
Wellington No. 3	_	301	-						
Wellington No. 4  Down IBS 1 mile 292 yards from Wellington No. 4.	_	660					40	40	Passing signal box, between 161‡ and 162 m.p.'s C. Up line, 550 yards before reaching I.B. home signal.
Up IBS 1 mile 691 yards from Allscott Sugar Works Siding.									
Allscott Sugar Works Siding Down IBS 3 miles 589 yards from Allscott Sugar Works Siding.	2	1065			UGL DGL	59 60			
Up IBS 3 miles 450 yards from Abbey Foregate.									

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES—continued

tio B Si	scrip- on of lock gnal- ing	Stations and Signal Boxes	Dist betw Sig Bo	veen nal	Run Lir		Re	ops ad fuge ings	Perm spe restrice mi per l	tions, les	Catch points, spring or unworked trailing points		Do	wn	L—L		orn code —Short
Inc B	on fain ines Oots licate lock osts)	Signal Boxes	M.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.			Position o	Gradient (Rising unless otherwise shown) 1 in	Main or		Main or	Slow	
		WOLVERHAMPTON H.L., NOR  Abbey Foregate (See page 124 for English Bridge Jn. line.)	l	UNCT 1324	ION TO S	HREWSBU	RY, SEV	ERN BR	IDGE J	IUNCT	ION—cont.  Between 171 miles 18 ch. and Shrewsbury Station		1L 1S				Sutton Bridge Jn. via Loop line.
6	•	Severn Bridge Junction (See page 117 for Craven Arms to Crewe line.)		425	• •	•											
	•	CANNOCK ROAD JUNCTION  CANNOCK ROAD JUNCTION  Cannock Road Junction (See below for Bushbury line.)  Stafford Road Jn (Controlled from Oxley.) (See page 62 for Wolverhampton to Shrewsbury line.)	TO S				1		35 15 30		MAXIMUM PERMISSIBLE Through junction to Bushbury Through junction	1					
Through Siding		CANNOCK ROAD JUNCTION T CANNOCK ROAD JUNCTION Cannock Road Junction (See above for Stafford Road Jn. line.)  Bushbury Junction (See page 45 for Rugby to Stafford line, page 49 for Stechford Jn. line.)	TO BU	USHBI USHI 26	URY JUNC BURY JUN	TION (TH CTION	ROUGH	SIDINGS	20	15	MAXIMUM PERMISSIBLE Through junction C. Up line, 101 yards after passing junction with Bescot line. Through junction	SPEED 330			T C C C C C C C C C C C C C C C C C C C		

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1	MADELEY JUNCTION TO IRONBRIDGE C.E.G.B. POWER STATION (BUILD	WAS) (	GOODS	S LINES)
	MADELEY JUNCTION TO IRONBRIDGE C.E.G.B. POWER STATION (BUILD	OWAS)	35	MAXIMUM PERMISSIBLE SPEED
Electric token	Madeley Junction — — (See page 63 for Wolverhampton to Shrewsbury line.)		10	Through junction
Electr	Lightmoor Junction 3 1539 (See below for Horsehay line.)	10	10	Through junction in all directions
Through sidings				C. Up Through siding, 461 50 yards before reaching home signal. C. Up Through siding 1 50 mile 712 yards before
Throu	Ironbridge C.E.G.B. Power 2 390 Station (Buildwas)	30 20	30 20	reaching home signal.  Round curves between 161 miles 50 chains and Albert Edward Bridge  Over Albert Edward Bridge and round curves to C.E.G.B. Sidings
1	HORSEHAY AND DAWLEY TO LIGHTMOOR JUNCTION (SINGLE GOODS I	LINE)		
	HORSEHAY & DAWLEY TO LIGHTMOOR JUNCTION	40	40	MAXIMUM PERMISSIBLE SPEED
β <sub>0</sub> ( •	Horsehay and Dawley — —	30	30	Round curves between 164 miles 20 ch. and 163 miles 50 ch.
working	Dawley Parva (L.C.) (P.1)			
rain v	Doseley (L.C.) (P.1)			
One train working	Lightmoor Jn 1 1150	25 10	25 10	Through connection between single line and up and down main lines Through junction CW. Up branch 119 yards before reaching starting signal.
	WELLINGTON No. 2 TO DONNINGTON No. 1 (GOODS LINES)			
	WELLINGTON No. 2 TO DONNINGTON No. 1	25	25	MAXIMUM PERMISSIBLE SPEED
•	*Wellington No. 2 (See page 63 for Wolverhampton to Shrewsbury line.)			C. Up line, 340 yards before reaching starting signal.
•	Hadley Junction 1 1133			
	Trench L.C	•		1L 1L At ½ mile distant.
•	Donnington No. 3 — 1626			
•	Donnington No. 2 1 420			
•	Donnington No. 1 (Level — 270 URS 44 Crossing)			

<sup>\*</sup> The direction of line is up from Wellington No. 2 to Donnington No. 1.

# OXFORD, WOLVERCOT JUNCTION (W.R.) TO BIRMINGHAM, GRAND JUNCTION AND BRANCHES

Descrip- tion of Block Signal-		Dista betw Sign	een	Run:		aı	ops id uge	spe restric		Catch points spring or unworked trailing points					otive ho	rn code Short
ling	Stations and	Box					ings	per l				Do	wn	υ	p	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
•	OXFORD, WOLVERCOT JUNC WOLVERCOT JUNCTION TO AYNHO JUNCTION TO BORD TYSELEY SOUTH JUNCTION AYNHO JUNCTION TO BORD BORDESLEY SOUTH TO BORD BORDESLEY JUNCTION TO ST. ANDREWS JUNCTION TO Oxford, Wolvercot Jn. (W.R.)  Sandy Lane (L.C.) (P.2)  Yarnton Lane (L.C.) (P.2)  Bletchington Cement Sidings (Controlled from Wolvercot Jn.)  Tackley (W.R.)	AYNI DESLE TO B DESLE DESL T. AN	HO JI EY SC BORD EY SC EY J NDRE	UNCTION OUTH ESLEY SO OUTH UNCTION EWS JUNC	UTH IION	I, GRAN	D JUNC	75 90 60 15 20 60 25	75 90 60 15 20 60 25	MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL	E SPEED E SPEED E SPEED E SPEED E SPEED	ON I ON I ON (	RELIEF	LINE	ES	
TĊB	Heyford (W.R.) Aynho Junction	10	799			UGL	71	70 60	70 40	Round curve between 78 m.p.  Through junction from and	to Oxford		ch.			
•	(See page 70 for Princes Risborough line.)  King's Sutton Jn (See page 70 for Adderbury line)	14 (from verco	Wol-					60	70 20	Through junction from and to Through junction to Adderbur	1				i	
•	Astrop Sidings  Banbury South	1	864 1747	•	•	DGL	80									
	Banbury North Banbury Junction	1	543 112	N B	P F	DGL	80	75	75	Through Banbury Station bet	ween 85 m	i. 60 ch	and 86	5 m. 70	ch.	
Ī	Little Bourton (L.C.)	*	112									1L		1L		At 1 mile distar

ı	1	1	l	1	Į!	1 1		! 1		
	•	Claydon Crossing (Level Crossing)	4	1606						
		Fenny Compton (Level Crossing) (See page 70 for Burton Dassett line)  Down IBS, 2 miles 176 yards. from Fenny Compton. Up IBS, 1 mile 110 yards, from Greaves Siding.		1133		UGL D&U GL	69 84	15		Through junction to Burton Dassett C. Up line, 1,403 yards 239 before reaching home signal.
		Greaves Siding  Harbury Tunnel (73 yards)	4	363				80	75	From 100 m. 50 ch. to 101 m. 20 ch. From 101 m. 17 ch. to 100 m. 55 ch. C. Up line, 940 yards before reaching distant signal. C. Up line, 1 mile 648 yards before reaching distant signal.
	•	Fosse Road	1	369		DGL UGL	66 66			C. Up line, 1,716 yards before reaching distant signal.
67	•	Learnington Spa (See page 45 for Coventry line)	3	1650		DPL UPL	33 36	35 25 20 20	40 20 20	Round curves at South end between 105 m. 73 ch. and 106 m. 3 ch.  Main to platform line Platform to main line Through junction to Coventry
	•	Warwick Station	1	1299				75	80	From 108 m. 72 ch. to 109 m. 54 ch. From 109 m. 54 ch. to 108 m. 47 ch.
	•	Budbrook	1	1705	•					C. Down line, 880 yards before reaching home signal.
	•	Hatton South (See page 71 for Milcote line.)	2	301	•	D&UPL	17	10	10	Through connections between passenger loop and branch or main lines
	•	Hatton North (See page 71 for Hatton West	_	766				50 25	60 25	C. Down line, 725 yards before reaching home 1 signal.  Main lines through junction Through junction to and from Hatton West
		line.)  Down IBS, 2 miles 764 yards from Hatton North.  Up IBS, 2 miles 577 yards from Lapworth.								

# OXFORD, WOLVERCOT JUNCTION (W.R.) TO BIRMINGHAM, GRAND JUNCTION AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	betv Sig	ance ween mal xes	Run Lir		Loc ar Ref Sidi	nd uge	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Do		Locom L—L	otive horn on S—Sh	code ort For
on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	or	
1 1	OXFORD, WOLVERCOT JUNC	TION	(W.R	.) TO BIR	MINGHAM	, GRANI	JUNCI	ION A	ND BI	RANCHES—continued	ı	ı	1 .			
•	Lapworth Station	3	1474												i	
•	Knowle & Dorridge	2	715	•	•	DRS	70									
•	Knowle Station Bentley Heath (Level Crossing)	_	1188	•	•											
	Widney Manor Station															
•	Solihull Station Up IBS, 1,642 yards from Acocks Green.	2	1303													
	Olton Station Down IBS, 1 mile 1,646 yards from Solihull.															
•	Acocks Green & South Yardley	2	1289				i	75		Round curve from 125 m. 5	ch. to 12	 26 m. 2	0 ch.			
	Acocks Green Station								;							
	Tyseley South Junction (See page 71 for Bearley West Jn. line.)	_	1610	siding	ngno			20	20 15	Through connections between Through junction relief line	l main an to Hall (	 d relief Green 	lines an	 nd relie 	f and main	lines
				gh sid	Z Down through siding						:     	į				
	Tyseley Loco (Signals through siding lines	_	999	Up through	1 <b>**</b>	l	•									
	only.)			NB	"Down and up" thourgh siding			į								
					Oown a			: 								

#### OXFORD, WOLVERCOT JUNCTION (W.R.) TO BIRMINGHAM GRAND JUNCTION AND BRANCHES—continued

Descrip- tion of Block		Dista betw		Rum		aı	ops nd	spe restric	tions,	Catch points, spring or unworked				notive H Long S-	orn Code -Short
Signal- ling	Stations and	Sign Box		Lin	nes	Ref Sid	fuge ings	mi per		trailing points	Do	own	τ	Jp	For
on Main Lines (Dots Indicate Block Posts)			Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradien (Rising unless Position otherwis shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	PRINCES RISBOROUGH (W.R. PRINCES RISBOROUGH (W.R.	OT (.	AYN	IHO JUNC	TON TION			90	90	MAXIMUM PERMISSIBLE SPEE	D D				
cuiting (see page 346)	Princes Risborough Station (W.R.)			Platform A————————————————————————————————————				25 25 75	25 60 25 75	Down main to platform line Platform line to up main Single line to up main (to 24 m. 15 ch. Platform line to single line Single line to platform extension line Over single line between 24 <sup>3</sup> / <sub>2</sub> and 25 <sup>1</sup> / <sub>2</sub>					
Interlocking levers and track circuiting (see page	Brill Tunnel (193 yards)  Bicester North Station (W.R.) (Controlled from Princes Risborough Station)  Ardley ground frame		1210 1562	<b>‡</b>				25	25	Over loop line CW. Single, 260 yards after passing signal PR.104. (Facing to up trains.)					
Interlocking I	Ardley Tunnel (1147 yards)  Aynho Junction (See page 66 for Wolvercot Jn. to Grand Jn. line.)	5 26 (fro Prin Risbo	om ices rough					70 50	70 70	Single, between 17 m. 24 ch. and 17 m Single to down line, from 17 m. 43 ch. Through junction to Bicester (18 m. 20 C. Up line, 790 yards, before reaching signal AJ.6.	to 17 n ch. to	1. 60 ch. 17 m. 43	3 ch.)		
One train working	KING'S SUTTON JUNCTION TO KING'S SUTTON JUNCTION King's Sutton Junction (See page 66 for Wolvercot Jn. to Grand Jn. line.)  Adderbury	O AI TO A	DDEI —	BURY (SIN RBURY	GLE GOO	DDS LINI	E)	40 20	40	MAXIMUM PERMISSIBLE SPEED Through junction CW. Single line, 20 yards after passing home signal (facing to up trains)	<del></del>	to 18 m.	. 29 ch.		
	FENNY COMPTON TO BURTO FENNY COMPTON TO BURT	ON D	ASSE ASSE	IT (SINGL	E GOODS	LINE)		45	45	MAXIMUM PERMISSIBLE SPE	ΞD				
One train working	Fenny Compton (See page 67 for Wolvercot Jn. to Grand Jn. line.)  Burton Dassett	_	_			CL Up Rec. line	60 60		15	Through junction					

		HATTON SOUTH TO MILCOTE (V	V.R.)		ı		ı	
		HATTON SOUTH TO EVESHAM R	OAD CROSSING			60	60	MAXIMUM PERMISSIBLE SPEED
		EVESHAM ROAD CROSSING TO	MILCOTE (W.R.)	i		50	50	MAXIMUM PERMISSIBLE SPEED
	•	Hatton South — (See page 67 for Wolvercot Jn. to Grand Jn. line.)		D&UPL	17	10 15	10 15	Through connections between passenger loop and branch or main lines  Between Hatton Station and Hatton West
-	Electric token	Hatton West (See below for Hatton North Jn. line.)	671		į		25	Through junction to Hatton North
ŀ		Claverdon					i	
Ē	ā (	Bearley						
	•	Bearley West Jn 5 (See page 72 for Tyseley South Jn. line.)	178			35	50 30	Through junction to Tyseley Through junction with single line and with Tyseley line C. Up line, 1 mile 1,406 75 yards before reaching
	•	Stratford-upon-Avon East 3	924	DGL	57	35	15	home signal.  Round reverse curves from 9 m. 25 ch. to 8 m. 63 ch.  Platform loop to main
	-	Stratford-upon-Avon West —	601	}			5	Main to platform loop
71		Evesham Road Crossing (Level — Crossing) Milcote (W.R.) 2	590				35	Round reverse curves from 8 m. 63 ch. to 9 m. 25 ch.
		HATTON NORTH TO HATTON WE	EST			_	-	
-		HATTON NORTH TO HATTON W	VEST	.		40	40	MAXIMUM PERMISSIBLE SPEED
100	Electric token	Hatton North (See page 67 for Wolvercot Jn. to Grand Jn. line.)				15	15	Through junction CW. Single line, 531 yards before reaching Hatton North home signal (facing to down trains). (Worked from Hatton West Jn. box.)
	1 ( 1	Hatton West — (See above for Hatton South to Milcote line.)	656			25		Through junction.
		TYSELEY SOUTH JUNCTION TO	BEARLEY WEST JUNCTIO	N				
		TYSELEY SOUTH JUNCTION TO	BEARLEY WEST JUNCTIO	N		60	60	MAXIMUM PERMISSIBLE SPEED
	•	Tyseley South Jn (See page 68 for Wolvercot Jn. to Grand Jn. line.)					15	Through junction to down relief line

# OXFORD, WOLVERCOT JUNCTION (W.R.) TO BIRMINGHAM GRAND JUNCTION AND BRANCHES—continued

Description of Block Signalling	Stations and	bet Sig	ance ween gnal exes	Run Lir		Lo ar Ref Sid	nd luge	Perma spe restric mi per l	ed tions, les	Catch points spring or unworked trailing points		Do			otive horn	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	!	Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
,	TYSELEY, SOUTH JUNCTION	TO I	BEARI	LEY WEST	JUNCTIO	N—cont.										
•	Hall Green Station	1	493					 				,				
•	Shirley Station	2	964					! !		C. Down line, 1,080 yards before reaching home	264					
	Earlswood Lakes	2	1740							signal. C. Down line, 800 yards before reaching home	230					
	Wood End Tunnel (176 yards)							  -  -  -		signal C. Up line 801 yards before reaching home signal.						
	Danzey for Tamworth	3	1142							C. Up line, 1,192 yards before reaching home signal	150					
•	Henley-in-Arden	3	0			URS	40			<ul> <li>C. Up line, 1 mile 1,029 yards before reaching distant signal.</li> <li>C. Up line, 1,130 yards before reaching home signal.</li> </ul>	150					
•	Bearley West Junction (See page 71 for Hatton South to Milcote line.)	4	510					50	50	Round curves between 17 m	. 4 ch. an	d 17 m	1. 25 cl	1.		
1	BORDESLEY SOUTH TO BIRM BORDESLEY SOUTH TO MOO				REET		I	60	60	MAXIMUM PERMISSIBL	E CDEED		1 .		ı	
•	Bordesley South (See page 69 for Wolvercot Jn. to Grand Jn. line.)				"Down and up"  •   through siding			00	oo	MGAIMOM TERMISSIBL	J. STEED					
•	Birmingham Moor Street Station		1687		"Dowrithroup											

Description of Block Signalling on	Stations and Signal Boxes	Dist betw Sig Bo	veen nal	Rum Lin		Loc ar Ref Sidi	ıd uge	Perma spe restric mi per l	ed tions, les	Catch points, spring or unworked trailing points		Do	_ <del></del>	L	otive ho	rn code -Short For
Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	or	Main or Fast	Slow or Goods	
	BIRMINGHAM SNOW HILL S	rati(	ON TO	WOLVER	НАМРТО	N LOW	LEVEL S	TATIC	N—cor	ut.	ı				, 1	
										C. Down main, 581 yards before reaching home signal.	100					
										C. Down relief, 632 yards before reaching home signal.	100					
	Handsworth Jn (See page 75 for Smethwick		1467	•	· •		İ	50	50	Main lines between 132 m. 40			ı			
	West line.)							25	25	Through connections between				Para 4	S-modb	miak Wort
								20		Through connections and jun CW. Down line, 250 yards before reaching starting signal. C. Up line, 1 m. 455 yards before reading distant signal.	95	nain an	d relief	lines to	Smeth	wick West
	West Bromwich US							50	50	Between 134 m. 60 ch. and 1	35 m. 10	ch.				
	Swan Village North US (Level Crossing)	2	1083													
	Swan Village Tunnel (412 yards) N.		:							C. Up line, 1,180 yards before reaching home signal.	97					
•	Wednesbury Central South US	1	1019					40	40	Round curves between 136 n	n. 40 ch.	and 136	m. 65	ch.	:	
												:		:		

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes	Dist bety Sig Bo	nal	Run Lir		Loo ar Ref Sidi	nd uge	Perma spe restric mil per l	ed tions, les	Catch points, spring or unworked trailing points		Do		Locom L—L	otive hornong S—S	n code Short For
Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrin-	Standage Wagons L. & V.		Up	Position (I	radient (Rising unless therwise shown) 1 in		Slow or Goods	Main or Fast	Slow or Goods	
G 	GALTON JUNCTION TO STOU	RBRI	DGE	JUNCTION	NORTH-	-continued	<i>t</i> 	}					!			
9	Langley Green Station  Oldbury and Langley Green West (Level Crossing)		308						55	From 135 m.p. to 134 m. 40 c	ch.					
•	Rowley Regis and Blackheath	1	425			DGL	65	40		From 136 m. 30 ch. to 137 m. 4 requiring to apply wagon brak	kes)		-			-
	Rowley Regis Station							20		From 136 m. 30 ch. to 138 m. 6 C. Up line, 752 yards before reaching home 2 signal	81	or treig	nt trains	s requir	ang to app	iy wagon brakes)
	Old Hill Tunnel (896 yards) N		ļ 1							reaching nome 2 signal		ì				
	Old Hill Jn	1	704							C. Up line, 594 yards before reaching home signal	51					
	Cradley Station							40	'	From 138 m. 32 ch. to 138 m. 6		or coacl	hing sto	ek traiı	s and frei	ght trains not
-	Cradley Heath East (Level Crossing)	1	748			URS	31		•	requiring to apply wagon brai	kes)				1	
	Cradley Heath West	_	521						50	From 139 m. 20 ch. to 138 m. C. Up line, 550 yards before reaching home signal.	60 ch. 76					
	Lye Station	_	1685													
	Stourbridge Junction North (See page 77 for Droitwich Spa (W.R.) to Walsall line.)	_	1687		-			15		Through junction						
		: :							<b>!</b>							

	•	DROITWICH SPA (W.R.) TO WALSALL  DROITWICH SPA TO STOURBRIDGE JUNCTION TO WALSALL  Droitwich Spa (W.R.)	ИС			75 60	75 60	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	     	(Level Crossing)  Hartlebury Junction — 519 (See page 79 for Bewdley South line.)				15		Through junction to Stourport-on-Severn
		Kidderminster Junction 3 48 (See page 80 for Alveley Sidings line.)	1	DGL UGL	60 60	15	15	Through junction from and to Bewdley  1L Branch trains—when crossing junction.
	•	Kidderminster Station 510						
		Churchill and Blakedown 3 220 (Level Crossing)		DRS	46			C. Down line, 731 yards before reaching home signal.
		Hagley Station	•					C. Down line, 1 mile 333 122 yards before reaching Stourbridge Jn. South
77	9	Stourbridge Jn. South 3 836				40	40	distant signal.
Р&	ا PF							† Worked in accordance with special instructions. See page 349
	9	Stourbridge Jn. Middle — 352 (See page 80 for Stourbridge Town line.)	•					
	•	Stourbridge Jn. North — 660 • (See page 76 for Galton Junc-)	•			15		Through junction to Lye
		tion line.)				25	10	Between 143 m. 50 ch. and 144 m. 7 ch. C. Down line, 1,136 yards 85 before reaching home signal.
	•	Kingswinford Junction South 1 1287 (See page 80 for Baggeridge line.)		URS	60	15		Through junction to Baggeridge CW. Down line, 54 yards 75 after passing starting signal.
	6	Round Oak South 1 242						C. Down line, 506 yards 55 before reaching home signal.
		Round Oak Steel Company's Railway Crossing (77 yards from Round Oak South.)			,			

Descrip- tion of Block Signal- ling		Dist bety Sig Bo	veen nal	Rum Lin		Refu	ops nd ige ings	Perma spe restric mil per 1	ed tions, les	Catch points, spring or unworked trailing points		Do	wn	LL	notive ho	orn code -Short For
on Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down		Standage Wagons L. & V.			Position	Gradient (Rising unless otherwise shown) 1 in	Main or	or	Main or Fast	Slow or Goods	
	DROITWICH SPA (W.R.) TO	WALS	SALL-	-cont.												
	Round Oak North	_	902			DGL	66			CW. Down line, 533 yards before reaching home signal (worked from Round Oak South).	69					
								30	30	Between 146 m. 70 ch. and	 147 m. 15	ch.				
							1			C. Down line, 1 m. 111 yards before reaching Dudley home signal.	96			 		
	Dudley Tunnel (949 yards) N.		•													
	Dudley	2	333					15	15	Between 148 m. 7 ch. (Paddi	 ngton mile	 age) an	id 0 m. 2	20 ch. (	South St	affs. mileage)
									-	C. Up line, 500 yards before reaching home signal.	75					
1 1								45	45	Between 3 and 13 m.p.'s			:			
•	Horsley Fields Junction	1	1321													
•	Great Bridge	_	547					25	25	Between 2 and 21 m.p.'s						
•	Eagle Crossing (Level Crossing)	<u> </u>	401											1		
	Golds Hill Crossing (Level Crossing).	_	788													

	TCB		1	1033			15	20 20	Through junction to Princes End Between 3½ and 3½ m.p.'s  C. Up line, 730 yards before reaching signal WY.4.  C. Up line, 925 yards before reaching signal WY.101.  Through junction to Bescot
79	(•	HARTLEBURY JUNCTION TO HARLEBURY JUNCTION TO  Hartlebury Junction (See page 77 for Droitwich Spato Walsall line.)  Stourport-on-Severn Station (Level Crossing)  Burlish Station		DLEY S	 CL DGL	24 38	50 25	50 15 25	MAXIMUM PERMISSIBLE SPEED  Through junction  Over south end loop connections at 134 m. 26 ch.  CW. Down goods loop 176 yards after passing home signal.  CW. Up passenger loop 10 yards after passing starting signal.  Through junction

İ	Descrip- tion of Block		Dista betw	een		ning		ıd	Perma spe restric	ed tions,	Catch points spring or unworked			Locom L—L	otive he	orn code —Short
;	Signal- ling	Stations and	Sign Box		Lit	nes	Ret Sidi	uge ings	mil per l		trailing points	Do	wn	U	p	For
I	on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Gradient (Rising unless Position otherwise shown)	Main or	Slow or Goods	or	or	
	K	IDDERMINSTER JUNCTION TO	) ALV	VELE	Y SIDINGS	5	1	!	1 1				I	!		
	İ	KIDDERMINSTER JUNCTION BEWDLEY TO ALVELEY SIDE	TO I	BEWE	LEY			 	45 30	45 30	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED	)		! !		
500	Oren	Kidderminster Junction (See page 77 for Droitwich Spato Walsall line.)		_					15	15	Through junction	1L				Branch trains when crossing junction.
7.		Foley Park				*										
		Bewdley Tunnel (480 yards)			ជ្ជ											
	( •	Bewdley South (See page 79 for Hartlebury Junction line.)	3	26	Sectric Token				15 15	15 15	Through junction from and to Kidder Through junction from and to Stourp	minster ort 	•			
Jectric	Token	Bewdley North  Highley	ا ہ	442 1483	Electi				15	15	Through junction					
	One train working	Alveley Sidings (End of Line)	1	440												
-		STOURBRIDGE JUNCTION MI STOURBRIDGE JUNCTION M	DDLI IDDL	E TO E TO	STOURBR STOURBI	IDGE TOV RIDGE TO	VN STAT WN STA	TION TION	20	20	MAXIMUM PERMISSIBLE SPEEI	)	!		!	
	One train working	Stourbridge Junction Middle (See page 77 for Droitwich Spa to Walsall line.)	_													
	0*	Stourbridge Town Station							1				·			
		KINGSWINFORD JUNCTION KINGSWINFORD JUNCTION	SOUT SOUT	H TO	BAGGER BAGGER	IDGE (SIN	GLE GO	ODS LI	NE)   40	40	MAXIMUM PERMISSIBLE SPEER	) 			İ	į
	One train working	Kingswinford Junction South (See page 77 for Droitwich Spa to Waisall line.) Bromley Pensnett Baggeridge		1577 1707	,		GL	41		15	Through junction					

### DERBY TO BLACKWELL (W.R.) AND BRANCHES

	DERBY, LONDON ROAD JN. DERBY, LONDON ROAD JN. DERBY, LONDON ROAD JN.	TO BIRMI	NGHAM, GRAND JUN	NCTION 75		MAXIMUM PERMISSIBLE SPEED ON MAIN AND FAST LINES MAXIMUM PERMISSIBLE SPEED ON GOODS LINES
•	London Road Jn (See page 206 for Trent Jn. to Clay Cross South Jn. line.)	-	•	10 10 60	10	Through junction in any direction Goods line—between London Road Jn. and L. & N.W. Jn. Main line—London Road Jn. to Sunny Hill, round curves from 0 to 1½ m.p.
•	L. & N.W. Jn	. — 1702	•			
•	Melbourne Jn (See page 87 for Chellaston Jn. line.)	736	•	30	•	Through junction to Chellaston
•	Sunny Hill	. — 951	•	!	60	Main line—Sunny Hill to London Road Jn. round curves from 1½ to 0 m.p. C. Up goods, 213 yards   Level   after passing home signal.
	Stenson Jn (See page 87 for Sheet Stores Jn. line).	2 1129			30	Through junction to Chellaston Jn.
	North Stafford Junction (Controlled from Stenson Jn. (See page 88 for Stoke line.)	- 1172		30		Through junction to Tutbury. S. Up line, junction trailing points, 915 yards before reaching home 2 signal. (Normal lie is for Tutbury line.)
	Repton & Willington Station (Up I.B.S., 1 mile, 620 yards from Clay Mills Jn. box.) (Down I.B.S., 1 mile, 593 yards from Repton and Willington Station box.)	1 798 (from Stenson				
	Clay Mills Jn	2 1192	•	15	;	Goods line, Clay Mills Jn. to Branston Jn.
	Wetmore Sdgs (See page 91 for Hawkins Lane Sidings line.)	1639				

Descrip- tion of Block Signal-			ance veen	Run Lir			ops id uge	Perma spe restric mil	tions,	Catch points spring or unworked trailing points				ocomo L—Lo	tive horn ng S—Sh	code ort
ling	Stations and	Bo	xes			Sid	ings	per I	hour			Do	wn	U	p	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	: 1	Up	Position (F	radient Rising unless herwise hown) 1 in		Slow or Goods	Main or Fast	Slow or Goods	
	DERBY, LONDON ROAD JN. T	O BIF	RMIN	GHAM GR	AND JUNG	CTION—c	ont.									
	Horninglow Bridge (See page 91 for Hawkins Lane Sidings line, page 92 for Victoria Crescent line.)	_	1362	•	•	 		25	25 25	Goods to main line Main to "down and up" connecti Goods to main line opposite bo C. Down goods at fouling I point with No. 1 Siding I road 30 yards before I reaching starting signals.	ox Level					
						į				U. Down goods. Trailing I points from down sidings.	Level Level					
							i	30	30	Main lines through Burton Stati	tion					
•	Burton-on-Trent Station South (Level Crossing)	_	1092	•	•	   										
•	Leicester Jn. (See page 95 for Coalville line, page 92 for Shobnall Maltings line.)	_	435	•	•			15		Through junction to Coalville						
•	Branston Jn (See page 97 for Coalville line.)	_	1621	•	•				15 15	Goods line, Branston Jn. to Cla Through junction to Coalville	lay Mill	ls Jn.				

	(Up I.B.S., 1 mile, 742 yards from Barton and Walton Stn. box.)									
	(Down I.B.S., 1 mile, 277 yards, from Branston Jn. box.)		!							
•	Barton and Walton Station	2	731			į				
	Wichnor Jn (See page 56 for Bescot Jn. line.) (Up I.B.S., 1 mile, 890 yards from Elford Station box.) (Down I.B.S. 1 mile, 1,576 yards from Wichnor Jn. box.)	1	850			15	Through junction to Lichfield			
	Elford (No. 1 Down I.B.S. 1,155 yards from Elford Station box.) (No. 2 Down I.B.S. 2 miles 120 yards from Elford Station box.) (Up I.B.S. 2 miles 40 yards from Tamworth High Level box.)	3	715	DGL (With 2	130 L. & V.)		S. Down main, Trailing points from Tamworth end of down goods loop (Normal lie for down main).	600		
	Tamworth High Level	4	331						,	
							1		17.10	
•	Perrin & Harrison's Sidings	1	988	:	İ		!		1L 1S 1L 2S	Via Whitacre. Sutton Park.
	Wilnecote Station Down I.B.S. 1 mile, 410 yards from Perrin & Harrison's Sidings box. Up I.B.S. 1 mile, 1191 yards from Kingsbury Branch Sidings box.									

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sig Bo	veen nal	Runi Lin		ar	ops id uge ings	spe restric mi	anent eed etions, les hour	Catch points spring or unworked trailing points		Do		L—L	otive ho long S-	orn code —Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	•	Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	Slow or Goods	or	Slow or Goods	
DER	BY, LONDON ROAD JN. TO	BIRN	AINGI	IAM GRAI	ND JUNC	TION—co	ontinued									
•	Kingsbury Branch Sidings (See page 97 for Baddesley Colliery line.)	3	133			DRS	68									
	Kingsbury Station Jn (See page 98 for Whitacre Jn. line.)	1	217					30		Through junction to Whitacre	! e   	1L 1S 1L 2S 3L 1S	; ; ;			Camp Hill line. †Sutton Park. †Lawley Street or Duddeston Sidings. †Via fast lines.
	Water Orton East Junction (See page 100 for Nuneaton line.)	3	1550	•	•			60	60 30	Through junction from and t Through junction to Whitaer		ry 				
	Water Orton Sidings (Signals up goods and up arrival lines only.)	_	599	•												
•	Water Orton West Junction (See page 101 for Park Lane Junction line.)	— (fron War	ter	•	•			15	15	Through junction to Walsal Up goods line Water Orton	     West Jn. 	to Wat	er Orto	n East	Jn.	
•	Castle Bromwich Junction (See page 101 for Walsall line.)	East		•	•				15	Through junction to Walsall C. Up goods 328 yards after passing home signal.	955 (falling)					
	Bromford Bridge	1	1143	•	•											

	Washwood Heath Junction	_  1054		1st Down Goods					
	Washwood Heath Sidings No. 2 (Signals down goods lines and "Up and down" Through Siding only.)	935		•					
	Washwood Heath Sidings No. 1	— 397 — 1332 (from Washwoo Heath Jn.	spoog A	Down Camp Hill Goods "'Up and Down' Through Siding				1L 1S 2L 2L 2S 2L 3S 2S 3S	1S Walsall. 2S Via Whitacre. 2S Entering Washwood Heath Down Sdgs.
	Saltley Sidings (No signals for up Lawley St. goods line.)	456	Up Lawley Street	• •					
	Saltley Junction (No signals for up Lawley St. goods line.)	— 403	"Up and Down" " — — — — — — — — — — — — — — — — — —	amp Hill Goods  "Up and Down"  Through Sdg.	40	Main line, Saltley Junction to Grand Junction		3L 1S 3L	1S Washwood Heath Sidings (only trains from Lawley st. and Duddeston Sidings.)
	Duddeston Road	442	Y :: 1	Down C			1L 1S 11	L 1S 1L	Bordesley South.
•	Landor Street Junction (See page 104 for Camp Hill line.)	497		•	15 15	Through junction to and from Camp	Hill	4L 2L 3S	Lawley St. Yard.  Washwood Heath Up Sdgs  *—From New Street direction.

### DERBY TO BLACKWELL (W.R.) AND BRANCHES—continued

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes	Sig	veen	Runi Lin			nd uge	spe restric mi	ctions,	Catch points spring or unworked trailing points		Do	own	LLo	otive horng S—	rn code Short For
Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	Down	Up	Position	Gradient (Rising unless otherwise shown) 1 in		or	Main or Fast	Slow or Goods	
	DERBY, LONDON ROAD JUNC	TION	I OT I	BIRMINGH	AM GRAN	ND JUNC	TION—ca	ont.								
TCB	Grand Junction (Controlled from Birmingham	(June	1095 ction down	—   ТСВ	TCB			25	40 25	Main line, Grand Junction to Through junction from and to	Saltley St. Andr	Junctio ews Ju	n netion			
	SHEET STORES JUNCTION T	O ST	ENSC	ON JUNCTI	ON											
	SHEET STORES JUNCTION TO	STE	ENSO!	N JUNCTIO	ON		{	50 30	50 30	MAXIMUM PERMISSIBLE MAXIMUM PERMISSIBLE	E SPEED E SPEED	—FRE —PAS	EIGHT SENG	TRAI ER TR	NS. AINS	
•	Sheet Stores Junction (See page 205 for Trent Junction to Clay Cross line, page 208 for Trent Station North Junction line.)	_		 					15	Through junction			! !			
•	Lock Lane Crossing		1101			İ						1L 2S 1S 1L	· į		!	Derby. Castle Donington
•	Castle Donington Station	2	1504							[			:		:	C.E.G.B. Sidings.
	Chellaston East Junction (Controlled from Chellaston Junction.) (See page 87 for Worthington line.)	4	202						20	Through junction to Worthing S. Down line, 869 yards before reaching Chellaston Junction starting signal. Junction points from Worthington. (Normal lie is for Worthington) (Controlled from ground frame).	ton 1173					

	*PF	Chellaston Junction (See below for Melbourne Junction line.)	— 979 4 1181 (from Csle. Donington)	20	0   20	Through junction to and from Stenson Junction
	•	Stenson Junction (See page 81 for Derby to Birmingham line.)  *—See Local Instructions on page		31	0	Through junction
		L	ON TO WORTHINGTON (SINGL	E COODS LINE)		!
		CHELLASTON EAST JUNCTIO		E GOODS LINE)	0 20	MAXIMUM PERMISSIBLE SPEED
	One train working	Chellaston East Junction (Controlled from Chellaston Junction.) (See page 86 for Sheet Stores Junction to Stenson Junction line.)				
87	o O	Worthington				
			, ,	Note.—Token station	is Chellasi	ton Junction
		CHELLASTON JUNCTION TO			.	
		CHELLASTON JUNCTION TO	MELBOURNE JUNCTION	30	0 30	MAXIMUM PERMISSIBLE SPEED
		Chellaston Junction See above for Sheet Stores Jn. to Stenson Jn. line and for Worthington line.)				
		Sinfin (L.C.) (P1) Sinfin Sidings Ground Frame	_   150   🛧			
	•	Birmingham line.)(1	3   464			

<sup>†</sup> Goods line worked in both directions under "one train working" regulations.

Description o Block Signal ling	f    -  -	Dista betw Sign Box	veen nal	Run Lir	ning nes	Ref	ıd	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Do		LL	otive ho	orn code —Short
on Main Lines (Dots Indicat Block Posts)	Signal Boxes		Yds.	Up	Down	 	Standage			Position	Gradient (Rising unless otherwise shown) 1 in	Main	Slow	Main		
İ	NORTH STAFFORD JUNCTION	N TO	STOR	KE JUNCTI	(ON											
	NORTH STAFFORD JUNCTIC	N TO	STO	KE JUNC	ΓΙΟΝ			70	70	MAXIMUM PERMISSIBI	LE SPEEL	)				
	North Stafford Junction (Controlled from Stenson Jn.) (See page 81 for Derby to Birmingham line.)		_						40	Through junction C. Down line, 660 yards before reaching Findern level crossing.	188					
	Findern (L.C.) (P2) Willington (L.C.) (P2)	—	853 662													
	Egginton (L.C.) (P2)  Hilton (L.C.)  Egginton Junction	_ 	928 425					<u> </u>				1L		1L		At ½ mile distant.
	Marston (L.C.)	(fro. No Staff J. 3 ) (fro. Sten. J.	orth ord n.)  1580 m son n.)					50	50	Round curve between 25‡ an	d 25⅓ m.p.	1L		1L		At ½ mile distant.
																-

		Tutbury Crossing (Level Crossing.)	! {tr	344 1240 om inton n.)								
	•	Tutbury Yard		276								
	•	Fauld Sidings		1342								
	+	Scropton (Level Crossing)		1021					1L	1L	At ½ mile distant.	İ
		Sudbury Station (Level Crossing.)	. 1	1441				:				
		Dovefields (L.C.) (P3)	. 1	112					:			
		Uttoxeter (Level Crossing)	3 4 (fr Sud Stat	959  1071 om bury tion)		30	30	Uttoxeter Station, between 16m. 51 ch.	and 16 m. 1 cl	<b>h.</b>		
		Pinfold (Level Crossing)	_	385	•							
	•	Hockley (Level Crossing)	_	442	•	60	60	Round curves between 15½ and 15 m	.p.'s			
20		Loxley Lane (L.C.) (P2)	1	1102		40	50	Round curves between 14 <sup>1</sup> / <sub>4</sub> and 13 <sup>2</sup> / <sub>4</sub> m	.p.'s			!
		Bramshall (L.C.) (P2)		1230								
		Leigh Station (Level Crossing)	3 5 (fro	227 799 om kley.)				C. Down line, 3 miles 726 yards before reaching home signal.				
		Upper Leigh (L.C.)							IL	1L	At ½ mile distant.	
	•	Cresswell Station (Level Crossing) (See page 91 for Cheadle line.)	3	620			15	Through junction to Cheadle				
		Stallington (Level Crossing)	1	748								

Descrip- tion of Block Signal-		Dista betw Sign	een	Run:		Lo ar Ref	ıd	Perma spe restric mil	ed tions,	Catch points spring or unworked trailing points	l				otive ho	
ling	Stations and	Box		Lin	ics	Sid		per l		training points		Do	wn	U	р	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.	i	Up	Position	Gradient (Rising unless otherwise shown)	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	NORTH STAFFORD JUNCTIO	N TO	STO	KE JUNC	ΓΙΟΝ—con	t,			r		r			ı	, ,	
•	Blythe Bridge Station (Level Crossing.)	_	508													
	Caverswall (Level Crossing)		1740			UGL DGL	68 56			C. Down line, 600 yards before reaching outer home signal. S. Up line, 90 yards after passing starting signal (normal lie for main line.)	116					
	Meir Tunnel, N (814 yards.)							40 30	40	Between Meir Tunnel and I C. Up line, 1,027 yards be- fore reaching Caverswall distant signal. From Meir Tunnel to Foley	102			•	m.p.'s	
•	Bridgewood Siding		1648							CW. Up line, 210 yards be- fore reaching starting sig- nal (Sidings points.)	102					
	Longton Station															
TCB	Foley Crossing	_	1085						50	From Foley Crossing to Me C. Up line, 597 yards before reaching home signal. From 1 m. 14 ch. to 1 m. 56 C. Up line, 1 mile 130 yards before reaching home signal.	74 ch.	, 1 m. 5	66 ch. to	3 m.p.		
	Carter's (L.C.)							!	!	C. Up line, 241 yards before reaching signal SE.115.	97	1L		1L		At ½ mile dista
	Stoke Junction (Controlled from Stoke-on-T.) (See page 107 for Colwich to Macclesfield line, page 112 for Caldon Ouarry line.)	1	1212					15		Through junction		:				

ļ	DERBY, FRIARGATE GROUND FRAME TO EGGINTON JUNCTION (THIS LINE IS FOR THE EXCLUSIVE USE OF THE RESEARCH DEPARTMENT)	
	DERBY FRIARGATE G.F. TO EGGINTON JUNCTION 15 15 MAXIMUM PERMISSIBLE SPEED (Not applicable to Research Dept. Battery	
One train working*	● Derby Friargate Ground Frame       —         Mickleover Tunnel (464 yards)         Egginton Junction          7 1453     All movements on the line must sound the howhen approaching the Occupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Sound from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box, approaching the Cocupation Cross 750 yards from Egginton Jn. box,	ine
(		
*-S	Staff to be kept in the possession of the Research Dept, at Derby.	
	CHEADLE TO CRESSWELL (SINGLE GOODS LINE)	
	CHEADLE TO CRESSWELL 15 MAXIMUM PERMISSIBLE SPEED	
rain ing	Cheadle	
One train working	Cresswell (Level Crossing) (See page 89 for North Stafford Junction to Stoke line.)	
	WETMORE SIDINGS TO HORNINGLOW BRIDGE (VIA HAWKINS LANE) (SINGLE GOODS LINE)	
	WETMORE SIDINGS TO HORNINGLOW BRIDGE (VIA HAWKINS LANE)  15  MAXIMUM PERMISSIBLE SPEED	
Siding worked under special arrangements	Wetmore Sidings — — (See page 81 for Derby to Birmingham line.)	
Siding w special a	Hawkins Lane Sidings — 1014	
•	Horninglow Bridge — 625 (See page 82 for Derby to Birmingham line.)	

t S	escrip- ion of Block Signal- ling		Dista betw Sign Box	een nal	Runr Lin		Loc ar Ref Sidi	nd 'uge	Perma spe restric mil per I	ed tions, les	Catch points spring or unworked trailing points		Do	wn	_L—L	notive hor ong S—	
L	on Main Lines (Dots Idicate Block Posts)		М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	Slow or Goods	or	Slow or Goods	
		HORNINGLOW BRIDGE TO V					GOODS	LINE)	10	10	MAVIMUM DEDMICEDI	e encei	`	j !	!		
		HORNINGLOW BRIDGE TO V	ACTO	KIA	CRESCEN	l			10	10	MAXIMUM PERMISSIBL	E SPEEL	) 				:
	•	Horninglow Bridge (See page 82 for Derby to Birmingham line.)	'	_													
	rking	Derby Street (L.C.) (P.1)	_	260													
9	One train working	Victoria Street (L.C.) (P.1)	_	115								1					
	One	Dallow Street (L.C.) (P.1)	_	60	:									İ	İ		
		Victoria Crescent	_	306						<u> </u>							
					]				}		: 				i İ		
			ļ												ļ ļ		
-		LEICESTER JUNCTION TO SI	HOBN	NALL	MALTING	S (SIDING	3)	·						<u> </u>			
		LEICESTER JUNCTION TO WELLINGTON STREET TO ST	ELLI HOBN	NGT(	ON STREET MALTING	Γ ¦S			20 10	20 10	MAXIMUM PERMISSIBI MAXIMUM PERMISSIBI	LE SPEE	D D				
100	special arrangements	Leicester Junction (See page 82 for Derby to Birmingham line.)	_	_						15	Through junction						
	ial arrai	Wellington Street (L.C.) (P.1)	-	512													
7 5	sbec	Shobnall Maltings (Bass & Co. Private Sidings.)	-	734													

	: ]	KNIGHTON SOUTH JUNCTIO	N TO	BURTON	I-ON-TRI	ENT, LEI	CESTER	JUNCT	ION			İ	: 1	ļ		
		KNIGHTON SOUTH JUNCTIO	N T	LEICES	TER JUN	NCTION	ı		45	45	MAXIMUM PERMISSIBI	E SPEEI		·		
		Knighton South Junction (See page 164 for St. Pancras to Trent line.)	_						20	20 20	Through junction Over curves between 974 and	 nd 98 m.p 	.'s—passenger	trains		
	•	Saffron Lane Crossing	-	949						i		;				
		Junction for Braunstone Gate (Controlled from Saffron Lane Crossing.) (See page 95 for Braunstone Gate line.)	_	734												
<u> </u>		Kirkby Muxloe (L.C.)	3	1629									,		441	
	•	Desford Junction	(fre Safi La	1082 1687 om ron ne sing.)										4L		C.E.G.B. Sidings at Saffron Lane Crossing.
		Desford (L.C.) (P.2)		1319												
	•	Desford Colliery Sidings	1 2 (fro Des. Jr	1593 1152 om ford )			URS	52			C. Down line, 941 yards before reaching home 1 signal.	134			:	
					;j	i.	į									

Description of Block Signal-		betw Sig			nning ines	a Re	oops nd fuge	Perma spe restric mil	ed tions, les	Catch points spring or unworked trailing points	l			LL	otive hor	Short
ling	Stations and Signal Boxes	Bo	xes			Sid	ings	per l	nour			Do	wn	U	р	For
Main Lines (Dots Indicate Block Posts)	Signal doxes	М.	Yds.	Up	Down		Standage Wagons L. & V.	•	Up	Position	Gradient (Rising unless otherwise shown)	Main or	or	or	or	
	KNIGHTON SOUTH JUNCTION	OT F	LEIC	CESTER J	UNCTION	—cont.					T					
	Bagworth and Ellistown Station	2	778					•		C. Down line, 700 yards before reaching home 1	71		:			
		 	 					:		signal. CW. Down line, 406 yards before reaching home 2 signal. (Self-acting when box is closed.)	71					
										CW. Down line, 293 yards before reaching starting signal (sidings points.)	71					
•	Ellistown Colliery Sidings	-	1331													
•	Cliff Hill Sidings	_ ;	1326							C. Up line, 292 yards before	190					
•	Bardon Hill (Level Crossing)		1106							reaching home signal.						
	Coalville Crossing	1	850				,									
•	Mantle Lane	-	499				1									
								40		Between 113½ m.p. and St	, wanningtor	 1 Level	Crossi	ing		
	Swannington (L.C.) (P.2)		1670													
	Moira West Junction (See page 96 for Nuneaton line.)	7 (fro	ntle						25	Through junction to Nuneat C. Up line, 840 yards before reaching home signal.	136					
	Gresley Tunnel (623 yards)‡	   									<u>.</u> 1					
	‡—Lengthmen's trolleys forbidde	en.														

	•	Gresley Station  Swadlincote Junction (See page 96 for Cadley Hill	1 1026			15	C. Up line, 1 mile 441 yards before reaching home signal.  Through junction to Cadley F.	131 IS 1L	Drakelow C.E.G.B. Sidings.
		Colliery line.)  Drakelow East Curve Junction (Controlled from Drakelow.)	— 1719 I		15		Through junction to C.E.G.B. S	Sidings	
		Drakelow (See page 97 for East Curve Jn. and West Curve Jn. lines.)	- 66 1 25 (from Swadiincote Jn.)						
		Drakelow West Curve Junction (Controlled from Drakelow.)	- 848			15	Through junction to C.E.G.B. S	Sidings	
95		Birmingham Curve Junction (See page 97 for Branston Jn. line.)	1338 1 426 (from Drakelow.)		20		Through junction to Branston	Junction	
	•	Leicester Junction (See page 82 for Derby to Birmingham line.)	- 883		15		Through junction	1	
		SAFFRON LANE CROSSING (JU				1 4	, ,		
		JUNCTION FOR BRAUNSTONI	E GATE TO BRAUNS	FONE GATE	15	15	MAXIMUM PERMISSIBLE	SPEED	
	Siding line worked by telephone	Junction for Braunstone Gate (Controlled from Saffron Lane Crossing.) (See page 93 for Knighton South Junction to Leicester Jn. line.)					CW. Single line, 56 yards after passing junction for Braunstone Gate. (Facing to up trains.)	76 (alling)	
	Sidi	Braunstone Gate	_  1080						

Description of Block Signal	f (	Dista betw Sign Box	een nal	Rum Lir		ai Ref	ops nd luge ings	Perma spe restric mi per	eed ctions, les	Catch points spring or unworked trailing points		own	Locomotive I L—Long S		
ling on Main Lines (Dots Indica Block Posts	Signal Boxes		Yds.	Up	Down		Standage Wagons L. & V.			Gradie (Risin unless Otherwi shown 1 in	Main se or	Slow or Goods	Main	Slow	
	ABBEY JUNCTION TO MOIRA	WE	ѕт л	UNCTION		1	r	1							
	ABBEY JUNCTION TO MOIRA	WE	ST JU	JNCTION	ı			30	30	MAXIMUM PERMISSIBLE SPEE	D				
	Abbey Junction (See page 99 for Midland Junction line, page 100 for Nuneaton to Water Orton line.)	-							20	Through junction					
	Weddington Junction (See page 31 for Nuneaton line.)		1225					15	15 30	Through junction from and to Abbe Through junction to Nuneaton	Junctic	on 			
e E	Market Bosworth Station	6	1585		1										
	Measham Station	7	372		ŀ				!				1L 2S		Abbey Junction.
	Donisthorpe Station	2	264	į											
,	Moira West Junction (See page 94 for Knighton South Junction to Burton Leicester Junction line.)	1	756					25		Through junction					
	SWADLINCOTE JUNCTION TO	CA	DLEY	HILL CO	LLIERY (S	SIDING)									
	SWADLINCOTE JUNCTION TO	CA	DLEY	HILL CO	LLIERY S	IDINGS	1	15	15	MAXIMUM PERMISSIBLE SPEEI	•				
<b>1</b>	Swadlincote Junction (See page 95 for Knighton South Junction to Leicester Junction line.)	_	_	 											
Siding	Cadley Hill L.W.S. Ground Frame.	-	567												
	Cadley Hill E.W.S. Ground Frame End of branch	1	597 550				ļ 	:					<u> </u>	i	

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:

	Descrip- tion of Block Signal- ling	Stations and	Distribety Sig Box	veen nai	Running Lines	Ref	ops nd fuge ings	Perma spe restric mil per l	ed tions, es	Catch points spring or unworked trailing points	Do	 own	L-L		orn code - Short For
	on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.	Yds.	Up Down	Descrip- tion	Standage Wagons L. & V.		Up	Position Gradient (Rising unless otherwise shown)	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	1	KINGSBURY STATION JUNCT	ION	то у	WHITACRE JUNCTI	ON						r		,	
İ		KINGSBURY STATION JUNC	TION	TO V	WHITACRE JUNCTI	ON		60	60	MAXIMUM PERMISSIBLE SPEEI	)			!	
	•	Kingsbury Station Junction (See page '84 for Derby to Birmingham line.) (Up I.B.S. 1,362 yards from	_	-					30	Through junction	2S 3S				Hams Hall via Whitacre.
		Whitacre Junction box.)													
	•	Whitacre Junction (See page 100 for Nuneaton to	2	732		DGL	132	20	20	Through junction and round curve from		Ŭ	bury		
90	1	Water Örton line.)									1L 1S 1L 2S 3L 1S	<u> </u>			Camp Hill line. Sutton Park. Lawley St. or Duddeston Sidings.
	İ	İ													
-		WIGSTON NORTH JUNCTION	TO	NUN	EATON	-									
		WIGSTON NORTH JUNCTION	ТО	MIDL	AND JUNCTION			75	75	MAXIMUM PERMISSIBLE SPEED	)				
	Ì	MIDLAND JUNCTION TO NU	NEA	TON				40	40	MAXIMUM PERMISSIBLE SPEED	)				
	•	Wigston North Junction (See page 164 for St. Pancras to Trent line.)			,			20 30	20	Through junction Wigston North Junction to Glen Pary	/a Junc	tion			
		Glen Parva Junction (See page 180 for Wigston South Junction line.)	_	1142					20	Through junction to South Junction					
	•	Narborough (Level Crossing) (See page 99 for Enderby line.)	2	1559				10		To Enderby			1L 2S 3L 1S		Wigston South Jn. Coalville.

1	1.		1 :	. 1	i	ŀ	1	1	
	•	Croft Sidings 1	1308		DRS	60			
i	<u> </u>	Elmesthorpe 2	1690						
		Hinckley Station 3	389		DRS	40	į	 	C. Up line, 700 yards before reaching outer home signal.
	TCB	Midland Junction 3 (See page below for Abbey Junction line.)	3   253				20	20	Through junction in any direction S. Down line, 270 yards   369 after passing box. (Normal lie for main line.)
	•	Nuneaton — (See page 8 for Euston to Crewe line.)	- 1131				10		Through junction
		NARBOROUGH TO ENDERBY (SI	NGLE GOODS	LINE)					
ļ	į	NARBOROUGH TO ENDERBY					20	20	MAXIMUM PERMISSIBLE SPEED
						!			
99	One train working	Narborough (Level Crossing) (See page 98 for Wigston North Junction to Nuneaton line.)  End of Branch						10	From Enderby
	(:1	End of Didner		'					
		NUNEATON, MIDLAND JUNCTI	ON TO ABBEY	JUNCTION					
		MIDLAND JUNCTION TO ABBET	Y JUNCTION				75	75	MAXIMUM PERMISSIBLE SPEED
	,			į		ļ	ļ	20	
		Midland Junction (See page above for Wigston North Junction to Nuneaton line.)						20	Through junction
	•	Abbey Junction (See page 100 for Nuneaton to Water Orton line, page 96 for Moira West Junction line.)	1 1013			:	30		Through junction Midland Junction

Descrip- tion of Block Signal-		bety	ance ween	Rum Lir			ops nd 1ge	Perma spe restric mi	ed tions, les	Catch points spring or unworked trailing points				L—L	ong S-	orn code —Short
ling	Stations and	Bo	xes			Sid	ings	per l	hour			Do	wn	U	<sup>J</sup> p	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position (R) ur	erwise	or	Slow or Goods	or	Slow or Goods	
ļ	NUNEATON TO WATER ORTON NUNEATON TO ABBEY JUNE			UNCTION				30	30	MAXIMUM PERMISSIBLE S	SPEED	1	I	1	!	
	ABBEY JUNCTION TO WATE	R OF	RTON	EAST JUN	NCTION	1		75	75	MAXIMUM PERMISSIBLE S	SPEED	)		ļ		
ТСВ	Nuneaton (See page 8 for Euston to Crewe line.)												i İ			
	Abbey Junction (See page 99 for Midland Junction line, page 96 for Moira West Junction line.)	1	204						30 20	Through junction to Midland Through junction to Weddington						
•	Stockingford	1	1474							C. Down line, 530 yards before reaching distant signal.	.35					
	Tunnel Sidings	_	1603							C. Down line, 520 yards before reaching home 1 signal.	26			)    -  -		
	Arley Tunnel (709 yards) ‡					ĺ	j	30	30	Through Arley Tunnel						
	Arley Colliery Sidings	2	545							C. Up line, 520 yards before reaching home 1 signal.	240	2S 3S		1L 1S 1L 2S		Hams Hall, Market Bosworth, Nuneaton,
•	Shustoke Station	3	349			i		15	15	Between $2\frac{1}{4}$ and $1\frac{1}{2}$ m.p.'s						
	Whitacre Junction (See page 98 for Kingsbury Station Junction line.)	1	941			DGL	88	30	30 20	Round curve and through junction Through junction to Kingsbury		1L 1S 1L 2S 3L 1S				Camp Hill line. Sutton Park Lawley Street or Duddeston Siding
	Coleshill Station (Level Crossing.)	1	143			DRS	50				ļ					Paddesion Siding
	Water Orton East Junction (See page 84 for Derby to Birmingham line.)	. 1	1141			DRS	40	30		Through junction			!	2L 2S 3S 1S	2L 2S 3S 1S	Leicester. Stopping at Coleshil

1	WATER ORTON WEST JUNCTION TO PARK LANE JUNCTION (SINGLE	E GOODS LI	NE)	
	WATER ORTON WEST JUNCTION TO PARK LANE JUNCTION	40	40	MAXIMUM PERMISSIBLE SPEED
A A	Water Orton West Junction — — — (See page 84 for Derby to Birmingham line.)		15	Through junction
Y	Park Lane Junction — 1481 (See page below for Castle Bromwich Junction to Walsall line.)	20	20	Through junction
	CASTLE BROMWICH JUNCTION TO WALSALL, RYECROFT JUNCT IC	ON (GOODS	LINE	S) : ! !
	CASTLE BROMWICH JUNCTION TO RYECROFT JUNCTION	60	60	MAXIMUM PERMISSIBLE SPEED
• : A	Castle Bromwich Junction — — — (See page 84 for Derby to Birmingham line.)	15 45	15 45	Through junction Between Castle Bromwich and Park Lane Junction
A	Park Lane Junction 1 588 (See page above for Water Orton West Junction line.)	20	20	From ‡ m.p. to 0 m.p. at Park Lane Junction Through junction in all directions C. Down line, 716 yards 153 before reaching home signal. C. Down line, 950 yards after passing starting signal.
A	Sutton Park Station 4 176			C. Down line 818 yards before reaching signal WL.40.
			30	From 45 to 44½ m.p.'s C. Up line, 1,690 yards before reaching signal WL.R42.
		35	35	Between 46 <sup>2</sup> and 47 m.p.'s
				C. Up line, 581 yards before reaching signal WL.208
	Ryecroft Junction	15	15	Through junction

Descrip- tion of Block Signal- ling		Distant betwee Signal	en al i	Runi Lin		Re	ops nd fuge ings	Perma spe restric mil per l	ed tions, les	Catch points  spring or unworked trailing points  Locomotive horn code L—Long S—Short  Down Up For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes		Yds.	Up	Down	- <u>'</u>	Standage Wagons L. & V.			Position Or Slow Or Shown)  I in Fast Goods  Gradient (Rising unless of herwise shown)  Fast Goods  Main Slow or or or or Goods  Fast Goods
	BIRMINGHAM NEW STREET	TO BL	ACKV	VELL (W.F	R.)					
	BIRMINGHAM NEW STREET	то ві	LACK	WELL (W	/.R.)			75	75	MAXIMUM PERMISSIBLE SPEED
•	Birmingham New Street (See page 42 for Grand Junction to New Street line.)	-	-	ļ		Note.—	See page	10 42 for	10 details	All lines between the Station end of New Street South Tunnel and the Selly Oak end of Suffolk Street Tunnel  of additional running lines through New Street Station.
тсв	Suffolk Street Tunnel ‡ (177 yards.)			3			!   ! !	30	30	Between Selly Oak end of Suffolk Street Tunnel and Church Road Junction
	Holliday Street Tunnel ‡ (94 yards.)			:			   			
	Canal Tunnel (225 yards) ‡		:				<u> </u>			
	Granville Street Tunnel ‡ (81 yards.)		Ì							C. Down line, 525 yards 80
										before reaching signal CR.9.
	Bath Row Tunnel ‡ (210 yards.)		ļ							
	‡—Lengthmen's trolleys forbid	len.								
	Church Road Junction	1	18					30 40	30 40	Through Church Road Junction Between Church Road Junction and 44 m.p.
	Church Road Tunnel (106 yards)		ļ					50		From 44 m.p. to Pershore Road Tunnel (47½ m.p.)

			11						
•	Selly Oak Station	2 566						1L 1S 2L 2S	Kings Heath. Kings Norton Sidings.
•	Bournville Station  Junction for Lifford (Controlled from Bournville.) (See page 105 for Lifford Station Junction line.)	631			10	10	Through junction to and from Lifford S. Up line junction trailing points, 75 yards after passing outer home signal.	Station Junction.	
	Pershore Road Tunnel (62 yards.)					50	(Normal lie is for main line.)  From Pershore Road Tunnel, 47½ m.p. t C. Down main, 440 yards   132 before reaching outer	o 44 m.p.	
•	Kings Norton Station Junction (See page 104 for Camp Hill line.)	— 1331 1 202 (from Bournville Station.)			35 40	35 25 40	home signal.  Between 47½ m.p. and Bournville end of	1L 2S	Redditch. Longbridge. Junction.
	Northfield Station								
	Halesowen Junction See page 105 for Longbridge line.)	2 653			10 50	50	Through junction to Longbridge Slow lines between Halesowen Junction	and Barnt Green M.L. Junct	ion
•	Barnt Green Main Line Junction (See page 105 for Redditch line.)	2 605	•		15		Through junction to Redditch	1L 2S   3L 1S   4L	Passenger train via Camp Hill. Freight train via Selly Oak. Freight train stopping Kings Norton.
TĊB	Blackwell (W.R.) (Controlled from Gloucester box.)	1 917		DGL 8	30				

tion Blo Sig	crip- n of ock nal-		between Lines and restrictions, spring or unwor	Catch points spring or unworked trailing points			_L_L	ong S-								
	ng		Bo	xes			Sidi	ings	per .	hour		Do	wn	U	Jр	For
M Li (D Indi Blo	on ain nes ots icate ock sts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradient (Rising unless Position otherwise shown) 1 in	Main	or	Main or Fast	Slow or Goods	
		LANDOR STREET JUNCTION LANDOR STREET JUNCTION Landor Street Junction (See page 85 for Derby to Birmingham line.)							60	60 15	MAXIMUM PERMISSIBLE SPEED Through junction	)   				
		St. Andrew's Junction (Controlled from Bordesley Junction.)	_	731					15 25	15 25	Through junction from and to Saltley Through junction from and to Grand	Junctio	n			
	•	(See page 69 for Wolvercot Junction to Grand Junction line.) Bordesley Junction (See page 69 for Wolvercot Junction to Grand Junction line.)	(fro Lan	dor					20	20	Through junction to and from Bordesi	ey Sout	lh	2L 3S 4L		Washwood Heath Up Sidings. Lawley Street Yard.
		Camp Hill (Down I.B.S. 1,320 yards from Camp Hill box.) (Up I.B.S. 863 yards from Kings	St.	1244							CW. Down line, 613 yards before reaching starting signal.	i	i			
	•	Heath box.)  Moseley Tunnel (155 yards)  Kings Heath	1	1627							before reaching distant	IL 1S 1L 2S 1L2SII 3L 1S 5L		1L 1S 1L 2S 2S 1L		Redditch. Bournville. Longbridge. Kings Norton Sidings. Lifford. New St. Exchange Sidings. Walsall. Leicester.
	•	Lifford Station Junction (See page 105 for Bournville line.)	1	1587					10	10	Through junction to and from Bourny	ilie		2S 2L 2L 3S 4L		Washwood Heath Up Sidings. Lawley St. Yard.
	•	Kings Norton Station Junction (See page 103 for Birmingham to Blackwell (W.R.) line.)	_	1347			į	: 	25		Through junction					

İ	LIFFORD STATION JUNCTION TO BOURNVILLE, JUNCTION FOR LIFFO	ORD :	]	i ! ! ! ! ! !
	LIFFORD STATION JUNCTION TO BOURNVILLE, JUNCTION FOR LIFFOR	D 10	10	MAXIMUM PERMISSIBLE SPEED
	Lifford Station Junction (See page 104 for Landor Street Junction to Kings Norton Stn. Junction line.)  Junction for Lifford — 471 (Controlled from Bournville Station box.) (See page 103 for Birmingham to Biackwell (W.R.) line.)			S. Down line trailing points 75 yards after passing outer home signal. (Normal lie is for Kings Norton line.)  C. Up line, 77 yards after passing junction points.
	HALESOWEN JUNCTION TO LONGBRIDGE EAST (SINGLE GOODS LINE	E)	0	
	HALESOWEN JUNCTION TO LONGBRIDGE EAST	10	10	MAXIMUM PERMISSIBLE SPEED
ic Token	Halesowen Junction — — (See page 103 for Birmingham to Blackwell (W.R.) line.)			CW. Down line, 336 yards 80 3L 1S Selly Oak not stopping before reaching Long-bridge East home signal.
105 Electric	Longbridge East — 484			
	BARNT GREEN MAIN LINE JUNCTION TO REDDITCH			
	BARNT GREEN MAIN LINE JUNCTION TO REDDITCH	35	. 35	MAXIMUM PERMISSIBLE SPEED
	Barnt Green Main Line Junction (See page 103 for Birmingham to Blackwell (W.R.) line.)	15	15	Between Main Line Junction and Single Line Junction
Foken	Barnt Green Single Line - 867 Junction.			CW. Up line, 273 yards before reaching starting signal.
Electric Token	Alvechurch Station	30	30	Between Barnt Green Single Line Junction and 53½ m.p.
	Redditch North 4 330	20	20	Between 56 m.p. and Redditch Station (56 m. 70 ch.)  4L Freight train stopping Kings Norton.
	Station (End of line) — 932	i		Kings Norton.

## COLWICH TO MACCLESFIELD AND BRANCHES

Description of Block Signalling	Stations and	Distribetw Sig Box	een nal	Run Lir	ining nes	an Ref	ops nd Tuge ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points	Do	own	L—L	ootive horn code ong S—Short
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradie (Risin unless Position otherwi shown I in	Main se or	Slow or Goods	Main or Fast	or
	COLWICH TO MACCLESFIEL	D	ı			:								T.
	COLWICH TO MACCLESFIEL	.D					i :	85 30	85 30	MAXIMUM PERMISSIBLE SPE MAXIMUM PERMISSIBLE SPE	ED ON ED ON	MAIN GOODS	LINES LINE	SS .
•	Colwich (See page 9 for Euston to Crewe line.)	: : :		:		!		60 .	45 60 80	Through junction to fast or slow li Between Colwich and 37½ m.p. Between 37½ and 36¼ m.p.'s	ne			
	Pasture Fields (L.C.)						1				1L		1L	At 1 mile distant.
TCB	Hixon (L.C.) (P2)  Highfields (L.C.)	İ	211					75	75	Between 31 and 30 <sup>2</sup> m.p.'s	1L		1L	At 1 mile distant.
	Aston-by-Stone (L.C.) (P2)		1452	•				ļ			1L		1L	At 1 mile distant.
	Church Lane (L.C.)  Meaford Crossing (Level Crossing)	1 11 (fr	1030 933 om wich)		· · · · · · · · · · · · · · · · · · ·	!							i ! !	
	Stone Junction (Controlled from Stoke-on- Trent). (See page 109 for Norton Bridge		376	 				75	75 25	Through junction from and to Colv Through junction to Norton Bridge	rich			
TCE	line.)  3 Whitebridge (L.C.)							<u> </u>			1L		1L	At 1 mile distant.
	Barlaston & Tittensor Station (Level Crossing)	ì						75	75	Round curve between 25½ and 24½	m.p.'s			
														:

	TCB	Wedgwood U.S. (Level Crossing.)  Stoke Junction (Controlled from Stoke-on-Trent) (See page 90 for Derby line, page 112 for Caldon Quarry line.)	6   979 (Junction with Derby line.) 6   1032 (Junction with Caldon Quarry line.)	No. 1 Viaduet S TCB(G)	ICB(G)	30	15 15 30	Through junction to Derby Through junction to Leek Brook Junction Between Stoke Junction and Stoke Signal box
107	* • TCB	Stoke-on-Trent	(from Derby line	TCB(G)  TCB(G)  TCB(G)  TCB(G)			15	Over up platform line
		Etruria Junction (Controlled from Stoke-on-Trent.) (See page 110 for Hanley line.)  Grange Junction	1 31 — 739		TCB(G)	60 75	60	Between Stoke signal box and 18½ m.p. From 18½ m.p. to Kidsgrove Central (13½ m.p.)  Goods line from 18½ to 18¼ m.p.'s
Т	TCB	Longport Station (L.C.)  Longport Junction	1 779	TCB(G)	TCB(G)			

<sup>\*—</sup>TCB (P&PF) applies on the down main line (No. 2 platform) through Stoke Station, which is worked in both directions. TCB (PF) applies on the up main line through Stoke Station.

#### COLWICH TO MACCLESFIELD AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Distance Loops speed Catch points speed restrictions, spring or unworked miles trailing points  Stations and Boxes Sidings per hour  Permanent speed catch points restrictions, spring or unworked miles trailing points  Signal Boxes Sidings per hour		i	Do	own :	L—L	otive ho	rn code -Short For							
on Main Lines (Dots Indicate Block Posts)			Yds.	Up	Down		Standage Wagons L. & V.		:	Position	Gradient (Rising unless otherwise shown) 1 in	Main	Slow or Goods	or	or	
	COLWICH TO MACCLESFIEL	Dco	nt.						. 1		!	1			ı ;	
•	Bradwell Sidings	_	900		•					C. Down line, 840 yards before reaching signal	150	   				
			  - 							KC.105. C. Down line 630 yards before reaching signal	100	i i			: 	
		•								<ul><li>KC.103.</li><li>C. Down line, 695 yards before reaching signal KC.101.</li></ul>	100				!   .	
ТСВ			į į				<u> </u>	i !		C. Up line, 560 yards before reaching signal BS.104.	80					
	Harecastle Tunnel (260 yards.)				<u> </u>				1	C.W. Up line, 840 yards before reaching signal BS.106.	80					
	Kidsgrove Central (See page 110 for Crewe line.)	2	1274			DGL	60	15	75	From Kidsgrove Central (13) Through junction to Crewe	m.p.) to 1	18½ m.p	.			
тсв	Liverpool Road Junction	_	583				<u> </u>  -									
	Shunting Frame. (See page 112 for Birchenwood Colliery line.)							<b> </b> 								
TCB	Mow Cop and Scholar Green Station (Level Crossing.)	2 (fr Kids	213 796 rom grove tral.)								1	1L		1L		At 1 mile distant.
	Ackers (L.C.)											1L		1L		At I mile distant.
	Congleton Station	-					 	75	75	Round curve through station	1				:	

109	North Rode (Controlled from Macclesfield.)	DGL 55		C. Down line, 738 yards before reaching signal MD.46. C. Down line, 897 yards before reaching signal MD.119. C. Down line, 944 yards before reaching signal MD.117. C. Down line, 655 yards before reaching signal MD.115 C. Down line, 838 yards before reaching signal MD.113. C. Down line, 910 yards before reaching signal MD.111.  C. Up line, 981 yards before reaching signal MD.111.  C. Up line, 893 yards before reaching signal MD.118. C. Up line, 893 yards before reaching signal MD.120. C. Up line, 569 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal MD.122. C. Up line, 520 yards before reaching signal with the properties of t
	Macclesfield 11 216 (See Northern Section Appendix for Cheadle Hulme line and for Marple Wharf line.)	PL 40 (worked in both direc- tions.)	65 65 15 15	MD.124.  Between 1 m.p. and Macclesfield Station Through junction to and from Marple Wharf Jn.
	NORTON BRIDGE JUNCTION TO STONE JUNCTION	<del></del>		
	NORTON BRIDGE JUNCTION TO STONE JUNCTION	· i	75 75	MAXIMUM PERMISSIBLE SPEED
	Norton Bridge Jn — — (See page 10 for Euston to Crewe line.)	DGL 65 UGL 61	25	Stoke line to fast and slow lines
	Stone Junction 3 124! (Controlled from Stoke-on-Trent.) (See page 106 for Colwich to Macclesfield line.)		25	C. Down line, 985 yards before reaching signal SE.222. Through junction

# COLWICH TO MACCLESFIELD AND BRANCHES—continued

	Descrip- tion of Block Signal- ling	Stations and	Dista betw Sign Box	veen nal		aning ines		nd uge	Perma spec restrict mil per h	ed tions, es	Catch points spring or unworked trailing points		Do	wn	L—L	otive hornong S—S	
]	on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down		Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	or	or	Slow or Goods	
		ETRURIA JUNCTION TO HAN	LEY	(SING	LE GOOD	S LINE)	1	1	. 1	į				ı	I	1 1	
	tions	ETRURIA JUNCTION TO HA	NLEY						15	15	MAXIMUM PERMISSIBL	E SPEEL	)	ļ			
	See pages 371 & 372 for Special Instructions	Etruria Junction (Controlled from Stoke-on-Trent.) (See page 107 for Colwich to								<u> </u>	CW. Single line, 30 yards before reaching stop board (facing to up trains.)	53	1	   			
110	371 & 372 for	Macclesfield line.) Stop Board (Commencement of Staff Section.)		169					į				İ		•		
	See pages	Granville Street L.C  Hanley York Street	!	946											ì		
	,	THE CONTROL OF THE CO	DEW	E COU	THE HING	TION			1	1	1			1	ı	f 1	
		KIDSGROVE, CENTRAL TO C							70	70	MAXIMUM PERMISSIBI	LE SPEEI	D <sub>1</sub>				
	•	Kidsgrove Central (See page 108 for Colwich to Macclesfield line.)	 							15	Through junction C. Up line, 550 yards before reaching signal KC.30.	100					
	•	Lawton Junction (See page 111 for Sandbach line.)	. 1	843					50 15		From Lawton Junction to A Through junction to Sandba	Alsager E ach	ast Jun	ction			
		Alsager East Junction	. –	693	NB	NB											

		Alsager Station (Level Crossing.)	— 	1036	•					C. Up line, 509 yards before reaching home signal.  C. Up line, 1m. 418 yards before reaching home signal.
		Radway Green and Barthom- ley Station (Level Crossing.)	1	1067						
		Barthomley (L.C.) (P3)	_	1533				60	60	Round curves between 5 and 7 m.p's
	•	N.S. Sidings (See page 33 for Goods lines.)	(fr Rac	196 1729 om Iway een.)	Through siding			20		Through junction to Sorting Sidings South
	•	Crewe South Junction (See page 11 for Euston to Crewe line.)	_	580	Thro			20		Through junction
<u> </u>	1	LAWTON JUNCTION TO SAN	DBA	CH STATION (	GOODS LI	NES)				
-		LAWTON JUNCTION TO SAN	DBA	CH STATION				30	30	MAXIMUM PERMISSIBLE SPEED
	A A	Lawton Junction (See page 110 for Kidsgrove Central to Crewe line.)		_	., 		į		15	Through junction C. Up line, 478 yards before reaching home signal.
Electric Token	{•	Lawton (Level Crossing)	_	1034						
Electric El Token T		Hassall Green (Level Crossing)	2	994	1. 13 14 15 15 15	CL	52			
Ţ		Elton Crossing	2	1707						
	•	Sandbach Station (See Northern Section Appendix for Crewe to Manchester line.)		935				15		CW. Up line, 381 yards before reaching Eiton Crossing home 1 signal.  Through junction

<sup>†</sup> Absolute block on down line, TCB on up line.

æ		Fenton Manor Tunnel (106 yard.)				1		!					-	1	ļ		
		Abbey (L.C.)	:									IL		1L		At 1 mile distant.	į
	Electric Token	Milton Junction (See page 114 for Heaths Jn. line.)	3 (fro Stoke	1228 1741 om : Jn.)				15	15	Through junction in all direction	003						
	l l • A	Endon Station (Level Crossing.)	3	88													
	•	Leek Brook Junction (See below for B.I.S. Siding line, page 114 for Leek Yard	3	1095				15 15	15 15	Round curve between 6½ m.p. Through junction in all direction	and Leel	k Brook	Junctio	o <b>n</b>			
	Electric Token	line.)						15	15	Between Leek Brook Junction CW. Single line, 436 yards after passing junction points (facing to up trains)	n and 0½ 44	m.p.					!
	Ele	Apesford (L.C.)	! 					10 10	10 10	Over level crossing at 1 m. do over level crossing at 3 m. 69 ch.	54 ch.	1L		1L		At ½ mile distant.	
113	Token	Ipstones Station	4	895		CL	20			C. Down loop, 62 yards after entering loop.	59	•					
	Electric T	Caldon Quarry (No signalman instrument.)	3	1639	ļ			10	10	Over level crossings between 5½ and 6 m.p.'s							
		B.I.S. SIDING TO LEEK BROO	)K JU	NCTIO	ON (SINGLE GOODS	S LINE)										1	
		B.I.S. SIDING TO LEEK BROO	K JU	NCTIO	N			45	45	MAXIMUM PERMISSIBLE	E SPEED						ĺ
		End of line		-	1												
	afn Ing	B.I.S. Siding		464													
	One train working	Bolton's Siding (L.C.) (P1)	1	1729													i
		Cheddleton (L.C.) (P1)	4	99								:					İ
	( •	Leek Brook Junction (See above for Stoke-on-Trent to Caldon Quarry line, page 114 for Leek Yard line.)	1	119	I			15		Through junction							
				-		]											

		Dista betw Sign	een	Runi Lin		ar Refu		Perma spe restric mil	ed tions, les	Catch points spring or unworked trailing points	· 		L—L	otive horn	nort
ling	Stations and	Box	ces			Sid	ings	per l	hour		I	Down	· · · · · · · ·	Jр	For
on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradic (Risir unles Position otherw show 1 in	g Mai ise or i) Fas		Main or Fast	or	
	LEEK BROOK JUNCTION TO	LEEK	YAR	D (SINGL)	E GOODS	LINE)	:	,	. 1						
	LEEK BROOK JUNCTION TO	LEE	K YA	RD		!	: :	45	45	MAXIMUM PERMISSIBLE SPE	ED				
working	Leek Brook Junction					i : :			15	Through junction					
3	Leek Yard	1	<b>47</b> 5			:								İ	
	End of line		550								İ				
1	MILTON JUNCTION TO HEAT	TH'S	JUNC	CTION (GO	ODS LINI	ES)	1		i			:	i		
	MILTON JUNCTION TO HEA	TH'S	JUNC	CTION				20	20	MAXIMUM PERMISSIBLE SPE	ED				
A	Milton Junction (See page 113 for Stoke-on- Trent to Caldon Quarry line.)						:		15	Through junction					
working	Ford Green (Level Crossing)	. <del></del>	1681							C. Down line, 444 yards 137 before reaching home 1 signal.	i		1 :		
, , ,	Heath's Junction	3	836								:				
Siding	End of branch	_	451								ļ    -				

	R. HYDE & SONS SIDINGS TO PRAT	r's sidings (single goods	LINE)				
	R. HYDE & SONS SIDINGS TO PRAT	T'S SIDI <b>NGS</b>		10	10	MAXIMUM PERMISSIBLE SPEED	
One train working	R. Hyde & Sons Sidings — 52  Pratt's Sidings shunting frame (Controlled from Stoke.) (See page 112 for Stoke-on-Trent to Caldon Quarry line.)	14					
	CRAVEN ARMS, CROSSING (W.R.) TO		•			E AND BRANCHES	n Duides Longitus in (IFID)
				90	1		in Briage Junction is UP.
	CRAVEN ARMS, CROSSING (W.R.) TO SHREWSBURY STATION TO CREWE	SOUTH JUNCTION	!	75	90 75	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED	
•	Craven Arms Crossing (W.R.)	- URS DGL	66 65			C. Up line, 1520 yards, after passing starting signal.	
	Marsh Farm Junction 2 152	UGL DRS	57 44	60	60	C. Up line, 518 yards 968 before reaching home signal.  Between 16½ and 16 m.p.'s	
	Marsh Brook 1 66 (Level Crossing)	7				C. Up line, 553 yards 110 before reaching home signal. C. Up line, 800 yards after passing inner home	
				60 70	60	signal.  Between 15½ m.p. and 14 m. 70 ch.  From 13½ to 14¼ m.p.'s	
	Church Stretton U.S 2 121	0 DGL URS	65 8		60	S. Down loop. Entrance down loop clear of down main line. C. Down line, 530 yards before reaching home signal. From 11 to 9½ m.p.'s	
				60		From 9½ to 10¾ m.p.'s C. Down line, 440 yards after passing I.B. home signal.	

# CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES—continued

Descrip- tion of Block Signal-		Dista betw Sign	een	Runs Lin		ar	ops id uge	Perma spe restric mil	ed tions,	Catch points spring or unworked trailing points					otive ho	rn code -Short
ling	Stations and	Box		Liii			ings	per l		wants points		Do	wn	U	jp	For
on Main Lines (Dots ndicate Block Posts)	Signal Boxes —	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up		Gradient (Rising unless otherwise shown) 1 in	Main	Slow or Goods	or	Slow or Goods	
	CRAVEN ARMS, CROSSING (	V.R.)	то с	REWE, SO	UTH JUN	CTION-	cont.		ı					ı		
	(Down IBS, 3 miles 1,422 yards from Dorrington.)			:						C. Down line, 600 yards before reaching I.B. home signal.	168					
	(Up IBS, 3 miles 594 yards from Church Stretton.)		 						70	From 7 m. 5 ch. to 6 m. 50 c C. Down line, 158 yards after passing advanced starting signal.	<b>h</b> 105					
•	Dorrington	6	627			DRS	65	60	70	Between 6 and 5½ m.p.'s		!				
	(Up IBS, 1 mile 1,705 yards from Dorrington.)		<u>.</u>					60	60	C. Down line, 1,300 yards before reaching I.B. home signal.  From 3 m. 10 ch. to 2 m. From 2½ to 3 m.p.'s	187 15 ch.					
	(Down IBS, 3 miles, 847 yards from Sutton Bridge Junction.)			-	1			30 20	30	Through junction to and from Through junction to Hookag CW. Down line, 72 yards after passing inner home signal.		gton 1L 2S				Welshpool.
	Sutton Bridge Junction (See page 119 for Shrewsbury to Aberystwyth line, page 119 for Shrewsbury Abbey Goods line.)	5	890			DGL UGL	54 134									
	English Bridge Junction (Controlled from Severn Bridge Junction.) (See page 124 for Abbey Foregate Loop line.)		814	NOTE-T	he line from	Craven A	drms, Cros	ssing to	Shrews	bury, Severn Bridge Junction is	s"Up".					

•	Severn Bridge Junction (See page 64 for Wolverhamp-	_	249 1063	•				15	15	Between 0 m. 28 ch. on Craye Station)	en Arms i	line and 3	2} m.p. on Cr	ewe line	e (through Shrewsbury
P 	ton L.L. line.)	Su Bi	rom tton ridge n.)	   P 	"Down and up" platform line					·					
	Shrewsbury Station	, ,			"Down platfe	i i									
	Crewe Junction (See page 125 for Saltney Jn. line.)		546	•				15		Goods line from Crewe June CW. Down goods, clear of Crewe down main line.	ction to ( Level	Crewe Ba	nk		
•	Crewe Bank		579		•	UGL	110								
•	Harlescott (Level Crossing)	1	1100			DGL	60			C. Down main, 600 yards before reaching outer home signal.	142				
•	Yorton U.S	5	262												
	Tilley (L.C.)											1L	1L	İ	At 1 mile distant.
•	Wem U.S. (Level Crossing)	3	1106			DRS	53								
ė.	Prees U.S. (Level Crossing)	3	174												
	(Down IBS, 2 miles 147 yards from Prees.									C. Down line, 689 yards before reaching I.B. home signal.	216				
	(Up IBS, 2 miles 354 yards from Cambrian Junction.)									अद्यादा.					
	Heath Lane Level Crossing				]							1L	1L		At 1 mile distant.
ė I	Whitchurch Cambrian Junction	4	1479	•											
÷	Whitchurch Goods Yard	_	376	÷											
•	Whitchurch Chester Junction		398	ė		DRS	80		ļ						
	Brick Kiln Lane (L.C.)											1L	1L		At 1 mile distant.
•	Wrenbury U.S (Level Crossing)	4	992			URS	39					:			
	Shrewbridge (L.C.) (P2)	4	438					60		Round curves from 4½ to 3½	m.p.'s				
										•					
							,								

Descrip- tion of Block Signal-		Distar betwe Signa	en il	Runi Lin		Ref	ops nd fuge	Perma spe restric mil	ed tions, les	Catch points spring or unworked trailing points				L—Lo	otive horn	nort
ling on	Stations and Signal Boxes	Boxe	s			Sid	ings	per l	nour			Do	wn	U	Гр 1	For
Main Lines (Dots ndicate Block Posts)		М.	⁄ds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	Down	Up	Position	Gradient (Rising unless otherwise shown) l in	Main or	or	Main or Fast	Slow or Goods	
	CRAVEN ARMS, CROSSING (V	V.R.) T	O C	REWE SO	UTH JUN	CTION—	-cont.									
	Nantwich U.S. (Level Crossing)	4 (from Wrenb	290 728 n ury)	:	: :				: ! :							
	Newcastle (L.C.) (P2)	— <sup>:</sup> 1	162	İ	1	1			60	Round curves from 31 to 4	½ m.p.'s			1		
	Willaston (Level Crossing)	l : l il (from Nantw	270 n	:												
•	Gresty Lane No. 2	1	512		80	;	1				:			i :		
•	Gresty Lane No. 1 (See page 34 for Sorting Sidings North Goods line, page 34 for Salop Goods Junction line.)		436		No. 2 thro. siding  A	3		30 10 25	30	Between Gresty Lane No. 1 Through junction to Sorting Through junction to Salop	Sidings	North	th June	etion		
• .	Crewe South Junction (See page 11 for Euston to	!	688					20		Through junction						
	Crewe line.)		!								 					

	Sidings	SHREWSBURY, SUTTON BRIDGE SUTTON BRIDGE JUNCTION Shrewsbury Sutton Bridge Jn. (See page 116 for Craven Arms to Crewe line, and below for Aberystwyth line.) Abbey S. & M. Junction Abbey Goods	- 480 - 1192	ODS (SINGL	E GOO	DDS L	INE) 15	MAXIMUM PERMISSIBLE SPEED
		Note.—Trains reverse at Abbey S.						
		SHREWSBURY, SUTTON BRID SHREWSBURY, SUTTON BRID				60 15	60 15	MAXIMUM PERMISSIBLE SPEED When passing over the facing and trailing points at all loop crossings on the single line (except where otherwise shown)
	•	Sutton Bridge Junction (See page 116 for Craven Arms to Crewe line and		•	İ	20 35	20 35	Through junction Round curve between 0 m. 0 ch. and 0 m. 50 ch.
		above for Abbey Goods line.)					į	CW. Down line, 149 yards after passing home signal. C. Down line, 15 yards after passing advanced starting signal.  121 11 2S Welshpool.
		Hookagate	2 196		! !	30	60	Through connections between double line and single line C. Down line, 650 yards   100 before reaching home
		Cruckmeole Ground Frame (See page 121 for Minsterley line.)	2 :1019		; ;	10		Through junction to Minsterley
u,	•	Westbury (Level Crossing)	5 1148 8 407 (from Hooka- gate)	CL	32	30 55	60 55	Down loop to single line Through up loop connections Between 15 m. 30 ch. and 15 m. 70 ch.
Token		Welshpool	8 1003	§CL	67	40	40	Through all connections between single lines and loops
Electric	$\left\{ \cdot \right\}$	Rhydwhimen (L.C.) (P3)	6 2			:		
Elec		Montgomery	658 6 660 (from Welsh- pool)	CL	19   	60 40 30	60	Through up loop connections Single line to down loop Down loop to single line (When the token station is switched out and long section tokens are in use down and up trains will travel over the up loop
		Cilgwrgan (L.C.) (P3)	5   42		}	50	50	Between 45 m. 50 ch. and 46 m.p.
	-	Newtown	7 1036 (from	URS	40 50 74	40	40	Through connections between single line and loops at Montgomery end
			Mont- gomery)		i	30 50	60 50	Through connections between loops and single line at Caersws end Over curve between 52 m. 15 ch. and 52 m. 45 ch.

<sup>§—</sup>The down loop is worked in both directions.

## CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES-continued

t S	escrip- on of Block gnal- ling	Stations and	Distance between Signal Boxes	Run	ning nes	ar Ref	ops id uge ngs	Perma spe- restrict mil per h	ed tions, es	Catch points spring or unworked trailing points		Do	own	Locom L—I	notive horn	n code Short For
Ir	on Main Lines Dots dicate Block Osts)	Signal Boxes	M. Yd	s. Up	Down		Standage Wagons L. & V.		Up	Position o	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	or	or	
		SHREWSBURY, SUTTON BRID	GE JUN	CTION TO A	ABERYSTV	YTH—co	ont.									
		Caersws (Level Crossing)	5 97	7	<u> </u>	* CL DRS	43 40	60	60	Through up loop connections					l i	
		Talerddig	7 163	2		‡ CL URS	28 25	50 50	50 50	Round reverse curve between Round reverse curves between	n 57≵ and	d 57 <u>≩</u> 1	m.p.'s 			
		Old Chapel (L.C.) (P3)	2 17	6				50	50	Round reverse curves between	o 61 <u>₹</u> and	d 63 <u>₹</u> 1	m.p.'s			
190		Llanbrynmair (L.C.) (P3)	1 49	5				35	35	Round curve between 67½ m.p	p. and 68	8 m. 5	ch.			
Hectric Token	•	Cemmes Road	5 62 8 129 (from Talerddig	8		CL	32	40 40 30	40 25 60	Round curve between 68\frac{3}{2} and Through connections between Through connections between S. Up loop, 64 yards after passing starting signal.  S. Up loop, 110 yards after passing home signal.	d 69≩ m. single li	p.'s ne and	loops a			
		Machynlleth	4 174	7		* CL	80	25 60	25 60	Through connection to and from Through connection to and from the transfer of the transfer o	om down om up loo	loop a p at De	t Cemme ovey Jur	es Road	l end nd	
	•	Dovey Junction U.S (See page 121 for Dovey Junction to Pwllheli line.)	3 175	6		* CL DRS	27 26	50 25 15	50 25	Round curve between 763 and Through connections between s Through junction to Barmouth	i 77½ m. single lin	p.'s				Borth ends
		Borth	8 56	5		CL	37	45 55 20 50	45 55 60 50	Between 79 m. 40 ch. and 79 Between 80½ and 81¼ m.p.'s Single line to down loop Through up loop connections Between 88 m. 70 ch and 89						

<sup>\*</sup> Both down and up loops are worked in both directions.

‡ The up loop is worked in both directions.

	•	Llandre Vicarage (L.C.) (P3)  Aberystwyth (See page 124 for Devil's Bridge line.)		957 343 m th)		5 5	40 10	40 10	Round curve between 91 m. 50 ch. and 91 m. 70 ch.  Between 95½ m.p. and terminus
		CRUCKMEOLE GROUND FRAM	Œ T(	MIN	STERLEY (SINGLE GOODS I	LINE)	1 1		
İ		CRUCKMEOLE TO MINSTERI	LEY	:			25	25	MAXIMUM PERMISSIBLE SPEED
*		Cruckmeole Ground Frame (See page 119 for Shrewsbury to Aberystwyth line.)		_					CW. Single line, 53 yards after passing junction points (facing to up trains.)
12.5		Short Hill (L.C.) (P1)		1476					
ain air	1	Plealey Road (L.C.) (P1)	-	1056					
t One train working		Pontesbury (L.C.) (P1)	1	882					
3		Malehurst (L.C.) (P1)		1375					For pre-delivery testing of "on line" maintenance machines by Rolls Royce Ltd. only
		Minsterley	4 (fro Cru meolo	ck- Jn.) 418 om ka-					
ļ.	Staff	station is Hookgate.	Bat	.,	·	' 	' '		
	ŀ	DOVEY JUNCTION TO PWLLE		1	1	1	ı	ı	
		DOVEY JUNCTION TO PWLLE	IELI 				55 15	55 15	MAXIMUM PERMISSIBLE SPEED  When passing over the facing and trailing points at all loop crossings on the single line (except where otherwise shown)
Electric Token		Dovey Junction U.S (See page 120 for Shrewsbury to Aberystwyth line.)	-	-	* CL	24	15	15	Through loop or platform lines from main line to Barmouth line between 78 m. 74 ch. and 79 m. 12 ch.  Barmouth loop to Machynileth 2S 1L  Barmouth loop to Machynileth 2S 1L  Barmouth loop to Machynileth
Electric			]				25		From 80½ m.p. to 84 m. 77 ch. (Illuminated permanent speed restriction indicator provided.)

<sup>\*</sup> Both down and up loops are worked in both directions

Descrition Bloc Signa ling	of ck al- g	Stations and Signal Boxes	Dista betw Sig Box	veen nal	Runi Lin	ning ies	Refu	ops ad ige ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points	Do	own	L—I	notive horn Long S—S	
Mai Line (Do Indic Bloc Post	in es ets ate ck	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradier (Rising unless Position otherwis shown) 1 in	Main e or		or	Slow or Goods	
	j	DOVEY JUNCTION TO PWLL	HELI-	-cont										ı		
	] .	Gogarth U.S	ļ ļ	i			:	:			!- -	i		:		
	:	Aberdovey Tunnel No. 1 (200 yards.) (Aberdovey Tunnel No. 2 (219 yards.)	ì	!	:				:				:			
		Abertafol U.S	! :	:			1			! !				: I	!	
		Aberdovey Tunnel No. 3.N (191 yards.)						!	i   	! ! !			• :	i    -  -  -		
		Penhelig U.S		:	!		:					!				
ken		Aberdovey Tunnel No. 4.N (533 yards.)		i i				<u> </u>	 			i	İ			
Electric Token		Aberdovey		!				: ! !		25	From 84 m. 77 ch. to 80½ m.p. (Illuminated permanent speed restricts	on indic	 ator pro 	   vided.) 		
国					! ·	i 			45	45	Between $86\frac{1}{4}$ and $86\frac{3}{4}$ m.p.'s	:	!	:		
		Towyn	9	1032			CL DRS URS	59 30 40	55	20 55	Through connections between single l Single line to up loop	ne and l	loops at	Aberdo	vey end	
		Tonfanau U.S		}	:	:   			50	50	Between 913 and 921 m.p.'s					
		Llangelynin U.S	·	İ				i	:							
		Llwyngwril U.S	. 6	986	! !	 	CL	29	55 15	20 15	Through loop connections Between 96 m. 26 ch. and 97½ m.p. (Drivers must keep a sharp look-out)	or hand	   signals	from we	atchman at 1	Friog Cutting.)
					Ì											· · · · · · · · · · · · · · · · · · ·

1	11.	Fairbourne U.S				]	!	i	!		
		Morfa Mawddach U.S.					ļ		20	20	Between 98 <sup>2</sup> m.p. and 100 m. 30 ch. (Diesel multiple units may travel at 40 m.p.h. over Barmouth viaduct, between 99 <sup>1</sup> / <sub>2</sub> and
		Barmouth Tunnel (70 yards.)									100 m.p.'s)
	P	Barmouth South (Level Crossing)		5	605						
		Barmouth North		_	343					55	Single line to up line
		Llanaber U.S									
		Talybont U.S									
		Dyffryn Ardudwy US									
		Talwrn Bach U.S									
		Llanbedr & Pensarn U.S.							30	30	Between 108½ and 108½ m.p.'s
100	ORGI	Llandanwg U.S						ļ	15	15	Between 109 m. 45 ch. and 109 m. 75 ch. (Drivers must keep a sharp look-out for hand signals from watchman at Harlech Cliff.)
123		Harlech U.S (Level Crossing)		10	618		CL UR\$	33 17	55	20	Through loop connections
۵	u	Tygwyn U.S	İ						20	20	Between 113\( \) and 114 m.p.'s over Timber Bridge (Locomotive hauled trains only)
		Talsarnau U.S			i '						4 4
1		Llandecwyn U.S	ì						20	20	Between 115 m. 68 ch. and Penrhyndeudraeth
	•	Penrhyndeudraeth U.S.			860		‡ CL	36	20 20	20 20	Through loop connections  Between 117½ m.p. and Minffordd
		Minffordd U.S	•••								
		Portmadoc (Level Crossing)		3	587		CL URS	35 <b>5</b> 0	55 20 20	20 55 20	Through connections between single line and loops at Harlech end Through connections between loops and single line at Criccieth end Between 121 m. 56 ch. and 121 m. 70 ch.
		Black Rock U.S				į	İ		. 20		Detrices 127 am 50 cm am 127 am 70 cm
		Criccieth U.S		4	1729		CL	30	40 20	20 20	Through connections between single line and loops at Portmadoc end Through connections between single line and loops at Pwllheli end
			:						30	30	Between 128 <sup>1</sup> / <sub>4</sub> and 128 <sup>2</sup> / <sub>4</sub> m.p.'s
									· :		
						,	 	:		!	
L					-	THE PERSON OF TH		يستعور ويوميناوي ويادي			

<sup>‡</sup> The up loop is worked in both directions.

Descrip- tion of Block Signal- ling	Stations and	Distar betwee Signa Boxe	een al	Runn Line		an Rei	ops id uge ings	Perma spec restrict mile per h	ed ions, es	Catch points spring or unworked trailing points		Do	own i	Locom L—I U	notive horn Long S—SI	code nort For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless therwise shown) 1 in	or	Slow or Goods	Main or Fast	or	
	DOVEY JUNCTION TO PWLLE	IELI-	-cont.						1							
loken	Penychain Abererch U.S							ļ								
Electric Token	Pwllheli East	7	552					55 15	15	Single line to down line Up line to single line Single line to goods yard						
•	Pwliheli West	_	904					10	10	Entering or leaving station						
	DEVIL'S BRIDGE TO ABERYS	<b>TWYTI</b>	H (V.	ALE OF RI	HEIDOL)	(Narrow	Gauge, 1	foot 11½	inches	)						
	DEVIL'S BRIDGE TO ABERFF ABERFFRWD TO ABERYSTW							15 20	15 20	MAXIMUM PERMISSIBLE MAXIMUM PERMISSIBLE						
٠	Devil's Bridge U.S		_					10	10	Between Devil's Bridge and I	Rbiwfron	(10 mi	les 59	ch.)		
i ket	Rhiwfron U.S	1	42					10	10	Between Rhiwfron (10 m. 39	ch.) and	Aberff	rwd (8	m. 64	ch.)	
≝	Rheidol Falls U.S	1 1	1056					10	10	Between Rheidol Falls (8 m.	39 ch.)	and Ab	erffrwd	(8 m.	29 ch.)	
	Aberffrwd U.S	1 1	1078					10	10	Through Aberffrwd (8 m. 9 c	h. to 7	m. 9 cl	ı.)			
g {	Nantyronen U.S	_ 1	1650					10 10	10 10	Over Nantyronen Level Cross Over Capel Bangor Level Cro	sing (6 m	1. 55 cl	h.)		į	
tari	Capel Bangor U.S	2	220	:				10	10	Over Caper Dangor Level Cr	ossing (4	ти. 54	CII.)		1	
Irain Staif and metal ticket	Glanrafon U.S  Llanbadarn U.S		484 264					10 10	10 10	Over Glanrafon Level Crossic Over Llanbadarn Level Cross	og and co	urve (2 1. 17 cl	m. 26	ch. to	2 m. 24 ch	.)
•	Aberystwyth (See page 121 for Shrewsbury line)	— 1 11 1 (from Devi	1713 1238 m il's					10	10	Entering and leaving Aberystv    Drivers must whistle on approa	1	level ci	rossings.			

	;	ABBEY FOREGATE TO ENGLISH ABBEY FOREGATE TO ENGLISH	ISH B SHBR	RIDGI IDGE	E JUNCTION JUNCTION	ON (LOOP	LINE)		15	15	MAXIMUM PERMISSIBLE SPEED
	•	Abbey Foregate (See page 64 for Wolverhamp-H.L. line.)	_	_							1L IS Up main to down loop.
		English Bridge Junction (Controlled from Severn Bridge.) (See page 116 for Craven Arms line.)		601							CW. Up line, 94 yards after passing home signal.
-		SHREWSBURY, CREWE JUNC	TION	то ѕ	ALTNEY J	UNCTION					
		CREWE JUNCTION TO SALT	NEY .	JUNC	TION	ļ			60 15	60 15	MAXIMUM PERMISSIBLE SPEED ON MAIN LINES MAXIMUM PERMISSIBLE SPEED ON GOODS LINES
	•	Crewe Junction (See page 117 for Craven Arms to Crewe line.)			•				15	15	Between Shrewsbury Station and 171 m. 62 ch.
200	]	Coton Hill South	1	546	•	•					
		Coton Hill North (Down IBS, 1 m. 1,000 yards from Coton Hill North box.)		673	•	•		,			C. Down line, 262 yards after passing starting signal. C. Down line, 550 yards before reaching I.B. home signal.
											Hencote Incline, 10 minutes is the shortest time up freight or mineral trains (except Classes 4-6) must occupy in running from Leaton to Coton Hill North box.
		Leaton (Level Crossing)	3	31			DRS	37			C. Down line, 742 yards before reaching home signal.
	•	Baschurch (Level Crossing)	3	1316			DRS URS	58 76			
	•	Haughton Sidings	4	271			UGL	38			
	•	Whittington Sidings (Level Crossing)	4	902							
1											

# CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES-continued

Descrip- ion of Block   Bignal-   ling		bet Sig	ance ween gnal exes	Run Lis	ning nes	Loo and Refu Sidir	j ige	Perma spe restric mil per I	tions, les	Catch points spring or unworked trailing points	: : :	Do			notive horn	hort
on Main Lines (Dots ndicate Block Posts)	Signal Boxes		Yds.	Up	Down	Descrip-	Standage Wagons L. & V.				Gradient (Rising unless otherwise shown) 1 in	Main or		Main or	Slow	For
L	CREWE JUNCTION TO SALTN	EY .	JUNCI	TION—cont	•											
•	Gobowen South (See page 128 for Nantmawr Quarry line.)	1	1166	,		DRS URS	68 42		15	Through junction to Oswestr C. Down line, 863 yards before reaching home	y 156					
•	Gobowen North (Level Crossing)	_	356							signal.		:	:			
	Weston Rhyn (Level Crossing)	1	1385			DGL UGL	47 51			C. Up line, 685 yards before reaching distant	143					
	Chirk Tunnel (51 yards)									signal,		ĺ		}		
	Chirk Station								1				İ			
	Whitehurst Tunnel (46 yards)					)   				C. Down line, 1,584 yards before reaching distant signal. C. Down line, 902 yards before reaching home	83	:	:	ļ		
•	Ruabon Middle	5	765					50	50	signal. Between 196 m. 65 ch. and	197 m. 45	ch.				
•	Johnstown & Hafod	1	1225	<i>!</i>												
	Bersham Sidings	1	568			] ] :				C. Up line, 1,000 yards before reaching home signal.	103	 ! 				
	Ruabon Road Tunnel (64 yards.)					   				:						
	Croes Newydd South Fork (See page 129 for Croes Newydd East line.)	1	513	•				10		Through junction to Cross N	ewydd Ea	ıst				

•	Croes Newydd North Fork (Level Crossing) (See page 129 for Minera Lime Works line.)			10 T	hrough junction to Croes Newydd East
•	Wrexham General North (See page 131 for Wrexham Exchange line.)	-   880	• URS 90	50 F F C	From 202½ m.p. to 203 m. 0 ch. From 203 m. 0 ch. to 202 m. 46 ch. C. Up line, 998 yards 82 before reaching distant signal.
	United Colliery Sidings  Up IBS, 1 mile, 1,133 yards from Rossett.	1 1179			Between 204 m. 5 ch. and 205 m. 20 ch. C. Up line, 682 yards 82 before reaching home signal. C. Up line, 668 yards 82 after passing I.B. home signal.
127	Down IBS, 1 mile 561 yards from United Colliery.				C. Up line, 386 yards before reaching I.B. distant signal.
.7	Rossett (Level Crossing)	2 1503	DGL 116 UGL 55		C. Up line, 70 yards after passing advanced starting signal. S. Down line, 507 yards after passing starting signal (normal lie for down goods Ioop.)
	Pulford (L.C.) (P2)	;			
	Balderton Tunnel (53 yards)  Balderton (L.C.) (P2)	. ! !			
•	Green Lane Crossing (Level Crossing)	1 348 4 807 (from Rossett).			
	(See page 134 for Dee Branch line.)	-     733       -     1116	• •		Between 211 <sup>3</sup> and 212 m.p. <sup>3</sup> s  Through junction to and from Chester
	Holyhead line.)		' : !	:	

tion Blo Sig	crip- n of ock mal- ng	Stations and			Run Lir		ar Ref	ops id luge	Perma spe restric mil	ed tions, es	Catch points spring or unworked trailing points			Locomotive h	-Short
M Lii (D Indi Blo	ain nes ots icate ock sts)	Signal Boxes		Yds.	Up	Down	Descrip-	Standage Wagons L. & V.	1		Gradient (Rising unless unless otherwise shown)	Main or		Main Slow or or Fast Goods	For
-		GOBOWEN SOUTH TO NANTE	MAW	R QU	ARRY SID	INGS (GO	ODS LIN	IES)			1 1 111				
		GOBOWEN TO LLYNCLYS LLYNCLYS TO NANTMAWR	QUA	RRY	SIDINGS				30 25	30 25	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED				
Electric Token		Gobowen South (See page 126 for Shrewsbury to Chester line.)	_	_					15	15	Through junction				
Electri	•	Oswestry North	2	110		•			10	10	Through connections between 2 m. 0	ch. and	2 m.	14 ch.	
1		Oswestry South	_	488		NB •			15	15	Through connections between 18 m. 2	0 ch. a	nd 18	m. 30 ch.	
		Llynclys Porthywaen (L.C.) (P1)	3 1	948 42					10 10 10	10 10 10	Round curves between 0 m. 0 ch. and Round curves between 0 m. 63 ch. and Over level crossings between 1 m. 5	l 0 m.	72 ch.	20 ch.	
One train working		Porthywaen School (L.C.)					:					1L		1L	At ½ mile distant.
train		Nantmawr Junction Ground Frame	1	499											
ō		Llanddu Quarry Sidings	-	358	İ										
		White Gates (L.C.) (P1)		1024											
		Nantmawr Quarry Sidings	_	1641						1					
(	. !	End of line	_	158						ļ					
Trai	j ins re	everse at Nantmawr Junction.								1					

1	CROES NEWYDD SOUTH FORK TO CROES NEWYDD EAST (SINGLE GO	oods li	NE)		
	CROES NEWYDD SOUTH FORK TO CROES NEWYDD EAST	1	0	10	MAXIMUM PERMISSIBLE SPEED
AAY•	Croes Newydd South Fork — (See page 126 for Shrewsbury to Chester line.)  Croes Newydd East — 442 (See below for Minera Lime Works line.)		7.75		
	CROES NEWYDD NORTH FORK TO MINERA LIME WORKS (GOODS L	INES)			
	CROES NEWYDD NORTH FORK TO BRYMBO WEST	3	0 :	30	MAXIMUM PERMISSIBLE SPEED
	BRYMBO WEST TO MINERA	2	0 :	20	MAXIMUM PER MISSIBLE SPEED
A	Croes Newydd North Fork — — (Level Crossing) (See page 127 for Shrewsbury to Chester line.)	1	0	10	Between Croes Newydd North Fork and Croes Newydd East CW. Down line, 104 yards after passing signal box.
• • •	Croes Newydd East — 478 (See above for Croes Newydd South Fork line.)				
•	Croes Newydd West 757 DGL	45			C. Down line, 60 yards 50 after passing starting signal C. Down line, 1,354 yards 45
A	Broughton Forge Ground 1 383 Frame. (See page 131 for Fishponds	į			before reaching signal box.
	Sidings line.)				
A	Broughton (Level Crossing) 735 1 1118 (from Croes Newydd West)				
•	Brymbo East — 1505 (Level Crossing.)				C. Down line, 592 yards before reaching signal box. C. Down line, 687 yards 45
A					C. Down line, 687 yards 45 before reaching home signal.
		10	0   1	10	Between 3 m. 10 ch. and 3 m. 23 ch. C. Down line, 25 yards after a 40 passing starting signal.

Descrip- tion of Block Signal- ling on	Stations and Signal Boxes	Sig	veen	Runi Lin			nd juge	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points	i	Do	own	Locom L—I	otive horn	code Short For
Main Lines (Dots Indicate Block Posts)	Siguai Doxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	or	Main or Fast	or	
:	CROES NEWYDD NORTH FO	ORK T	го м	INERA LIN	Æ WORK	S (GOOD	S LINES	)—cont	·							
A	Brymbo Middle (Level Crossing.) (See page 131 for Vron Sidings line.)		449													
	Brymbo West (Level Crossing.)		180					10 10	10	CW. Down line, 60 yards after passing home signal. Down line to single line Between 3 m. 57 ch. and 4	39 m. 4 ch.					
	Caello (L.C.) (P1)		1263		İ		: 									
	Smelt (L.C.) (P1)	_	312		! ! !							-				
ng l	Pentre Saeson (L.C.) (P1)		1232						!		: :	:				
One train working	Gegin (L.C.) (P1)	_	794													
rain	Coed Poeth (L.C.) (P1)	_	576					i							ļ	
One t		_	438		[		! ; i	ļ				: ! :				
			548				: 	10	10	Between 6 m. 28 ch. and 6	m. 48 ch		! !	:	i	
	Berwig (L.C.) (P1)	_	132		]  -		: !	i			:		İ	İ		
	Minera Lime Works	- 3 (fro Brys	1219 1234 om mbo							C. Single line, 486 yards after passing Berwig level crossing (facing to up trains.)						

1		FISHPONDS SIDINGS TO BROUG	HTON FORGE GROUND F	RAME (SINGLE	GOODS	LINE	
		FISHPONDS SIDINGS TO BROUG	HTON FORGE GROUND I	FRAME	5	5	MAXIMUM PERMISSIBLE SPEED
	Siding	Fishponds Sidings —  Brymbo G.C. Sidings —  Broughton Forge Ground 1 Frame. (See page 129 for Croes Newydd to Minera Lime Works line.)	986 209	Sidings to Broug	hton Forse	Grow	nd Frame is "UP". Trains reverse at Brymbo G.C. Sidings.
		BRYMBO MIDDLE TO VRON SIDI					
Ì		BRYMBO MIDDLE TO VRON SID	DINGS		10	10	MAXIMUM PERMISSIBLE SPEED
131	One train working	Brymbo Middle — (See page 130 for Wrexham to Minera Lime Works line.)  Brymbo Steel Works — Vron Sidings —					CW. Single line, Vron Level Crossing 56 yards after passing signal to Branch Sidings (facing to up trains.)
	I NB	WREXHAM GENERAL NORTH TO WREXHAM GENERAL NORTH TO Wrexham General North — (See page 127 for Shrewsbury to Saltney Jn. line.)  Wrexham Exchange (See page 132 for Dee Marsh — Jn. line.)	O WREXHAM EXCHANGE		15	15	MAXIMUM PERMISSIBLE SPEED

# CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES -continued

	Descrip- lion of Block Signal- ling on	Stations and Signal Boxes	Dista betw Sign Box	een nal	Rum Lir		Loc ar Ref Sidi	id uge	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Do		Locon L—]	notive ho Long S-	rn code -Short For
ļ	Main Lines (Dots ndicate Block Posts)	Signal Dozes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Positio <b>n</b>	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
		WREXHAM CENTRAL NORTH WREXHAM CENTRAL NORTH ABENBURY SIDING TO CAD	OT E	ABE	NBURY SI	•	GLE GOO	DDS LIN	E) 15 30	15 30	MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL	E SPEEL E SPEEL	)				
000		Wrexham Central North (See below for Dee Marsh Jn. line.)	-						-								
190		Caia Siding  Hightown Siding (L.C.) (P1)	_	882 1221													
1		Abenbury Siding		623													
		Marchwiel Factory Siding  Maelor Gas Siding	1	1476													
		Cadbury's Siding		ham tral													
ľ		WREXHAM CENTRAL NORTH			MARSH J	UNCTION					:					<u> </u>	
		WREXHAM CENTRAL NORTH WREXHAM EXCHANGE TO I	OEE I	WRE MARS	XHAM EX H JUNCTI	CHANGE ION			15 40	15 40	MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL						
		Wrexham Central North (See above for Cadbury's Siding line) Wrexham Exchange U.S (See page 131 for Wrexham General North line.) Brymbo Junction (See page 134 for Gatewen Colliery Sidings line.)	_ _ 1	— 1 1067 453			DGL URS	44 51									

	Gwersyllt U.S	C. Down line, 1 mile 816 yards before reaching Caergwrle Castle distant signal. C. Up line, 1 mile 657 yards before reaching Brymbo Jn. home 1 signal.	86
		Jn. home 1 signal.	
	Cefn-y-bedd U.S		
	Caergwrle Castle U.S 2 1516		
1	Hope Village U.S		
	Penyffordd U.S 2 1043 (See page 152 for Hope Junction Siding line.)	C. Down line, 773 yards before reaching home signal.	83
	uon samg nac.)	C. Down line, 100 yards after passing home 2 signal.	275 (falling)
•	Buckley Junction U.S 1 275	C. Down line, 675 yards before reaching home signal.	96
133		C. Up line, 86 yards before reaching distant signal.	74
•	Hawarden U.S 2 147	C. Up line, 138 yards after passing starting signal. C. Up line, 534 yards before reaching home signal.	53 60
	Shotton Station	C. Up line, 1 mile 198 yards after passing starting signal.	53
	Hawarden Bridge Jn 2 519	C. Up line, 202 yards after passing starting signal.	53
		25   Over Hawarden Swing Bridg	ze
	Hawarden Bridge U.S		
•	Dee Marsh Junction — 1120   Incident of the season of	25 25 Passing signal box	

Descrip- tion of Block Signal-		bet	stance ween gnal	Running Lines			Loops and Refuge	Perma spe restric mi	tions,	Catch poir spring or unw trailing poi	orked			Eng.	ine horn coo	le ort
ling on	Stations and Signal Boxes		oxes				Sidings	per l				Do	wn	U	p	For
Main Lines (Dots ndicate Block Posts)	Biglidi Boxes	M. Yds. Up Dov		Down	Description	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	or	Slow or Goods	Main or Fast	Slow or Goods		
	BRYMBO JUNCTION TO GA		EN CC	OLLIERY SIDINGS	(SINGLE GO	ods	LINE)	10	10	MAXIMUM PE	RMISSIBLI	E SPEE	ED ;	į	!	
	M.P. TO LIMIT OF MAINT	ΓENA	NCE A	AT N.C.B. SIDINGS	;			15	15	MAXIMUM PE	RMISSIBLI	E SPEE	D	i	}	
Working	Brymbo Junction (See page 132 for Wrexham Central to Dee Marsh Jn. line.)  Gatewen Colliery Sidings		1621		1					CW. Single line 220 yards afte passing signa box (facing to up trains.)	r   l		:		:	
1																
	DEE JUNCTION TO DEE BR				2)	ı	1	ı		I.						
	DEE JUNCTION TO END OF	F BR	ANCH					5	5	MAXIMUM PE	RMISSIBL	E SPEE	ED	İ	i	
working	Dee Junction (Level Crossing) (See page 127 for Shrewsbury to Chester line.)	•	_					: :			 					
_ ( !	Dee Branch	.   -	1423			i	ı			i	!					

Ì				CRE	WE TO BE	RKEN	HEAD	AND	BRA	ANCHES
ļ		CREWE NORTH JUNCTION TO C	CHESTER No. 6							
	•	CREWE NORTH JUNCTION TO	CHESTER No. 6	1				75	75	MAXIMUM PERMISSIBLE SPEED
	•	Crewe North Junction (See page 11 for Euston to Crewe line, page 35 for Chester Independent lines.)							20	Through junction.
	•	Steel Works 1	409				!			
		Calveley 6	1148	-  -  -		URS	38	60		Calveley and Tattenhall Junction, from 168 m.p. to 170 m.p.
	•	Beeston Castle and Tarporley 2	1012	:!  :  }		DRS	46		  -  -	4L 1S Trains not timed to
		Tattenhall Junction 5	832				80 80 (Down		60	Tattenhall Junction and Calveley, from 170 m.p. to 168 m.p.
135		Waverton 1 Christleton Tunnel (160 yards)	1208				siding)	50	50	
	Crewe lines 44.4	Chester No. 1 2 (See page 136 for Warrington line.)	1588	•   P&   Pst	Hast Fast			15		2L 3S  Trains having no work to do at Chester.  All lines between Nos. 1, 5 and 6 boxes, except where otherwise shown.
	Main lines  Additional series of the series	Chester No. 2	200	Fast 44 Platform 4d 8d	Platform Ad A & A & A & A & A & A & A & A & A &					
		Chester No. 3 (Signals Main and Platform lines only.)	401 Sidings					 	:	
	Main lines	Chester No. 3A	522	Fast Adorm Platform & Adorm & Adorm	Slow Jawa & Fast de			10	. 10	Between No. 3A box and No. 4 box up home signals from Holyhead
		Chester No.4 (See page 136)	• • •	• • •						

Description of Block Signalling on	Stations and Signal Boxes	Dista betw Sign Box	veen nal	Run Lir	ning nes	a Re	ops nd fuge ings	spe restric mi		Catch points spring or unworked trailing points	Dov	wn	LI		Horn Code —Short For
Main Lines (Dots Indicate Block Posts)	•	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradient (Rising unless Position otherwise shown) 1 in	Main or	or	Main or Fast	Slow or Goods	
Fast lines  - 4dd - 4dd	CREWE NORTH JUNCTION To Chester No. 4 (continued) (See page 138 for Birkenhead line.)  Chester No. 6 (See page 147 for Holyhead line, page 140 for No. 5 line.)		244 om 3A) 365 om	•	• "•				15	All lines between Nos. 6, 5 and 1 be	oxes, ex	cept wh	nere oti	perwise s	shown
	CHESTER No. 1 TO ACTON G					1	l i	,	ı			1	ı	ı	ļ
	Chester No. 1 TO ACTON C	GRAN	GE JU	JNCTION				75 30	75 30	MAXIMUM PERMISSIBLE SPEED Round curve between Chester No. 1 box					
	Chester No. 1 (See page 135 for Crewe line.)  Mickle Trafford (See page 142 for Mickle Trafford C.L. line.)	2	528					25	25	C. Down line, 1,539 yards before reaching distant signal. C. Up line, 450 yards before reaching starting signal. Through junction from and to Mickle C. Up line, 600 yards before reaching outer home signal.					

	Dunham Hill	2	936		DRS UGL	48 60			C. Up line, 482 yards before reaching distant signal.		3L 1S 1S 1L	Passenger trains from Liverpool timed to stop at Chester. Passenger trains not timed to stop at Chester.
	Helsby Junction (See page 141 for Hooton South Jn. line.)	2	433		DRS	50	40	40 20	Through junction from and to Chest Through junction to Hooton	IL 1S	2S 1L	Liverpool  Trains having no work to do at Chester.
	Frodsham Station		!									
127	Frodsham Tunnel (87 yards)											
	Frodsham Junction (See page 138 for Halton Jn.	3	1211		UGL	74	45	50	Through junction to and from Warrington	2S 1L		Requiring to stop at Acton Grange to
	line.)						20	10	Through junction to Runcorn Loop line	1L 4S		apply brakes. Arpley or Warrington via Walton Old Jn.
	Sutton Tunnel (1 mile 154 yards) N.											Old 3ll.
	Norton	2	192									
	Daresbury Station	2	555		DRS URS	120 134	50	50	Round curve on Warrington side of Daresbury box		3S 1L	Freight trains for Hooton branch.
	Acton Grange Junction (See Northern Section Appendix for Crewe to Euston Jn. line.)	_	855						C. Down line, 550 yards before reaching home signal.			
							50	50	Main lines through junction from and	to Chester		
							20	20	Chester lines through junction to and	from Crewe		
							20	20	Through junction to and from Walton	Old Junction		
				li l	İ	<u> </u>						

		Mollington Station (Up I.B.S., 2 miles 124 yards from Ledsham Jn. box.) (Down I.B.S., 1 mile 514 yards from Mollington box.)  Capenhurst Station Ledsham Junction Hooton South Junction (See page 140 for Helsby Jn. line.)  Hooton North Junction	3	719	A '	URS (Fast) URS (Slow)	67 43	50 20 25	50 20 25 25 25	Fast lines through junction Slow lines through junction Through junction between fast and slow lines Through junction to Helsby		
		Bromborough Station	1	760	•	DRS	30	i			ļ	
	•	Spital Station	i	521	<b>A</b> .						į	
	•	Port Sunlight Sidings	_	1020	. A						i İ	i i i
139	•	Bebington and New Ferry Station										
		Rock Ferry Station (See page 147 for Birkenhead Hamilton Square Jn. line.)	1	22	1	   		15 10	15	To No. 2 platform or goods No. 2 platform to main Goods line through connection to Mersey line		
	•	Green Lane Junction	_	961								
		Haymarket Tunnel (139 yards)			 							
		Brook Street		1609						1S 1L 1L 1S 2S 1L 1S 2L		Great Float. Joint Yard. L.M.R. South Reserve. Morpeth Dock.
	•	Canning Street North (Level Crossing)	_	462	i ! ! !	· !		8	8	Over Mersey Docks and Harbour Board Lines	2L 1S 1L 2L	Float or Joint Yard to Grange Lane. Float or Joint Yard
											2L 3S	to Brook Street. Float or Joint Yard
	:				: I						2S 2S 2S	to South Reserve. Float or Joint Yard to Canning Street South.

### CREWE TO BIRKENHEAD AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Distance between Sig	veen nal	Rum Lin		an Ref	ops id fuge ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworke trailing points	d	Do			ive horn g S—Sh	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	or	Slow or Goods	
1	CHESTER No. 5 TO No. 6					1	1	; ı	ı	I			ı	1	1 1	
	CHESTER No. 5 TO No. 6							15	15	MAXIMUM PERMISSIB	LE SPEEI	)				
PF	Chester No. 5 (See page 138 for Chester No. 4 to Birkenhead Canning Street North line.)	_					     					]   		   		
•	Chester No. 6 (See page 136 for Crewe line, page 147 for Holyhead line.)		431													
	HOOTON SOUTH JUNCTION	то н	HELSE	BY JUNCTI	ON	1	1	1		1					1	
:	HOOTON SOUTH JUNCTION	TO F	IELSB	Y JUNCTI	ON		i	75	75	MAXIMUM PERMISSIB	LE SPEEI	)				
•	Hooton South Junction (See page 139 for Chester No. 4 to Birkenhead Canning Street North line.)						: :	30	25 30	Through junction from Hel Round curves between 0 m.				 		
•	Little Sutton Station	1	1082		<del>}</del>					t t						
•	Ellesmere Port No. 1	1	666	•	•									 		
	Ellesmere Port No. 2	_	774	•	•											
•	Ellesmere Port No. 4		785		•											
	Ellesmere Port No. 5		859		Y	!							!	!		
	Stanlow & Thornton	1	1220			DRS	61			!						
	Ince & Elton Station					:										

		West Cheshire Junction (See page 142 for Mouldsworth Junction line.)  Helsby Junction (See page 137 for Chester No. 1 to Acton Grange Junction line.)		1073		10 50 20	50	Through junction to Mouldsworth Round curves between West Cheshire Junction and Helsby Station  Through junction to Warrington
		HARTFORD JUNCTION TO DE	E M	IARSE	H (NORTH) JUNCTION			
	İ	HARTFORD JUNCTION TO CI	HEST	TER N	NORTHGATE EAST JUNCTION N TO DEE MARSH (NORTH) JUNCTION	60 40	60 40	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
		Hartford Junction (C.L.) (See Northern Section Appendix for Cornbrook Junction to Hartford Junction (L.N.W.)	_					
		Cuddington Station	2	86				C. Down line, 550 yards before reaching home signal.  C. Up line, 560 yards before reaching home signal.
		Delamere Station	3	55				C. Down line, 665 yards before reaching home signal.
		Mouldsworth Junction (See page 142 for West Cheshire Jn. line.)	2	1538		45 10	45	Round curves between 31 and 31½ m.p.'s Through junction to West Cheshire Junction
,		Plemstall L.C						IL IL At ½ mile distant.
		Mickle Trafford C.L (See page 142 for Mickle Trafford line.)	4	272		25 35	25 35	Through junction from and to Dunham Hill Round curve between 35½ and 36 m.p.'s
		Chester Northgate East Junction (See page 143 for South Jn. line.)	2	1711		15	15	Through junction in all directions
	•	Liverpool Road West Junction (See page 143 for Chester Northgate South Jn. line.)		759		15	15	Through junction in all directions
		Sealand Station (Level Crossing)	4	1052		ļ		
				!		t I		

### CREWE TO BIRKENHEAD AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and Signal Boxes	Dista betw Sign Box	een nal	Runni Line		Rei	ops nd fuge ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points	Do	Loco L– own	omotive -Long U	horn co S—Shor	de t For
on Main Lines (Dots Indicate Block Posts)	i	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradien (Rising unless Position otherwise shown) 1 in	Main	Slow or Goods	or	Slow or Goods	
	HARTFORD JUNCTION TO DE	E MA	RSH	(NORTH) JI	UNCTIO	N.—cont.		i				I	i	i I	
		1	: !			1		25	25	Between 5 m, 60 ch. and 5 m, 61 ch.	ı		:		
	Dee Marsh North Junction (Controlled from Dee Marsh Jn.) (See page 143 for Dee Marsh Jn. to Seacombe Jn. line.)	1	56	1 1 1				25	25	Through junction					
	MOULDSWORTH JUNCTION	го w	EST	CHESHIRE	JUNCTI	ON (SINC	GLE GOO	DS LI	NE)						
	MOULDSWORTH JUNCTION	го w	EST	CHESHIRE	JUNCTIO	ON		60	60	MAXIMUM PERMISSIBLE SPEE	D				
lectric oken	Mouldsworth Junction (See page 141 for Hartford Jn. to Dee Marsh (North) Jn. line.)	-	_ ;			ļ			10	Through junction CW. Down line, 55 yards after passing box. (falling)		1			
T (	West Cheshire Junction (See page 141 for Hooton South Jn. to Helsby Jn. line.)	3	1591					10		Through junction					
	MICKLE TRAFFORD (C.L.) TO	MIC	KLE	TRAFFORD		<u> </u>		<u> </u>		<u> </u>					
•	MICKLE TRAFFORD (C.L.) TO  Mickle Trafford (C.L.) (See page 141 for Hartford Jn. to Dee Marsh (North) Jn. line.)  Mickle Trafford (See page 136 for Chester No. 1 to Acton Grange Jn. line.)	MIC  — (betw	306 veen tion		)			25	25	MAXIMUM PERMISSIBLE SPEE CW. Up line, 227 yards before reaching junction points.	D				

CHESTER, NORTHGATE EAST JUNCTION TO SOUTH JUNCTION	,
CHESTER, NORTHGATE EAST JUNCTION TO SOUTH JUNCTION	15 15 MAXIMUM PERMISSIBLE SPEED
Chester, Northgate East Junction.  (See page 141 for Hartford Jn. to Dee Marsh (North) Jn. line.)  Chester Northgate South Junction. (See below for Liverpool Road West Jn. line.)	
CHESTER, NORTHGATE SOUTH JUNCTION TO LIVERPOOL ROAD WEST JU	JUNCTION
CHESTER, NORTHGATE SOUTH JUNCTION TO LIVERPOOL ROAD WEST JUNCTION  Chester Northgate South	15 15 MAXIMUM PERMISSIBLE SPEED
Junction (See above for East Jn. line.)	
Liverpool Road West Jn 656 (See page 141 for Hartford Jn. to Dee Marsh (North) Jn. line.)	
DEE MARSH JUNCTION TO SEACOMBE JUNCTION	
DEE MARSH JUNCTION TO BIDSTON, DEE JUNCTION	40 40 MAXIMUM PERMISSIBLE SPEED
BIDSTON, DEE JUNCTION TO SEACOMBE JUNCTION	25 25 MAXIMUM PERMISSIBLE SPEED
Dee Marsh Junction	25 25 Between signal box and North Junction
Dee Marsh (North) Junction 779 (Controlled from Dee Marsh Junction.) (See page 142 for Northwich	25 25 Through junction in all directions
(See page 142 for Northwich, Hartford Jn. line.)  Shotwick Sidings 1 1264 2 283 (from Dec	C. Down line, 300 yards 200 after passing starting signal.
Marsh Jn.)  ◆ Neston 3 316	C. Down line, 1,176 yards 180
Howall Itile 118	before reaching distant signal.
Heswall Hills US 2 941	C. Up line, 1 mile 1,265 120 yards before reaching home signal.

	Descrip- tion of Block Signal- ling	Stations_ and	Dista betw Sign Box	een nal	Runi Lin		a: Re	oops nd fuge ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Do	own	L—L	otive ho	orn code –Short For
	on Main Lines (Dots Indicate Block Posts)	Signal Boxes	м.	Yds.	Up	Down	Descrip- tion	Standage - Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
ļ		DEE MARSH JUNCTION TO S	EACC	MBE	JUNCTIO	N-cont.		1		1		ı	ı		1	l 1	
	•	Upton US	4	364	ļ						C. Up line, 1,085 yards after passing signal box.	494					
		Bidston Dee Junction (Level Crossing) (See page 145 for Liverpool Central Low Level to West Kirby line.)	1	1353					15 15	15 15	Round curve approaching an Through junction	 nd leaving 	   Bidsto	n   			
144	•	Seacombe Junction (See page 147 for Bidston East Jn. to New Brighton line.)		1075								,					
		LIVERPOOL CENTRAL, LOW	LEVE	L TO	WEST KE	RBY	i	1	ı	I				I	ı	! I	
	1	LIVERPOOL CENTRAL LOW JAMES STREET TO HAMILTO HAMILTON SQUARE TO BIR BIRKENHEAD PARK TO WES	)N S( KENI	QUAR HEAD	E	reet			30 45 35 75	30 45 35 75	MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL MAXIMUM PERMISSIBL	LE SPEEI LE SPEEI	) )				
					LINE IS I	N TUNNEI	FROM	ITS COM	MENC	 EMEN: '	T TO 2 MILES 1,527 YARDS	(APPRO	ACHIN	G BIRI	KENHE	AD PA	RK STATION)
	(•	Liverpool Central Low Level   East (Cabin A)	_			İ		ļ	 	10	Through crossover No. 2 pla	tform to	No. 1	Siding			
		West (Cabin B)		229					15	15 10	Leaving No. 1 platform Entering No. 2 platform Through crossover to No. 1 Leaving No. 2 platform through	  -   platform  ugh crosso	over to	down lin	:      e		When trains are stand- ing at Liverpool Central West up outer home or up inner home or James
	Automatic																Street down home signal, because signals are at danger, the driver must sound the horn at frequent intervals.

74		James Street Station (Cabin C)		883	l¦	i 4		6	6	Through crossovers
	<b>→</b>	Hamilton Square Junction		003	ŀ			U	U	Through crossovers
	2	(Cabin D) (See page 146 for Rock Fery	1	311			į	6	6	Through crossovers
Ì	mat	line.)			ļ					
	Y Aut								15	Passing Hamilton Square up home signal
-	Semi-Automatic									C. Down line, 400 yards 116 before reaching advanced starting signal.
	( •	Birkenhead Park Station (Cabin H)	1	311		UPL	6	6	6	Through crossovers
		,				DPL	Coaches 6	30	30	Through Birkenhead Park between 0 and 04 m.p.'s
j							Coaches			
		Cavendish Street Tunnel (71 yards) Corporation Road Tunnel			Ì					
		Corporation Road Tunnel (64 yards)		İ	ļ					
	ļ	Birkenhead North No. 1	_	1584	• ଧ	URS	37	35	35	Between Birkenhead North Station and Birkenhead North No. 2
					A T	UPL	6 Coaches			
145					AZ⊁• Carriage Line	DRS	12 Coaches			
51		Birkenhead North No. 2 (Signals goods Lines only)		523	<b>Y</b> Ö ∥				:	
		(See page 147 for MD & HB line.)			Y			į		
	•	Bidston East Junction (See page 147 for New		391	• •			30 10		Through junction to Seacombe Junction From goods line to Seacombe Junction
		Brighton line.)								
1	•	Bidston Dee Junction (Level Crossing)	-	835				15	25	Through junction to Seacombe Junction Through junction to Upton
		(See page 144 for Dee Marsh Jn. to Seacombe Jn. line.)								
	ļ	Leasowe Station (Level Crossing)								
Ì	•	Moreton Station	1	569			! 			
		Carr Lane L.C (Up I.B.S., 1 mile 513 yards from Hoylake Station box.)					Ì			1L At ½ mile distant.
		from Hoylake Station box.)								
L					'	<u> </u>	i l			

	1 1				
	\	Rock Ferry Station 1 23 (See page 139 for Chester No. 4 to Birkenhead Canning Street North line.)	10 10 10	10	Through crossover to No. 4 platform Through connection to down goods Through crossover from No. 3 platform Entering Platform lines
		BIDSTON EAST JUNCTION TO NEW BRIGHTON STATION			
		BIDSTON EAST JUNCTION TO SEACOMBE JUNCTION SEACOMBE JUNCTION TO NEW BRIGHTON STATION	30 40	30 40	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	•	Bidston East Junction — — — (See page 145 for Liverpool Central, Low Level to West Kirby line.)	:         	10	To goods line
•	•	Seacombe Junction 763 (See page 144 for Dee Marsh Jn. line.)		25	Through junction to Dee Junction
		Wallasey Village	!		
	•	Wallasey Grove Road Station 1 222			
	•	New Brighton Station 1 14	10	-	From 4 m.p. to New Brighton Station
147		MERSEY DOCKS AND HARBOUR BOARD ESTATE TO BIRKENHEAD NORTH	TH No. 2		DS LINES) MAXIMUM PERMISSIBLE SPEED
		NORTH No. 2	10	10	MAXIMOM TERMISSIBLE STEED
	NB	Wallasey Bridge Road — — (L.C.) (P.1) (Junction with M.D. & H.B.	!		
	•	line.) Birkenhead North No. 2 — 536 (See page 145 for Liverpool	į		
		Central Low Level to West Kirby line.)			
ļ	<del></del>	CHESTER TO HO	TVHE!	D AN	ID RPANCHES
		CHESTER No. 6 TO HOLYHEAD STATION	LITEA	D AI	D BRANCIES
	!	CHESTER No. 6 TO HOLYHEAD STATION	. 75	75	MAXIMUM PERMISSIBLE SPEED ON MAIN, FAST AND SLOW LINES
			/3	/3	I I I I I
:		Chester No. 6 (See page 136 for Crewe line, page 140 for Chester No. 5 line.)	15 50 50	15 50	Through junction in all directions  Fast and slow lines between Chester No. 6 and 180½ m.p.  Slow line from 180½ m.p. to Mold Junction No. 1

Descrip- tion of Block Signal-		Dista betw Sign	een	Run   Liı	ning nes		ops id uge	Perma spe restric mi	ed tions, les	Catch points spring or unworked trailing points		·		L—Lo	ive horr	Short
ling	Stations and	Box	xes	i •		Sidi	ngs	per l	hour			Do	wn	U	J <b>p</b>	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.	i i	Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or		or	Slow or Goods	
	CHESTER No. 6 TO HOLYHEA	D ST	ATIO	N—cont.		1	ĺ	1	ı	l i		1	ı	1	1 1	
	Windmill Lanc Tunnel (104 yards)	,			u I			İ		1						
	Northgate Street Tunnel (218 yards)								]	1		 		  -  -		
	Saltney Junction (See page 127 for Shrewsbury line.)	1	849					25	25	Through junction to and from	Wrexhan	n   		3S 2L	2S 2L	Freight trains via Chester Cutting having no work to do at Chester
							}	•						1L	1L IS 1L 2L IS 1L	Cutting.
	Dee Oil Works (L.C.)											1L		! ! 1L		At 1 mile distant.
	Mold Junction No. 1 (See page 152 for Synthite Siding line.)	1	491					30 25 15	25	From Mold Junction to Saltr round curves on slow line Slow line through Mold Juncti Slow to fast Fast to slow Through junction to Mold	•	tion,			3S 3S	Goods siding from Slate yard.
•	Mold Junction No. 4	_	1229							; ;				1L1S 1L	iL IS 1L	Passenger trains no timed to stop a Chester.
	Sandycroft	1	1522	•					ļ			!				
	Connahs Quay	2	719				 	10	10	Dentith's Siding G.F. connect Quay Docks line	tion with	Conna	ah's	! 		
	Rockcliffe Hall	t	1129										1	1		

	Rockcliffe Hall Tunnel (95 yards)  Pentre (L.C.)  Flint Station  Bagillt (Level Crossing)  Holywell Junction  Mostyn (Level Crossing)  Talacre	2 2 2 3 2	106 536 363			URS DGL DRS UGL	35 60 36 70				1L IS IL		1L	At 1 mile distant.  Not stopping at Rhyl.
• · · · · · · · · · · · · · · · · · · ·	Prestatyn Station (See page 153 for Dyserth line.) Rhyl No. 1 Rhyl No. 2	3	387 637	• P				60	10	Through connection to Dyserth  Slow line through Rhyl station				
	Foryd Junction	3	263	•	•	DRS UPL DRS	61 36 60				IL 2S IL 1S IL	1L 2S	1L 1S	Not stopping at Rhyl. Llandudno.  Passenger trains not timed to stop at Llandudno Jn.
	Colwyn Bay	2	819			DPL UPL	75 47	70 10	70 10	From 220 <sup>3</sup> / <sub>4</sub> to 221½ m.p.'s round curves Colwyn]Bay Goods branch	1L 1S 1L			Freight trains having no work to do at Llandudno Junction.

# CHESTER TO HOLYHEAD AND BRANCHES-continued

Description of Block Signalling	Stations and	Distance between Signal	Running Lines	Refuge	Permanent speed restrictions, miles	Catch points spring or unworked trailing points		Locomotive ho	—Short
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	Boxes  M. Yds.	Up Down	Sidings    Standage   Wagons   L. & V.	1	Gradient (Rising unless Position otherwise shown) 1 in	or or	Main Slow or or Fast Goods	For
	CHESTER No. 6 TO HOLYHEA  Llandudno Junction (See page 153 for Trawsfynydd line and page 154 for Llandudno line.) (Note.—Up fast line through, Llandudno Junction station is worked in both directions.)	4 201	4	URS 82 UPL 46 (Platform loop) UPL 56 (Avoiding loop)	50   50   15   15   15   15   40   10	Between 223½ and 224 m.p.'s  Platform loop to main  Main and Blaenau Ffestiniog branch to "Up and down" platform to Blaenau  Through junction main to Llandudno  Up passenger (platform) loop  Main to up (platform) loop	"up and down"	IL IL	Not stopping at Colwyn Bay.
	Conway Tubular Bridge (149 yards)  Conway Tunnel (74 yards)  Waen (L.C.)  Penmaenbach Tunnel (718 yards) N.  Penmaenmawr Station			DRS 37	40 40 55 55		1L	1L 1S 1L	At 1 mile distant.  Locomotive for beyond Liandudno Junction. Not stopping at Bangor.
	Penclip Tunnel (265 yards)  Llanfairfechan Station  Glanmor (L.C.)  Aber	4 1568		DRS 59			IL	1L	At 1 mile distant.

) 	Wig (L.C.)			1L	1L   +	At 1 mile distant.
	Llandegai Tunnel (505 yards)	65	65	Round curves between 2363 and 2374 m.p.'s		
1   1	Bangor Tunnel (890 yards) N					
	Bangor Station 5 610	DPL 40 50 UPL 36	50	Between Bangor and Menai Bridge		
	Belmont Tunnel (648 yards) N					
•	Menai Bridge 1 253 (See page 155 for Caernaryon line.)	15 45 35	45 35	Through junction to Caernaryon Through station Britannia Tubular Bridge, round curves, at Ban	gor side of Bridge	
	Britannia Tubular Bridge (522 yards) N	35	35	Britannia Tubular Bridge, round curves, at Ho 241½ to 241¾ m.p.'s	lyhead side of Bridge,	
	Llanfair (L.C.) 2 183			;	2S 1L	Not stopping at
	Llanddaniel (L.C.) (P.3)					Bangor.
•	Gaerwen (Level Crossing) 2 1480 (See page 155 for Amlwch line.)	DRS 60 15 URS 66		Through junction to Amlweh		
	Bodorgan No. 1 Tunnel (413 yards)					
	Bodorgan No. 2 Tunnel (115 yards)					
•	Bodorgan U.S 6 937	DRS 38				
	Ty Croes U.S. (Level Crossing) 2 1312				} 1	
	Rhosneigr U.S					
	Valley (Level Crossing) 5 1209					
	Cleifiog (L.C.)			IL	1L	At I mile distant.
•	Holyhead Station 3 425				. 1	
	End of line (Passenger) *690	:			.	
	End of line (Goods) *1189					
	* From Holyhead Station box.					

#### CHESTER TO HOLYHEAD AND BRANCHES—continued

tie B Si	escrip- on of lock gnal- ling on	Stations and Signal Boxes	bety Sig	ance veen nal xes	Run Lir	ning nes	aı	ops 1d Tuge ings	Perma spe restric mii per l	ed tions, les	Catch points spring or unworked trailing points		Do		L—L	otive ho	
Inc B	Main ines Dots dicate lock osts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Grac (Ris unl Position other show	sing less I rwise wn)	Main or Fast	Slow or Goods	or	Slow or Goods	
		MOLD JUNCTION No. 1 TO M	OLD	, SYN	THITE SID	OING (SINC	GLE GOO	DDS LIN	E)	ı	I				1	1 .	
		MOLD JUNCTION No. 1 TO S	YNT	HITE	SIDING				20	20	MAXIMUM PERMISSIBLE SP	PEED					
	Stdilligs	Mold Junction No. 1 (See page 148 for Chester to Holyhead line.)	_	_				 		15	Through junction				<u> </u>	] [ ] <del>[</del>	
	_(•i	Mold Junction No. 3		914	:									1			
Train Staff		Broughton & Bretton (Level Crossing)	_	1741													
		Hope & Penyffordd Station (Level Crossing)	4	532											l		
Down and Up" through siding	9	Hope Junction (See below for Penyffordd line.)		<sup>1</sup> 1111  - 			! ! !										
Up''t		Llong (L.C.) (P1.)	2	2					<u> </u>								
and		Mold	1	1070					!				!				
Down	` l !¦	Synthite Siding	-	1458					<u> </u>					 !			
ľ	<u>'</u>	PENYFFORDD TO HOPE JUNG	CTIO	N (SI	DING)											<u> </u>	
		PENYFFORDD TO HOPE JUN	CTIC	N			i		10	10	MAXIMUM PERMISSIBLE SP	PEED	i	i			
	Siding	Penyffordd (See page 133 for Wrexham to ) Dee Marsh Jn. line.)									CW. Siding, 217 yards after Lev passing home signal (facing to up trains).	vel					
	;	Hope Junction (See above for Mold Jn. to Synthite Siding line.)	_	673													

	l	PRESTATYN STATION TO DYS	ERTH (SINGL	E GOODS LINI	E)									
	]	PRESTATYN STATION TO DY	SERTH		İ	1	20	20	   MAXIMUM PERMISSIBL	E SPEED	İ	•	1	:
	working	Prestatyn Station (See page 149 for Chester to Holyhead line.)						10	Through junction			į Į		
	rain	Bryn Rhosyn (L.C.) (P.1)	1 203									1	1	
	One train		1 1231 2 1434 (from							:				  -  -
			restatyn)									į		
		LLANDUDNO JUNCTION TO T	RAWSFYNYDI	C.E.G.B. SIDII	NG					· ·	'			
j		LLANDUDNO JUNCTION TO E BETWS-Y-COED TO BLAENAU BLAENAU FFESTINIOG TO TR	ETWS-Y-COE FFESTINIOG AWSFYNYDD	O C.E.G.B. SIDIN	1G	j	45 30 15	45 30 15	MAXIMUM PERMISSIBLI MAXIMUM PERMISSIBLI MAXIMUM PERMISSIBLE	E SPEED E SPEED E SPEED			 	
		Llandudno Junction (See page 150 for Chester to Holyhead line.)	-   -				15 30	15 30	Through junction between sing Between Llandudno Junction	de line and	down mai	line or	"up &	down" platform
153		Tal-y-Cafn & Eglwysbach U.S. (Level Crossing)	5 203	[										
		Dolgarrog U.S	3   121						i	j				
		Tynddol (L.C.)						İ		1		IL.		At ½ mile distant.
	_	Tan Lan (L.C)						1		1	L	1L		At ½ mile distant.
	Electric token		2 1704 11 268 from andudno		CL	39								;
ļ	Elec Elec	1.	inction)											
		Llanrwst Tunnel (85 yards)						İ						
		Betws-y-Coed	1589											
		Beaverpool Tunnel (110 yards)					Ì							
		Pont-y-Pant Lower Tunnel (144 yards)												
		Pont-y-Pant U.S	623						1	İ				
								!						

escrip- ion of Block		Distance between Signal		Running Lines		ops   id ! uge ;	Perma spec restrict	ed tions,	Catch points spring or unworked trailing points				.—Lon	ve horn g S—Sh	ort
Signal- ling	Stations and	Boxes	Lii	ics		ngs	per h		, , , , , , , , , , , , , , , , , , ,	i	Do	wn ;	U	p	For
on Main Lines (Dots ndicate Block Posts)	Signal Boxes	M. Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position other she	radient Rising nless nerwise nown)	or	Slow or Goods	or	Slow or Goods	
	LLANDUDNO JUNCTION TO	TRAWSFYN	YDD C.E.	G.B. SIDI	NGcont.		i			1				l :	
	Pont-y-Pant Upper Tunnel (66 yards)			] 		:	' 		e e	i				:	
	Dolwyddelen U.S	. 1 ; 728		:	1	!	20	20	Dolwyddelen, between 20 m. 60	0 ch. a	nd 20	m. 70 c	ch.		
	Bertheos Tunnel (46 yards)	A STATE OF THE STA			i										
<b> </b>	Roman Bridge U.S	. 1 1436				į		İ	i				:		
	Roman Bridge Tunnel (43 yards)	.!				i !			· · · · · · · · · · · · · · · · · · ·	i					
	Ffestiniog Tunnel (2 miles 333 yards) N	: : : : : : : : : : : : : : : : : : : :					20	20	Between South end of Ffestiniog	g Tunne	el and l	Blaenau	Ffestin	iog statio	n
	Blaenau Ffestiniog Station	4 1169			: 		1				: !			į .	
	("No signalman" instrument)	16   265 (from Llanrwst & Trefriw)			:		:								
	Cwmbowydd (L.C.) (P.1)	. — 943		:	i	:		! !						:	
	Fronlas Level Crossing	. 1 960		į							!			:	
	Trawsfynydd C.E.G.B. Siding.	. 4 1212		!	i	!							İ		
- :	* The staff is kept at Llanrwst a	1 1 .	ox.		1	1									
	LLANDUDNO JUNCTION TO	LLANDUDN	NO No. 2												
	LLANDUDNO JUNCTION TO	) LLANDUD	NO No.	2.	I		50	50	MAXIMUM PERMISSIBLE	SPEEI	)				
•	Llandudno Junction			1	!	!		15	Through junction from Llandudn						ssenger (platform
	(See page 150 for Chester to Holyhead line.)	'I .		-	ï		15	15	Round curve between station an	nd Llan	dudno	Junction	n Cross	ing	

		Llandudno Junction Crossing — 181 (Level Crossing.) Deganwy (Level Crossing) 1 255  Llandudno No. 1 1 621  Llandudno No. 2 — 660		35 15	35 15	Round Deganwy Curve  Round curve approaching and leaving	station			
İ		MENAI BRIDGE TO CAERNARVON								
		MENAI BRIDGE TO CAERNARVON	i	45	45	MAXIMUM PERMISSIBLE SPEED				;
		Menai Bridge (See page 151 for Chester to Holyhead line.)			15	Through junction CW. Single line, 91 yards 60 after passing starting signal (facing to up trains.)	I	į		
oken		Vaynol Tunnel (498 yards)		40	40	Round curves between 3 and 3½ m.p.		1		
Electric token	$\left\{ \mid : \right\}$	Felin Heli (L.C.) 3 1564					1L	1L		At ½ mile distant.
Elect		Griffiths (L.C.) 1 325		]			1L	1L	į	At ½ mile distant.
		Pandy Lanc (L.C.) 538					1L	1L		At ½ mile distant.
;		Waterloo Port (L.C.) 1 386	1		:		1L	. 1L	!	At ½ mile distant.
		Caernarvon U.S — 1175 7   468 (from Menai Bridge)		30 10	30 10	Through station Through crossing at South end of stati	ion '		: :	
	-	GAERWEN TO AMLWCH (SINGLE GOODS LINE)	<u>' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' </u>			'			<del></del>	
		GAERWEN TO AMLWCH		45	45	MAXIMUM PERMISSIBLE SPEED		}	i :	
	• ing	Gaerwen		15	15	Through junction	İ		: !	
'	One train working	(See page 151 for Chester to Holyhead line.)		35 30	35 30	Round curves between 1½ and 1½ m.p.'s  Between 2 and 2½ m.p.'s	s	;		
'	train	Llangefni (L.C.) 4 1033		30	30	Between 4½ and 5½ m.p.'s	1L	1L		At ½ mile distant.
(	Ouc	Amlwch 13 284 17 1317 (from Gaerwen)		20	20	From 163 m.p. to Amlwch				

<sup>†</sup> Lengthmen's trolleys forbidden. † Absolute block when St. Paul Road Goods Junction is closed.

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		Carlton Road Junction See page 169 for Mortimer St. Junction line, page 167 for Kings Cross L.T. line.	(fr	180   514   5m   Jn.)	:	•		ė į	10	10 10 10	Between Tartan Arrow Depot and down goods line at Carlton Road Junction Through junction to Engine Shed Junction Through junction to Mortimer Street
	f	Up Goods I.B.S. 593 yards be- ore reaching Carlton Road Jn. box.)				A		A			
	a	*Down Goods I.B.S. 631 yards after passing Carlton Road function box.)									
	l (	Belsize Tunnels ‡ 1 mile 107 yards on passenger ine; 1 mile 11 yards on goods ine.)									( 1S 1L 1S 1L Cariton Rd. Jn. Sdgs.
•	F	Finchley Road	1	933	•	•	•	•	65 40	65 50	Fast lines—through junction Between fast and local lines
	! !				Local	A	Local	A	60	50	Local and slow line, Finchley Road to  Bedford 49\(\frac{1}{2}\) m.p., except where  otherwise shown  1S 2L 1S 2L Stopping at Upper Holloway.
											Sidings.
	S	West Hampstead Midland Station.		786	Local	2nd Goods	Local		40	40	Local lines—through Station    2S 1L   Brent Empty Wagon Sidings.   2L 1S   Acton Branch.   Cricklewood Carriage Sidings.
		Watling Street Junction No signals for down goods		1	•						
		or 1st up goods lines.)			nd Goods	Local	Local	}	25	25	Local lines between Cricklewood Station and Cricklewood Junction
•	(3	Cricklewood Junction See page 169 for Acton Wells function line.)		1093	•2nd	Local	Local		20 15	15	CW. Up goods, 150 yards   196   after passing home signal.  Through junction to Acton Wells Junction Local lines, through junction to and from Carriage lines
						1	T		:		

<sup>\*</sup> The 2nd and 3rd paragraphs of the Instructions headed "Failure of Signals, etc.—Rule 81" (shown on page 20 of the General Appendix) respecting Intermediate Block Signals do not apply to this signal, and if a Driver is unable to obtain the attention of the Signalman on the telephone, he must send his Secondman to Carlton Road Jn. box to obtain the instructions of the Signalman. If the signal is cleared during the absence of the Secondman, the Driver must not move forward until he has returned. In the case of trains or locomotives, the driving cabs of which are single manned, the Guard must go to the signal box.

‡ Lengthmen's trolleys forbidden.

Descrip- tion of Block Signal- ling	Stations and	Distance between Signal Boxes	Running Lines	Loops and Refuge Sidings	Perma spe restrice mi	ed tions, les	Catch points, spring or unworked trailing points	 	Do		L—L	otive horn	code hort For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Yds.	Up Dow	Standag Descrip- Wagons	e e		Position	Gradient (Rising unless otherwise shown) 1 in	Main or	 i	Main or	Slow or Goods	
•	Brent Junction No. 1 (No signals for goods lines.)	—  1366	TOCA   TO	NCTION—cont.				:	; ; ;				
	Brent Jn. No. 2 (No signals for fast or local lines.) (See page 170 for Dudding Hill Junction line.)  Hendon Station	— 1421 (from Crickie- wood Jn.)	Å			15	Goods line, through junction	to Acton	Wells	Jn.			
	Silkstream Junction	(from Brent Jn. No. 1.) 1 80 (from Brent Jn. No. 2.)	Local				CW. Up goods, 240 yards	200		:			
	(No signals for fast lines.)  (Up fast and up slow I.B.S. 3 miles 620 yards from Elstree & Borehamwood Station box.)				30	30	after passing home signal.  Through junction from and	to local l	ines			; ; ;	
t	Mill Hill Broadway Station (Down fast I.B.S. 2 miles 516 yards from Hendon Station box. Down slow I.B.S. 1 mile 854 yards from Silkstream Jn. box.)				55	55	Slow lines through Station  C. Down fast, 400 yards after passing I.B. home signal.  C. Down slow, 400 yards after passing I.B. home signal.	188					
t Abso			t Lengthmen's tru	llevs forbidden.		!	after passing I.B. home signal.	:	,				

	Elstree and Borehamwood Station	4	1273		•			20	20	Slow to fast Fast to slow C. Up fast, 765 yards be- 200 fore reaching home signal. C. Up slow, 763 yards be- 200 fore reaching home signal.
•	Radlett Station	2	1268		•		:			
•	Napsbury	2	1447	•				20 75	20	Fast to slow Slow to fast Fast line between Napsbury and St. Albans from 18½ to 20 m.p.'s
•	St. Albans City South	1	1060	•	•	DRS	21			C. Down fast, 1,571 yards 176 before reaching home 176 IS 1L 1S 1L Brent Up Sidings Brent South Sidings or Acton branch.
									80	Fast line, between St. Albans and Napsbury from 20 to 18½ m.p.
	St. Albans City North (Down fast and down slow I.B.S. 2 miles, 106 yards from St. Albans North box.) (Up fast and up slow I.B.S. 1 mile 1,445 yards from Harpenden Station box.)		591							
•	Harpenden Station	4	760	•	•			25	25	Slow lines, round curve at North end of Station
	Harpenden Junction (Up fast and up slow I.B. signals 2 miles, 1,524 yards from Luton South box.) Down fast and down slow I.B. signals, 1 mile, 1,677 yards from Harpenden Junction box.)		1328					80	80	Fast lines, round curves between Harpenden Junction and Luton, 28 and 30 m.p.'s
			:   				! :		!	

Descrip- tion of Block Signal-	Stations and I	Distar betwee	en ;	Runnin Lines	g	Ref	ıd uge	Perma spe- restrict mil	ed tions, ;	Catch points spring or unworked trailing points	ļ			Locomotive horn code L—Long S—Short  Up Fo		
ling	Stations and	Boxe				Sidi	ngs	per l	our		]	Do	wn i	U	p	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	м.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up		Gradient (Rising unless otherwise shown) 1 in		or	Main or Fast	Slow or Goods	
i	LONDON, ST. PANCRAS TO	TRENT	STA	IION NORT	H JUNC	CTION—a	ontinued	:					<b>I</b>	ı	:	
	Luton South	4 1	1389	•	• g •	DRS	45		15	Through connecting line to	Luton Ea	st			i	
Ī	(See page 171 for Dunstable line.)		ļ		No. 3 Platform			15		No. 3 platform line through	station					
	Luton North	_	418		ġ   • ஜ • 											
i	Leagrave Station	2	638	•	•											
 	Sundon	2 1	1691	•	•					C. Up fast and up slow, 700 yards before reaching home signals.	202					
•	Harlington Station	1 1	1080	•	•					C. Up fast, 728 yards before reaching home signal.	202					
										C. Up slow, 700 yards before reaching home signal.	202			: 		
•	Flitwick Station	3	65	-	•											
	Ampthill Tunnels ‡ (715 yards.)							  - 		CW. Up fast and up slow, 620 yards before reaching starting signals	168					
•	Millbrook	3	830	•	•					ing starting signals. C. Up slow, 700 yards before reaching home signals.	202					
										nal. C. Up fast, 800 yards before reaching home signal.	202					
	Houghton Conquest	2	239	•					1	  -  -						

			  - 		CW. Up slow, 567 yards 184 before reaching home 2 signal.
•	Kempston Road Junction	3 521 •	20	20	Through all connections between fast and slow lines
	Bedford Junction (No signals for fast lines.) (See page 172 for Cardington line.)	_ 921	20 15	60 20 15	Slow and local line, Bedford 49½ m.p. to Finchley Road, except where otherwise shown.  Slow lines between 49½ m.p. and Bedford Junction  Slow lines, through junction and round curve
	Bedford North	- 457 (1,334 yds. from Kempston Road Jn. via fast lines.)	20 10 50 40	20	Slow lines between Bedford Junction and Bedford North Slow to fast Fast to slow CW. Down goods, 108 yards 176 after passing home signal. Goods line—Bedford North to Kettering Junction Passenger trains (when authorised) on goods line Bedford North to Kettering Junction.
	Oakley Junction	1 1081 • A A			C. Down main, 744 yards 176 before reaching distant signal.  [1S 1L 1S 1L Stopping Bedford for
•	Sharnbrook Station	5 14 • A A			C. Down main, 1,148 yards before reaching home signal.    18 2L   18 2L   Bedford South Yard. Before reaching home   112 3S   1L 3S
	Wymington Tunnel (1 mile 100 yards.) (Goods lines only.)				Goddington.
	Irchester South	5 904 • A A			C. Up main, 600 yards after 120 passing starting signal. C. Up main, 900 yards be- fore reaching home signal.
	Irchester Junction (Signals goods lines only.) (See page 174 for Higham Ferrers line.)			10	Goods line, through junction to Higham Ferrers
	(Up main I.B.S. 1 mile 91 yards from Wellingborough Junction box.)	A A	65	 	Fast line from 64½ to 66 m.p.
	Wellingborough Junction (See page 174 for Wellingborough London Road line.)			10	Through junction to Wellingborough London Road
•	Wellingborough Station	_ 420		65	Fast line, from 65} to 64! m.p.

ti F S	escrip- on of Block ignal- ling	Stations and	Dista betw Sign Box	een nal		nning ines	Loops ning and		Perma spe restric mil	ed tions, les	Catch points			Locomotive ho L—Long S—		
In In	on Main Lines Dots dicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradient (Rising unless Position otherwise shown) I in	Main or	or	or	or	
	_ 1	LONDON, ST. PANCRAS TO T	RENT	, STA	TION NO	ORTH JUN	CTION—	cont.								
		Finedon Road  Neilson's Sidings	- ;	728	•							2S 1L 3L 1S 4L				Leicester, not stopping Kettering. Stop at Kettering. Manton, not stopping Kettering.
	•	Finedon Station	1	1739	•		URS	28	  -  -  -  -					5S   4L		Forward on goods line at Neilsons Sidings. Wellingborough Up Sidings.
		Kettering Junction (See page 175 for Islip Sidings line.)	2	838			DRS	66	25	50 40 25 20	C. Down main, 824 yards before reaching home signals. Goods line, Kettering Junction to Bed Passenger trains (when authorised) of Kettering Junction to Bedford North Fast to slow Slow to fast Through junction to Islip Sidings Slow line Kettering Junction to Gl	n goods	orth line	4L :	3L 1S	Bedford not stopping at Finedon or Wellingborough Up Sidings Stopping at Finedon or entering Wellingborough Up Sidings.
		Kettering Station (See page 175 for Loddington line.)	I !	313					70	70 10	Junction Fast lines round curves between 71½ and 72½ m.p.	1L 2S 1L 3L 1S	1L 2S 1L	1L	1L	To warn staff. Wigston. Manton.

		Glendon South Junction (Signals slow lines only.) (See page 175 for Syston South Junction via Manton line.)	1	1229	•		}		45 15	60 15	C. Down slow, 935 yards before reaching home signal.  Slow line, Glendon South Junction to Kettering Junction Slow line through junction to Manton Slow lines through junction to and from Glendon North Junction
	•	Glendon North Junction	(fr Kett	679 148 om ering ion.)	•	•	URS	46	10	10	C. Down fast, 800 yards before reaching outer home signal.  Through junction from and to slow lines
		Glendon and Rushton Station		1211							IL 3S Freight trains stopping at Market Harborough.
		(Down I.B.S. 1 mile 263 yards from Glendon & R. Station box)	ļ L	.		]		•	ļ		C. Down line, 750 yards be- fore reaching I.B. home signal.
	•	Desborough North	2	1460	•		DRS DGL	37 140		l	C. Down line, 553 yards before reaching distant signal.  3L 1S  Stopping at Kettering (not passenger trains.)
162									80	80	Round curves between 78½ and 78½ m.p.'s C. Up main, 2 miles 701   132 yards before reaching home signal.
	•	Little Bowden Junction	3	1624	•					30	Main to goods
		Market Harborough (See page 31 for Northampton line.)	_	1444					50	50 20	Through Station Through junction to Northampton
	•	Great Bowden Sidings	1	368					75	75	Round curves between 84 and 84½ m.p.'s
	•	East Langton Station	2	151						ĺ	C. Down line, 800 yards before reaching I.B. home signal.
	•	Kibworth Station	2	646		•					C. Down line, 1,515 yards 130 before reaching home signal.
		:	:								

Descrip- tion of Block Signal-		bety Sig			ming nes	ar	ops id uge	spe restric	anent eed ctions, iles	Catch points spring or unworked trailing points	d	!				orn code —Short
ling	Stations and Signal Boxes	Bo	xes			Sidi	ings	per	hour			<sub>i</sub> Do	own	U	p	For
on Main Lines (Dots Indicate Block Posts)		M.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	:	Up	Position	Gradient (Rising unless otherwise shown) I in	Main or	or	or	or	
	LONDON, ST. PANCRAS TO	TREN	r sta	TION NO	RTH JUN	CTION—	cont.									
•	Wistow			,	•	URS UGL	60 179		i	C. Up line, 750 yards before reaching home signal.		4L 1L 1S 1L1S1L				Wigston Down Sdgs. Glen Parva Jn. Coalville.
	(Down IBS, 2 miles 360 yard from Wistow box.)	S <sup>'</sup>								C. Up line, 2 miles, 399 yards before reaching home signal.	199					
	(Up IBS 1,525 yards from Kilby Bridge box.)				: ! !	1		:		C. Up line, 800 yards before reaching I.B. home signal.	199					
• !	Kilby Bridge	. 3	631	• ;	•	DRS	40				:		İ	1L 2S		Northampton.
	Wigston South Junction (See page 180 for Glen Parva Junction line.)	. 1	1139		• A			20		Through junction to Glen Pa	arva Junet	ion				
	Wigston North Junction (See page 98 for Nuneaton line.)	. —	656	•	• •			50	50 10 20	Round curve South of Wigst Junction and through juncti and to Market Harborougl Goods line, Wigston North J Through junction to Glen Pa	ion from h Junction to	Wigs <del>t</del>	2L1S1L on Sout		ion	Coalville.
	Aylestone Junction		1647	•				:						į	ļ	
•	Knighton South Junction (See page 93 for Burton line.)			•				20	!	Through junction to Coalville	i				1	Glen Parva Junction.
	Knighton Tunnels (104 yards on main lines.) (106 yards on goods lines.)			<b>A</b>	. <b>A</b>			:	i		! ! !	3L 1S	3L 1S			Reception line at Bell Lane.
		İ							,						;	

										,
1 1		1		: it	1					
		i	ļ				i			
	London Road Junction	1	627		•	! !	15		Passenger lines from London Road Junction to Leicester North	
li i	London Road Junction		,	  P*	  P*	: :		į	* Leicester Passenger Station is signalled as a Terminal Station. (See instruction on	
P*	!		1	P	P		!	İ	page 382.)	
	j		i	NB	NB	:	15	15	Goods lines between London Road Junction and 99 m. 29 ch.	
	Leicester Passenger Station East	_ '	294	NB	IND					
P*	(Signals up passenger lines						i	;		
P*	only.)		Ì	P*		:				
•	Leicester Passenger Station West	! (fro			•	'				
P*	(Signals down passenger lines	Lone	ion i		P*					
	only.)	Road	1			:	į			-
•	Leicester North	(fro		•	• •					ĺ
		West	box.)							ļ
<b>\</b>		—   (fro	m .	NB	: NB	; ;	į			
		East b	oox.) !			! !		15	Passenger lines from 99 m. 29 ch. to London Road Junction	
				!			40	15	Passenger trains (when authorised) on goods line from 99 m. 29 ch. to Syston South	
=			,	į					Junction	
165			((1			!				
	Bell Lane	-	664		Ĭ	İ			3L 1S Stopping at Leiceste	-
•	Humberstone Road Junction	-	1024	•	•	: i				1
•	Thurmaston	. 1	1012	•	ė		į		1L 2S 2L 2S Melton Mowbray.	
!	Syston South Junction	2	347	•	: :●	!		40	Passenger trains (when authorised) on goods line to 99 m. 29 ch.	ı
l ī	Syston South Junction (See page 178 for Glendon South Junction line.)		;		නිස් 	:	20 5		Main line through junction to Syston East Junction Goods line through junction to Syston East Junction	
1	South Junction line.)	.		Å	Passenger	; ! ;   !	15		2nd passenger line, Syston South Junction to Syston North Junction	
					2nd P ●			İ		
•	Syston North Junction	.   —	599	• "	5 ∳		40	10	Through junction to Syston East Junction and over curve Passenger trains (when authorised) on goods line to Trent Junction	-
	(See page 180 for Syston East Junction line.)					!	40		Tassenger trans (when audionsed) on goods and	Ì
	,	į.		+	†	!		!	† Absolute Block when	
	İ			,	1			i í	Sileby Stn. box is closed.	ļ
	Sileby Station	. 2	958	:	•			1		
				Δ	À			 		
				T.		:			IS IL 2L IS Melton Mowbray.	
	Barrow-on-Soar Station	. 2	124	•	•				IS IL ZE IS Metter movers).	
	; İ			Å	Á					

Descrip- tion of Block Signal- ling	Stations and	bety   Sig	tance ween gnal oxes		nning ines	a Re	oops nd fuge lings	restric mi	ctions,	Catch points, spring or unworked trailing points	Down	Locomotive L—Long	horn code S—Short
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradient (Rising unless votherwise shown)	Main Slow	Main Slow	
1	LONDON, ST. PANCRAS TO T	REN'	T STA	TION NO	RTH JUN	CTION—	cont.						
•	Loughborough Midland Station	2	1359	• A	A.	URS	50			. {	1S 1L   1S 1L 1S 2L   1S 2L 2S 1L   2S 1L 1S1L1S 1S1L1S		Castle Donington. Derby. Nottingham. Toton.
•	Hathern	2	1013	÷	•					'			
•	Kegworth Station	2	313	Å • • A	<b>A</b>	DRS	34		:	† Absolute Block when Kegworth Stn. box is closed.			
	Ratcliffe Junction	2	1	•	•			ļ			:		
	Red Hill Tunnels (154 yards on main lines.) (170 yards on goods lines.)	    -  -		A	A	į					; ; ;		
	Trent Junction (See page 205 for Clay Cross via Derby line, page 199 for Toton Junction H.L. Goods lines.)		1464	•	•			50 60 25	40 50 25	Passenger trains (when authorised) on go Main lines through junction to and from Main lines, through junction to Sheet a Goods to main Main to goods	1 Trent Station	North Junction	ction n
•	Trent Station North Junction (See page 181 for Newark line, page 195 for Chesterfield line, page 208 for Sheet Stores Jn. line.)		1105					60 30	20 30 60 30				Langley Mill. Blackwell. Pinxton.
ļ		i									-~ <del>-~</del>		i iiiattii.

Descrip- tion of Block Signal- ling	Stations and	Dist betw Sig Bo	veen mal	Run Lir		Ref	ops nd fuge ings	Perma spe restric mii per I	ed tions, les	Catch points, spring or unworked trailing points		Down	L_	motive hor Long S—	n code Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	<del></del> :		Position c	therwise!	Main S	low Ma or or oods Fas	n Slow	Pol
	ENGINE SHED JUNCTION TO  Tottenham North Curve Tunnel No. 3 (103 yards.)  Covered Way (185 yards.)  Junction Road Junction (See below for Gospel Oak line.)  Upper Holloway Station (Up I.B.S. 1,149 yards from Harringay Park Junction Box.)  Crouch Hill Station (E.R.)  Harringay Park Junction (E.R.)	1	861 661 529			N (E.R.)-	-cont.	15	15	Through junction from and to Through junction to Gospei C	Mortimo	er Street	Junction		
	GOSPEL OAK STATION TO JUGOSPEL		ION I					15		MAXIMUM PERMISSIBLE  CW. Up line, 253 yards after passing home signal.	SPEED				

# LONDON, ST. PANCRAS TO TRENT AND BRANCHES—continued

Descrition of Block Signa ling	f	Distance between Signal Boxes	Running Lines	ar Refu	ops id ige ings	Perma spec restrict mile per h	ed ions, es	Catch points spring or unworked trailing points	1	Do	wn	L—L	otive ho ong S-	rn code -Short For
on Main Line (Dot Indica Bloc Posts	5   8   te C	M. Yds.	Up Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or		or	Slow or Goods	
+	BRENT JUNCTION No. 2 TO BRENT JUNCTION No. 2 TO Brent Junction No. 2 (See page 158 for St. Pancras to	DUDDING		OODS L	(NES)	30	30 15	MAXIMUM PERMISSIBL	E SPEEC	)	· · · · · · · · · · · · · · · · · · ·	!		
150	Trent line.)  Dudding Hill Junction  (See page 169 for Cricklewood Jn. to Acton Wells Jn. line.)		† A.B. on down line.	P.B. on u	p line.			CW. Up line, 137 yards after passing home signal.	140					
,	NEASDEN JUNCTION TO NE  NEASDEN JUNCTION TO NI  Neasden Junction (See page 169 for Cricklewood Junction to Acton Wells Junction line.)	EASDEN SC		DODS LI	NES)	15	15	MAXIMUM PERMISSIBI	LE SPEEI	<b>)</b>	: : : : :			
	Neasden South Junction (See page 35 for Marylebone to Claydon L.N.E. Jn. line, page 38 for Northolt Jn. line.)	— 658 B	<u> </u>							: :   	i	: !	!	
	WILLESDEN TO ACTON CAN WILLESDEN TO ACTON CAN Willesden (See page 4 for Euston to Creweline.)  Acton Canal Wharf (See page 169 for Cricklewood Junction to Acton Wells Junction line.)	NAL WHAI		LINE)		15	15	MAXIMUM PERMISSIB	LE SPEEI					

LUTON SOUTH TO DUNSTABLE (GOODS LINE)

ti I S	escrip- ion of Block ignal- ling	Stations and	Dista betw Sign Box	een nal	Rum Lin		an Ref	ops nd uge ings	Perma spec restrict mil per h	ed tions, es	Catch points spring or unworked trailing points		Do		Lon	ive horn	
] ( In	on Main Lines (Dots   Idicate Block   Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown)	or	or	or	Slow or Goods	
		CARDINGTON TO BEDFORD	JUNC	TION	(SINGLE	GOODS I	INE)								ı		
		CARDINGTON TO BEDFORD	No.	1			i		25	25	MAXIMUM PERMISSIBL	LE SPEED	)				
		BEDFORD No. 1 TO BEDFOR	D JU	NCTIO	ON				15	15	MAXIMUM PERMISSIBL	LE SPEED	)				
	Ihrough One train siding working	Cardington  Bedford No. 1 (See page 173 for Bletchley line.)  Bedford Junction (See page 161 for St. Pancras to Trent line.)	2	775		:			5 5	5 5	Over connection between Be Over connection between Be Bedford line	dford No.	1 and Johns	junction Station	with (	Cardington w	on to Bedford line ith Cardington to
_		BLETCHLEY TO BEDFORD, G	OLDI	INGTO	ON C.E.G.I	B. SIDING	s		<del></del>						1		
ļ		BLETCHLEY TO BEDFORD		1 :					. 60	60	MAXIMUM PERMISSIBI	LE SPEED	: <b>)</b>			i	
	•	Bletchley (See page 6 from Euston to Crewe line.)		-			URS	60	25	15 25	Through junction  Between Bletchley and 4 m	ı.p.					
	тсв*	Fenny Stratford U.S. (Level Crossing). (See page 26 for flyover line.)		371				İ	25	25	Through junction to and fro		lley	  -  -  -  -  -	         		At ! mile distant.
		* No. 7 Platform line at Bletchles	(dow	n Bedf	ord) is wor	ked as follo	ows:						112				g mme distant.
	:	Down direction—T.C.B. (P. & Up direction—T.C.B. (P.) betw	P F.) 1	net weer	n signals B'	Y.10/11/16	and BY.25	5.		 	İ		ì	!	:		

# LONDON, ST. PANCRAS TO TRENT AND BRANCHES—continued

	Descrip- tion of Block Signal- ling	Stations and	Distance between Signal Boxes	n :	Running Lines		ige .	Perma spe restric mil per hou	ed tions, es	Catch points spring or unworked trailing points	:	Dow		Locom L—I Up	otive 1	horn code S—Short For
i	on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Y	ds. U	Jp Down	Descrip- tion	Standage Wagons L. & V.	! ;	Up	Position oth	radient Rising inless nerwise nown) I in	or	Slow or Goods	or	or	
		HIGHAM FERRERS TO IRCH				OODS LI	NE)	25	25	MAXIMUM PERMISSIBLE S	SPEED 		' ! . ;		:   ! 	:
	ing Siding	Higham Ferrers (End of Siding.)  Rushden Stop Board		49	! !	!     	. :		!						;   	
174	work	Irchester Junction (See page 161 for St. Pancras to Trent line.)	2 6	76				10	!	Through junction						
	ļ	WELLINGBOROUGH, LONDO							i	A CANADA DE DA MOCCO E O	DEED:	!		:		
		WELLINGBOROUGH LONDO	N ROAI	O TO WE	ELLINGBOROU	GH JUN	CTION	45	45	MAXIMUM PERMISSIBLE SP	PEED		i			;
	•	Wellingborough London Road (Level Crossing.)		:								:		i	i	
	•	Midland Junction	_   2 	99				15	15	Through disused junction at 0 m. C. Down line, 350 yards before reaching starting signal.	<b>63 ch.</b> 80	!		:	:	:   
	•	Wellingborough Junction (See page 161 for St. Pancras to Trent line.)	_ 1	412						before reaching starting (fal signal.	148 alling)				:	:
				İ		!		10		Through junction		-				

		ISLIP SIDINGS TO KETTERING JUNCTION (SINGLE GOODS LINE)				
		ISLIP SIDINGS TO KETTERING JUNCTION	!	25	25	MAXIMUM PERMISSIBLE SPEED
	One train working	Islip Sidings Ground Frame — — (End of line.)				
	wor	Cranford East Sidings 3 18	•	10		Passing under bridge No. 4 at 1 m. 50 ch.
		Kettering Junction 3 1312 (See page 162 for St. Pancras to Trent line.)		: : !	  - 	CW. Single line, 73 yards after passing box (facing to down trains.)
				20		Through junction
		KETTERING STATION TO LODDINGTON (SIDING)			,	
		KETTERING STATION TO LODDINGTON		20	20	MAXIMUM PERMISSIBLE SPEED
175	Through Siding	Kettering Station — — (See page 162 for St. Pancras to Trent line.)		10	10	To and from Loddington branch
	Thr	End of Loddington branch 3 1430				
		CLEADON COUTH HINCTION TO CUCTON CONTINUE WINCE				
	! !	GLENDON SOUTH JUNCTION TO SYSTON SOUTH JUNCTION (VIA	MANTO	ON)		
		GLENDON SOUTH JUNCTION TO SYSTON SOUTH JUNCTION	į	60	60	MAXIMUM PERMISSIBLE SPEED
		Glendon South Jn — — (See page 163 for St. Pancras to Trent line.)			45	Through junction
		Glendon Sidings — 797 DRS	43	: : : :	į	2S 1L 3L 1S Lloyds Sdgs. Corby Sdgs. 3L 1S Stopping Kettering.
		Storefield — 1284 DRS	42			
		·				

## LONDON, ST. PANCRAS TO TRENT AND BRANCHES-continued

Descrip- tion of Block Signal- ling	Stations and	Distribetwood	een nal	Rum Lir		Lo- ar Refu Sidi	nd ige	Perma spe restric mi per	ed tions, les	Catch points, spring or unworked trailing points	1	Do	own	Locom L—L	ong S-	orn code –Short For
on Main Lines (Dots Indicate Block Posts)	I.	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.	1	Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main	Slow or Goods	or	or	
,	GLENDON SOUTH JUNCTION	ТО	SYST	ON SOUT	H JUNCTI	ION (VIA	MANTO	)N)—ca	ont.	ı	1	1	I	ı	1 :	
•	Corby North	3	971					İ		C. Down line, 1,700 yards before reaching outer home signal.	167				: :	
	Lloyds Sidings South	_	994	•	\   			!	    -		•	!				
	Lloyds Sidings North	ļ	852									İ				
	Corby Tunnel‡ (1 mile, 160 yards.)	<u> </u> 								C. Up line, 1,425 yards before reaching distant signal.	200					
	Harringworth	4	1099	1									 	1S 1L 3L 1S		Lloyds Sidings. Corby Sdgs.
	Seaton Tunnel (206 yards.)							1	L							
	(Down I.B.S. 2 miles 290 yards from Harringworth Station box.)					!								İ		
	Glaston Tunnel ‡ (1 mile 82 yards).		İ							C. Down line, 2 miles 531 yards before reaching Manton Junction outer home signal.	;					
	Wing Tunnel (353 yards.)		! !											 		
	(Up I.B.S. 1,263 yards from Manton Junction box.)															
	Manton Junction (See page 179 for Ketton (E.R.)	. 5	409	į	  -  -				25	Through junction to Luffen	ham			: ! !		
					İ	Ì			i				i I			

G	Manton Tunnel N (749 yards.)  (Down I.B.S. 1 mile 432 yards from Manton Junction box.)  Brooke Crossing (Level Crossing.)									C. Down line, 1,050 yards before reaching I.B. home signal.  C. Down line, 1,180 yards before reaching distant signal.
	Braunston Crossing (Level Crossing)  Oakham Level Crossing  Oakham Junction  Langham Junction (Level Crossing.)	3	836 513 159	•	•	URS	80	40	40	Over goods lines
177	Ashwell Station (Level Crossing.)  Sidings G.F (See page 179 for Cottesmore line.)  (Down I.B.S. 1 mile 110 yards from Ashwell Station box.)  (Up I.B.S. 1,754 yards from Whissendine box.)		791			DRS	50			
	Whissendine (Level Crossing.)  Saxby Junction (Down I.B.S. 1 mile 65 yards from Saxby Junction box.)  (Up I.B.S. 1,643 yards from Brentingby Junction box.)	2   (from Ashw	617 n ell					70	70	Round curve between $101\frac{1}{2}$ and $101\frac{3}{4}$ m.p's.
	Brentingby Junction  Melton Mowbray Station  Melton Junction (See page 179 for Old Dalby line.)	1	600 608 958	•	•			40 40 15	40	Over goods lines  Through junction to and from Syston Through junction to Old Dalby

Descrip- tion of Block Signal-		Dista betw Sig	veen nal	Runi Lin		Loc ar Ref	nd uge	Perma spe restric mi	ed tions,   les	Catch points, Locomotive horn code spring or unworked L—Long S—Short trailing points
ling on	Stations and Signal Boxes	Bo	xes			Sidi	ngs	per l	iour	Down Up For
Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip-	Standage Wagons L. & V.		Up	Gradient (Rising unless Position Or or or or Goods I in  Gradient (Rising unless Main or or or Goods Fast Goods
	GLENDON SOUTH JUNCTION	то	SYST	ON SOUTH	I JUNCTI	ON (VIA	MANTO	N)—co	nt.	
	Asfordby Level Crossing (P2)	1	1666							
•	Frisby (Level Crossing)	3 (fro Mel	ton						:	1L 1S Freight trains to Leicester.
	Washstones (L.C.) (P3)	Junc	1033			·				
					,					
	Brooksby (L.C.) (P2)		445							
	Rearsby (L.C.) (P2)	1	569							
<u> </u>	Broom Lane (L.C.) (P2) (P2)	1	99							
	Quéniborough	4 (fro Fris	819 1205 om sby)			D.&UPL	31	55	:	From Queniborough to Syston East Junction, 105½ to 104½ m.p's
	Syston East Junction (See page 180 for Syston North Junction line.)	1	463					20 10	20	Between Syston East Junction and Syston South Junction Through junction to Syston North Junction
	Syston South Junction (See page 165 for St. Pancras to Trent line.)		535					20 10		Through junction to main line Through junction to goods line
	KETTON STATION (E.R.) TO	MANI	ON J	JUNCTION			· · · · · · · · · · · · · · · · · · ·			
	KETTON STATION TO MANT	ON J	UNC	TION				50	50	MAXIMUM PERMISSIBLE SPEED
•	Ketton Station (E.R.) (Level Crossing.)		_							

			Luffenham Junction (Level Crossing.)  (Up I.B.S. 1 mile 491 yards from Manton Junction box.)  Manton Junction (See page 176 for Glendon South Junction to Syston South Junction line.)	2	<b>1075</b>	DRS	80	10		C. Down line, 2 m. 1,637 yards before reaching outer home signal. C. Down line, 700 yards before reaching outer home signal. Through junction	
			ASHWELL SIDINGS TO COTT	ESMO	ORE	(SINGLE GOODS LINE)					
	nn nn		ASHWELL SIDINGS TO COTT	ESM	ORE			20	20	MAXIMUM PERMISSIBLE SPEED	
	, Ķiņ	•	Ashwell Sidings G.F (Staff Station.)	_	_			10	10	To and from Cottesmore Branch	
_	One train working		(See page 177 for Glendon South Junction to Syston South Junction line.)								
179	One		End of Cottesmore branch	2	308						
			MELTON JUNCTION TO OLD	DAL	BY (S	SINGLE GOODS LINE)					
			MELTON JUNCTION TO OLD	DAI	BY			45	45	MAXIMUM PERMISSIBLE SPEED	
			Melton Mowbray Junction (See page 177 for Glendon South Junction to Syston South Junction line.)		_						
	orking		Asfordby Tunnel (419 yards)								
	One train working		Holwell Sidings G.F (See page 180 for Welby Sidings) Saxelby Tunnel (543 yards.)	1	1124						
			Grimston Tunnel (1,305 yards.)		j						
	l		Old Dalby	3	1088						

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sig Box	veen nal	Run Lir		a Re	oops nd fuge lings	Perma spe restric mil per l	ed tions, les	Catch points, spring or unworked trailing points	De	own	LI	motive hor Long S—	n code Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradie (Risin unless Position otherwi shown 1 in	Main se or	or	or	Slow or Goods	
,	HOLWELL SIDINGS TO WELL	BY SI	DING	S (SIDING	)							ı	1	, ,	
	HOLWELL SIDINGS TO WEL	BY SI	DING	S WEST C	GROUND	FRAME	1	15	15	MAXIMUM PERMISSIBLE SPEE	D				
Siding	Holwell Sidings G.F (See page 179 for Melton Junction to Old Dalby line.)		_												
S	Welby Sidings West Ground Frame		775											-	
	WIGSTON SOUTH JUNCTION	то	GLEN	PARVA J	UNCTION										
	WIGSTON SOUTH JUNCTION						!	30	30	MAXIMUM PERMISSIBLE SPEE	E <b>D</b>				
•	Wigston South Junction (See page 164 for St. Pancras to Trent line.)			:					20	Through junction C. Up line, 807 yards before reaching home signal.					
•	Glen Parva Junction (See page 98 for Nuneaton line.)		1063	:				20		Through junction					
	SYSTON EAST JUNCTION TO	SYS	TON	NORTH JU	UNCTION	(GOODS	LINES)								
	SYSTON EAST JUNCTION TO	SYS	TON	NORTH JU	UNCTION			10	10	MAXIMUM PERMISSIBLE SPEI	<b>D</b>				
• A	Syston East Junction (See page 178 for Glendon South Junction to Syston South Junction line.)	_	_		!										
•	Syston North Junction (See page 165 for St. Pancras to Trent line.)		416												

TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES

Descrip tion of Block Signal- ling		Distance between Signal Boxes	Runni Line		Loops and Refuge Sidings	Permanent speed restrictions, miles per hour	Catch points spring or unworked trailing points	Down	Locomotive I L—Long S	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Yds.	Up	Down	Standage Descrip- Wagons		Gradien (Rising unless otherwis shown) 1 in	Main Slow or or		
	Mansfield Junction (See page 185 for Trowell Junction line.)  Wilford Road			CASTLE	STATION (E.R)-	30 30 45 15	Through junction to and from Lenton Slow line, Mansfield Junction to Nottingham Station West  Goods line, Wilford Road to Lenton Station	1L 1S   2L 1S		Sneinton Junction.
P*	Nottingham Midland Station West (No signals for up goods line.)	391	Up middle	<b>†</b>	Nottingham Pass (See instruction		All lines between Station West and I s signalled as a Terminal Station.	London Road J	unction 1S 2L 2S 1L	Trowell Junction (via Radford.) Nottingham New Sidings at Lenton North Junction.
P* P*	Nottingham Midland Station "B" (Signals up passenger lines only.)  Nottingham Midland	— 295 (from Station West box.) — 297		He •	and three up pa. Nos. 1 and 3 are directions through	ssenger lines, na worked in bot	(* Special working.) on East boxes there are three down passe mely up middle, No. 4 and No. 5, all wo h directions between Station West and up middle and No. 5 lines are worked in	rked under Per Station "A" b	missive Block ( ooxes, No. 4 lin	Special Working.) se is worked in both
p*	Station "A" (Signals down passenger lines only.)  Nottingham Midland Station East	(from Station West box.) — 163 (from "A" box.)	<b>,</b> ,	No. 1					1S 2L 2L 2S	Radford.) Beyond Lenton
P*		—   165 (from "B" box.)		Å					4L 5L 2S iL	North Junction. Trent, Beeston Sidings South end down side. Nottingham New Sidings at Lenton North Junction.

	1 1			1 .		1 1			
	•	London Road Junction (No signals for up goods line.) (See page 195 for Netherfield Junction line.)	_	259	•		10	10	Through junction in any direction and between London Road Junction and Station West box on any line
								10	Goods line from passing London Road Junction box to Wilford Road
							15		Through junction to Goods Yard box
				 			40	40	Main lines, between London Road Junction and 1½ m.p.
							15	15	Goods lines between London Road Junction and Sneinton Junction
	•	Sneinton Junction (Level Crossing.)	_	639	•				1S 2L
	•	Colwick Crossing (Level Crossing.)		1068			50	50	Round curves between 1½ and 1¾ m.p.'s
		(Up Midland I.B.S. 1,298 yards from Netherfield Junction box.)							
		Grantham Line Junction (Controlled from Netherfield Junction.) (See page 192 for Aslockton to Netherfield Junction line.)	1	714			25	25	Through junction to and from Grantham
	•	Netherfield Junction	1 (fro Colv Cros	1283 om wick					
	• 1	Carlton & Netherfield Station (Level Crossing)		365					
	İj	Ouse Dyke (L.C.)			1				1L 1L At ½ mile distant
		Stoke Lane (L.C.) (P2)	_	1500					
H.	1 '					1 1	1 1		

Descrip- tion of Block Signal-		Dista betw Sign	een		ning nes	i a	ops nd fuge	Perma spe restric mi	tions,	Catch points spring or unworked trailing points					otive ho	orn code —Short
ling ;	Stations and	Box					ings	per l			ļ	Do	wn	¦ t	Jp	For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position (F	radient Rising Inless herwise hown)	or	Slow or Goods	Main or Fast	Slow or Goods	
	TRENT STATION NORTH JUN	CTIO	N TO	NEWARI	CASTLE	STATIO	N (E.R.)-	-cont.		1						
	Burton Joyce Station (Level Crossing.)	1 2 (fro Carlto Netl fie Stati	on & her- ld									3L 1S				Staythorpe C.E.G.B.
•	Lowdham Station (Level Crossing.)	2	576									3L 13				Staymorpe C.E.G.B.
	Gonalston (L.C.) (P2)	1	83													
	Thurgarton Station	1 2 (fro Lowd Stati	lham			:							; ;			
	Bleasby Station (L.C.)															
•	Fiskerton Junction (Level Crossing.)	2	905													
	Fiskerton Station (L.C.)				}											
	Rolleston Junction Station(L.C.)	:														
	Staythorpe Crossing (Level Crossing.)	[	360								ļ					
	Newark Castle Station (E.R.) (Level Crossing.)	2	1303					30	30	Between 16 m. 70 ch. and Newar	rk Cast	ie Stati	ion			

•	LENTON SOUTH JUNCTION TO LENTON NORTH JUNCTION (GOODS LINI  LENTON SOUTH JUNCTION TO LENTON NORTH JUNCTION  Lenton South Junction   -    (See page 181 for Trent to   -	ES) 20	20	MAXIMUM PERMISSIBLE SPEED
	Newark line.)  Lenton North Junction — 478 (See below for Mansfield Junction to Trowell Junction line.)			
	MANSFIELD JUNCTION TO TROWELL JUNCTION	<u>.</u>		
	MANSFIELD JUNCTION TO TROWELL JUNCTION	80	80	MAXIMUM PERMISSIBLE SPEED
	Mansfield Junction (See page 182 for Trent to Newark line.)	30 30	30 30	Through junction to and from Radford Round curve between Mansfield Junction and Lenton North Junction
	Lenton North Junction 708 (See above for Lenton South Junction line.)	30	30 20	Through junction from and to Nottingham Through junction to Lenton South Junction  Hucknall.
	Radford Junction (See page 186 for Shirebrook (West) Sidings line.)	35 35	35	Through junction and round curve to and from Trowell Through junction to Mansfield CW. Down line, 80 yards after passing signal box. C. Down line, 700 yards after passing signal box. C. Down line, 1 mile 120 yards after passing signal box. C. Down line, 1 mile 890 yards after passing signal box. Down line, 1 mile 890 yards after passing signal box.  112
•	Trowell Junction 4 1633 (See page 196 for Trent to Chesterfield line.)	20	20	C. Up line, 1,260 yards after passing signal box.  238  1L 2S  2L 2S  Beeston via Lenton South Junction.  Round curve and through junction to and from main line
		10		Through junction to goods line.

Stations and Signal Boxes  RD JUNCTION TO SHIRD JUNCTION TO SHIRD JUNCTION TO SHIRD JUNCTION TO SHIRD JUNCTION	REBR	Yds.			Descrip- tion	Standage Wagons L. & V.	per l		Position Grad (Ris unle other show 1 i  MAXIMUM PERMISSIBLE SP Through junction	ent ng ss Main vise or n) Fast	Slow or Goods	Main or	Slow or Goods	Locomotive for Nottingham
RD JUNCTION TO SHIRD JUNCTION TO SHIRD JUNCTION TO SHIRD INTO SHIRD SHIP IN STREET IN	REBR	OOK	(WEST) S	IDINGS Œ	tion	Wagons		60	Position (Ris unle other show 1 i	ng ss Main vise or n) Fast	or	or Fast	or	Locomotive for Nottingham
RD JUNCTION TO SH					.R.)		60		)	EED		2S 1L		Nottingham
rd Junction	IREB	ROOK —	(WEST) S	SIDINGS			60		)	EED		2S 1L		Nottingham
page 185 for Mansfield	_							35	Through junction	<b>I</b> I		2S 1L		
						1				ĺ	1		]	Station of ocyona.
	!									1L 1S 3L 1S				Cinder Hill. Stopping at Basford Junction.
	i													
d Sidings	1	1188					40	40	Between 1271 and 1272 m.p.'s					
n Street Crossing Crossing.)	_	663								2L 2S				Bestwood Park Junction.
d Junction	-	752												
age 108 for Cinder Hill						i i	40	40	Between 128‡ and 129‡ m.p.'s					
II Farret Cressins		454										1L 2S		Lenton South
Crossing.)	1	434										4L		Junction. Reception Sidings at Lenton North
ood Park Junction page 189 for Bestwood ry line and Calverton ry line.)	-	1127						}						Junction.
a 11 ( )	ge 188 for Cinder Hill  Forest Crossing  Crossing.)  od Park Junction age 189 for Bestwood  y line and Calverton	ge 188 for Cinder Hill Forest Crossing 1 Crossing.)  od Park Junction age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  i Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  Forest Crossing 1  Od Park Junction — 1127  age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  Forest Crossing 1 454  Crossing.)  od Park Junction — 1127  age 189 for Bestwood  y line and Calverton	ge 188 for Cinder Hill  40  Forest Crossing 1 454  Crossing.)  od Park Junction — 1127  age 189 for Bestwood  y line and Calverton	ge 188 for Cinder Hill  40 40  Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  40 40 Between 128‡ and 129‡ m.p.'s  i Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  40 40 Between 128‡ and 129‡ m.p.'s  Forest Crossing.)  od Park Junction — 1127  age 189 for Bestwood  y line and Calverton	ge 188 for Cinder Hill  40 40 Between 128‡ and 129‡ m.p.'s  i Forest Crossing 1 454 Crossing.)  od Park Junction — 1127 age 189 for Bestwood y line and Calverton	ge 188 for Cinder Hill  40 40 Between 128½ and 129½ m.p.'s  1 L 2S  Crossing.)  1 454  Od Park Junction — 1127  age 189 for Bestwood  y line and Calverton	ge 188 for Cinder Hill  40 40 Between 128‡ and 129‡ m.p.'s  1 454  Crossing.)  od Park Junction — 1127  age 189 for Bestwood  y line and Calverton

	Hucknall Colliery Sidings	1	336					40	C. Down line, 527 yards before reaching distant signal.  CW. Down line, 673 yards before reaching starting signal.  Between 131½ and 132 m.p.'s			
•	Linby Colliery Sidings (Level Crossing.)	1	59								2S 1L	Bestwood Park Junction.
	Linby Station (Level Crossing.)		989						C. Down line, 656 yards before reaching home signal.			
	Annesley	2	40						C. Down line, 1 mile 332 yards before reaching home signal. C. Down line, 884 yards before reaching home signal.			
	Kirkby Tunnel (199 yards.)								C. Up line, 1 mile 60 yards before reaching home signal.			
	Kirkby-in-Ashfield Station Junction (Level Crossing.) (See page 201 for Pye Bridge line.)	1	1421					25	Through junction to Pye Bridge			
	Kirkby-in-Ashfield Sidings (Level Crossing.) (See page 189 for Metal Box Co's Siding line.)		883	-	DGL	75			fore reaching home 1	L 2S 4L		Mansfield Colliery Junction. Kings Mill Sidings.
•	Sutton Junction (Level Crossing.)	1	160				40		Between Kirkby Sidings and Mansfield S	South Juncti	on from 137½	to 139 <sup>1</sup> m.p.'s
	Sutton Forest (L.C.) (P2)		592						C. Up line, 345 yards before reaching home 1 signal.			
	Mansfield South Junction (See page 190 for Rufford line.)	1 (fro					15	40	Between Mansfield South Junction and Kirkby Sidings from 139½ to 137½ m.p.' Through junction to Rufford	r's	1L 2S 5S	Pye Bridge. Kirkby Reception line.
								į				

Descrip- tion of Block Signal-		Dist bety Sig	veen nal	Run Lii	ning nes	ar Ref	ops nd fuge	Perma spe restric mii	ed tions, les	Catch points spring or unworked trailing points	l			LLo	ong S-	<del></del>
ling on	Stations and Signal Boxes	Во	xes			Sid	ings	per l	nour			Do	wn	U	p	For
Main Lines (Dots Indicate Block Posts)		М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown)	Main or	or	Main or Fast	Slow or Goods	
	RADFORD JUNCTION TO SHI	REBI	гоок	(WEST) S	IDINGS (E	.R.)—con	t.									
	Brickyard (L.C.)									C. Up line, 1,181 yards before reaching Mansfield South Jn. distant signal.	130	1L		1L		Approaching level crossing.
	Sherwood Colliery Sidings South	1	1336			URS	39									
•	Shirebrook (West) Sidings (E.R.)	2	830									<u> </u>				
	BASFORD JUNCTION TO CIN	DER	HILL	(SINGLE	GOODS L	INE)						•	==			
	BASFORD JUNCTION TO CIT	NDER	HILI	Ļ				15	15	MAXIMUM PERMISSIBI	LE SPEEI	)				
One train working	Basford Junction (See page 186 for Radford Junction to Shirebrook (West) Sidings line.)	_	 	,												
trair	Cinder Hill	_	909	1 												
la l	End of branch	_	541													
-																

		BESTWOOD PARK JUNCTION	OT P	BEST	WOOD PARK COLLIERY	SINGLE GOO	ODS LI	INE)	
		BESTWOOD PARK JUNCTIO	N TO	BEST	WOOD PARK COLLIERY		10	10	MAXIMUM PERMISSIBLE SPEED
	One train working	Bestwood Park Junction (See page 186 for Radford Junction to Shirebrook (West) Sidings line.)  Bestwood Colliery Loaded Sidings G.F.		1285					
Ì		BESTWOOD PARK JUNCTION	or i	CALV	ERTON COLLIERY (SINGI	E GOODS L	INE)		
		BESTWOOD PARK JUNCTIO				1 1	1	15	MAXIMUM PERMISSIBLE SPEED
	Electric Token	Bestwood Park Junction (See page 186 for Radford Junction to Shirebrook (West) Sidings line.)		_					
	Sidings	Calverton Colliery ("No signalman" instrument.)	6	757					
	s [ ]	Loaded Wagon Sidings	_	481					
189		<del></del>		<u> </u>					
		KIRKBY SIDINGS TO METAL	BOX	COM	PANY'S SIDING (SINGLE	GOODS LINE	Ξ)		
		KIRKBY SIDINGS TO METAL KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET			1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	vorking		IT CO		1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	working	KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET Kirkby Sidings (See page 187 for Radford Junction to Shirebrook (West)	IT CO		1		10	10	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	Siding working	KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET Kirkby Sidings (See page 187 for Radford Junction to Shirebrook (West) Sidings line.) Kirkby Colliery Empty Wagon	IT CC	OX C	1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	working	KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET Kirkby Sidings (See page 187 for Radford Junction to Shirebrook (West) Sidings line.)  Kirkby Colliery Empty Wagon Sidings	IT CC	OLLIE OX C	1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	Siding working	KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET Kirkby Sidings (See page 187 for Radford Junction to Shirebrook (West) Sidings line.)  Kirkby Colliery Empty Wagon Sidings  Summit Colliery  Sutton-in-Ashfield Metal Box	IT CC	668 388	1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED
	Siding working	KIRKBY SIDINGS TO SUMM SUMMIT COLLIERY TO MET Kirkby Sidings (See page 187 for Radford Junction to Shirebrook (West) Sidings line.)  Kirkby Colliery Empty Wagon Sidings  Summit Colliery  Sutton-in-Ashfield Metal Box	IT CC	668 388	1		10	10 15	MAXIMUM PERMISSIBLE SPEED MAXIMUM PERMISSIBLE SPEED

<sup>†</sup> See local instructions on page 386.

\* Train staff kept in the Loaded Wagon Sidings Weighbridge Office.

tie B Si	scrip- on of lock gnal- ling	Stations and	Dista betw Sign Box	een nal	Runi Lin	ning nes	Loo ar Ref Sidi	id uge	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points	Do		L—L	otive horong S	n code Short For
In E	on Main Lines Dots dicate lock osts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	Down	Up	Gradien (Rising unless Position otherwise shown) 1 in	Main	Slow or Goods	Main or Fast	Slow or Goods	
		MANSFIELD SOUTH JUNCTIO					E.R.) (SIN	GLE GO	ODS I				1		<b>!</b>	
		MANSFIELD SOUTH JUNCTION	ON T	O RU	FFORD C	OLLIERY			15	15	MAXIMUM PERMISSIBLE SPEEI	) 				
Toten	•	Mansfield South Junction (See page 187 for Radford Jn. to Shirebrook (West) Sidings line.)	_													
Fleotrio		Mansfield Colliery Junction	2	721		The direct	ion of the	line from	 Mansfie	 eld Sout	 h Junction to Rufford Colliery Sidings (	 E.R.) is	UP			
		Rufford Colliery Sidings (E.R.)	2	293												
		EAST LEAKE TO NOTTINGHA	M. W	ÆEKI	DAY CROS	S JUNCTI	ON						<u>,                                    </u>			
		EAST LEAKE TO NOTTINGH							60	60	MAXIMUM PERMISSIBLE SPEE	D				
	•	East Leake	_	_	i	İ	URS	65			C. Up line, 626 yards before reaching home signal.					
		Hotchley Hill	1	110			URS	60			C. Up line, 718 yards before reaching home signal.					
		Gotham Sidings (See page 191 for Gotham line.)	1	442				38* when h clear.)								
	•	Ruddington	2	144			DPL	88								
	•	Nottingham Arkwright Street	3	850					40	30	Between Arkwright Street and Week	day Cro	oss June	ction		

	Siding •	Nottingham Weekday Cross Junction (See page 195 for Trent Lane Junction line.) Victoria Street Tunnel (396 yards.) End of line		975						
	1	GOTHAM BRANCH (SINGLE	GOO	DDS L	INE)					
	l I	GOTHAM BRANCH						15	15	MAXIMUM PERMISSIBLE SPEED
One train	vorking	Gotham Sidings (See page 190 for East Leake to Weekday Cross Junction line.)	_							
	MON A	End of branch	1	680						
r		ASLOCKTON STATION (E.R.)	TO N	ETH	ERFIELD JUNCTION	1	<u> </u>	<u> </u>		
	Ì	ASLOCKTON STATION TO NI						60	60	MAXIMUM PERMISSIBLE SPEED
2	•	Aslockton Station (E.R.)		_	1					
		Bingham Station (Level Crossing.) (Up I.B.S. 2 miles 215 yards from Rectory Junction.)	2	608		DRS URS	74 33			C. Up main, 650 yards before reaching starting signal. C. Down line, 650 yards before reaching signal D.121. C. Up line, 650 yards before reaching I.B. home
Jones Line	MIL 11110	Radcliffe-on-Trent Station						:		signal.
10 to 12 to	∄1	East Curve Junction (Controlled from Rectory Junction.) (See page 193 for Cotgrave Colliery line.)	3	1379				15		Through junction to Cotgrave Colliery
		West Curve Junction (Controlled from Rectory Junction.) (See page 193 for Cotgrave Colliery line.)		579					15	Through junction to Cotgrave Colliery

Descrip- tion of Block Signal-		Distance Running between Lines			Ref	ops nd fuge	Perma spe restric mil	ed tions, les	Catch points  Spring or unworked  trailing points  Locomotive horn code L—Long S—Short	
ling	Stations and	Bo	xes			Sid	Sidings		hour	Down Up For
on Main Lines Dots dicate Block Posts)	e	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	l i	Up	Position  Gradient (Rising unless or or or shown) 1 in  Gradient (Rising unless or or or or Fast Goods Goods
, ,	ASLOCKTON STATION (E.R.)	TO N	NETHE	ERFIELD J	UNCTION	-cont.		1	ı	
	Rectory Junction (See page 193 for Gedling Colliery line.)	(fre	210 408 om ham ion.)	•	A			30 15 40	30 40	To and from Netherfield Station Through junction to Carlton Field Over goods lines between Rectory Junction and Colwick East Junction
	Colwick East Junction (See page 194 for West Departure line and Colwick Estates Branch.)		810	•	•					CW. Up main, 370 yards before reaching starting signal. CW. Up goods, 246 yards before reaching starting signal.
	Netherfield and Colwick Station							30	30	Through Netherfield and Colwick Station
	Netherfield Junction (See page 194 for Trent Lane Jn. line.)		1432				:	30 25	30 25	Through junction Through connections to and from Nottingham Midland C. Down line, 302 yards 160 after passing box.  Locomotive for London Road Goods Yard.
	Junction with Trent to Newark Castle line. (Controlled from Netherfield Junction.) (See page 183 for Trent to Newark Castle line.)	_	569					25	25	Through junction with Newark line

Gedling Colliery E.W.S.

Descrip- tion of Block Signal- ling	Stations and Signal Boxes	Distance between Signal Boxes			Running Lines		Loops and Refuge Sidings		anent æd etions, les hour	Catch points spring or unworked trailing points		Down		Locomotive ho		-Short
on Main Lines (Dots Indicate Block Posts)			Yds.	Up	Down	Descrip-	Standage	-		(Ri un Position othe sho	rwise	Main or		Main or	Slow or Goods	For
	COLWICK WEST DEPARTURE			NGLE GOO!	DS LINE)	(DOWN 1	DIRECTIO	[	<b>VLY)</b>	1		1	1		1	
• A	COLWICK WEST DEPARTURI Locomotive Junction (See page 193 for Rectory Jn. to Gedling Colliery line.)	E LIN	(E 				:	10		MAXIMUM PERMISSIBLE SI	PEED					
•	Colwick East Junction (See page 192 for Aslockton to Netherfield Junction line.)	_	680		l 											
	COLWICK EAST JUNCTION TO	o co	LWIC	k estate:	S (SINGLE	GOODS	LINE)								<del>" ! -</del>	
	COLWICK EAST JUNCTION T	O CC	LWI	CK ESTATI	ES			5	5	MAXIMUM PERMISSIBLE SE	PEED			1		
(No staff)	Colwick East Junction (See page 192 for Aslockton to Netherfield Jn. line.)	-	-				NOTE	The state of		To the second						
(3)	Exchange Sidings						NOTE—	TE—Trains re		at Exchange Sidings						
, ( :	End of branch	1	726													
	NETHERFIELD JUNCTION TO	LON	DON	ROAD JUI	NCTION (	VIA TRE	NT LANE	E JUNG	CTION	)	-					
	NETHERFIELD JUNCTION TO TRENT LANE JUNCTION TO	TRE LONI	NT L	ANE JUNG ROAD JUN	CTION NCTION			60 15	60 15	MAXIMUM PERMISSIBLE SP MAXIMUM PERMISSIBLE SP	EED					
	Netherfield Junction (See page 192 for Aslockton line.) (Down I.B.S. 928 yards from Netherfield Junction.)	-	-					30	30	Through junction						

	NB NB	Trent Lane Junction (See below for Weekday Cross Juncion line.)  London Road Goods Yard  London Road Junction (See page 183 for Trent to Newark Castle line.)	2   227 — 675 — 381	Arrival		5	5	CW. Down arrival line, 253 yards before reaching dwarf shunting signal to down arrival line (points worked from Trent Lane Junction box.)  Passing signal box	2S 2L 2S 1L	Cotgrave Colly. Colwick East			
195		TRENT LANE JUNCTION TO VITTENT LANE JUNCTION TO Trent Lane Junction (See above for Netherfield Junction to London Road Junction line.)  Weekday Cross Junction (See page 191 for East Leake line.)	WEEKDAY C			30	30	MAXIMUM PERMISSIBLE SPEED	2S 2L 2S 1L	Cotgrave Colly. Colwick East			
	TRENT TO CHESTERFIELD (E.R.) AND BRANCHES  TRENT STATION NORTH JUNCTION TO CHESTERFIELD, HORN'S BRIDGE (E.R.)  TRENT STATION NORTH JUNCTION TO HORN'S BRIDGE  TRENT STATION NORTH JUNCTION TO HORN'S BRIDGE  TRENT STATION NORTH JUNCTION TO HORN'S BRIDGE  Trent Station North Junction   -												

# TRENT TO CHESTERFIELD (E.R.) AND BRANCHES—continued

	Descrip- tion of Block Signal- ling	f		Distance Running between Lines Signal Boxes			aı Ref	Loops and re Refuge Sidings			Catch points spring or unworked trailing points		Down		Locomotive h L—Long S		orn code —Short For	
- 1	on Main Lines (Dots Indicate Block Posts)	ain nes lots lots lots lots lots lots lots lot	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.	1	Up	Position (Ri un othe sho	ndient ising iless erwise own) in	OΓ	Slow or Goods	Main or	Slow		
		TRENT STATION NORTH JUN	CTIO	N TO	CHESTE	RFIELD, 1	IORN'S I	BRIDGE-	-cont.									
	•	North Erewash Junction (Level Crossing.)	-	941														
		Long Eaton (Town) (Level Crossing.)	-	385	•	•		į										
		Toton Junction (See page 199 for High Level goods lines.)		1223	•	•				20	Through junction to High Level (	Goods	line			2S 1L	Chilwell Sidings or Toton Up East Sidings,	
196	•	Toton Centre	-	867	•	8											~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
		Toton Down Sidings North (Signals down goods line only.)	-	391		H.L. Goods							:					
	•	Stapleford and Sandiacre Station	-	633	•	• •										4L	Up Reception Sidings.	
	• i	Stanton Gate South	1	24	•	• •			70	70	Main lines round curves between 12	 23½ an	d 124	m.p.'s				
	•	Stanton Gate North (See page 200 for Quarry Hill Road line, page 199 for Stanton Old Works line.)	_	464	•	•			40		Passenger trains (when authorised Stanton Gate North to Pye Bri	l) on g idge J	goods l unction	ine, 1	3L 1S	3L IS	Recption Sidings.	
		Trowell Junction (See page 185 for Mansfield Junction line.)	1	577	•	•				20 10	Main line through junction to Radi Goods line through junction to Rad				3S 1S	3S 1S	Reception lines at Stanton Gate	
		Junction mic.)													<b>5</b> S		North. Goods line at Stanton Gate North.	
															3S 1L	3S 1 L	Beeston via Lenton South Junction.	

	•	Ilkeston South Junction (No signals for goods lines.)  Bennerley Junction		895 1490		•			70	70	Main lines, round curves between Bennerley Junction and Shipley Gate 127½ and 128½ m.p.'s    IL IS   IS   IS   IS   IS   IS   IS
	•	Shipley Gate (Level Crossing.)	1	189	•	•					* Passenger trains and Freight trains not calling at Toton.
	•	Heanor Junction (See page 201 for Ormonde Colliery line.)		1723	•	•					
		Langley Mill Station		786	•	•					1L 4S Up sidings at Codnor Park Station Junction.
		Codnor Park Station Junction	2	887	A A	• <b>A</b>			60	60	Main lines, round curves between 132 <sup>1</sup> / <sub>4</sub> and 132 <sup>3</sup> / <sub>4</sub> m.p.'s
		Codnor Park Junction (See page 201 for Swanwick Sidings line.)	_	873	• A	• A			20 15	20	Goods to main Main to goods Through junction to Swanwick Sidings
197		Riddings Junction	_	757	•	• A			70	70	Main lines, round curves between 133½ and 134½ m.p.'s
		Pye Bridge Junction (See page 201 for Kirkby line.)	_	877	•	•			15	40	Passenger trains (when authorised) on goods line Pye Bridge Junction to Stanton Gate  North  Through junction to Pinxton
	•	Coates Park South	_	1222	•	•					
		Coates Park North		627	<b>A</b>	A					CW. Down main, 415 yards before reaching home signal. (Points worked from Coates Park South and self-operative when that box is closed.)  150  1L 2S  2L 2S  2L 1S  Blackwell East Junction.  Terminating at Westhouses.
		Alfreton Tunnels (840 yards.)							5		Passenger trains on down goods line through Alfreton Tunnel
	•	Alfreton Station			<b>†</b>	†	URS	45			
	$\dot{\bullet}$	Blackwell South Junction (See page 203 for New Hucknall		1400	•	•			15		Goods line through junction to Blackwell East Junction
		Colliery line.)						:	20		Goods line, over colliery workings and curves between Blackwell South Junction and Morton Sidings, 136 m. 70 ch. to 138 m.p.

<sup>†</sup> Absolute Block when Alfreton Station box is closed.

Descrip- tion of Block Signal-		Distance between Signal		Rur Li	Running Lines		ops id uge	Perma spe restric mil	ed tions,	Catch points spring or unworked trailing points			Locomotive horn code L—Long S—Short			
ling on	Stations and Signal Boxes		xes				ings	per l		January Politica		Down		Up		For
Main Lines (Dots Indicate Block Posts)	e	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown)	Main or	Slow or Goods	Main or Fast	or	
	TRENT STATION NORTH JUN	CTIO	N TO	CHESTE	RFIELD, H	ORN'S B	RIDGE—	cont.								
	Westhouses Station (See page 204 for Blackwell East Jn. to Pleasley East line.)	_	550	•	•											
	Morton Sidings	1	1546	•	•		į		20	Goods line, over colliery workings and curves be- tween Morton Sidings		1L 3S	1L 3S			Stopping Chester- Freigh
										and Blackwell South Junction 138 m.p. to 136 m. 70 chs.		5L	5L			Stopping Avenue Sdgs.
								40 55	40 55	Goods lines, round curves bette Main lines, round curves bette and 1413 m.p.'s	ween Mort ween Mor ween Mor	on Sidi ton Sidi	ngs and lings an	Clay ( d Clay	ross So Cross Cross	outh Junction South Junction, 141
•	Clay Cross South Junction (See page 207 for Derby line.)	2	1705	• A	A Goods			30	30 60	C. Up main, 25 yards after passing starting signal.  Main lines through junction for Main line through junction to the start of the sta	160 rom and to O Derby	o Trent				
•	Clay Cross North Junction	_	580	•	* 2nd			20	20	Main to goods Goods to main			•			
·	Avenue Sidings (Level Crossing.) (See page 205 for Williamthorpe Colliery line.)	1	19	•	•		:	:								
•	Hasland Sidings	-	1447	•	•								1L 3S			Stopping Chesterfield.
•	Chesterfield Horns Bridge (E.R.)	1	907	•	•											

- 1		TRENT JUNCTION TO TOTON	JUNCTI	ON (HIGH	LEVEL GO	ODS LIN	NES)									
		TRENT JUNCTION TO TOTON	JUNCT	ION				45	45	MAXIMUM PERMISSIBL	E SPEED					
	•	Trent Junction (See page 166 for St. Pancras to Trent line.)	-   -													
	•	Meadow Lane Junction (See below for Attenborough Junction line.)	1 707						20	Through junction to Attenbo	rough Jun	ction			3L 1S	Lenton North Junction.
1	•	Toton East Junction	765					15		Through junction to Toton 1	Down Sidi	ngs				
	•	Toton Junction (See page 196 for Trent to Chesterfield line.)	- 658					15		Through junction						
	-	ATTENBOROUGH JUNCTION	го меаі	OOW LANE	JUNCTIO	N (GOOI	OS LINES	<b>5)</b>					· · ·		]	
	i	ATTENBOROUGH JUNCTION	TO MEA	DOW LANE	E JUNCTIO	N		20	20	MAXIMUM PERMISSIBL	E SPEED	ì				
_	•	Attenborough Junction (See page 181 for Trent to Newark Castle line.)				:								4L		Toton Old Bank or Reception Sidings.
199	•	Meadow Lane Junction (See above for Trent Junction to Toton Junction line.)	— 1400													
-	<u>_</u>	STANTON GATE NORTH TO S	STANTON	GATE OLI	o works	(SIDING	)				! <u> </u>					
		STANTON GATE NORTH TO	STANTO	N GATE OL	D WORKS	5		15	15	MAXIMUM PERMISSIBL	E SPEED				]	
	Siding	Stanton Gate North (See page 196 for Trent to Chesterfield line.)														
	S	Stanton Gate Old Works	1 269	1		:									] 	
															]	
- 1				1												

### TRENT TO CHESTERFIELD (E.R.) AND BRANCHES—continued

Blo Sigr lin	n of ock	Stations and Signal Boxes				ening nes	a Re	oops nd fuge lings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Down		ong S-	rn code -Short For	
Ma Lin (Do India Blo Pos	ain nes ots cate ock	Signal Doxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position ot s	Gradient (Rising unless therwise shown) 1 in	Main Slow or or	Main or Fast	or		
	i	STANTON GATE NORTH TO (	-			•	GOODS	LINE)	ı				ı	! <b>!</b>	ı		
		STANTON GATE NORTH TO	QUA:	RRY	HILL ROA	AD			15	15	MAXIMUM PERMISSIBLE	SPEED	)				
Electric Token		Stanton Gate North (See page 196 for Trent to Chesterfield line.)	_	1							İ		i				
in the		Nutbrook (L.C.) (P2)		1299					i		Drivers must whistle continuo Nutbrook Crossing, until reach	ously from	m the whistle	boards	on the	approach si	des of
Elec Through Sidings	e e e e e e e e e e e e e e e e e e e	Stanton New Works Sidings (See below for West Hallam line.)	1 (fro Stan Gate Nor	ton							tions.	ning the d	crossing. See	pages 33	sy and 3	90 for local i	nstruc-
) dan	ngn.	Fork Junction		405	<u>i</u> Í												-
Thro		Stop board (Quarry Hill Road.)	_	782													
		End of line	-	593													
		STANTON NEW WORKS SIDIN	GS T	o w	EST HALL	AM GROU	JND FRA	ME (SIN	GLE G	oods	LINE)		<u> </u>	<u> </u>		•	
		STANTON NEW WORKS SIDIN	NGS [	TO W	EST HALI	LAM GRO	UND FR	AME	15	15	MAXIMUM PERMISSIBLE	SPEED					
One train working	•	Stanton New Works Sidings (See above for Stanton Gate North to Quarry Hill Road line.)	-														
i		West Hallam G.F	2	431													
One t		End of line		301	,					;			ļ				

200

i		HEANOR JUNCTION TO ORMO	ONDE COLLIERY (SIDING)							ŀ
	ļ	HEANOR JUNCTION TO ORMO	ONDE COLLIERY		15	15	MAXIMUM PERMISSIBLE SPE	ED		
	Siding	Heanor Junction (See page 197 for Trent to Chesterfield line.)  Heanor Lane (L.C.)  Ormonde Colliery	1 1							
ŀ										
	Siding	CODNOR PARK JUNCTION TO CODNOR PARK JUNCTION TO Codnor Park Junction (See page 197 for Trent to Chesterfield line.) Swanwick Sidings	SWANWICK SIDINGS	DING)	15	15	MAXIMUM PERMISSIBLE SPE	ED		
		Swanwick Sidings	2 206							
	ì	PYE BRIDGE JUNCTION TO KIE PYE BRIDGE JUNCTION TO KIE		-	25	25	MAXIMUM PERMISSIBLE SPEI	ED	I I	1
201	•	Pye Bridge Junction (See page 197 for Trent to Chesterfield line.)				15	Through junction			
	•	Sleight's Sidings East (Level Crossing.)	1 160			i	4			
		Pinxton Station (Level Crossing.) (See page 202 for Bentinck Colliery Loaded Wagon Sidings	1109		15		Through junction to Bentinck Colliery	4L		Beyond Kirkby Sidings.
		line.)		i İ			Drivers must whistle when approaching Lower Portland, between 1364 and	ig the Butterle l 136‡ m.p.'s	y Co's occupation	n level crossings near
	•	Upper Portland (Level Crossing.)	1   544			!   	C. Down line, 970 yards before reaching home signal.			
	•	Bentinck Colliery Sidings (See page 203 for Bentinck Colliery Mid. Empty Wagon Sidings line.)	— 1689 —			:	C. Down line, 888 yards before reaching home signal.			
		Kirkby Station Junction (Level Crossing.) (See page 187 for Radford Junction to Shirebrook (West) Sidings (E.R) line.)	—   1376				C. Down line, 600 yards before reaching home signal.			

### TRENT TO CHESTERFIELD (E.R.) AND BRANCHES—continued

1	Descrip- tion of Block Signal- ling	Stations and Signal Boxes	Distribety Sig Box	nal	Rum Lin		an Ref	ops ad uge ings	Perma spe restric mil per l	ed tions, les	Catch points spring or unworked trailing points		Do		L—L	otive ho ong S-	rn code -Short For	
]	on Main Lines (Dots Indicate Block Posts)		M.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods		
		PINXTON NORTH TO BENTIN	CK C	COLLI	ERY LOAI	ED WAG	ON SIDI	NGS (SI	NGLE (	GOODS	LINE)			. ,		. 1		Ì
		PINXTON NORTH TO BENTIN	ICK (	COLL	IERY LOAI	DED WAG	ON SID	INGS	10	10	MAXIMUM PERMISSIBL	E SPEED						
	working	Pinxton North Station (Notice Board.) (See page 201 for Pye Bridge Junction to Kirkby Station Junction line.)	;															
202	One train	Langton Colliery Ground Frame (See below for Bentinck Colliery South Empty Wagon Sidings.)		972														
	[ ]	Bentinck Colliery Loaded Wagon Sidings	_	1197												!		-
		LANGTON COLLIERY GROUN	D FR	AME	TO BENTI	NCK COL	LIERY S	OUTH E	MPTY	WAGO	ON SIDINGS (SIDING)	<u>'</u>	!			<u>' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' </u>		
		LANGTON COLLIERY GROUD SOUTH EMPTY WAGON SI	ND F DING	RAM S	e <b>to ben</b> i	FINCK CO	LLIERY		10	10	MAXIMUM PERMISSIBL	E SPEEI	)					
		Langton Colliery Ground Frame (See page above for Pinxton North to Bentinck Colliery L.W. Sidings line																
	Siding	Langton Colliery Empty Wagon Sidings		704						į								
	Š	Kirkby Bentinck Station Sidings	_	1225	ļ											] [		
		Reversing Siding	_	1031						1		1						İ
		Bentinck Colliery South Empty Wagon Sidings		646				j										

	BENTINCK COLLIERY SIDINGS TO BENTINCK COLLIERY (Mid.) EMPTY	WAGON	SIDIN	GS (SINGLE GOODS LINE)		ı
One train working	BENTINCK COLLIERY SIDINGS TO BENTINCK COLLIERY (Mid.) EMPTY WAGON SIDINGS  Bentinck Colliery Sidings (See page 201 for Pye Bridge Junction to Kirkby Station Junction line.)  Bentinck Colliery (Mid.) Empty — 752 Wagon Sidings	15	15	MAXIMUM PERMISSIBLE SPEED		
	BLACKWELL SOUTH JUNCTION TO NEW HUCKNALL COLLIERY EMPTY BLACKWELL SOUTH JUNCTION TO NEW HUCKNALL COLLIERY	WAGON				
NB	Blackwell South Junction — — (See page 197 for Trent to Chesterfield line.)	15	15	MAXIMUM PERMISSIBLE SPEED		
05 ectric Token	Blackwell East Junction — 698 (See page 204 for Pleasley East G.F. line.) Fordbridge Lane (L.C.) (P1) — 1275				2S 1L 4L	New Hucknall Colliery Sidings. Sorting Sidings.
One train working Electric Token	New Hucknall Colliery 1 1645 (See below for New Hucknall Sidings line.)  Sidings line.)  Blackwell East Junction.)					
One train	Loaded Wagon Sidings (Notice – 153 Board.)					
	Empty Wagon Sidings (Notice - 510 Board.)					
	NEW HUCKNALL COLLIERY TO NEW HUCKNALL SIDINGS (SINGLE GOOD NEW HUCKNALL SIDINGS	DDS LINI	E) 15	MAXIMUM PERMISSIBLE SPEED		
One train working	New Hucknall Colliery — — (See above for Blackwell South Junction line.)	ļ				
	New Hucknall Sidings — 902 (End of branch)					

			·	TREAT TO	CILIBIT		(23,24)		JKAI (CIIIA)—tommueu						
Descrip- tion of Block Signal-		Distance between Signal			ar	ops id uge	Perma spe restric mi	ed tions,	Catch points spring or unworked trailing points	i			L—L	ong S-	orn code —Short
ling	Stations and	Boxes			Sid	ings	per l	hour			Do	wn .	U	Jр	For
on Main Lines (Dots Indicate Block Posts)		M. Yo		Down	tion	Standage Wagons L. & V.	Down		Position	Gradient (Rising unless otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	Slow or Goods	
	BLACKWELL EAST JUNCTION								MANUALIM DEDMICCIDI	r enere					
•	Blackwell East Junction (See page 203 for Blackwell South Junction to New Hucknall Colliery line.)	1	easley ea -   	ST GROUI	ND FRAI	ME   	15	15	MAXIMUM PERMISSIBI  The direction of the line fine Station is "UP".			2S 1L 4L st Junc	tion to	Westho	New Hucknall Col- liery Sidings. Sorting Sidings. susses & Blackwell
<b>*</b>	Westhouses & Blackwell Station (See page 198 for Trent to Chesterfield line.)	— 64 	18						Billion is O1.						
A	Tibshelf East Junction								C. Down line, 664 yards after passing starting signal.	55					
ken	Sutton Colliery Junction (See below for Sutton Colliery line.)	2 126	53												
Ę Į	Butcherwood Sidings G.F.	1 38	37							İ					
Electric Token	Pleasley West G.F	1 113	30												
	Pleasley East G.F ("No signalman" instrument.)	3 13 (from Sutton Collier Junction	/.												
:	End of line	<u> </u>	28		1						<u> </u>			1	
One train working	SUTTON COLLIERY JUNCTIC SUTTON COLLIERY JUNCTIC Sutton Colliery Junction (See above for Blackwell East Junction to Pleasley East G.F. line.) End of Sutton line	ON TO S	UTTON COI		NGLE GO	DODS LI	NE) 15	15	MAXIMUM PERMISSIBI	LE SPEED					

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### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES—continued

Description of Block Signalling	Stations and	Distance between Signal Boxes			ar Rei	ops id luge ings	Perma spe- restric mil per h	ed tions, es	Catch points spring or unworked trailing points	Do			ive horn g S—S	
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	M. Yd	s. Up	Down		Standage Wagons L. & V.	•		Gradie (Risin unles: Position otherw: shown 1 in	Main se or	Slow or Goods	Main or	Slow	
	TRENT JUNCTION TO CLAY	CROSS (	VIA DERBY)—	cont.										
•	Spondon Station (Level Crossing.)	3 120	1	• A										
•	Spondon Junction	773	3	•			50	50	Through disused junction at 126 m. 2	/ <b>ch.</b>		1		
•	Way and Works Sidings	1 125		gh Siding  "R"  "B"			10 10	10 10	All lines between Way and Works Loco lines between Way and Work	Sidings : s Sidings	and Lons and E	don Ro ngine S	ad Juno idings N	ction To. 1
• 	London Road Junction (See page 81 for Birmingham line.)	39.		NB OZ			10 10	10 10	Through junction in any direction Goods lines between London Road	Junction	and De	rby Ju	nction	
•	Derby "A" box (Signals platforms Nos. 1, 2, 3 and 4 only.)	_ 25	7 NB P*	Loco line					Derby Passenger Station is signalled Junction and Derby Station North (*Special Working.)	   as a Te   Junction 	 erminal   n. See i	 Station  nstructi 	between	London Road age 392.
P*	Engine Sidings No. 1 (Signals goods lines and "up and down" Chaddesden Siding No. 2 only.)	_ 20	NB 00	1			10	10	Chaddesden Siding No. 2 between I	Ingine Si	dings No	o. 1 and	d Derby	South Junction
• P	Derby Station North Junction (Signals platform lines and down goods line only.)	_ 3	n Siding	NB			15	15	Passenger lines between Derby Sta	ion Nor	th Junct	ion and	Derby	Junction

	Derby Junction (No signals for Chaddesden Siding No. 2.) (See page 208 for Claccesden line.)	_	221	<b>Y</b> • • • • • • • • • • • • • • • • • • •	•	15 40	40	Goods line, through junction to Chaddesden Siding No. 1 Over goods lines between Derby Junction and Breadsall
	Derby North Junction	_	517		•			
	St. Mary's Junction	_	1292	•		10	]   10	Entering or leaving St. Mary's Goods Yard
	Breadsall (Level Crossing.)	1	1044	•	•			Emering of Raving St. Hairy's Goods Taru
	Little Eaton Junction (See page 209 for Denby line.)	1		†NB		15		Through junction to Denby
	Duffield Junction U.S (See page 209 for Wirksworth line.)	1	1721			70 20	70	Through station Through junction to Wirksworth
	Milford Tunnel N (855 yards.)	İ						
	Belper Goods	1	1753					
	Belper U.S		ĺ					
207	Broadholme	1	964	•   •		75	75	Slow lines between Broadholme and Ambergate South Junction CW. Down slow, 604 300 yards before reaching
	Ambergate South Junction (See page 210 for Matlock line.)	1	312			60 35	60 15	starting signal. CW. Up slow, 226 yards 346 after passing box. (falling) Through junction to and from Clay Cross Through junction to and from Matlock
	Toadmoor Tunnel (129 yards.)					60	20 60	Slow to main Main to slow Round curve between 138 and 138½ m.p.'s
•	Crich Junction							
	Wingfield Station Wingfield Tunnel (261 yards) Stretton Station	3 3	80 290					
	Clay Cross Tunnel N (1 mile 24 yards.)							
	Clay Cross South Junction (See page 198 for Trent Junction to Chesterfield line.)	2	571			60		Through junction
	† To Derby South Junction. (See † Up goods line accessible from D	e page Denby	e 208. Branc	) ch only.	3			

### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sign Box	veen nal	Run Lin		an Ref	ops id uge ings	Perma spe restric mil per l	ed tions, es	Catch points spring or unworked trailing points	Do	own	Locom L—L	otive horong S—	rn code -Short For
on Main Lines (Dots Indicate Block Posts)	Signal Boxes	М.	Yds.	Up	Down	Descrip- tion	Standage Wagons L. & V.		Up	Gradien (Rising unless Position otherwise shown) 1 in	Main or	Slow or Goods	Main or Fast	or	
	TRENT STATION NORTH JUN	CTIC	ON TO	SHEET S	TORES JU	JNCTION	1	ı İ	l	l		1 1		]	
	TRENT STATION NORTH JU	NCTI	ON TO	O SHEET S	STORES J	UNCTIO	<b>1</b> :	30	30	MAXIMUM PERMISSIBLE SPEE					
	Trent Station North Junction (See page 166 for St. Pancras line, page 181 for Newark Castle line and page 195 for Chesterfield line.)	<u> </u>	_		1			20	20	Through junction from up Leicester I Through junction from up Derby line to	line to o o down I	down De Nottingh	erby lin am line	e  - 	
•	Sheet Stores Junction (See page 205 for Trent to Clay Cross (via Derby) line and page 86 for Stenson Jn. line.)		1026					15		Through junction					
	CHADDESDEN SOUTH JUNCT	ION	TO D	ERBY JUN	CTION (S	IDINGS)						,	i		
	CHADDESDEN SOUTH JUNC	TION	то і	DERBY JU	NCTION			15	15	MAXIMUM PERMISSIBLE SPEE	D		İ		
NB	Chaddesden South Junction  Derby South Junction		1738	No. 1 Siding Arrival	Departure ng Z			10	10	No. 2 Siding, between Derby South J	n. and I	Engine S	idings 1	No. 1	
•	Derby Junction (No signals for No. 2 Siding.) (See page 207 for Trent to Clay Cross (via Derby) line.)	. –	458	No. 1	To Engine No. 2 Sidings Siding Z										

2<u>0</u>

### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES—continued

Descrip- tion of Block Signal- ling	Stations and	Dista betw Sign Box	veen nal		inning ines	aı Ref	ops 1d uge ings	Perma spe restric mil per h	ed tions, les	Catch points spring or unworked trailing points	Down	Locomotive horn L—Long S—S	
on Main Lines (Dots ndicate Block Posts)	Signal Boxes	М.		Up	Down	- <u> </u>   	Standage Wagons L. & V.			Gradient (Rising unless Position otherwise shown)	Main Slow	Main Slow	
	AMBERGATE SOUTH JUNCTI	ON T	O MA	ATLOCK			i		ı			:	
•	AMBERGATE SOUTH JUNCT Ambergate South Junction (See page 207 for Trent to Clay Cross (via Derby) line.)	ION T	го м.					50 35 25	50 15 25	MAXIMUM PERMISSIBLE SPEEI Through junction to and from Mattor Round curve between 138 and 138½ 1	ck i		
¥ !	Ambergate West Junction U.S.		941					15		Single line to down line			
	Whatstandwell U.S							40	40	Between 140 and 140½ m.p.'s			
	Whatstandwell Tunnel (149 yards.)												
	Lea Wood Tunnel (315 yards.)												
	Cromford U.S												
	Willersley Tunnel N (764 yards.)												
	High Tor No. 1 Tunnel (321 yards.)												
	High Tor No. 1A Tunnel (58 yards.)												
	High Tor No. 2 Tunnel (378 yards)		ļ !										
	Holt Tunnel (126 yards.)												
•	Matlock U.S	6	1455										
:	End of line	ļ —	255	 	1! i.	Į į							

### TABLE B.—LINES WORKED UNDER PERMISSIVE BLOCK SYSTEM.

Referring to the instructions on page 21 of the General Appendix, the following is a list of lines not included in Table "A" which are worked under the Permissive Block system:—

From	То	Line	
r rom	10	Down	Up
	DERBY TO BLACKWELL	(W.R.) AND BRANCHES	
Bromford Bridge	Washwood Heath Jn.	Arrival Road 1 (P.B. by single stroke bell.)	
Bromford Bridge	Washwood Heath Jn.	Arrival Road 2 (P.B. by single stroke bell.)	
TABLE C.—LINES	WORKED UNDER "NO BL		
Referring to the not included in Tal on any Block Syste	c instructions on Page 22 of the ble "A" which are worked und m.  (* Used in both	ler the Regulations for Goo	wing is a list of line ods lines not worke
not included in Tal	ble "A" which are worked und m.	ler the Regulations for Goo	ods lines not worke

LO	NDON, EUSTON TO CRE	WE AND BRANCHES	S
Willesden	"Stop – Await instructions" board in Acton Lane Sidings.	<del>-</del>	*Reception.
Sudbury South End Sidings.	Willesden H.L. Sidings	<del></del>	Engine line.
At Wembley Central Station	_	<u>—</u>	H.L. Arrival.
Bletchley Denbigh Hall	"Stop – Await instructions" board.		Arrival.
At Rugby Midland	<del></del>	Through Siding	
	Nuneaton Up Sidings shunting frame.	*Leicester Goods	
Stafford No. 1	"Stop – Await instructions" boards, down Salop sidings.	Nos. 1 and 2 through sidings.	<del>-</del>
At Maiden Lane Jn	_	Single to and from Maiden Lane Sidings.	
Hampstead Road Jn	Camden Yard Shunting Frame.	Goods	

# RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES At Norton Jn. No. 1 ... Goods loop ... ... —

# BIRMINGHAM AND DROITWICH SPA (W.R.) TO WOLVERHAMPTON, WALSALL AND BRANCHES Wednesbury ... | Middle siding ... —

	I	1	
DE	RBY TO BLACKWEL	L (W.R.) AND BRANCHE	S
Washwood Heath Jn	Washwood Heath Sidings No. 2.	No. 2 reception	
Washwood Heath Jn	Washwood Heath Sidings No. 3.	*No. 1 reception	
Washwood Heath Jn	Washwood Heath Sidings No. 3.	No. 3 reception	N
Washwood Heath Sidings No. 1.	Washwood Heath Sidings No. 5.	Nos. 1, 2 and 3 reception.	
Kings Norton Station Jn.	Down Sidings	*Arrival	<u> </u>

#### TABLE C.—LINES WORKED UNDER "NO BLOCK" REGULATIONS—continued

77	<b></b>	Liı	Line			
From	То	Down	Up			
c	HESTER TO HOLYHEAD	AND BRANCHES				
Holyhead		"Down and up" through siding.	<u> </u>			
LOND	ON, ST. PANCRAS TO T	RENT AND BRANCH	IES			
function Road Jn.	Upper Holloway	Reception	<del></del>			
Upper Holloway Luton East	Junction Road Jn "Commencement of Single Line" board 600 yards South of	<u> </u>	Reception. *Reception line.			
Corby North	Luton East signal box. Corby South	_	*Reception Sidings.			
Lloyds Sidings South	Lloyds Sidings North	*Nos. 1 and 2 reception.	_			
Lloyds Sidings North	Lloyds Sidings South	—	No. 3 reception.			
TREN	T TO NEWARK CASTLE	(E.R.) AND BRANCH	IES			
Nottingham, Goods Yard East G.F.	Nottingham, Goods Yard North G.F.	*No. 1 through siding				
Nottingham, Goods Yard North G.F.	Lenton North Jn	Departure	_			
Lenton North Jn	Nottingham, Goods Yard North G.F.	<del></del>	Arrival.			
Kirkby Sidings Kirkby Marshalling Sidings.	Kirkby Station Jn	Reception	Departure.			
TRE	NT TO CHESTERFIELD (	E.R.) AND BRANCHI	ES			
Toton East Jn			_			
Toton South End East Sidings G.F.	Toton East Jn		*South departure.			
Toton South End East G.F.	Toton East Jn	<del></del>	*Shunting neck East			
Toton Jn Toton Centre	Toton Jn	<u> </u>	*West shunting neck *Independent.			
Toton Down Sidings North.	Toton North Yard	<del>_</del>	Arrival			
Toton Brake Sidings	North.	*Departure				
	Toton Down Sidings North.	Departure				
Meadow Sidings Stapleford & Sandiacre Stapleford & Sandiacre	Toton, Up Sidings Hump	Meadow departure — — — —	*Meadow arrival. *Reception.			
Stanton Gate North	Room. Stanton Gate New Sidings	_	*Reception.			
TRENT	TO CLAY CROSS (VIA	DERBY) AND BRANG	CHES			
Derby North Jn.	St. Marys Goods Yard	·				

#### TABLE D1.—ELECTRIC TOKEN RECEIVING AND DELIVERING APPARATUS

The following instructions respecting the method of exchanging tokens apply at the places shown below:-

- (1) To deliver a token the Second man must hold the hoop at arm's length so that it faces squarely to the front. On passing the "receiving" post the hoop must be passed over the projecting arm. The hoop must not be thrown over the projecting arm.
- (2) To pick up a token the Secondman must pass his forearm through the hoop and the token
- will then easily draw out from the spring box of the "picking-up" post.

  The speed of the train must not exceed 15 m.p.h. when carrying out the above operations.

  The Signalman, when placing the hoop containing the token in the spring box of the "picking-up" post, must see that the hoop faces squarely in the direction of the approaching
- train, and that the spring box is in proper working order. The local Signal Inspector must be advised of any repairs which may be required to the apparatus.

# LIST OF PLACES AT WHICH ELECTRIC TOKEN RECEIVING AND DELIVERING APPARATUS IS PROVIDED AND THE ABOVE INSTRUCTIONS APPLY:—

Signal box		For	down trair	or up	,	Apparatus	S	Position
BIRMINGHA	M A	ND DR	OITV	VICH S	SPA	(W.R.) TO BRANCHES	W	DLVERHAMPTON, WALSALL
Hartlebury Jn.	]					Receiver		
Davidley Canth			 1- D			Deliverer		
Bewdley South	• •	Up (B Down	аск к	load)	• •	Deliverer Deliverer	• •	
Kidderminster Jn.	1	Up bra	anch	• •		Receiver	• •	
TERGOTIMINATOR DITE	• •	Down				Deliverer		l ==
								a same and the sam
	CR	AVEN .	ARMS	S (W.F	<b>l.)</b> [	TO CREWE	AN	ND BRANCHES
Westbury (Salop)				••		Receiver		25 yards Welshpool side of box.
						Deliverer		
		Up		• •	• •	Receiver		
Montgomory	i	Down				Deliverer	• •	
Montgomery	• • •	Down	• •	••	• •	Receiver Deliverer	• •	
		Up				Receiver		46 yards after passing box. 68 yards before reaching box.
	ļ	op	••	• •	• •	Deliverer		1 0 1
Newtown		Down				Receiver		00 110
						Deliverer		At front of box steps.
		Up				Receiver		Opposite Caersws end of box.
		-				Deliverer		
Caersws		Down	• •	• •	• •	Receiver	· ·	66 yards before reaching box.
		Up				Deliverer Deliverer	}	Combined up and down post up
	1	Ор	• •	• •	• •	Denverer	٦	side of platform line 30 yards Newtown side of box.
	1					Receiver	٠.	26 yards after passing box.
Talerddig		Down				Receiver		35 yards before reaching box.
Ü	1					Deliverer		13 yards before reaching box.
	į	Up				- ·		16 yards after passing box.
						Deliverer		37 yards after passing box.
Cemmes Road		Down		• •		Receiver		Opposite box.
	į	T 7				Deliverer	• •	20 yards after passing box.
	!	Up	• •	• •	• •	Receiver Deliverer		25 yards before reaching box.
Dovey Jn	į	Down				Receiver	• •	Opposite box.  Down side of down main loop.
Dovey Jn	• • •	DOWN	• •	• •	• •	Receives	•	6 yards after passing box.
	į					Deliverer	٦	Combined up and down post on
		Up				Deliverer	}	down side of main loop 26 yards
	1	-						on Aberystwyth side of box.
						Receiver		Down side of down main loop
Т	ļ	Б				<b>.</b>		46 yards before reaching box.
Towyn	• •	Down .		• •	• •	Receiver	• •	At foot of box steps.
Barmouth (South) Harlech		Down . Down .		• •	•••	Receiver Receiver	• •	1 yard before reaching box.
Penryhndeudraeth		Down .		• •	••	Receiver		2 yards before reaching box. 18 yards before reaching box.
Portmadoc		Down .		• •		Receiver		1 yard after passing box.
Criccieth		Down .				Receiver		37 yards before reaching box.
Pwllheli (East)		T T				Deliverer		26 yards before reaching box.
Oswestry (North)		Down .				Receiver		8 yards after passing box.
		Up .		• • • • • • • • • • • • • • • • • • • •	<u>.                                    </u>	Deliverer		Oswestry end box.

### TABLE D1.—ELECTRIC TOKEN RECEIVING AND DELIVERING APPARATUS—continued

Signal box	For down and trains	up	Apparatus		Position
T	RENT TO CHES	TERF	ELD (E.R.)	AND BR	ANCHES
Blackwell East Jn	New Hucknall C	olliery	† Receiver	West	side of box.
(† Not applicable to	trains proceeding	via U	p Goods line	towards	Blackwell South Jn.)
AND TICKET A	ND ONE TRAIN 24–40 of the Gene	WOR ral Ap	KING ARRA pendix, the fo	NGEME ollowing is	a list of places where persons
Section o	f line	То	ken or Staff :	Station	Persons authorised to receive or deliver token or staff
]	LONDON, EUST	ON T	O CREWE A	ND BRA	NCHES
Goods & Mineral Jn. t	,				. Secondman and North Yard
St. Pancras Sidings an	d North London	St. I	Pancras Siding	gs .	Inspector (see page 323.) Worked in accordance with
Incline. Southam & Long Itch Venables ground frame (16 M.U.) siding.	ington Branch and Air Ministry		by Yard ables ground	 frame .	Special Instructions. Yard Foreman. Guard, Person in charge (or Secondman in case or light engine). (See instructions exhibited at ground frame.)
ION	DON, MARYLEB	ONE	TO CLAVDO	ON AND	,
Princes Risborough S bury South.	•				
RUGBY MII	DLAND TO STAI	FORI	) (VIA BIRM	IINGHAI	M) AND BRANCHES
Soho Road and Soho	Pool Wharf	Soho	Road		. See special instructions or page 338.
Rawnsley Branch			nesford Up si I.C.B. Cabin).		N.C.B. staff. See specia instructions on page 338.
BIRMING	IAM AND DROI WALS	TWIC: SALL	H SPA (W.R AND BRANC	.) TO WO	OLVERHAMPTON,
Kidderminster Jn. and	Bewdley South	Kido	lerminster Jn.		Shunter. (Trains proceeding direct to or from Yard.)
]	DERBY TO BLAC	CKWE	LL (W.R.) A	ND BRA	NCHES
Kingsbury Branch					. *Yard Foreman.
	COLWICH TO M	। MACC	LESFIELD A	ND BRA	NCHES
Caldon Branch		.   Calc			Person in charge.
C	RAVEN ARMS (	w.R.)	TO CREWE	AND BI	RANCHES
Welshpool and Montg Montgomery or Wels	gomery shpool and New-	. Wel	shpool town		Person in charge. Porter.
town. Newtown or Montgo	mery and Welsh-	Wel	shpool		. Person in charge.
pool. Cemmes Road and M Machynlleth and Do Borth and Dovey Jn Towyn and Dovey Jn	vev Jn	. Dov	chynlleth rey Jn rey Jn rey Jn		Shunter. Porter. Porter. Porter.
Brymbo Middle and	Vron Jn	Bry	nbo Middle	·· <u>·</u>	. Signalman or Shunter.

# TABLE D2.—LINES WORKED UNDER THE ELECTRIC TOKEN TRAIN STAFF AND TICKET AND ONE TRAIN WORKING ARRANGEMENTS—continued

Section of Line		Token or Staff Statio	n	Persons authorised to receive or deliver token or staff.
CHEST	ER TO	HOLYHEAD AND BR	ANC	HES
Dyserth Branch	≀dd	Prestatyn Station Llandudno Jn		Foreman or Guard. Person in charge.
LONDON, S	ST. PAN	CRAS TO TRENT ANI	D BR	RANCHES
Cottesmore Branch, Ashwell		Ashwell Sidings G.F.		Guard or Leading Porter.
TRENT	TO NE	CWARK (E.R.) AND BR	ANC	CHES
Bestwood Park Jn. to Colliery . Kirkby Colliery Branch		Loaded Sidings G.F. Kirkby Sidings		Railway or Colliery Shunter Worked under special instruc- tions. (See page 386.)
TRENT TO	) CHES	TERFIELD (E.R.) AND	BRA	, , , ,
Stanton Gate North to Stanto		` ,		*Yard Foreman or Shunter
Works Sidings. Stanton New Works Sidings to	end of			Person in charge, Guard o
West Hallam Colliery Branch Sutton Colliery Jn. to Pleasley E. Alma Jn	ast <b>G</b> .F.	Pleasley East G.F		Shunter. Shunter or Guard.
Wirksworth Incline Branch .		Wirksworth		Person in charge.
* (In addition to Signalman.)				
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar	N BY TI	TOKEN INSTRUMEN HE TRAINMEN.	NTS .	AT PLACES WHERE TH
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.	otain per permissi tument, per engage. He muuntil the	TOKEN INSTRUMENTE TRAINMEN.  Token Instruments at plumission from the Signalment on has been given, he may bress the Token forward a on the centre pin of the st then wait until the bel Token is free, when it can	laces  man lust lift s if u instring be w	where the Token is withdraw by means of the telephone to fit the Token from the colum sing an ordinary key in a loc rument), then turn the Toke gs and afterwards continue to ithdrawn from the instrumen
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa In the case of trains or engi	otain per permissicument, per de muuntil the lman on	TOKEN INSTRUMENTE TRAINMEN.  c Token Instruments at plumission from the Signalmon has been given, he may bress the Token forward a on the centre pin of the st then wait until the bel Token is free, when it can the telephone that the	laces  man lust lift s if u instr ll ring be w  Foker	where the Token is withdraw by means of the telephone to the Token from the columnising an ordinary key in a locument), then turn the Token gs and afterwards continue to ithdrawn from the instrument
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa	otain per permissivument, pt engage. He muuntil the lman on nes the co	TOKEN INSTRUMENTE TRAINMEN.  Token Instruments at plumission from the Signalm on has been given, he may bress the Token forward a on the centre pin of the st then wait until the below the telephone that the Token is free, when it can the telephone that the Token cabs of which are	laces man lust lift s if u instr ll ring be w Foker singl	where the Token is withdraw by means of the telephone to ft the Token from the colum sing an ordinary key in a loc rument), then turn the Toke gs and afterwards continue to ithdrawn from the instrument in has been withdrawn. It manned, the duties must be
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen. The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa In the case of trains or engi-	otain per permissicument, per tengage. He mu until the lman on nes the contraction of the truments	TOKEN INSTRUMENTE TRAINMEN.  Token Instruments at plumission from the Signalm on has been given, he may bress the Token forward a on the centre pin of the st then wait until the below the telephone that the Token is free, when it can the telephone that the Token cabs of which are	laces man lust lift s if u instr ll ring be w Foker singl	where the Token is withdraw by means of the telephone to ft the Token from the colum sing an ordinary key in a loc rument), then turn the Toke gs and afterwards continue to ithdrawn from the instrument in has been withdrawn. It manned, the duties must be
TABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa In the case of trains or engi- undertaken by the Driver.  Auxiliary electric token inst	otain per permission per permission per tengage. He muuntil the lman on nes the contraments	TOKEN INSTRUMENTE TRAINMEN.  c Token Instruments at plumission from the Signalmon has been given, he may bress the Token forward a on the centre pin of the st then wait until the bel Token is free, when it can the telephone that the Striving cabs of which are are provided at the following the striving cabs of which are	ITS laces  man lead to the series of the weight of the series of the se	where the Token is withdraw by means of the telephone to fit the Token from the colum sing an ordinary key in a loc rument), then turn the Toke gs and afterwards continue to ithdrawn from the instrument in has been withdrawn. Ite manned, the duties must be g places:—  Location of Auxiliary Instrument
Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instruction to the test of the Token must first of the key end of the Token must first object to the test of the Token must first of the key end of the Token must find the Token from right to left. He must then inform the Signa In the case of trains or enginendertaken by the Driver.  Auxiliary electric token instruction.  Place  LONDON, MA	otain per permissivument, pt engage. He muuntil the lman on nes the cotruments  ARYLEB  Princes	TOKEN INSTRUMENTE TRAINMEN.  c Token Instruments at plus mission from the Signalmon has been given, he may be seen to the centre pin of the state on the centre pin of the state wait until the belance of the telephone that the following cabs of which are are provided at the following to the section  Token Section  ONE TO CLAYDON A	ITS laces man lead to the sift usinstruction in the weight of the single owing the single	where the Token is withdraw by means of the telephone to the Token from the column sing an ordinary key in a locarument), then turn the Token gs and afterwards continue to the trument of the instrument has been withdrawn. The manned, the duties must be glaces:—  Location of Auxiliary Instrument
ITABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa In the case of trains or engi- undertaken by the Driver.  Auxiliary electric token inst  Place  LONDON, MA Princes Risborough	btain per permissi ument, per tengage. He muuntil the lman on nes the contraction of trains cooken Institution of trains cooken Inst	TOKEN INSTRUMENTE TRAINMEN.  c Token Instruments at plumission from the Signalment on has been given, he may bress the Token forward a on the centre pin of the st then wait until the bely token is free, when it can the telephone that the following cabs of which are are provided at the following token in the following cabs of which are are provided at the following cabs of which are are provided at the following cabs of which are are provided at the following cabs of which are are provided at the following token Section  ONE TO CLAYDON A Risborough to Ayles- pour locomotives the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs of the driving cabs.	ITS laces  man least life instruction instruction instruction in the weak owner in the single owing owing the laceton in the	where the Token is withdraw by means of the telephone to the Token from the columnsing an ordinary key in a locarument), then turn the Token gs and afterwards continue to the trithdrawn from the instrument in has been withdrawn. The manned, the duties must be glaces:—  Location of Auxiliary Instrument  BRANCHES The End of station buildings.  undertaking the duties of the sof which are single manned.
ITABLE D3.—AUXILIARY EL TOKEN IS WITHDRAWN Instructions for working Auxiliar by Trainmen.  The Trainmen must first of withdraw the Token. When this to the centre opening of the instr (the key end of the Token must anti-clockwise as far as possible turn the Token from right to left He must then inform the Signa In the case of trains or engi- undertaken by the Driver.  Auxiliary electric token inst  Place  LONDON, MA Princes Risborough  The Station Foreman, or per Secondman (or in those cases of the Driver) at this Auxiliary Tobetween 06 40 and 21 20 hours	otain per permissivument, pt engage. He mu until the lman on nes the cotruments  ARYLEB  Princes bury erson in of trains cooken Ins.	TOKEN INSTRUMENTE TRAINMEN.  c Token Instruments at plus mission from the Signal on has been given, he may bress the Token forward a on the centre pin of the st then wait until the belong token is free, when it can the telephone that the following cabs of which are are provided at the following token Section  ONE TO CLAYDON A Risborough to Ayles-South.  Charge, will be responsible or locomotives the driving trument, for trains book	ITS laces man lead to the single owing  ND North e for g cabsed to	where the Token is withdraw by means of the telephone to the Token from the columnsing an ordinary key in a locarument), then turn the Token gs and afterwards continue to the trithdrawn from the instrument in has been withdrawn. The manned, the duties must be glaces:—  Location of Auxiliary Instrument  BRANCHES The End of station buildings.  undertaking the duties of the sof which are single manned.

# TABLE D3.—AUXILIARY ELECTRIC TOKEN INSTRUMENTS AT PLACES WHERE THE TOKEN IS WITHDRAWN BY THE TRAINMEN—continued.

Section	on of line	Token Section	Location of Auxiliary Instrument
BIRMING	SHAM AND	DROITWICH SPA (W.R.) TO AND BRANCHES	WOLVERHAMPTON, WALSALL
Stourport-on-S	Severn	Stourport-on-Severn and Hartlebury Jn.	Up side of single line opposite entrance to C.E.G.B. Siding.
Stourport-on-S	Severn	Stourport-on-Severn and Bewdley South.	Up side of single line near entrance to Cold Store, Brindley Stree Siding.
British Sugar Sidings, Fol		n Kidderminster Jn. and Bewdley South.	In ground frame cabin.
	CR	AVEN ARMS TO CREWE AN	D BRANCHES
Newtown Welshpool Welshpool Newtown Machynlleth Portmadoc		<ul> <li>Newtown – Welshpool</li> <li>Welshpool – Newtown</li> <li>Welshpool – Montgomery</li> <li>Newtown – Montgomery</li> <li>Machynlleth – Dovey Jn.</li> <li>Portmadoc – Criccieth</li> </ul>	<ul> <li>Welshpool end of up platform.</li> <li>Newtown end of down platform.</li> <li>Newtown end of down platform.</li> <li>Welshpool end of up platform.</li> <li>Dovey Jn. end of down platform.</li> <li>Pwllheli end of down platform.</li> </ul>

The following locomotive horn code must be used at the undermentioned places. Where electric bell or telephone communication is provided, drivers must make use of these instead of the horn code. Should the signal not be lowered within a reasonable time, the bell or telephone must again be used.

Horn Code to be given at	Movement required	Horn Code L-Long S-Short
LC	ONDON, EUSTON TO CREWE AND BRANCHES	
Willesden, Brent Sidings	From Brent Sidings to Sudbury South End	2S 1L
York Road Jn	Shunting neck and yard	3L 1S
Old Oak Jn	From Up goods loop to Nos. 1 to 3 sidings From Nos. 1 to 3 sidings to No. 1 Down loop From Nos. 4 to 10 sidings to No. 1 Down loop	1S 1L 1S 2L 4L
OXFORD, WOLVER	COT JN. (W.R.) TO BIRMINGHAM GRAND JN. AN	D BRANCHES
Tyseley Loco	Locomotive for No. 1 shed	2S 2L 2S 3L 2S 1L 2S 2L
BIRMINGHAI	M AND DROITWICH SPA (W.R.) TO WOLVERHAM WALSALL AND BRANCHES	IPTON,
Round Oak South	Goods Line to shunting spur	1S 1L
Dì	ERBY TO BLACKWELL (W.R.) AND BRANCHES	•
Saltley Jn	Banking locomotive required From Locomotive Shed—	1S 1L
	For Camp Hill line	1L 2L
	To Saltley Station	3L 4L
	For Camp Hill line	1L 2L 3L

Horn Code to be given at	Movement required	Horn L-Long	
CRA	AVEN ARMS (W.R.) TO CREWE AND BRANCHI	ES	
Welshpool	Up yard siding to Down main	1S 1]	L IS
Newtown	Up main to Crane Road or vice versa Up loop to Coal Yard or vice versa	2S	2L
	Up main to Straight or vice versa	3S 1S	1L 1L
Machynlleth Pwllheli East	. Down main or Up main to Rock siding	1S	1L
Croes Newydd North Forl	Train ready to leave siding	2S	1S
	Up bay to Yard and vice versa	2L 1S	4S 1L
Brymbo Middle	To Vron Jn	1L	
de la constante de la constant	•••	! 2L	
	NT TO NEWARK CASTLE (E.R.) AND BRANCH	ES	
Colwick, Rectory Jii	Down sidings engine spur to No. 1 reception Down sidings engine spur to No. 2 reception		1L
	Down sidings engine spur to No. 3 reception	1S 1L	2L 3L
	Down sidings engine spur to No. 4 reception	2S	1L
	Down sidings engine spur to No. 5 reception  Down sidings engine spur to No. 6 reception		2L
	-	2S	3L
Colwick, East Jn.	Down main to Up goods	2S	1 <b>L</b>
Colwick, South	Nos. 1, 2 and 3 arrivals to engine road	1S	1L
(Pointsmen) Cabin	Nos. 4, 5 and 6 arrivals to engine road	6S	
Netherfield Jn.	Up sidings and Down main	15	1L
Colwick, Carlton Field	No. 2 Down yard to shunt spur	3S	1L
Colwick, Locomotive Jn.	Departure line to Engine line	1S	2L
	Cripple and Lay-by sidings to Yard	1L	4S
	No. 1 Group outlet shunting movement  No. 1 Group outlet departing train ready	4S	
	No. 2 Group outlet shunting movement		1L 4S
	No. 2 Group outlet departing train ready		1L
Nottingham Trent Lane	Up main to Down reception	6S	
Jn.	Up main crossover to Weekday Cross Jn.		1L
Goods Yard	Starting signal from Northern coal yard		
Goods Idid	Southern coal yard and shunt line		1L 2L
	Southern coal yard to Up Departure		1L
	Up departure line to shunt line		3L
	Sidings to shunt line		1L
	Sidings to Up departure Up departure to Southern coal yard		3S
	Up departure to Southern coal yard	60	4S
	Shunt line to Up departure		4S
	Up No. 1 departure and Up departure		2L
	NT TO CHESTERFIELD (E.R.) AND BRANCHES	}	
Foton Jn	Leaving independent line: To West yard	10	1 T
	To Chilwell sidings or Toton East Up sidings		1L 1L
	To Toton Down sidings		1L
F-4 D - C! !!	Via low level		iĹ
Toton Down Sidings	From locomotive shed or brake sidings	1L	
North	From the North yard From old North sidings or No. 21 siding	4L	
	170m old North sidings of No. 21 siding	5L	
Stapleford & Sandiacre	Leaving Toton Meadow sidings, Sandiacre:		
Station	To main line		1L
	To First Down goods line Forward on second down goods line		1L
	rorward on second down goods line	3S	1L

When trains or vehicles are being propelled in accordance with Rule 149 the undermentioned

conditions must be complied with.

When coaching vehicles are propelled on a running line or loop, the Guard, Shunter or Person in charge must ride in the leading vehicle when it is fitted with a brake valve. If not so fitted, he must ride in the next vehicle fitted with a brake valve from which he can obtain a satisfactory view of the line ahead. If, however, these conditions cannot be complied with, the Guard, Shunter or Person in charge must ride in the leading vehicle or first vehicle in which he can travel and from which he can obtain a satisfactory view of the line ahead, provided he can keep in touch with the Driver by hand signals.

When coaching vehicles are gravitated with station limits on a running line or loop, the Guard, Shunter or Person in charge must ride in the leading vehicle when it is fitted with an internally operated hand brake. If not so fitted, he must ride in the next vehicle fitted with an internally operated hand

brake from which he can obtain a satisfactory view of the line ahead.

Drivers will not be relieved of responsibility for observing fixed signals, but the Guard, Shunter or Person in charge must keep a sharp look-out, warn any person who may be on or near the line, observe fixed signals, and be and prepared to give any necessary handsignal to the Driver. Drivers must keep a sharp look-out and be prepared to act immediately upon any signal which may be given by the Guard, Shunter or Person in charge.

When propelling freight vehicles outside station limits a Guard's brake van must be the leading

vehicle unless otherwise indicated, and the Guard or Shunter must ride therein.

Where authority is given to propel freight vehicles without a brake van leading, the Guard or

Shunter must ride in the leading suitable vehicle.

The speed must not exceed 20 m.p.h., and down inclines steeper than 1 in 200, through station platforms and over level crossings must not exceed 15 m.p.h. (This paragraph does not apply to Officers' Specials).

The locomotive horn must be sounded when approaching stations and level crossings; also

where there is not a good view of the line ahead.

Where the line is on a falling gradient, a sufficient number of wagon brakes must be pinned down whenever there is a doubt as to whether the brake van will hold the train should it become divided, or where there is no brake van attached.

In all cases where coaching stock or fitted vehicles are authorised to be propelled, the automatic

brake must be connected up and in use.

Vehicles conveying passengers must not be propelled under this arrangement except in the case

of items marked "P".

One wagon of fuel or stores for signal boxes and stations, or the empty wagons in connection therewith, may be propelled without a brake van between any two signal boxes, provided the signal boxes concerned are not more than one mile apart.

The sections of line where propelling outside station limits is authorised are shown below.

From	То	Line	Number of vehicles and special conditions
LO	ONDON, EUSTON TO	CREWE AND	BRANCHES
Willesden	Brent Sidings	Down through sidings Nos. 1 and 2.	Coaching stock and freight vehicles.
Brent Sidings	Willesden	Down through sidings Nos. 1 and 2 and down goods departure Nos. 1, 2 and 3.	Coaching stock and freight vehicles.
Willesden Low Level Station.	Kensal Green Jn	Up	19 freight vehicles. Driver to come to a stand with locomotive opposite signal WN.41 (down home signal for Willesden Low Level Station) and must not proceed until he has received an intimation from the Guard that the up outer home signal for Kensal Green Jn. is showing a green aspect.
Kensal Green Jn	Willesden Low Level Station.	Down	Ballast trains not exceeding 20 vehicles.

From	То	Line	Number of vehicles and special conditions
LON	DON, EUSTON TO C	REWE AND B	RANCHES—cont.
Mitre Bridge Jn	Willesden	Down	Coaching stock or 15 freight vehicles.
Willesden	Mitre Bridge Jn	Up	
Willesden Brent Sidings South End.	Mitre Bridge Jn	up fast and	Not exceeding 4 Liner train vehicles with 1 passenger brake van. In
Kensal Green Jn	Willesden	up branch. Down city	elear weather only. 8 coaching stock or 8 freight
Willesden	Kensal Green Jn	Up city	vehicles. 8 coaching stock or 16 freight vehicles.
Willesden	High Level Sidings Shunting frame.	Down arrival	
Willesden	High Level Sidings Shunting frame.	Down carriage.	10 coaching stock or 10 freight
High Level Sidings Shunting frame.	Willesden		vehicles without brake van. 8 coaching stock or 16 freight vehicles.
shaming frame.		carriage.	Trains to Willesden Goods Yard exceeding 16 vehicles must be hauled to WN.67 signal and when the train locomotive has been detached a locomotive may be placed on the rear of the train at High Level Sidings Shunting frame to propel the train forward into the Goods Yard.
High Level Sidings Shunting frame. Willesden Carriage Shed North.	Willesden Carriage Shed South. Willesden Carriage Shed South.	Down carriage. Up empty carriage	Coaching stock or 10 freight vehicles without brake van. Coaching stock or 10 freight vehicles without brake van.
Willesden Carriage Shed South	High Level Sidings Shunting frame.	siding. Up carriage	8 coaching stock.
Watford Jn	Watford Jn. No. 3	Down branch.	17 coaching stock and freight vehicles. A brake van need not be the leading vehicle provided the number of freight vehicles does not exceed 30.
Watford Jn. No. 3	Watford Jn	Up branch	17 coaching stock and 30 freight vehicles without brake van.
Lichfield T.V., Trent Valley Jn.	Lichfield T.V	"Down and up".	Freight vehicles without brake van.
Rugeley No. 1	Rugeley No. 2	Down fast, slow and "Down and up"	Coaching stock and freight vehicles with brake van.
Rugelty No. 1	Rugeley No. 2	platform. Middle	Coaching stock and freight vehicles
Rugeley No. 2	Rugeley No. 1	siding Up fast and slow.	without brake van. Coaching stock and freight vehicles
Queensville	Stafford No. 1	Down slow.	without brake van. 30 freight vehicles without brake
Stafford No. 1	Stop and wait. Instructions boards, Down Salop Sidings.	Nos. 1 and 2 down through sidings.	van. In clear weather only. —
Stafford No. 1	Stafford No. 4	Down fast and slow.	Coaching stock and freight vehicles without brake van.
Stafford No. 2	Queensville	Up through siding.	Coaching stock and freight vehicles without brake van.
Stafford No. 4	Stafford No. 2		Coaching stock and freight vehicles without brake van.
		through siding.	

From	То	Line	Number of vehicles and special conditions
LONDO	N, EUSTON TO CREV	WE AND BRA	NCHES—continued.
Stafford No. 4	Stafford No. 5	Down fast, slow, Nos. 3 and 6 plat- forms and "down and up."	P. Coaching stock and freight vehicles without brake van.
Stafford No. 5	Stafford No. 4	goods. Up fast, slow, Nos. 1 and 6 plat- forms and "down and up."	P. Coaching stock and freight vehicles without brake van.
Stafford No. 4	Stafford No. 1 Crewe, South Jn	goods. Up fast and slow. Down	Coaching stock and freight vehicles without brake van. Coaching stock. 15 freight vehicles
Crewe, Gresty Lane No. 1.  Crewe, South Jn.	Crewe, Gresty Lane	Up	without brake van. In clear weather only. Coaching stock. 15 freight vehicles without brake van. In clear
Crewe, Sorting Sidings	No. 1.  Crewe, N.S. Sidings	Down	weather only.  Freight vehicles without brake van.
South. Crewe, N.S. Sidings	Crewe, Sorting Sidings	<b>U</b> p	Freight vehicles without brake van.
Crewe, Sorting Sidings	South. Crewe, Gresty Lane	Down	Freight vehicles without brake van.
North. Crewe, Gresty Lane	No. 1. Crewe, Sorting Sidings North	Up	Freight vehicles without brake van.
No. 1. Crewe, Salop Goods Jn.	Crewe, Gresty Lane	Up	15 freight vehicles without brake van.
Crewe, Salop Goods Jn.	Crewe, North Jn	Down	15 freight vehicles. C.M. & E.E. maintenance train.
Crewe, North Jn	Crewe, Salop Goods Jn.	Up	25 freight vehicles without brake van. C.M. & E.E. maintenance train.
Crewe, N.S. Sidings	Crewe, South Jn	Down	Coaching stock and in clear weather only 4 freight vehicles without brake van. Engineers' trains.
Crewe, South Jn	Crewe, N.S. Sidings	Up	Coaching stock and in clear weather only 4 freight vehicles without brake van. Engineers' trains.
Crewe, Sorting Sidings South.	Crewe, Sorting Sidings North.	Down engine	Freight vehicles without brake van.
Basford Hall Jn	Crewe, Sorting Sidings North.	Down fast and slow.	Freight vehicles without brake van.
Crewe, Sorting Sidings South.	Basford Hall Jn	Up fast and slow.	Freight vehicles without brake van. In clear weather only.
Crewe, Sorting Sidings North.	Crewe, Sorting Sidings South.	Up fast and slow.	Freight vehicles without brake van.
Crewe, Salop, Goods Jn.	Crewe, Sorting Sidings North.	Up fast and slow.	15 freight vehicles without brake van.  Coaching stock and 15 freight
Crewe, South Jn	Community In	Horse landing. Nos. 1, 2 and 3 platforms and Nos. 1 and 2	vehicles without brake van.  P. Coaching stock and 15 freight vehicles without brake van.
Crewe, North Jn	Crewe "A"	through. Horse landing.	Coaching stock and 15 freigh vehicles without brake van.

From To Line and special condition  LONDON, EUSTON TO CREWE AND BRANCHES—continued  Crewe, North Jn Crewe, South Jn Nos. 3, 4, 5 P. Coaching stock and 15 and 6 plat- vehicles without brake vehicles.	5 freight
Crewe, North Jn Crewe, South Jn Nos. 3, 4, 5 P. Coaching stock and 15 and 6 plat- vehicles without brake vehicles.	5 freight
and 6 plat- vehicles without brake vehicles with the vehicles without brake vehicles with the ve	5 freight
forms and No. 5	an.
Broad Street No. 2 Skinner Street Jn No. 2 down 6 coaching stock and 8 vehicles without brake vehicles without brake vehicles.	freight
Broad Street No. 1 Skinner Street Jn No. 1 down 6 coaching stock and 8 vehicles without brake vehicles with brake vehicles without brake vehicles with brake vehicles with brake vehicles with brake	freight
New Inn Yard Broad Street No. 2 No. 2 up 10 coaching stock and 8 vehicles without brake value.	freight
New Inn Yard Broad Street No. 1 No. 1 up 10 coaching stock and 8	freight
Caledonian Road and Barnsbury Station.  York Road Jn.  No. 2 down  vehicles without brake value of the state	an. weather.
York Road Jn Camden Road Jn No. 1 down 20 freight vehicles withou van.	t brake
Camden Road Jn York Road Jn No. 1 up 20 freight vehicles without van.	t brake
Kensal Green Jn. Acton Wells Jn. Old Oak Jn.  Acton Wells Jn.  Acton Wells Jn.  Cold Oak Jn.  Cold O	stock nicles in 8 milk
Acton Wells Jn Old Oak Jn Up goods tanks with brake van lead 18 milk tanks with brake leading or 12 coaching s 30 freight vehicles.	ke van
Goods & Mineral Jn St. Pancras Yard Single Freight trains.	
Exchange Sidings North London Incline Single 22 freight vehicles. Also without brake van p leading vehicle is fitted special instructions, page	rovided l. (See 323.)
Dock Junction Exchange Sidings (North London Line). Single 30 freight vehicles without van or 5 coaching stock v	t brake ehicles.
Northampton No. 2 Northampton No. 1 Up main and platform.  P. Coaching stock and 5 vehicles without brake va	freight
Northampton No. 3 Northampton No. 2 Up fast and slow.  P. Coaching stock and 5 vehicles without brake value.	freight
Northampton No. 4 Northampton No. 3 Up goods Coaching stock and 20 vehicles without brake va	freight
Northampton No. 4 Northampton No. 3 "Down and up." Coaching stock and 10 vehicles without brake va	freight
Northampton Bridge St. Jn.  Northampton Bridge Down Freight vehicles without bra	ke van.
Northampton Bridge St. Level Crossing. Northampton Bridge Up Freight vehicles without bra	ke van.
Duston Jn. North  Northampton  Bridge St. Jn.  Down  5 freight vehicles (excluding vehicles and vehicles of tional size or weight) vehicles and vehicles of tional size or weight).	except without petrol
Northampton Duston Jn. North Up 2 fitted vehicles without braid 5 freight vehicles.	ke van.
Venables G.F 16 M.U. Sidings Single 35 freight vehicles without van. During fog or falling movement restricted to 20 vehicles.	g snow,
Apedale Jn Apedale Single 45 freight vehicles. Speed exceed 10 m.p.h.	not to

From	То	Line	and special conditions
LONDO	ON, MARYLEBONE T	O CLAYDON	AND BRANCHES
Neasden South Jn	Neasden North Jn	Down goods arrival	12 empty coaches, in clear weather only, in connection with special events at Wembley Stadium.
Neasden South Jn	Neasden North Jn	Down fast, down slow and down goods arrival.	Freight vehicles without brake van.
Neasden South Jn Neasden North Jn	Neasden North Jn Neasden South Jn	Down fast Up fast and up slow.	Coaching stock and freight vehicles. Freight vehicles without brake van.
Neasden North Jn Wembley Hill	Wembley Hill Neasden North Jn	Down fast Up slow	Coaching stock and freight vehicles. Coaching stock vehicles. Up goods arrival line at Neasden North Jn. must be clear before movement is accepted from Wembley Hill.
Northolt Park G.F	Sudbury Hill	Down	10 freight vehicles. In clear weather only.
RUGBY MIDL	AND TO STAFFORD	(VIA BIRMIN	GHAM) AND BRANCHES
Bescot Jn Exchange Sidings	Darlaston Jn Curzon St		Breakdown train. Coaching stock and freight vehicles without brake van. The Person in Charge must advise the Driver, to which Siding the movement has been routed before propelling commences.
Soho Pool Wharf Soho Road Aston Goods Aston Jn.	Soho Road Soho Pool Wharf Aston Jn	Single Single Down Up	Freight vehicles without brake van. Freight vehicles without brake van. 10 freight vehicles. 35 freight vehicles without brake van.
Bescot Jn	Walsall signal WL.100	Down and	Breakdown train.
Lichfield City No. 1	Lichfield City No. 2	down fast. Down main and plat- form.	10 coaching stock. 20 freight vehicles.
Lichfield City No. 2  Bescot Jn Walsall, Ryecroft Jn	Bescot Curve Jn	Up main and platform. Up goods	10 coaching stock. 25 freight vehicles without brake van. Breakdown train. 35 freight vehicles. During fog or
Walsan, Rysolott Sin	Sidings.	through Siding.	falling snow, the shunter or other person concerned at Birchill's Sidings must station himself at the point where the driver of the propelling movement must bring his train to a stand for instructions.
Bloxwich	Birchill's Siding	Up	5 freight vehicles with brake van at each end.
Hednesford No. 1	Hednesford No. 2	Down	Freight vehicles without brake van. In clear weather only.
Hednesford No. 2 Hednesford Up Sidings	Hednesford No. 3 Cannock Wood Sidings.	Down Single	60 freight vehicles. 1 empty coaching stock.
Heath Town Sidings Wednesfield	Wednesfield	Single	
Wednesheld Wellington No. 2	TT 111		8 coaching stock or 12 four-wheeled coaching stock vehicles.
Wellington No. 3	Wellington No. 2	Up	8 coaching stock or 12 four-wheeled coaching stock vehicles.

Number of vehicles

From	То	Line	Number of vehicles and special conditions
WOLVERCOT	JN. (W.R.) TO BIRM	INGHAM GRA	AND JN. AND BRANCHES
Small Heath North	Birmingham Moor Street station.	"Down and up" through siding.	10 freight vehicles. In clear weather only.
BIRMINGHA	M AND DROITWICH WALSALL A	SPA (W.R.) T AND BRANCH	TO WOLVERHAMPTON, ES
Round Oak South	Round Oak North Box.	Down	15 freight vehicles. In clear weather only.
Stourport-on-Severn		Single	10 loaded freight vehicles. (See
Kidderminster Jn	British Sugar Corporation Siding Foley Park.	Single	local Instructions, page 351.) 35 freight vehicles in clear weather only. 60 freight vehicles may be propelled when branch line is closed for Passenger Traffic provided additional brake van (with man in it) is formed in the centre of the train. (See local instructions on page 352.)
D	ERBY TO BLACKWEI	LL (W.R.) ANI	D BRANCHES
Burton Horninglow Bridge.	Burton Station South	Down goods	35 freight vehicles without brake van. In clear weather only.
Burton Station South	Burton Horninglow Bridge	Up goods	Speed not to exceed 10 m.p.h. 10 freight vehicles without brake van.
Burton Station South	Leicester Jn	Down goods	35 freight vehicles without brake van. In clear weather only.
Burton Leicester Jn	Burton Station South	Up main and up goods.	Speed not to exceed 10 m.p.h. Locomotive stores van.
Burton Leicester Jn	Burton Station South	Up main	Coaching stock and freight vehicles
Burton Leicester Jn	Burton Station South	Up goods	without brake van.  10 freight vehicles without brake van.
Water Orton Sdgs	Water Orton East Jn.	Up goods and up	50 freight vehicles.
Bromford Bridge	Washwood Heath Jn.	departure. Arrival lines 1 or 2.	45 freight vehicles. In clear weather only.
Washwood Heath Jn	Bromford Bridge	Up goods	45 freight vehicles in clear weather only. 15 freight vehicles without brake van. During daylight
Washwood Heath Jn.	Washwood Heath	Nos. 2 and 3	and in clear weather only. 40 freight vehicles.
Washwood Heath Jn.	Sidings No. 3. Washwood Heath Sidings No. 2.	reception. 2nd down goods.	45 freight vehicles.
Washwood Heath Sidings No. 2.	Saltley Sidings	"Down and up" through siding.	40 freight vehicles in down direction and clear weather only.
Washwood Heath Sidings No. 1.	Saltley Sidings	Down goods	40 freight vehicles. In clear weather
Washwood Heath Sidings No. 1.	Washwood Heath Sidings No. 5.	Nos. 1, 2 and 3	only. 50 freight vehicles without brake van.
Saltley Sidings	Saltley Jn	reception. "Down and up" through siding.	40 freight vehicles in down direction and in clear weather only.

From	То	Line	Number of vehicles and special conditions
DERB	Y TO BLACKWELL (	(W.R.) AND B	RANCHES—cont.
Saltley Sidings	Duddeston Road	Down main	Locomotive stores van withou brake van.
Saltley Jn	Duddeston Road	"Down and up" through siding.	40 freight vehicles in down direction and in clear weather only.
Hockley Crossing	Uttoxeter	Up	Coaching stock. Freight vehicle without brake van.
Uttoxeter	Hockley Crossing	Down	Coaching stock. Freight vehicle without brake van.
Burton, Wetmore Sidings.	English Grain Co's. Sidings.	Single	Freight vehicles without brake van
Burton, English Grain Co's. Sidings.	Wetmore Sidings	Single	Freight vehicles without brake var
Burton, Horninglow Bridge.	Victoria Crescent	Single	Freight vehicles without brake van
Knighton South Jn	Saffron Lane Crossing	Down	10 freight vehicles without brak van or 45 vehicles with brake van leading. During daylight and in clear weather only.
Saffron Lane Crossing Bardon Hill Nuneaton, Weddington Jn.	Knighton South Jn Cliff Hill Sdgs Nuneaton, Abbey Jn.	Up Up Up	20 freight vehicles. 20 freight vehicles. Freight trains.
Nuneaton, Weddington Jn.	Nuneaton	Up	Freight vehicles.
Branston Sidings	Birmingham Curve Jn.	Up goods	Freight trains. In clear weather only.
Branston Jn	Branston Sidings	Up through sidings.	Freight trains. In clear weather only.
Nuneaton Midland Jn.	Nuneaton	Down	1 ~
Nuneaton Narborough Nuneaton, Abbey Jn	Nuneaton Midland Jn. Enderby Nuneaton		1 .0
Castle Bromwich Jn Park Lane Jn	Park Lane Jn Castle Bromwich Jn	Down Up	6 coaching stock vehicles.
Barnt Green M.L. Jn		Down	Coaching stock trains.
C	OLWICH TO MACCL	ESFIELD ANI	) BRANCHES
Longport Jn	Bradwell Sdgs	Down goods	
Bradwell Sidings	Longport Jn	Up goods	
Alsager, East Jn Lawton Station Sandbach Station	Lawton Jn	Up	Freight vehicles.
Kidsgrove, Liverpool Road Jn.	Yard. Birchenwood Colliery	Single	Freight vehicles without brake va

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From	То	Line	Number of vehicles and special conditions
	CRAVEN ARMS TO C	REWE AND I	BRANCHES
Shrewsbury, English	Shrewsbury Abbey	Up and down	4 coaching stock vehicles, in clear
Bridge Jn. Shrewsbury, Abbey Foregate.	Foregate Shrewsbury, English Bridge Jn.	Down loop	weather only.  Not more than ten coaching stock vehicles. In clear weather and under "Line clear" only.
Shrewsbury, Abbey Foregate.	Shrewsbury, Severn Bridge Jn.	Down main	4 coaching stock vehicles in clear weather only. 12 coaching stock vehicles may be propelled under these conditions provided "Line clear" is obtained for the movement. No movement to be made to or from Down siding until the propelling movement has been brought to a stand at the Home signal or cleared Severn Bridge Jn.
Shrewsbury, Abbey Foregate.	Shrewsbury, Severn Bridge Jn.	Down bay for plat- forms 5 and 6.	P as required, loaded or empty. No movement must be allowed from No. 5 platform to No. 1 up main line until the propelling movement has been brought to a stand at Severn Bridge Jn. down bay line home signal or has passed clear of the connection from No. 5 platform to No. 1 up main line.
Shrewsbury, Severn Bridge Jn.	Shrewsbury, Abbey Foregate.	Up main, Up platform, platforms 5 and 6.	P as required, loaded, or empty.
Shrewsbury, Severn Bridge Jn.	Shrewsbury, Crewe Jn.	Down main, down platform, "Down and up" platform.	P as required, loaded or empty.
Shrewsbury, Crewe Jn.	Shrewsbury, Severn Bridge Jn.	Up main	P Clear weather only. 60 freight vehicles.
Shrewsbury, Crewe Jn.	Shrewsbury, Severn Bridge Jn.	Up platform, "Down and up"	P Clear weather only.
Shrewsbury, Crewe Bank.	Shrewsbury Station	platform. All	35 freight vehicles, in clear weather only.
Shrewsbury, Coton Hill South.	Shrewsbury, Crewe Jn.	Up main, up goods.	60 freight vehicles, in clear weather only
Towyn Tonfanau	Tonfanau Towyn	Single Single	Empty coaching stock trains.
Barmouth South Barmouth North Portmadoc Pwliheli East Pwllheli West Croes Newydd South Fork.	Barmouth North Barmouth South Granite Siding Pwllheli West Pwllheli East Croes Newydd East	Up   Single   Down   Up	Empty coaching stock and freight trains. Speed not to exceed 6 m.p.h.
Croes Newydd North Fork.	Croes Newydd East	Down	Durate and him at all and fusions
Wrexham North	Croes Newydd North Fork.	Up	Empty coaching stock and freight trains. Speed not to exceed 6 m.p.h.

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From	То	Line	Number of vehicles and special conditions
C	RAVEN ARMS TO CR	EWE AND BR	ANCHES—cont.
Oswestry North .	Oswestry South	Down and	With or without brake van leading.
Oswestry South .	Oswestry North	middle. Up and middle.	With or without brake van leading.
Llynclys Jn Croes Newydd East .	1 ~ '3	Single	Empty coaching stock and freight trains. Speed not to exceed
Brymbo Middle .	Vron	Single	6 m.p.h. Freight or mineral trains. (See local instruction on page 369.)
Wrexham Central . Marchwiel	TT! 1		Not to exceed 16 vehicles, including
Marchwiel Saltney Dee Branch .	, ,	Single	brake van.  12 freight vehicles over curve between Railway Bridge and Shipyard Siding. If more than 12 freight vehicles shunter to precede train on foot as far as propelled.
	CREWE TO BIRKEN	HEAD AND B	BRANCHES
Chester No. 2	Chester No. 2	Down Crewe and down fast. Up Crewe and fast.	van. 25 freight vehicles without brake van in clear weather only.  P Coaching stock without brake van. 25 freight vehicles without
Chester No. 2	Chester No. 3A	Down fast "Down and	brake van in clear weather only.  P Coaching stock without brake van. Freight vehicles without brake van in clear weather only.  P Coaching stock without brake
Chester No. 3A	Chester No. 2	up" platform Up fast and slow.	van.  P Coaching stock without brake
Chester No. 3A	Chester No. 2	"Down and up"	van. Freight vehicles without brake van in clear weather only.  P Coaching stock without brake van.
Chester No. 2	Chester No. 4	platform. Down main and down platform	P Coaching stock without brake van.
Chester No. 4	Chester No. 2	(via No. 3). Up main and up platform (via No. 3).	P Coaching stock without brake van.
Chester No. 3A	Chester No. 4	Down fast	P Coaching stock without brake van. 20 freight vehicles without
Chester No. 4	Chester No. 3A	Up fast	brake van in clear weather only.  P Coaching stock without brake van. 20 freight vehicles without brake van in clear weather only.
Chester No. 4	Chester No. 6	Down fast and down slow.	P Coaching stock without brake van. 20 freight vehicles without brake van in clear weather only.
Chester No. 6	Chester No. 4	Up fast and up slow.	P Coaching stock without brake van. 20 freight vehicles without
Chester No. 4	Chester No. 5	Down main	brake van in clear weather only.  P Coaching stock without brake van. 20 freight vehicles without brake van in clear weather only.

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From	То	Line	Number of vehicles and special conditions
CF	REWE TO BIRKENHE.	AD AND BRA	NCHES—cont.
Chester No. 5	Chester No. 4	Up main	
Chester No. 5	Chester No. 6	Down	van. 20 freight vehicles without brake van in clear weather only.  P Coaching stock without brake van. Class 4 and 6 trains or
Chester No. 6	Chester No. 5	Up	30 freight vehicles without brake van in clear weather only.  P Coaching stock without brake van. 30 freight vehicles without
Chester No. 1	Dunham Hill	Down Down slow	brake van in clear weather only. Breakdown train. 15 freight vehicles without brake van in clear weather only.
Port Sunlight Siding	Rock Ferry	Down slow	One passenger brake van with one freight brake van.
Rock Ferry Station	Green Lane Jn	Down goods	20 freight vehicles, in clear weather only.
Birkenhead, Brook St.	Birkenhead, Canning	Down	Freight vehicles without brake van.
Birkenhead, Canning	Street North. Birkenhead, Brook St.	Up	Freight vehicles without brake van.
Street North. Ellesmere Port No. 1	Little Sutton	Up	15 freight vehicles. In clear weather
Ellesmere Port No. 1	Ellesmere Port No. 2	Down goods	only. 60 freight vehicles without brake van.
Ellesmere Port No. 2 Ellesmere Port No. 2 Ellesmere Port No. 4 Ellesmere Port No. 4	Ellesmere Port No. 1 Ellesmere Port No. 4 Ellesmere Port No. 2 Ellesmere Port No. 5	Up goods Down Up "Down and	Freight vehicles without brake van. Freight vehicles without brake van. Freight vehicles without brake van. 60 freight vehicles without brake
Ellesmere Port No. 5	Ellesmere Port No. 4	up'' Up main	van. 25 freight vehicles without brake
Ellesmere Port No. 5	Ellesmere Port No. 4	"Down and	van. 60 freight vehicles without brake
Ellesmere Port No. 5 Stanlow & Thornton Shell Refinery Ground Frame.	Stanlow & Thornton Stanlow & Thornton	up" Down Down	van. Freight vehicles. 20 freight vehicles without brake van . In clear weather only.
Helsby, West Cheshire Jn.	Helsby Jn	Down	50 freight vehicles. In clear weather only.
Helsby Jn	Helsby, West Cheshire Jn.	Up	50 freight vehicles. In clear weather only.
Dee Marsh Jn., East Jn.	Sealand Station	Up	10 freight vehicles. In clear weather only.
Birkenhead North No. 2.	Bidston East Jn	"Down and up"	Coaching stock and freight vehicles without brake van.
Bidston East Jn	Birkenhead North No. 2.	goods. "Down and up" goods.	Coaching stock and freight vehicles without brake van.
Bidston East Jn	Moreton	Down	20 freight vehicles in daylight and clear weather only.
	CHESTER TO HOLY	HEAD AND B	BRANCHES
Rhyl No. 1	Rhyl No. 2	Down slow and pas-	Coaching stock.
Prestatyn Blaenau Ffestiniog Station	Dyserth Trawsfynydd C.E.G.B. ground frame.	senger loop. Single	Freight vehicles. 5 freight vehicles.
Llandudno No. 1 Llandudno No. 2	Llandudno No. 2 Llandudno No. 1	<b>T</b> T	15 coaching stock. 15 coaching stock.

## LONDON ST. PANCRAS TO TRENT AND BRANCHES

EO:	DON SI. TANCKAS	TO TREAT A	DRAITCHES
St. Pancras Station	Dock Jn	Down goods	25 mixed vehicles. In clear weather
Dock Jn	St. Pauls Road Goods Jn.	Down goods	only. 55 freight vehicles.
St. Pauls Road Goods Jn.	Dock Jn	Up goods	10 freight vehicles without brake
Engine Shed Jn Carlton Road Jn Cricklewood Jn	Carlton Road Jn Engine Shed Jn Watling Street Jn	Down slow Up slow 2nd up goods	van. 4 coaching stock vehicles. 4 coaching stock vehicles. 10 coaching stock vehicles during daylight and in clear weather only.
Cricklewood Jn	Cricklewood Carriage Sidings.	Arrival	Freight trains and coaching stock
Cricklewood Carriage Sidings.	Cricklewood Jn	Departure \( \)	trains.
Cricklewood Jn	Brent Jn. No. 1	Down fast and local.	4 coaching stock. In clear weather only.
Brent Jn. No. 1	Cricklewood Jn	Up fast and local.	4 coaching stock. In clear weather only.
Cricklewood Jn	Brent Jn. No. 2	Down goods	4 coaching stock. In clear weather only. Fitted trains from Carriage Sidings.
Brent Jn. No. 2	Cricklewood Jn	Up goods	4 coaching stock. Fitted trains to Carriage Sidings.
Cricklewood Jn	Brent Empty Wagon Sidings.	Down reception.	50 freight vehicles. 30 fitted freight vehicles without brake van.
Brent Jn. No. 1	Brent Jn. No. 2	Across run- ning lines.	60 freight or 4 coaching stock vehicles in clear weather only.
Brent Jn. No. 2	Brent Jn. No. 1	Across run- ning lines.	60 freight or 4 coaching stock vehicles in clear weather only.
Brent Empty Wagon Sidings. St. Albans South	Brent Jn. No. 2 and vice versa. St. Albans North	Arrival and departure. Down fast and down slow.	60 freight vehicles without brake van. 10 coaching stock vehicles or 12 freight vehicles.
St. Albans North	St. Albans South	Up fast and up slow.	10 coaching stock vehicles or 12 freight vehicles.
Luton South	Luton North	Down fast	Coaching stock vehicles without brake van.
Luton South Luton North	Luton North Luton South	Down slow Up fast	10 fitted freight vehicles. Coaching stock vehicles without brake van.
Houghton Conquest	Bedford North	Down slow	35 freight vehicles. In clear weather only.
Bedford Jn	Houghton Conquest	Up slow	35 freight vehicles. In clear weather only.
Kempston Road Jn	Bedford Jn	Down slow	45 freight vehicles. When the number of freight vehicles exceeds 35, two brake vans and two guards, one in each brake, must
Bedford Jn	Bedford North	Down slow	accompany train.  Coaching stock trains, freight trains or 4 freight vehicles without
Bedford North	Bedford Jn	Up slow	brake van. Coaching stock vehicles without brake van. 20 freight vehicles or 4 freight vehicles without brake van.
Wellingborough Jn	Wellingborough Station	Down goods	20 freight vehicles.
Wellingborough Jn	Finedon Road	Down main and down goods.	2 freight vehicles without brake van.

From	То	Line	Number of vehicles and special conditions
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### LONDON ST. PANCRAS TO TRENT AND BRANCHES—cont.

LONDO	IN SI. PANCKAS IU	IKENI AND	DRANCHES—cont.
Finedon Road	Wellingborough Jn	Up main and up goods.	2 freight vehicles without brake van. In clear weather only.
Neilsons Sidings	Finedon Road	Up main	20 freight vehicles without brake van in clear weather. During fog or falling snow, a brake van must be the leading vehicle.
Leicester London Rd.	Leicester North	Down main	Coaching stock and freight vehicles without brake van.
Leicester North	Leicester London Rd.	Up main	Coaching stock and freight vehicles without brake van.
Leicester North	Leicester Bell Lane	Down goods.	40 freight vehicles without brake van. In clear weather only.
Leicester Bell Lane Kentish Town Engine Shed Jn.	Leicester North Mortimer Street Jn	Up goods J Down	4 coaching stock. In clear weather only.
Mortimer Street Jn	Kentish Town Engine Shed Jn.	Up	4 fitted freight vehicles.
Mortimer Street Jn		Up and up slow.	Coaching stock vehicles with or without brake van.
Mortimer Street Jn Junction Road Jn Carlton Road Jn	Junction Road Jn Mortimer Street Jn Mortimer Street Jn	Down Up Up (North	<ul><li>4 coaching stock. In clear weather only.</li><li>4 coaching stock. In clear weather</li></ul>
Cricklewood Jn	Dudding Hill Jn	Curve). Down	only. 4 coaching stock. In clear weather
Dudding Hill Jn Brent Jn. No. 2	Cricklewood Jn Dudding Hill Jn	goods. Up goods Down goods	4 coaching stock. In clear weather only.
Dudding Hill Jn	Brent Jn. No. 2	Up goods	12 coaching stock vehicles. The leading vehicle must be fitted an automatic brake valve.
Neasden Jn	Neasden South Jn	Down	11 11 111
Neasden South Jn	Neasden Jn	Up	Freight trains and coaching stock trains. In clear weather only.
Willesden	Acton Canal Wharf	Single goods	8 bogie vehicles or equivalent in length of fully fitted freight vehicles in clear weather only.
Acton Canal Wharf	Willesden	Single goods	8 bogie vehicles or equivalent in length of fully fitted freight vehicles in clear weather only.
Luton South Luton East	Luton East Luton South	Single goods Single goods	Freight vehicles. Freight vehicles. Engine to come to a stand immediately beyond the shunting signal reading from the down fast to the up fast line.
Vauxhall Sidings	Luton East	Single	Freight vehicles.
Luton West	Laportes Sidings	Single Down	Freight vehicles. Freight trains.
Ridgmont (Marston Valley Brick Sidings Frame.)	Millbrook	Down	rieght dams.
Melton Station	Melton Jn	Down	50 freight vehicles. In clear weather only.
Syston East Jn		Down	24 fitted freight vehicles. In clear weather only.
Ashwell Sidings Melton Jn	Cottesmore Holwell Sidings	Single	50 freight vehicles. 50 freight vehicles in clear weather
Wigston South Jn	Glen Parva Jn	Down	only. 12 coaching stock vehicles. Freight vehicles in clear weather only.

From To Line Number of vehicles and sepcial conditions

# TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES

		` ,	
Trent Station North Jn.	Long Eaton Jn	Down goods	25 freight vehicles in clear weather only.
Nottingham Station West.	Nottingham London Road Jn.	All	1 40
Nottingham Station West	Nottingham London Road Jn.	All	10 0 11
Nottingham Station West.	Nottingham London Road Jn.	All	4 fitted freight vehicles, by locomotive drawing not exceeding 10
Nottingham London Road Jn.	Nottingham Station West	All	fitted freight vehicles, with continuous brake connected and in use on all vehicles. In clear weather only.
Nottingham London Road Jn.	Sneinton Jn	Down main	6 fitted freight vehicles. In clear weather only.
Sneinton Jn	Road Jn.	Up main	6 fitted freight vehicles. In clear weather only.
Lenton South Jn	Lenton North Jn	Down goods.	12 coaching stock vehicles. During daylight and in clear weather
Lenton North Jn Nottingham Mansfield Jn.	Lenton South Jn Lenton North Jn	Up goods J Down	only.  Ballast train not exceeding 10 vehicles. During daylight and in clear weather only.
Lenton North Jn	Nottingham Mans- field Jn.	Up	Ballast train not exceeding 10 vehicles. During daylight and in clear weather only.
Basford Jn	Cinder Hill Empty Wagon Sidings.	Single	0.5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Kirkby Sdgs	Kirkby Colliery Loaded Wagon Sidings.	Single	20 freight vehicles.
Kirkby, Summit Colliery.	Sutton-in-Ashfield Metal Box Co.'s Sidings.	Single	20 freight vehicles.
Mansfield South Jn	Standard Sand Co.'s Berry Hill Sidings.	Single	Freight trains.
Standard Sand Co.'s Berry Hill Sidings.	Mansfield Colliery Jn.	Single	20 freight vehicles.
Gotham Sidings		Branch	Freight vehicles without brake van. When more than 4 being propelled at one time the brakes on every third vehicle must be pinned down.
Colwick East	Rectory Jn	Up goods	Freight trains from Colwick Estates Light Railway. In clear weather only.
Carlton Field	Rectory Jn	Up goods and "down and up through siding.	60 freight vehicles. In clear weather only.
Locomotive Jn	Colwick East Jn	West departure.	60 freight vehicles. Speed must not exceed 5 miles per hour.
Netherfield Jn	Lawrence Ground Frame.	Down	5 freight vehicles.

From	То	Line	Number of vehicles and special conditions.
TRENT	TO NEWARK CAST	LE (E.R.) AND	BRANCHES—cont.
Trent Lane Jn	Nottingham Goods Yard	Down arrival.	10 coaching stock vehicles Full fitted parcels trains with or with out brake van, and freight trains
Nottingham Goods Yard.	London Road Jn.	Connecting	10 coaching stock vehicles.
Nottingham London Road Junction.	Nottingham Goods Yard.	Connecting	10 coaching stock vehicles.
Nottingham Goods Yard.	Trent Lane Jn	Up departure	Freight trains and coaching stock vehicles.
TR	ENT TO CHESTERFII	ELD (E.R.) AN	D BRANCHES
Toton Junction	Toton Centre	Independent	
Stapleford & Sandiacre	Toton Centre	Up goods	van. 10 freight vehicles without brak van. In clear weather only.
Stanton Gate North Stanton New Works Sidings.	Kaldo Plant Sidings Stanton Gate North	Single Single	Freight trains. 40 freight vehicles.
Pye Bridge Jn Pinxton Station	Coates Park South Langton Colliery G.F.	Down main Single	15 freight vehicles. Freight trains without brake va In clear weather. During fog brake van must be leading vehicl
Langton Colliery G.F.	Bentinck Colliery Loaded Wagon Sidings.	Single	Freight trains without brake value of the second of the se
Blackwell South Jn Blackwell East Jn	Blackwell East Jn Blackwell South Jn "A" Winning Colliery Sdgs.	Down goods Up goods Single	Freight trains. Freight trains. Freight trains, without brake van
Blackwell East Jn Blackwell East Jn	New Hucknall Colliery Westhouses & B. Station.	Single Single	Freight trains. 25 freight vehicles. In clear weath only.
Westhouses & B Station	Blackwell East Jn	Single	Freight trains. In clear weath only.
Westhouses & B Station.	Tibshelf East Jn	Single	45 freight vehicles. In clear weather 30 freight vehicles during fog
Sutton Colliery Jn	Butcherwood Sidings	Single	falling snow. Freight trains for Butcherwood Sidings only.
TREN	T TO CLAY CROSS	(VIA DERBY)	
Trent Jn	Sheet Stores Jn	Down pas- senger and	25 freight vehicles.
Sheet Stores Jn	Trent Jn	down goods. Up	10 freight vehicles. In clear weath
Spondon Station	Spondon Jn	Down goods	only. 45 freight vehicles. (Applicable f trains for the Nottingham dire
Way & Works Sidings	Derby, London Road Jn.	Down main	tion.) 12 coaching stock vehicles withou brake van. 4 freight vehicle without brake van. In cle
Derby, London Road Jn.	Way & Works Sidings	Up main	weather only. 12 coaching stock vehicles withour brake van.
Way & Works Sidings	Derby, London Road Jn.	"Down and up" through siding.	20 coaching stock vehicles withor continuous brake connected as in use, in clear weather on 40 freight vehicles, without brayan, in clear weather only. During fog restricted to 12 coaching stock or freight vehicles.

From	То	Line	Number of vehicles and special conditions		
TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES—continued					
Way & Works Sidings	Engine Sidings No. 1	Down loco.	20 coaching stock vehicles without continuous brake connected. 40 freight vehicles without brake van.		
Engine Sidings No. 1	Way & Works Sidings	Up loco			
Derby, London Road Jn.	Derby Jn	All passenger lines.	1		
Derby Jn	Derby, London Road Jn.	All passenger lines.			
Derby, London Road Jn.	Derby Jn	All passenger lines.	12 coaching stock vehicles without continuous brake connected and in use. 40 freight vehicles, without brake van, in clear weather only. During fog restricted to 12 freight vehicles.		
Derby Jn	Derby, London Road Jn.	All passenger lines.	12 coaching stock vehicles without continuous brake connected and in use. 40 freight vehicles, without brake van, in clear weather only. During fog restricted to 12 freight vehicles.		
Derby, London Road Jn.	Derby Jn	Goods lines.	Coaching stock vehicles without brake van.		
Derby Jn	Derby, London Road Jn.	Goods lines	Coaching stock vehicles without brake van.		
Derby Jn Derby North Jn	Derby North Jn Derby Jn	Down goods Up main and up goods.	Coaching stock trains.  5 coaching stock vehicles in clear weather only.		

#### TABLE F2—PROPELLING FREIGHT BRAKE VANS.

When necessary to facilitate local working, not more than three freight brake vans may be propelled over any sections of the line except as shown below:-

From	То	Line	Remarks
Acton Wells Jn.	. Acton Yard	Down	Freight brake van. Guard to apply hand brake before descending
Mortimer Street Jn. Carlton Road Jn.	. Carlton Road Jn Mortimer Street Jn	Down Up	incline. Propelling of freight brake vans prohibited.

The following conditions must in all cases be observed:—

A Guard must ride in the leading vehicle. He must keep a sharp look-out, warn any person who may be on or near the line, and be prepared to give any necessary hand signals to the Driver, also if necessary apply the brake.

A white light must be carried in front of the leading vehicle when the propelling takes place at

night, or during fog or falling snow, or in a tunnel.

The speed must not exceed 45 m.p.h. when the brake van/s being propelled are fitted with the automatic brake connected and in use. Where not so fitted a speed of 20 m.p.h. must not be exceeded. When running down gradients steeper than 1 in 200, through station platforms, or over level

crossings, the speed must not exceed 15 miles per hour.

During fog or falling snow freight brake vans must not be propelled except in cases of emergency or where otherwise authorised.

The propelling of freight brake vans during fog or falling snow is specially authorised as shown below, and such authorities are limited to one freight brake van unless otherwise shown.

From	То	Line	Remarks
Lo	ONDON, EUSTON TO	CREWE ANI	D BRANCHES
Willesden	Brent Sidings	Nos. 1 and 2 down through sidings.	_
Brent Sidings	Willesden	Down goods departure Nos. 1, 2	
Sudbury South End Sidings.	Willesden High Level Sidings.	and 3. Engine line	_
Kensal Green Jn	Willesden High Level Jn.	Down	<del>-</del>
Willesden High Level Jn.	Kensal Green Jn		
Willesden High Level Jn.	Old Oak Jn	Down	
Old Oak Jn	Willesden High Level Jn.	Up	_
Old Oak Jn Acton Wells Jn	Acton Wells Jn Old Oak Jn	Down Up	
Old Oak Jn	Acton Wells Jn	Down goods No. 1.	
Acton Wells Jn Acton Wells Jn	Old Oak Jn Acton Yard (W.R.)	Up goods Down	_
Acton Yard (W.R.)	Acton Wells Jn	Up	_
Mitre Bridge Jn Kensal Green Jn	Willesden Willesden	Down City	
Willesden	Kensal Green Jn.	Up City	
RUGBY MIDI	AND TO STAFFORD	(VIA BIRMIN	GHAM) AND BRANCHES
Hednesford No. 1	Hednesford No. 3	Down	<b>–</b>
Di	ERBY TO BLACKWEL	L (W.R.) ANI	) BRANCHES
Knighton South Jn		Down	<del>-</del>
Saffron Lane Crossing Bagworth & Ellistown	Knighton South Jn Desford Colliery	Up Up	
Station. Ellistown Colliery Sidings.	Sidings.	Up	_
	DAVENI ADME (W.D.)	TO CDEWE	AND DD ANGLYDG
	RAVEN ARMS (W.R.)		AND BRANCHES
United Colliery Rossett	Rossett United Colliery	Down Up	
Croes Newydd South Fork.	Croes Newydd West	Down	
Croes Newydd West	Croes Newydd South Fork.	Up	Facing points at Croes Newydd East set for South Fork Loop before locomotive and van leaves West box.
LO	NDON, ST. PANCRAS	TO TRENT	AND BRANCHES
Wigston South Jn	****		
Wigston North Jn	Wigston South Jn	goods. Up main and	_
Leicester, London Road Jn.	Leicester North	up goods. Down goods	
KO20 in			

From	То	Line	Remarks				
LONDON	LONDON ST. PANCRAS TO TRENT AND BRANCHES—continued						
Leicester North	Bell Lane	Down main and down goods.	_				
Bell Lane	Leicester North	Up main and up goods.	<u> </u>				
Bell Lane	Humberstone Road Jn.	Down main and down goods.	<del></del>				
Humberstone Road Jn.	Bell Lane	1 T	<del></del>				
Corby North	Storefield	<u>Up</u>					
Corby North Lloyds Sidings South	Lloyds Sidings South Corby North	Down Up	<u> </u>				
TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES							
Radford Jn			<del>-</del>				
Basford Sidings	Lincoln St. Crossing	Down	_				
Lincoln St. Crossing Basford Jn	Bulwell Forest	Down Down	<del>-</del>				
Bulwell Forest Crossing	Crossing Bestwood Park Jn	Down					
Bestwood Park Jn. Hucknall Colliery Sidings	Hucknall Colliery Sdgs Linby Colliery Sdgs.	Down Down					
Linby Colliery Sidings	Linby Station	Down	<del>-</del>				
Linby Station	Annesley	Down					
TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES							
Derby Way & Works Sidings.	Spondon Jn	Up					
Derby Engine Sidings No. 1.	Engine Sidings No. 2	Up loco	_				
Derby Jn	Engine Sidings No. 1	Up goods	<u> </u>				

#### TABLE G.—WORKING IN WRONG DIRECTION.

Vehicles may be set back or drawn in the wrong direction as shown below:-

In the case of freight vehicles, unless otherwise shown, a guard's brake van (in which a Guard or Shunter must ride) must be the leading vehicle when setting back in the wrong direction, and the rear vehicle when drawing in the wrong direction.

A brake van must be provided with coaching stock vehicles, unless otherwise shown.

Where a setting back movement is involved, in the case of coaching stock vehicles or where authority is given for freight vehicles to be worked without a brake van, a Guard or Shunter must ride on the leading or nearest suitable vehicle in accordance with the instructions shown in Table "F1".

These arrangements do not apply to vehicles conveying passengers, except where the items are

The automatic brake, unless otherwise shown, must be connected up and in use when coaching stock vehicles are worked under this arrangement.

Except where fixed signals are provided to give permission for a wrong direction movement to be made, the Driver must not move in the wrong direction until he receives instructions to do so from the Signalman.

After sunset, during fog or falling snow or in a tunnel, a red light must be carried on the leading end of the movement in accordance with Rule 149 (iv).

A lamp must at all times be carried on the trailing end of the movement, which, after sunset, during fog or falling snow or in a tunnel, must show a white light.

The lamp on the trailing end is an indication to the Signalman at the signal box in advance (in the direction of travel) that the movement which entered the section has arrived complete. Should, therefore, a vehicle or vehicles be detached from a wrong direction movement between two signal boxes and left on the running line, the lamp must not be transferred from the trailing end of the detached vehicle or vehicles to the portion of the movement continuing through the section; the absence of such lamp on this portion indicating to the Signalman at the advance box that the whole

of the movement has not cleared the section.

Should it be necessary for the Signalman to give the "Train clear of Section" signal before the last vehicle of a wrong direction movement has passed the signal box, he must, before giving such signal, ascertain from the Person in charge of the movement that the whole of the movement has been shunted clear of the line concerned, or has arrived complete, and the Person in charge of the movement will be held responsible for giving this information to the Signalman.

From	То	Line	Remarks				
LO	LONDON, EUSTON TO CREWE AND BRANCHES						
Euston, Camden Jn	Hampstead Road Jn.	Down North					
Willesden	Brent Sidings	London. Down through sidings Nos. 1 and 2 Down goods departure Nos. 1 2, and 3.	Coaching stock. Freight vehicles without brake van.				
High Level Sidings Shunting Frame. Rugeley No. 2	Willesden Carriage Shed South. Rugeley No. !	Up carriage  Middle	6 coaching stock vehicles in clear weather and during daylight only. Without brake van.				
Queensville	Stafford No. 2	siding. Up through					
Stafford No. 2 Stafford No. 4	Stafford No. 4 Stafford No. 5	siding. Up goods Up slow and No. 1	Without brake van. (See local instructions on page 318.) Without brake van. Without brake van.				
Stafford No. 5	Stafford No. 4	platform. Down slow and No. 3	Without brake van.				
Crewe Sorting Sidings	Crewe, Basford Hall	platform. Down					
South. Crewe, Basford Hall	Jn. Crewe, Salop Goods	arrival. Up fast and	Coaching stock. Freight vehicles				
Jn.	Jn.	slow.	without brake van.				
Crewe, Salop Goods Jn.	Crewe, Basford Hall Jn.	Down fast and slow.	Coaching stock. Freight vehicles without brake van.				
Crewe South Jn	Crewe North Jn	Up plat- forms Nos. 4 and 5 up through.	P Without brake van.				
Crewe South Jn	Crewe North Jn	** i	P When vehicles are detached from an up train and the front portion has gone forward as a complete train, a locomotive accompanied by a Shunter may enter the obstructed section at the South Jn. end and propel the detached vehicles in the wrong direction to North Jn. box without brake van.				
Crewe North Jn	Crewe South Jn	Down platform No. 2. Down through No. 2.	P Without brake van.				
Crewe North Jn	Crewe South Jn	Down through No. 1. Down platform No.1.	P Without brake van.				
Crewe, Sorting Sidings North.	Crewe, Gresty Lane No. 1.	Up	Coaching stock. Freight vehicles without brake van.				
Crewe, Gresty Lane No. 1.	Crewe, Sorting Sidings North.	Down	Coaching stock. Freight vehicles without brake van.				
Crewe, Gresty Lane No. 1	Crewe, Salop Goods Jn.	Up	Coaching stock. Freight vehicles without brake van.				
Crewe, Salop Goods Jn.	Crewe, Gresty Lane No. 1.	Down	Coaching stock. Freight vehicles without brake van.				
York Road Jn.	Maiden Lane Jn.	No. 1 Up	Light locomotives.				

From	То	Line	Remarks
LONDO	ON, EUSTON TO CRE	WE AND BRA	NCHES—continued
Camden Yard Shunting Frame.	Hampstead Road Jn.	Nos. 1 and 2 down goods arrival.	Freight vehicles without brake va
Watford Jn	Watford Jn. No. 3	Up branch	Coaching stock. Freight vehicl without brake van.
Watford Jn. No. 3	Watford Jn	Down branch.	Coaching stock. Freight vehicl without brake van.
Northampton No. 1	Northampton No. 2		Coaching stock. Freight vehicle without brake van.
Northampton No. 2	Northampton No. 1	Down main	Coaching stock. Freight vehicle without brake van.
Northampton No. 2	Northampton No. 3	Up slow	~
Northampton No. 3	Northampton No. 2	Down fast and slow.	Coaching stock. Freight vehicle without brake van.
Northampton No. 3	Northampton No. 4	Up goods	Coaching stock. Freight vehic without brake van.
Northampton, Bridge Street Jn.	Northampton, Bridge Street Level Crossing.	Up	Freight vehicles without brake va
Northampton, Bridge Street Level Crossing.	Northampton, Bridge Street Jn.	Down	Freight vehicles without brake va
	DON, MARYLEBONE		
Neasden North Jn	Neasden South Jn	Down goods arrival	42 freight vehicles. 25 freigh vehicles without brake van clear weather only.
RUGBY MIDLA	ND TO STAFFORD	(VIA BIRMIN	GHAM) AND BRANCHES
Vauxhall Shunting Frame	Curzon Street	Down through siding.	Without brake van.
Lichfield City No. 1	Lichfield City No. 2	Up main platform.	Without brake van.
Lichfield City No. 2	Lichfield City No. 1	Down main and platform.	Without brake van.
Hednesford No. 2	Hednesford No. 1	<u>~</u>	Freight vehicles. Freight vehic without brake van in clear weather only.
Wellington No. 2	Wellington No. 3	Up main, loop and platform.	Light locomotives, locomotive a vehicles, empty diesel multi- units, and coaching stock.
Wellington No. 3	Wellington No. 2	l <del></del>	Light locomotives, locomotive a vehicles, empty diesel multi units and coaching stock.
	Donnington No. 2 Donnington No. 1	<u>Ü</u> р	
OXFORD, WOLVE	RCOT JN. (W.R.) TO E	BIRMINGHAM	, GRAND JN. AND BRANCHES
Banbury South	Banbury North	Up main and and goods	Light locomotives or locomot and vehicles.
Banbury North	Banbury South	T .	Light locomotives or locomot and vehicles.
*Tyseley South	Tyseley Loco	Up through	Empty stock, light locomotives diesel multiple units.
*Tyseley Loco	Tyseley South	siding. Down through siding.	Empty stock, light locomotives diesel multiple units.
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From	То	Line	Remarks
BIRMINGHAM AT	ND DROITWICH SPA	(W.R.) TO WO	DLVERHAMPTON, WALSALL
Hartlebury Jn Kidderminster Jn	Hartlebury Station	Down	
Kidderminster Station	Kidderminster Jn	Down	multiple units and freight trains. Light locomotives, empty diesel
Stourbridge Jn. South	Stourbridge Jn. Middle	Up main	
Stourbridge Jn. Middle	Stourbridge Jn. South	Down main and branch	and vehicles.  Light locomotives, or locomotive and vehicles.
Eagle Crossing	Great Bridge	platform. Down	_
Bewdley South Bewdley North	Bewdley North Bewdley South	Up Down	van. Light locomotives. Light locomotives, also locomotive with vehicles detached from down train.
Di	ERBY TO BLACKWEI	L (W.R.) ANI	D BRANCHES
Sunny Hill	Melbourne Jn		Trains from R.O.D. Sidings.
Burton, Horninglow Bridge.	Burton Station South	goods line. Up goods	Light locomotive or locomotive with not more than two brake
Burton, Leicester Jn	Burton Station South	Down goods	vans. 25 freight vehicles without brake
Bromford Bridge	Washwood Heath Jn.	Up goods	van. In clear weather only.  35 freight vehicles in clear weather
Washwood Heath Jn	Bromford Bridge	Nos. 1 and 2	only. Light locomotives coupled.
Washwood Heath Jn.	Washwood Heath Sidings No. 1	arrival. Up goods	35 freight vehicles in clear weather
Washwood Heath Sidings No. 3.	Washwood Heath Jn.	No. 3	only. Light locomotives. Light locomotives coupled.
Washwood Heath Sidings No. 2.	Washwood Heath Jn.	reception. No. 2	Light locomotives coupled.
Washwood Heath Sidings No. 1.	Washwood Heath Sidings No. 2.	reception. Down goods	Light locomotives and 40 freight vehicles drawn only for West End
Saltley Sidings	Washwood Heath Sidings No. 1.	Down goods	Light locomotives and 40 freight vehicles drawn only for West End Sidings, Bromford Bridge,
Saltley Jn. (Down passenger line lower arm of two-armed dwarf shunting signal situated at foot of down passenger line home signal).	Duddeston Road (Bank Engine siding dwarf shunting signal No. 20).	Bank Engine siding.	Water Orton and beyond.  —
Duddeston Road (Bank Engine siding dwarf shunting signal No. 19; also "down and up" through siding dwarf shunt-	Landor Street Jn (Bank Engine siding dwarf shunting signal No. 9).	Bank Engine siding.	_
ing signal No. 4). Pinfold Crossing	Uttoxeter	Down	10 coaching stock (during Uttoxeter Race meetings only). 12 freight vehicles. May be propelled
Hockley Crossing	Pinfold Crossing	Down reception.	without brake van. Without brake van.

From	То	Line	Remarks
DERBY	TO BLACKWELL (W	/.R.) AND BRA	ANCHES—continued
Hockley Crossing	Pinfold Crossing	Down	Without brake van in clear weather
Bridgewood Siding	Foley Crossing	Up	only. 15 freight vehicles in clear weather only.
Knighton South Jn Saffron Lane Crossing Birmingham Curve Jn.	Saffron Lane Crossing Knighton South Jn Branston Sidings	Down	Freight vehicles without brake van. Freight vehicles without brake van. Locomotive and locomotives with one or two brake vans.
Branston Sidings	Birmingham Curve Jn.	Down through siding.	30 freight vehicles.
C	OLWICH TO MACCL	ESFIELD AND	BRANCHES
Bradwell Sidings	Longport Jn	Down goods	Clear weather only,
CR	AVEN ARMS (W.R.) T	O CREWE AN	ND BRANCHES
Shrewsbury, Severn	Abbey Foregate		Coaching stock, 30 freight vehicles
Bridge Jn. Shrewsbury, Abbey	Shrewsbury Severn		without brake van. Drawn only. Coaching stock.
Foregate. Shrewsbury, Crewe Jn.	Bridge Jn. Shrewsbury, Severn Bridge Jn.	Down main and	P
Shrewsbury, Severn	Shrewsbury, Crewe Jn.		P
Bridge Jn. Shrewsbury, Crewe Bank	Shrewsbury Crewe Jn.	platform. Down goods	Coaching stock and freight vehicles without brake van.
Oswestry North Oswestry South	A NI	Up main Down main.	May, if necessary, be drawn without a brake van.
	CREWE TO BIRKEN	IHEAD AND E	BRANCHES
Chester No. 1 .	. Chester No. 2		P Without brake van.
Chester No. 2 .	. Chester No. 1	Down Crewe and down fast.	P Without brake van.
Chester No. 2 .	. Chester No. 4 .	Up fast and up slow (via	P Without brake van.
Chester No. 2 .	. Chester No. 4 .	No. 3A). Up main and up platform	
Chester No. 4 .	. Chester No. 2 .	(via No. 3).  Down main and down platform	P Without brake van.
Chester No. 3A	TO A NT. 24	- C -	P Without brake van. P Without brake van.
Chester No. 4	. Chester No. 6	& down slow Up fast and up slow.	P Without brake van.
Chester No. 6	. Chester No. 4	1 10 1	P Without brake van.
	. Chester No. 5	. Up main	. P Without brake van.
Chester No. 5 . Chester No. 5 .	CI A NI C	.  Down main .  Up	P Without brake van. P Without brake van.
CI ( ) I (	1 01 . 37 5	. Down	P Without brake van.
** . ** .4 *	. Hooton, South Jn	- I	10 freight vehicles without brake
Hooton, South Jn	. Hooton, North Jn	. Up fast .	van. Locomotives and locomotives with one or two brake vans only.
Rock Ferry	. Green Lane Jn	. Up through siding	15 freight vehicles in clear weathe only.

From	То	Line	Remarks
CRI	EWE TO BIRKENHEA	D AND BRAN	CHES—continued
Green Lane Jn.	Birkenhead, Brook Street.	Up	Locomotives or locomotives with one or two brake vans. Break
Birkenhead, Brook Street.	Canning Street North	Up	down train. Freight vehicles without brak van.
Birkenhead, Canning Street North.	Brook Street	Down	Freight vehicles without brake var
Ellesmere Port No. 1 Ellesmere Port No. 2 Ellesmere Port No. 2 Ellesmere Port No. 4 Ellesmere Port No. 5	Ellesmere Port No. 1 Ellesmere Port No. 4 Ellesmere Port No. 2	Up goods Down goods Up Down Down main	
Ellesmere Port No. 5	Shell Sidings G.F	Up	Freight vehicles. Must be propelled.
	CHESTER TO HOLY	HEAD AND I	BRANCHES
Rhyl No. 2		Down slow and passenger	Coaching stock without brake van Freight vehicles.
Llandudno No. 1	Llandudno No. 2	loop. Up	15 coaching stock.
LON	DON, ST. PANCRAS	TO TRENT A	ND BRANCHES
St. Albans North	St. Albans South	Down fast	Coaching stock vehicles or ligh
St. Albans North	St. Albans South	Down slow	locomotives. Coaching stock vehicles or light
Luton North	Luton South	Down fast	locomotives.  Coaching stock vehicles or 4 fitted freight vehicles.
Luton North	Luton South	No. 3 down platform.	—
Luton North Bedford Jn	Luton South Bedford North	Down slow Up slow	P 9 coaching stock. Light locomotives.
Bedford North Wellingborough Jn	YY 7 11' 1 .	Down slow Up main	9 coaching stock. Light locomotives —
Wellingborough Station.	Wellingborough Jn	Down goods.	_
Wigston South Jn Wigston South Jn	Wigston North Jn Wigston North Jn	Up goods Up reception.	Light locomotives only.
Leicester, London Rd. Jn.	Passenger Station	Nos. 3 and 4	P
Passenger Station East.	East. Leicester North	up platforms.	
Leicester North	Passenger Station West.	Nos. 1 and 2 down	P
Passenger Station West.	Leicester, London Road Jn.	platforms.	
Millbrook	Ridgmont (Marston Valley Brick Sidings frame)	Down	Freight trains in clear weather only
TR	ENT TO NEWARK CA	ASTLE (E.R.)	AND BRANCHES
Long Eaton Jn	Trent Station North	Down goods.	25 freight vehicles. In clear weather only.
Colwick East Jn	Rectory Jn	Down goods avoiding.	weather only.

#### TABLE G.—WORKING IN WRONG DIRECTION—continued.

From	То	Line	Remarks
TRI	ENT TO CHESTERFIE	ELD (E.R.) AN	D BRANCHES
Toton Jn Toton Down Sidings	Toton Centre	Up goods Down	
North.		goods. Down	
Toton Down Sidings North.	Toton Brake Sidings	departure.	
Stapleford & Sandiacre Station.	Toton Down Sidings North.	Down goods	_
Blackwell South Jn	Westhouses and Blackwell Station.	Up goods	Drawn freight trains only.
Clay Cross North Jn.	Clay Cross South Jn.	2nd Down goods.	_
Blackwell South Jn	Blackwell East Jn	Up goods	_
TREN	T TO CLAY CROSS (	VIA DERBY)	AND BRANCHES
Derby, London Road Jn.	Way & Works Sidings.	Down main	Trains for Engineer's Stores "H" Depot. Empty coaching stock, light locomotives.
Derby, Way & Works Sidings.	Derby, London Road Jn.	Up main	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

### TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR.

Set out below is a list of places where Freight vehicles (in accordance with Rule 153 (b)) may be

worked without a brake van in rear.

One wagon of fuel or stores for signal boxes and Stations, or the empty vehicle in connection therewith, may be worked without a brake van between any two signal boxes, provides the signal boxes concerned are not more than one mile apart.

From	То	Line	Number of vehicles and special conditions
	LONDON, EUSTON TO	O CREWE ANI	D BRANCHES
Willesden	Brent Sidings .	Down through sidings Nos. 1 and 2.	70 vehicles.
Brent Sidings	Willesden	Down through sidings Nos. 1 and 2 and down goods departure Nos. 1, 2 and 3.	70 vehicles.
Willesden Wembley Central Station	Mitre Bridge Jn High Level Sidings .	Up branch Up High Level arrival.	40 vehicles.
High Level Sidings Shunting Frame	Willesden	Up carriage and up departure.	
Willesden Carriage Shed South. Willesden Carriage Shed North.	High Level Sidings Shunting frame. Willesden Carriage Shed South.	Up carriage. Up empty carriage siding.	40 vehicles. 40 vehicles.
Watford Jn Watford Jn. No. 3	Watford Jn. No. 3 Watford Jn.	Down Up	30 vehicles. 40 vehicles.

## TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

From	То	Line	Number of vehicles and special conditions
LO	NDON, EUSTON TO	CREWE AND	BRANCHES—cont.
Stafford No. 1 Stafford No. 2	Queensville	Up slow Up through siding.	30 vehicles.
Stafford No. 1 Stafford No. 1	Stafford No. 4 Stop and Await Instructions boards. Down Salop Sidings.	Down slow. Nos. 1 and 2 down through	
Stafford No. 4	Stafford No. 2	sidings. Up goods and "down and up" through	
Stafford No. 4	Stafford No. 5	siding. Down slow Nos. 3 and 6 platforms and "down	
Stafford No. 5	Stafford No. 4	and up" goods. Up slow, Nos 1 and 6 platforms and "down and up"	
Crewe N.S. Sidings Crewe South Jn Crewe Sorting	Crewe South Jn Crewe N.S. Sidings Crewe N.S. Sidings	goods. Down Up	
Sidings South. Crewe N.S. Sidings	Crewe Sorting	Up	
Crewe Sorting Sidings North.	Sidings South. Crewe Gresty Lane No. 1.	Down	
Crewe Gresty Lane No. 1	Crewe Sorting Sidings North.	Up	
Crewe Gresty Lane No. 1	Crewe Salop Goods Jn.	Down	
Crewe Salop Goods Jn.	Crewe Gresty Lane No. 1.	Up	<del></del>
Crewe Salop Goods Jn. Crewe North Jn	Crewe North Jn Crewe Salop Goods	Down Up	
Crewe Gresty Lane No. 1	Jn. Crewe South Jn	Down	
Crewe South Jn	Crewe Gresty Lane No. 1	Up	
Crewe Basford Hall Jn.	Crewe Salop Goods Jn.	Down fast and slow.	
Crewe Salop Goods Jn.	Crewe Basford Hall Jn.	Up fast and slow.	
Crewe South Jn	Crewe North Jn	Nos. 1, 2 and 3 platforms, Nos. 1 and 2 through and Horse	
Crewe North Jn	Crewe South Jn	Landing. Nos. 3, 4, 5 and 6 platforms, No. 5 through and Horse Landing.	

# TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

continuea.			
From	То	Line	Number of vehicles and special conditions
LONI	DON, EUSTON TO CI	REWE AND B	RANCHES—cont.
York Road Jn Maiden Lane Jn Maiden Lane Jn	York Road Jn	down	Shunt only.  Shunt only.  1 passenger brake van and 2 Liner
Mitre Bridge Jn.	Maiden Lane Jn	City Up main and No. 1 up.	train vehicles. In clear weather only.
Northampton No. 1	Northampton No. 2	Down main and down platform	5 vehicles.
Northampton No. 2	Northampton No. 1		5 vehicles.
Northampton No. 2	Northampton No. 3	Down fast and slow.	5 vehicles.
Northampton No. 3	Northampton No. 2	Up fast and slow.	5 vehicles.
Northampton No. 3	Northampton No. 4	Down and "Down and up"	20 vehicles.
Northampton No. 4 Northampton Bridge St. Jn.	Northampton No. 3 Northampton Bridge Streel Level	goods. Up goods Down	
Northampton Bridge Streel Level	Crossing. Northampton Bridge St. Jn.	Up	
Crossing. Northampton No. 1 Duston Jn. North	Duston Jn. North Northampton Bridge Street Jn.	Up Down	5 vehicles. 4 vehicles.
Northampton Bridge Street Jn.	Duston Jn. North	Up	4 vehicles.
LONDO	N, MARYLEBONE TO	CLAYDON A	AND BRANCHES
Neasden Coal Yard and Coal Depot Sidings.	Neasden North Jn	Down slow and down goods arrival.	Empty wagon trains.
RUGBY MIDL	AND TO STAFFORD	(VIA BIRMIN	GHAM) AND BRANCHES
Curzon Street	Aston Station	Down Vauxhall goods and	Trips for Aston Gas Works.
Soho Pool Wharf Soho Road Station Windsor Street Goods	Soho Road Station Soho Pool Wharf Aston Jn	down fast. Single Single Departure	25 vehicles. 25 vehicles. To signal NS.63 for trains going in the direction of Curzon Street or Stechford.
Lichfield City No. 1	Lichfield City No. 2	Down main and	
Lichfield City No. 2	Lichfield City No. 1	platform. Up main and	- <u></u>
Wellington No. 2 Wellington No. 4	Wellington No. 4 Wellington No. 2	platform. Down main Up main	

TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

continuea.				
From	То	Line	Number of vehicles and special conditions	
OXFORD, WOLVER	COT JN. (W.R.) TO B	BIRMINGHAM	GRAND JN. AND BRANCHES	
Banbury Ju,	Banbury Station	Up goods line.	50 vehicles in clear weather only 20 vehicles during fog or falling snow. A tail lamp to be carried	
Tyseley Loco. Yard	Small Heath South	Down through	on rear vehicle. 30 vehicles.	
Small Heath South	Tyseley Loco Yard	siding. Up through siding.	30 vehicles.	
Small Heath South	Small Heath North	"Down and up" through	30 vehicles.	
Small Heath North	Small Heath South	siding Up goods and "Down and up" through siding.	30 vehicles.	
BIRMINGHAM AND		.R.) TO WOL' NCHES	 VERHAMPTON, WALSALL AND	
Hartlebury Station Kidderminster Station Great Bridge		Down main Up Down	12 vehicles. Clear weather only.	
<b>D</b> 1	ERBY TO BLACKWEL	L (W.R.) ANI	D BRANCHES	
Burton, Wetmore	Horninglow Bridge		·· ———	
Sidings. Horninglow Bridge	Burton, Wetmore	Up goods		
Burton, Horninglow Bridge	Sidings. Burton Station South	Down goods		
Burton Station South	Burton, Horninglow Bridge.	Up goods		
Burton Station South Leicester Jn Water Orton West Jn Washwood Heath Jn Washwood Heath Jn	Leicester Jn	Down goods Up goods Up arrival Up goods No. 2 Reception.	15 vehicles. In clear weather only. 2 vehicles. 50 vehicles.	
Washwood Heath In		From down sidings along Nos. 1 or 3	50 vehicles.	
Uttoxeter Pinfold Crossing Hockley Crossing Burton, English Grain Co's Siding	Pinfold Crossing Hockley Crossing Uttoxeter Wetmore Sidings	reception. Down Down Up Single	5 vehicles.	
Co's. Siding. Victoria Crescent Knighton South Jn. Saffron Lane Crossing Coalville Crossing King's Norton Station Jn.	Horninglow Bridge Saffron Lane Crossing Knighton South Jn Mantle Lane Bournville Station	Single Down Up Down Up	50 vehicles. 20 carflats which must be assisted in rear. (See Table J.)	
COLWICH TO MACCLESFIELD AND BRANCHES				
CC	DLWICH TO MACCLE	ESFIELD AND	BRANCHES	

### TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

From		То	Line	Number of vehicles and special conditions
C	RA	VEN ARMS (W.R.) T	O CREWE AN	ND BRANCHES
Shrewsbury, Abbey	1	Shrewsbury, Sutton	Loop	
Foregate. Shrewsbury, Sutton		Bridge Jn. Shrewsbury, Abbey	Loop	<del></del>
Bridge Jn. Shrewsbury, Abbey Foregate.		Foregate. Shrewsbury, Coton Hill South.	Down	35 vehicles.
Shrewsbury, Coton Hill South.		Shrewsbury, Abbey Foregate.	Up	35 vehicles.
Shrewsbury, Coton Hill South.		Shrewsbury, Coton Hill North.	Down	
Shrewsbury, Coton Hill North.		Shrewsbury, Coton Hill South.	Up	
Shrewsbury, Crewe Jr	1.	Shrewsbury, Crewe Bank.	Down	
Shrewsbury, Crewe Bank.		Shrewsbury, Crewe Jn.	Up	<del></del>
Pwllheli East Pwllheli West		Pwllheli West	Down Up	
Croes Newydd Nort Fork.	h	Wrexham North		
Wrexham North		Croes Newydd North Fork.	Up	
Oswestry North	••	Oswestry South	Down and Middle.	
Oswestry South	•	Oswestry North	Middle.	
Nantmawr Quarry Sidings.		Nantmawr Jn. Ground Frame.	Single	
		CREWE TO BIRKEN	HEAD AND E	BRANCHES
Chester No. 1		Chester No. 2	and down	
Chester No. 2		Chester No. 1	fast. Up Crewe and up fast.	
Chester No. 2	• •	Chester No. 4	Down main and down	
			platform (via No. 3).	
Chester No. 2		Chester No. 4	Down fast and "down	
			and up"	
			platform (via No.	
Chester No. 4		Chester No. 2	3A.) Up main	
			and up platform	
Chester No. 4		Chester No. 2		
			up slow and "down	
			and up" platform	
			(via No. 3A).	
Chester No. 4 Chester No. 4	• •	Chester No. 2 Chester No. 6		
			and down slow	
Chester No. 6		Chester No. 4	and up slow.	
Chester No. 4	• •	Chester No. 5	. Down main	

TABLE H1.—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

From	То	Line	Number of vehicles and special conditions
CRI	EWE TO BIRKENHEAD	D AND BRAN	ICHES—continued
Chester No. 5	01 . 31 .	Up main Down Up	
Hooton South Jn. Hooton North Jn. Birkenhead, Brook Street. Birkenhead, Canning Street North. Ellesmere Port No. 1	Birkenhead, Canning Street North. Birkenhead, Brook Street. Ellesmere Port No. 2	All down All up Down goods Up goods Down goods	
Ellesmere Port No. 2 Ellesmere Port No. 2 Ellesmere Port No. 4 Ellesmere Port No. 4 Ellesmere Port No. 4	Ellesmere Port No. 4 Ellesmere Port No. 2 Ellesmere Port No. 5 Ellesmere Port No. 5	Up goods Down Up Down "Down and up"	60 vehicles. 60 vehicles. 60 vehicles.
Ellesmere Port No. 5	Ellesmere Port No. 4	"Down and up."	
Helsby, Exchange Siding Ground Frame. Birkenhead North No. 2.	Helsby, West Cheshire Jn. Bidston East Jn	Up "Down and up"	50 vehicles.
Bidston East Jn	Birkenhead North No. 2.	goods. Up goods	
LON	DON, ST. PANCRAS	TO TRENT A	ND BRANCHES
Dock Jn	St. Paul's Road	Down goods	
St. Paul's Road Goods Jn.	Goods Jn. Dock Jn	Up goods	
Dock Jn Brent Jn. No. 2	St. Pancras Station Empty Wagon Sidings	Up goods Arrival and departure.	50 vehicles.
Brent Empty Wagon Sidings.	Brent Jn. No. 2	Departure and arrival.	50 vehicles.
Bedford Jn Bedford North	Bedford North Bedford Jn	Down slow Up slow Down main Down goods	4 vehicles. 4 vehicles. 20 vehicles. Equal to 50 vehicles. In clear
Neilsons Sidings Neilson's Sidings	Finedon Road Finedon Road	Up main Up goods	weather only. 20 vehicles. Equal to 50 vehicles. In clear weather only.
Leicester North	Humberstone Road Jn.	Down goods	40 vehicles. In clear weather only.
Humberstone Road Jn. Luton East Vauxhall Sidings	Leicester North Vauxhall Sidings Luton East	G: 1	40 vehicles. In clear weather only.
TRE	NT TO NEWARK CAS		ND BRANCHES
Lenton South Jn. Nottingham Station West.	Beeston North Jn Station "A" or "B"	Up goods All	10 vehicles. In clear weather only.
Nottingham Station "A" or "B"	Station East	All	10 vehicles. In clear weather only.
Nottingham Station East	London Road Jn	All	10 vehicles. In clear weather only.
Cinder Hill Colliery Empty Wagon Sidings	Basford Jn	Single	Brake van must be attached next to the locomotive.
<del></del>			

### TABLE H1—WORKING OF FREIGHT VEHICLES WITHOUT A BRAKE VAN IN REAR—continued.

From	То	Line	Number of vehicles and special conditions					
TR	ENT TO CHESTERF	TIELD (E.R.)	AND BRANCHES					
Toton Centre	Toton Jn	Independer line.	nt 40 vehicles.					
Toton Down Sidings North.	Stapleford and Sandiacre.	Down goods.	40 vehicles.					
Riddings Jn	Riddings Colliery Sidings G.F.	Up goods	6 vehicles.					
Toton East Jn	Meadow Lane Jn.	Up goods	40 vehicles.					
Blackwell East Jn	Westhouses and Blackwell Station	Single	Freight trains which must be assist-					
Westhouses and Blackwell Station	Tibshelf East Jn.	Single	ed in rear. (See Table J.)					
TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES								
Spondon Jn	Spondon Station Way and Works Sidings.	Up   Up main	In clear weather only. 4 vehicles.					

# TABLE H2—WORKING OF COACHING STOCK VEHICLES WITHOUT A BRAKE VAN BEYOND STATION LIMITS.

Working of fitted coaching stock vehicles without brake van is authorised as shown below, subject to any special conditions shown. Unless otherwise shown, the continuous brake must be connected up and in use. A Guard or Shunter must ride on the rear or nearest suitable vehicle, and a tail lamp must be carried on the last vehicle. When no suitable vehicle is available the man may ride on the locomotive.

These arrangements do not apply to vehicles conveying passengers, except in the case of items marked "P."

From To		Line	Number of vehicles and special conditions
	LONDON, EUSTON T	O CREWE ANI	D BRANCHES
Willesden	Brent Sidings	Down through sidings Nos. 1 and 2.	
Brent Sidings	Willesden	Down through sidings Nos. 1 and 2.	
Mitre Bridge Jn.	Willesden	. Down	
Willesden Willesden Carriage Shed North.	Willesden Čarriage Shed South.	Up Up empty carriage siding.	
Willesden Carriage Shed South.	High Level Sidings Shunting frame.	Up carriage	
High Level Sidings, Shunting Frame.	Willesden	departure and up carriage.	
Willesden Carriage Stabling Sidings.	High Level Sidings		
Watford Jn	Watford Jn. No. 3	Down	

# TABLE H2—WORKING OF COACHING STOCK VEHICLES WITHOUT A BRAKE VAN BEYOND STATION LIMITS—continued.

From		То		Line	Number of vehicles and special conditions
L	ON	DON, EUSTON TO	) C	REWE AND	BRANCHES—cont.
Watford Jn. No. 3		Watford Jn		* *	
Rugeley No. 2				Up fast and	10 vehicles.
Stafford No. I		Stafford No. 4		and slow. Down fast	<u> </u>
Stafford No. 4		Stafford No. 1		and slow.	
			٠.	Up fast and slow.	
Stafford No. 4		Stafford No. 2	٠.	Up goods	
				and "down and up"	1
				through	
Stafford No. 4		Stafford No. 5			
				slow, Nos. 3 and 6	
	i			platforms	·
	,			and "down and up"	the second secon
	ļ			goods.	· 467.38
Stafford No. 5		Stafford No. 4		Up fast, I slow, Nos.	
				1 and 6	
	1			platforms and "down	
	į			and uown	
Crewe, Gresty Lane		Crewe South Jn.		goods. Down	
No. 1.					
Crewe, South Jn.	••	Crewe, Gresty Lane No. 1	;	Up	
Crewe, Sorting Sidings North.		Crewe, Gresty Lane	;	Down	
Crewe, Gresty Lane		Crewe, Sorting		Up	
No. 1. Crewe, Gresty Lane	İ	Sidings North. Crewe, Salop Good	s	Down	i
No. 1.	!	Jn.			
Crewe, Salop. Goods Jn.		Crewe North Jn.	!	Down	
Crewe, North Jn.	٠.,	Crewe, Salop		Up	
Crewe, N.S. Sidings		Goods Jn. Crewe South Jn.		Down	
Crewe South Jn.		Crewe N.S. Sidings		Up	
Crewe North Jn. Crewe Steel Works		Crewe Steel Works Crewe North Jn.	• •	Down Up	
Crewe, Sorting		Crewe, Salop	•	Down slow	
Sidings North.  Crewe, Salop		Goods Jn. Crewe, Sorting		Up fast	
Goods Jn.		Sidings North			Th
Crewe, South Jn.	• •	Crewe North Jn.	• •	Nos. 1, 2 and 3	<b>P</b>
			į	platforms	
	ĺ			and Nos. 1 and 2	
Travia Narth I.		Crown Card 1		through.	
Crewe North Jn.		Crewe South Jn.		Nos. 3, 4, 5 and 6	P
				platforms	
			i	and No. 5 through.	
Crewe "A"		Crewe, North Jn.		Horse	
Crewe North Jn.		Crewe "A"		Landing. Horse	
		· · · · · · · · · · · · · · · · · · ·	!		····

# TABLE H2.—WORKING OF COACHING STOCK VEHICLES WITHOUT A BRAKE VAN BEYOND STATION LIMITS—continued.

From	To Line		Number of vehicles and special conditions				
LONI	OON, EUSTON TO C	REWE AND B	RANCHES—cont.				
Northampton No. 1	Northampton No. 2	Down main and down platform.	P				
Northampton No. 2	Northampton No. 1	Up main and up platform.	P				
Northampton No. 2	Northampton No. 3	Down fast &down slow					
Northampton No. 3	Northampton No. 2		<del></del>				
Duston Jn. North	Northampton Bridge St. Jn.	Down	6 vehicles.				
Northampton Bridge St. Jn.	Duston Jn. North	Up	6 vehicles.				
Northampton Bridge St. Jn.	Northampton Bridge St. Level Crossing.	Down	<del></del>				
Northampton Bridge St. Level Crossing.	Northampton Bridge	Up					
		(VIA BIRMIN	GHAM) AND BRANCHES				
Lichfield City No. 1	Lichfield City No. 2	and down					
Lichfield City No. 2	Lichfield City No. 1	platform. Up main and up platform.					
D	 ERBY TO BLACKWEI	 LL (W.R.) ANI	BRANCHES				
Saltley Sidings Birmingham New St	Duddeston Road Duddeston Road		Loco. stores van. Loco. stores van.				
	CRAVEN ARMS TO	CREWE AND	BRANCHES				
Barmouth South Barmouth North Pwliheli East	Barmouth South Pwllheli West	Down					
	CREWE TO BIRKEN	HEAD AND E	BRANCHES				
Chester No. 1	Chester No. 2	Down Crewe and down fast.	P				
Chester No. 2	Chester No. 1	TI. C	P				
Chester No. 2	Chester No. 4	TD	P				
Chester No. 2	. Chester No. 4 .	Down main and down platform (via No. 3.)	P				
Chester No 4	. Chester No. 2 .	T I'm manim	P				

# TABLE H2.—WORKING OF COACHING STOCK VEHICLES WITHOUT A BRAKE VAN BEYOND STATION LIMITS—continued.

BEIOND SIA	110	IN LIVIIIS—continued	<i>i</i> .							
From	From To		Line	Number of vehicles and special conditions						
CREWE TO BIRKENHEAD AND BRANCHES—cont.										
Chester No. 4		Chester No. 2		Up fast, slow and "down and up" platform (via No. 3A.)	P					
Chester No. 2 Chester No. 3A Chester No. 4		Chester No. 2		No. 1 siding No. 1 siding Down fast & down slow	P					
Chester No. 6		Chester No. 4 .		Up fast	P					
Chester No. 4		Chester No. 6 .		and up slow. Coal Yard						
Chester No. 6		Chester No. 4 .		Siding. Coal Yard Siding.						
Chester No. 4 Chester No. 4	• •	Chester No. 5 . Chester No. 5 .		Down main Macaroni Siding.	P					
Chester No. 5 Chester No. 5		Chester No. 4 . Chester No. 4 .		Up main Macaroni Siding.	P					
Chester No. 5 Chester No. 6	•••	Chester No. 6 Chester No. 5		Down	P P					
I	O	NDON, ST. PANCRAS	S	TO TRENT A	AND BRANCHES					
Luton South	••	Luton North	•	Down fast, down slow and No. 3 down	4 vehicles.					
Luton North		Luton South		platform Up fast and	4 vehicles.					
Leicester, London Road Jn.		Leicester North .		up slow. Nos. 1 and 2 platforms	15 vehicles.					
Leicester North		Leicester London Road Jn.		Nos. 3 and 4 platforms	15 vehicles.					
Leicester London Road Jn.		Leicester North .		Nos. 1 and 2 platforms	P 6 vehicles.					
Leicester North		Leicester London Road Jn.		Nos. 3 and 4 platforms	P 6 vehicles.					
T	RE	NT TO NEWARK CA	\S'		ND BRANCHES					
Nottingham Station West.	i	Nottingham "A" .	-	All down	P 6 vehicles.					
Nottingham "B"		Nottingham Station West.		All up	P 6 vehicles.					
Nottingham Station West.		Nottingham "A"	-	All down	Continuous brake not in use.  During fog restricted to 12 vehicles.					
Nottingham "B"		Nottingham Station West.		All up	Continuous brake not in use.  During fog restricted to 12 vehicles.					
Nottingham "A"	$\cdot \cdot  $	Nottingham Station East.		All down	P 6 vehicles.					
Nottingham Station East.		Nottingham "B"	$\cdot \mid$	All up	P 6 vehicles.					

# TABLE H2.—WORKING OF COACHING STOCK VEHICLES WITHOUT A BRAKE VAN BEYOND STATION LIMITS—continued.

From	То	Line	Number of vehicles and special conditions
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### TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES—continued.

Nottingham "A"	Nottingham Station East.	All down	Continuous brake not in use.  During fog restricted to 12 vehicles.
Nottingham Station East.	Nottingham "B"	All up	Continuous brake not in use.  During fog restricted to 12 vehicles.
Nottingham Station East.	Nottingham London Road Jn.	All down	P 6 vehicles.
Nottingham London Road Jn.	Nottingham Station East.	All up	P 6 vehicles.
Nottingham Station East.	Nottingham London Road Jn.	All down	Continuous brake not in use.  During fog restricted to 12 vehicles.
Nottingham London Road Jn.	Nottingham Station East.	All up	Continuous brake not in use.  During fog restricted to 12 vehicles.
Nottingham London Road Jn.	Sneinton Jn	Down main and down goods.	6 vehicles. In clear weather only.
Sneinton Jn	Nottingham London Road Jn.	Up main and up goods.	6 vehicles. In clear weather only.

### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES

	•	•		
Derby, Way and Works   Sidings.	Derby London Road Jn.	Down main	In clear weather. During restricted to 12 vehicles.	fog
Derby London Road Jn.		Up main	In clear weather. During restricted to 12 vehicles.	fog
Derby, Way and Works Sidings.		"Down and up" through siding.		
Derby, Way and Works Sidings.		Down loco		
Derby Engine Sidings No. 1.	Works Sidings.	Up loco		
Derby London Road Jn.	Derby "A" box	All down	P	
Derby "A" box	Derby London Road Jn.	_	P	
Derby "A" box	Derby Station North	All down	P	
Derby Station North Jn.	Derby "A" box	All up	P	
Derby Station North		Down main	P	
Derby Jn	Derby Station North	Up main	P	
Derby London Road Jn.	Derby Jn	Down goods		
Derby Jn	Derby London Road Jn.	Up goods	<del></del>	
Derby North Jn	Derby North Jn Derby Jn	Up main	o vehicles.	
No. 1.	Derby Station North Jn.			
Jn.	St. Mary's Jn			
Derby St. Mary's Jn.	Station North Jn	All	1 vehicle.	

### TABLE J.—LOCOMOTIVES ASSISTING IN REAR OF TRAINS. RULE 133.

Any type of locomotive may assist a train in the rear provided the maximum speed of the train, while being assisted, does not exceed that permitted for the locomotive with the lower maximum speed. Diesel or electric shunting locomotives must not, however, be used to assist a train in rear under normal circumstances unless authorised in the table.

Unless otherwise specially authorised, a locomotive assisting a train in rear must be coupled to it.

Trains must be brought to a stand before the assisting locomotive comes behind, except where authorised in this Table.

Trains must also be brought to a stand before the assisting locomotive is detached except in the case of freight trains, when uncoupling by shunting pole from the end of the brake van is specially authorised.

At places where authority is given for trains to be assisted by a locomotive in rear and it is necessary for the train to be drawn to the home signal of the box in advance for the assisting locomotive to come behind, the Driver of the assisting locomotive must be instructed by the Signalman at the box in the rear to pass at danger the signal controlling the entrance to the section ahead unless a calling-on signal is provided under such signal. The assisting locomotive must be signalled to the box in advance by the bell signal, 2-2, which must be acknowledged by repetition.

During fog or falling snow, if the rear of the train standing in the advance section is out of sight of the Signalman at the box in the rear, the assisting locomotive must be piloted from the box in

rear by the Guard of the train requiring assistance, or other competent person.

When it is necessary for an assisting locomotive after being detached to continue on the same line as the train, it must not follow the train past the signal which has been cleared for the train to proceed until that signal has been placed to DANGER and again cleared.

After assisting through a section and reaching the box at which assistance is to cease, the assisting

locomotive must, where possible, stop opposite the box.

Where assisting is authorised, assisting locomotives may join or leave the train at any intermediate signal box, unless otherwise shown.

During fog or falling snow, when a train starts out of a yard and assistance through the advance section is authorised, the assisting locomotive must, when practicable, be placed at the rear of the train before it moves out on to the running line.

Wherever an assisting locomotive is attached to a train the man responsible for arranging such

working must advise the Signalman that an assisting locomotive is in the rear.

A locomotive with not more than two brake vans may be used to assist in rear of a freight train. When an assisting locomotive is coupled to the rear of a passenger or empty coaching stock train, the brake pipe must be connected to the locomotive at both ends of the train, and responsibility for creating and maintaining the brake power will rest with the Driver of the leading locomotive.

A list of places where trains may be assisted in rear in accordance with these instructions is shown

below.

Explanation of references:-

P.—Train conveying passengers.

ECS.—Empty coaching stock.

F.—Freight.

Parcels.—Includes all trains signalled by the bell code 1-3-1.

D.-350 h.p. Diesel shunting locomotive may be used, provided speed does not exceed 15 m.p.h.

N.—Locomotive not coupled to train.

From	То	Class of Train	Condi- tions	Remarks
	LONDON (EUSTO	N) TO CRI	EWE AND	BRANCHES
Euston	Camden (Signal	All	N	Fast Line.
Euston	EN.106). Camden (Signal EN.107).	All	N	Slow Line.
Acton Wells Jn	Kensal Green Jn	ECS	N	
Viaduct Jn. (W.R.)		ECS F	N	Also troop trains,
Willesden		ECS	N	
Kensal Green Jn		ECS	N	
Sidings.	Kensal Green Jn	ECS F	N	
Kensal Green Jn	Mitre Bridge Jn	ECS	N	
Mitre Bridge Jn	Willesden H.L. Jn	ECS F	N	Also troop trains.
LON	IDON (MARYLEBO)	NE) TO CI	LAYDON A	AND BRANCHES
Marylebone		ECS	1	
Neasden Sidings		ECS		-
Neasden North Jn.	Neasden North Jn.	ECS		Via Wembley Stadium Loop.

From	То	Class of Train	Condi- tions	Remarks			
RUGBY (MID	LAND) TO STAFFO	RD (VIA B	IRMINGH	AM) AND BRANCHES			
Birmingham New Street.	Signal NS.471 or Signal NS.305.	All	N	Assisting locomotive must not proceed beyond Signal NS.471 unless the driver has requested assistance beyond. In this case assistance will continue to Signal NS.305 where the driver of the assisting locomotive must telephone the New Street signal man for instructions.			
Bushbury Jn (Signal WN.25).	Wolverhampton H.L.	ECS F	N D	In clear weather only. Trains must draw clear of junction with down Bescot line for assisting locomotive to come in rear.			
Perry Barr South	Soho East Jn.	F	N D				
Jn. Perry Barr North Jn. Soho Pool Aston Jn	Soho Road	F F ECS F ECS F	N D N N N D				
Wednesbury Rugeley No. 1	Prince's End		N D N				
OXFORD, WOLVE	CRCOT JUNCTION (	(W.R.) TO I	BIRMINGI CHES	HAM, GRAND JUNCTION			
(Controlled from	Exchange Sidings	F	N				
Bordesley Jn.) Exchange Sidings	St. Andrew's Jn.	F	N				

### BIRMINGHAM AND DROITWICH SPA (W.R.) TO WOLVERHAMPTON, WALSALL AND BRANCHES

(Controlled from Bordesley Jn.)

Stourbridge Jn. North.	Rowley Regis	••	F	_	Assisting locomotive to work uncoupled from Cradley Heath if train stops there.
Cradley Heath East	Rowley Regis		ECS F	N	ECS in clear weather only.
Kidderminster Station.	Stourbridge Jn. North.		F	<del>-</del>	
Stourbridge Jn North.	Dudley		F	_	
Eagle Crossing	Dudley		ECS F	N D	

### DERBY TO BLACKWELL (W.R.) AND BRANCHES

Saltley Jn	 Grand Jn		ECS F Parcels	N		Via G	main oods I	line Line.	or	Camp	Hill
Saltley Jn	 Kings Heath	• •	ECS F Parcels	N	}						

The Driver of a down train requiring assistance must whistle 1S pause 1S when passing the banking siding at Saltley Jn. box.

Guards of down freight trains running between Washwood Heath Sidings and the Camp Hill Line must advise their drivers of the load conveyed and decide, before leaving Washwood Heath, whether assistance is required. For trains not stopping at Washwood Heath the guard must so inform the driver before leaving the last stopping place.

Freight trains on the down Camp Hill Line requiring assistance need not stop, but must not exceed 10 m.p.h. to allow the assisting locomotive to reach the rear of the train as soon as possible.

The assisting locomotive must normally leave the train at Camp Hill, but if assistance is required to King's Heath and the I.B. outer distant signal is at caution the driver of the train locomotive must whistle 2S 1L to warn the assisting locomotive driver.

### TABLE J.—LOCOMOTIVES ASSISTING IN REAR OF TRAINS. RULE 133—continued.

		<u> </u>		
From	То	Class of Train	Condi- tions	Remarks
DEF	RBY TO BLACKWEI	LL (W.R.)	AND BRAN	NCHES—continued
Uttoxeter Stoke, Cockshute Sidings.	Caverswall Caverswall	F F	N N	When assisted from Stoke Jn. only, train must stop at signal SE.104, SE.105 or SE.107 for the assisting locomotive to
Birmingham	Church Road Jn	All	N	come to the rear. In clear weather only.
New Street. Kings Norton Station Jn.	Bournville Station	F		
Bournville Station  Bournville Station  Lifford Station Jn	Kings Norton Station Jn. Lifford Station Jn Bournville Station Kings Norton Station Jn.	F		Motor car trains being turned via Lifford triangle.
Kings Norton Station Jn. Redditch North	Lifford Station Jn  Barnt Green S.L. Jn.	ECS F Parcels		
via the South crosso The assistant locomo	over. otive must be uncouple ssist the train to resta	ed when the	train arriv	es at Barnt Green S.L. Jn. starting he signal until is has been replaced
	COLWICH TO MA	CCLESFIE	ELD AND	BRANCHES
Etruria Junction. (Controlled from Stoke-on-Trent.)	Hanley York St.	F	D	Assistant engine must continue with the train to York St. When a 350 h.p. diesel locomotive is used it must not be
Crewe N.S. Sidings	Kidsgrove Central	F	N	coupled to the train.
	CRAVEN ARMS (W.	R.) TO CE	REWE AND	BRANCHES
	•	•		
Rossett	Wrexham North	F F	<u>-</u>	During single line working between Rossett and Wrexham North.
	CREWE TO BIR	RKENHEAI	AND BR	ANCHES
Canning Street North.	Green Lane Jn	F	N	
L	ONDON (ST. PANC	RAS) TO T	ΓRENT AN	D BRANCHES
Neasden Jn	Acton Wells Jn	ECS	ı <del></del>	· · · · ·
Neasden South Jn Willesden	Neasden Jn. Acton Canal Wharf	ECS		Only in emergency when diverting
	Luton South	F	N	trains via Dudding Hill Jn. Assisting locomotive not to proceed beyond shunt signal reading from down fast to reception
Forder's Sidings	Ridgmont	F	ND	line.

#### TABLE J.-LOCOMOTIVES ASSISTING IN REAR OF TRAINS. RULE 133-continued.

From	То	Class of Train	Condi- tions	Remarks
r	TRENT TO NEWARK	CASTLE	(E.R.) ANI	D BRANCHES
Bestwood Park Jn.	Kirkby Station Jn	F F	N	
Carlton Field	D T .	F	<del>-</del>	During fog and falling snow not to exceed 45 wagons.
Colwick East	Rectory Jn	F		Trains on up goods line from Colwick Estates branch to
) 95 K	98.7			Colwick Yard during fog.
	TRENT TO CHEST	ERFIELD (	E.R.) AND	BRANCHES
Pye Bridge Jn		<u>F</u>	N	
Blackwell East Jn		F F F	N	
Blackwell East Jn		<u> </u>	_	· —
Tibshelf East Jn	Butcherwood Sidings	Г		
	'	'		ı

### TABLE K1.—WORKING OF TRAINS CONVEYING PASSENGERS OVER GOODS LINES OR GOODS LOOPS.

On the following lines, passenger trains may be run provided the instructions headed "Working of trains conveying passengers over goods lines or goods loops" shown on page 92 of the General Appendix are carried out.

No service	T		I	Lines
From		To Down		Up
Willesden Signal WN.13	ONDON, EUSTON TO Cl 7   Willesden Signal WN.86 ns from Kensington line req	Goods		.  —
DI	ERBY TO BLACKWELL	(W.R.) AND	BRANCH	ES
Castle Bromwich Jn.	Walsall, Ryecroft Jn.	Goods	•••	. Goods.
LON	DON, ST. PANCRAS TO	TRENT AN	D BRANC	CHES
Cricklewood Jn Silkstream Jn	Cricklewood Jn Dudding Hill Jn Acton Wells Jn Neasden South Jn Syston East Jn	Goods	••.	Goods. Goods. Goods. Goods. Goods.
TRE	NT TO NEWARK CASTI	E (E.R.) AN	D BRANC	CHES
the state of the s	¥	Goods	••	Goods.

### TABLE K2.—LINES EQUIPPED FOR PASSENGER TRAIN WORKING, OVER WHICH THERE IS NO BOOKED PASSENGER TRAIN SERVICE. (Rule 55.)

The following is a list of Absolute Block lines equipped for passenger train working over which there is no booked passenger train service. Passenger trains may, however, be allowed to use these lines without special arrangements. The provisions of Rule 55 must be carried out for all trains at all times, except on lines marked \* where T.C.B. regulations apply.

÷		Line	S .
From	То	Down	Up
I	ONDON, EUSTON TO CR	EWE AND BRANCHES	3
New Inn Yard Canonbury Jn Victoria Park Jn. (E.F.	Camden Road Jn.	No. 1	No. 1 No. 1. Main.
Kensal Green Jn. Kensal Green Jn.	Willesden Jn. L.L Willesden S.B	. Main City	City.

# TABLE K2.—LINES EQUIPPED FOR PASSENGER TRAIN WORKING, OVER WHICH THERE IS NO BOOKED PASSENGER TRAIN SERVICE. (Rule 55.)—continued.

}	To			1	Line	•	
10			Down			Up	
JDON EUS	TON TO C	PEWE	AND RR	ANCHE	<u>'</u>	cont	
• *	•					4 6	
Bicester	No. 1						
		!			i i		
8						2 2) 0 1 021	
Fenny S	Stratford		Flyover			Flvover.	
		İ	•				
Weddin	gton Jn		Main			Main.	
Sydney	Bridge		Independe	ent		_	
Salop G	loods Jn.		_			Independent.	
Basford	Hall Jn		-			Independent.	
		(VIA		HAM)	AND		
		• •					
		• •					
		• • •					
Aston J				• •			
Perry Ba		4			1		
					- 1		
		i	,		- 1		
					- 1	3.7	13
					- 1		
	on In				- 1		
Rugelev							
			Main	••		Main.	
Bentley	Heath Crossi	ing		_ ::		Loop.	
Strauor							
East.				LVERHA	AMP	TON, WALSA	LL
East. ND DROIT	AND B	RANC	CHES			·	LL
East.  ND DROIT  Walsall	AND B	RANC	CHES Main			TON, WALSA Main.	LL
East.  ND DROIT  Walsall	AND B	RANC	CHES Main		••	Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson	AND B S.B BLACKWEL	RANC	Main  R.) AND  Main	 BRANC	··	Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour	AND B S.B BLACKWEL Jn	RANC	Main  R.) AND  Main  Main  Main	BRANC	HES	Main. Main. Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour	AND B S.B BLACKWEL Jn	RANC	Main  R.) AND  Main  Main  Main	BRANC	HES	Main. Main. Main. Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour	AND B S.B BLACKWEL Jn	RANC	Main  R.) AND  Main  Main  Main	BRANC	HES	Main. Main. Main. Main. Main. Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V	AND B. S.B BLACKWEL Jn rne Jn Leicester Jn. Bosworth Vest Jn.	L (W	Main  R.) AND  Main  Main  Main  Main  Main  Main  Main  Main	BRANC	HES	Main. Main. Main. Main. Main. Main. Main.	LL 
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V Whitacre	AND B. S.B  BLACKWEL Jn rne Jn Leicester Jn. Bosworth Vest Jn e Jn.	**************************************	Main  R.) AND  Main  Main  Main  Main  Main  Main  Main  Main  Main	BRANC	HES	Main. Main. Main. Main. Main. Main. Main. Main.	LL 
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V Whitacre Abbey J	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. n.	**************************************	Main	BRANC	HES	Main. Main. Main. Main. Main. Main. Main.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson  Melbour  Burton,  Market  Moira V  Whitacre  Abbey J  Barnt G	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. n. reen M.L. Jr	L (W.	Main  R.) AND  Main Main Main Main Main Main Main Mai	BRANC	HES	Main. Main. Main. Main. Main. Main. Main. Main. Slow.	<b>.</b>
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. reen M.L. Jr	L (W	Main  R.) AND  Main  Main  Main  Main  Main  Main  Main  Slow  EWE AND	BRANC	CHI	Main. Main. Main. Main. Main. Main. Main. Slow.	<b>.</b>
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM	AND B. S.B  BLACKWEL  Jn rne Jn Leicester Jn. Bosworth Vest Jn reen M.L. Jr.  Jr.  Jr.  Jr.  Jr.  Jr.  Jr.  Jr.	L (W	Main  R.) AND  Main  Main  Main  Main  Main  Main  Main  Slow  EWE AND	BRANC	CHI	Main. Main. Main. Main. Main. Main. Main. Slow.	LL.
East.  ND DROIT  Walsall  ERBY TO  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM  Severn F (Engli	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. n. reen M.L. Jr  Bridge Jn. sh Bridge Jn.	L (W	Main  R.) AND  Main  Main  Main  Main  Main  Main  Main  Slow  EWE AND	BRANC	CHE	Main. Main. Main. Main. Main. Main. Main. Slow.	<b>.</b>
East.  ND DROIT  Walsall  DERBY TO I  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM Severn F (Engli	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. in. reen M.L. Jr  Bridge Jn. sh Bridge Jn.	L (W.	Main  Main  Main  Main  Main  Main  Main  Main  Main  Main  Main  Slow  Loop	BRANC        D BRAN	CHES	Main. Main. Main. Main. Main. Main. Slow.	LL
East.  ND DROIT  Walsall  DERBY TO  Stenson Melbour Burton, Market Moira V Whitacr Abbey J Barnt G  AVEN ARM  Severn E (Engli  CREWE T Hooton	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. reen M.L. Jr  IS (W.R.) To  Bridge Jn. sh Bridge Jn. Sh Bridge Jn.	L (W.	Main  R.) AND  Main Main Main Main Main Main Main Mai	BRANC	CHES	Main. Main. Main. Main. Main. Main. Slow.  ES Loop.	LL
East.  ND DROIT  Walsall  DERBY TO D  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM  Severn E (Engli  CREWE T	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. n. dreen M.L. Jr  Bridge Jn. sh Bridge Jn. sh Bridge Jn. North Jn. North Jn.	RANC  L (W.  CO CR  HEAD	Main  R.) AND  Main Main Main Main Main Main Main Mai	BRANC D BRAN	CHES	Main. Main. Main. Main. Main. Main. Main. Slow.  ES Loop.	LL
East.  ND DROIT  Walsall  DERBY TO D  Stenson Melbour Burton, Market Moira V Whitacre Abbey J Barnt G  AVEN ARM  Severn E (Engli  CREWE T	AND B. S.B.  BLACKWEL  Jn. rne Jn. Leicester Jn. Bosworth Vest Jn. e Jn. reen M.L. Jr  IS (W.R.) To  Bridge Jn. sh Bridge Jn. Sh Bridge Jn.	RANC  L (W.  CO CR  HEAD	Main  R.) AND  Main Main Main Main Main Main Main Mai	BRANC D BRAN	CHES	Main. Main. Main. Main. Main. Main. Main. Slow.  ES Loop.	LL
	Mitre B Bicester Denbigh Fenny S Weddin Sydney Salop G Basford  LAND TO S Kenilwo Coventr Nuneato Aston J Perry Ba Soho N Walsall, Lichfield Wichno Bloomfi Tipton G Darlasto Rugeley Donning  RCOT JN. (C	Mitre Bridge Jn.  Bicester No. 1  Denbigh Hall  Fenny Stratford  Weddington Jn.  Sydney Bridge  Salop Goods Jn.  Basford Hall Jn.  Kenilworth Jn.  Coventry  Nuneaton  Aston Jn.  Perry Barr West  Soho North Jn.  Walsall, Ryecroft Jn.  Lichfield City No. 1  Wichnor Jn.  Bloomfield Jn.  Tipton Curve  Darlaston Jn.  Rugeley No. 1  Donnington No. 1  RCOT JN. (W.R.) TO B  Banbury North  Bentley Heath Cross	Mitre Bridge Jn.  Bicester No. 1 Denbigh Hall  Fenny Stratford  Weddington Jn.  Sydney Bridge  Salop Goods Jn.  Basford Hall Jn.  LAND TO STAFFORD (VIA  Kenilworth Jn.  Coventry  Nuneaton  Aston Jn.  Perry Barr West  Soho North Jn.  Walsall, Ryecroft Jn.  Lichfield City No. 1  Wichnor Jn.  Bloomfield Jn.  Tipton Curve  Darlaston Jn.  Rugeley No. 1  Donnington No. 1  RCOT JN. (W.R.) TO BIRMIT	Moon, Euston to crewe and broken beautiful bea	NDON, EUSTON TO CREWE AND BRANCHE    Mitre Bridge Jn.	NDON, EUSTON TO CREWE AND BRANCHES—  Mitre Bridge Jn Main Bicester No. 1 Main Denbigh Hall Flyover  Fenny Stratford Flyover  Weddington Jn Main Sydney Bridge Independent Salop Goods Jn — Basford Hall Jn —  LAND TO STAFFORD (VIA BIRMINGHAM) AND  Kenilworth Jn Main Coventry Main Nuneaton Main Nuneaton Main Soho North Jn Main Soho North Jn Main Walsall, Ryecroft Jn. Fast/slow Lichfield City No. 1 Main Wichnor Jn Main Wichnor Jn Main Bloomfield Jn Main Tipton Curve Main Darlaston Jn Main Tipton Curve Main Rugeley No. 1 Main Rugeley No. 1 Main Donnington No. 1 Main RCOT JN. (W.R.) TO BIRMINGHAM, GRAND JN  Banbury North Slow Bentley Heath Crossing Slow	NDON, EUSTON TO CREWE AND BRANCHES—cont.    Mitre Bridge Jn.   Main   Main.   Main.     Bicester No. 1   Main   Main.     Denbigh Hall   Flyover   Flyover.     Weddington Jn.   Main   Main.     Sydney Bridge   Independent   Independent.     Salop Goods Jn.   Independent   Independent.     Basford Hall Jn.   Main   Main.     Coventry   Main   Main.   Main.     Coventry   Main   Main.   Main.     Nuneaton   Main   Main.   Main.     Aston Jn.   Slow.   Slow.     Perry Barr West   Main   Main.   Main.     Soho North Jn.   Main   Main.     Walsall, Ryecroft Jn.   Fast/slow   Fast/slow.     Lichfield City No. 1   Main   Main.     Wichnor Jn.   Main   Main.     Bloomfield Jn.   Main   Main.     Tipton Curve   Main   Main.     Darlaston Jn.   Main   Main.     Rugeley No. 1   Main   Main.     Rugeley No. 1   Main   Main.     Rugeley No. 1   Main   Main.     Banbury North   Slow   —   Bentley Heath Crossing   Slow   —

# TABLE K2.—LINES EQUIPPED FOR PASSENGER TRAIN WORKING, OVER WHICH THERE IS NO BOOKED PASSENGER TRAIN SERVICE. (Rule 55.)—continued.

<b>T</b>	То				Lines				
From To			Down			Up			
	CHESTER TO HO	LYHEAI	) AND BR	ANCHI	ES				
Saltney Jn	Sandycroft .		Slow		••	Slow.			
LON	DON, ST. PANCRA	S TO T	RENT AN	D BRAI	NCH	IES			
Syston South Jn.	Syston North Jn		2nd Passr.			_			
	Junction Road Jn		Main	• •	• • •				
	Carlton Road Jn. Wellingborough J		Main Main		• •	Main. Main.			
Wellingborough L. Rd. Glendon South Jn.	Manton Jn.	11.	Main			Main.			
	Glen Parva Jn.					Main.			
· ·			1						
	NT TO NEWARK O								
Nottingham Station West.	Nottingham Stati	on East	Middle	• •	• •	Middle.			
	Shirebrook (West) Sidings (E.R.)		Main	• •	• •	Main.			
East Leake	Weekday Cross Jr Weekday Cross Jr	n	Main			Main.			
NT IL CALT	Weekday Cross Ja	n	Main	• •		Main.			
TR	ENT TO CHESTER	FIELD (	(E.R.) AND	BRAN	CH	ES			
Frent Station North Jn.	Trowell Jn.		Main			Main.			
Pye Bridge Jn	Kirkby Station Jr	ı <b>.</b>	Main	• •	• •	Main.			
TOEN	T TO CLAY CROS	S (VIA	DERRY) A	ND RR	ANO	CHES			
	Ambergate South					Slow.			
Broadhoime	/Ambergate south		BIOW			2.0			
TABLE L—INSTRUCT  Referring to the insert which trains must con	tructions on page 95	of the Ge	neral Appe	ndix, th	e fol	lowing is a list of poin			
it which trains must con	ne to a stand for wag	On brake							
From the	Proceeding		t which trai to a stan			int at which train must me to a stand for			
direction of	towards		n brakes to			gon brakes to be			
			applied			released			
L	ONDON, EUSTON	TO CRI	EWE AND	BRAN	CHE	ES .			
	North London	Before	leaving t	op of		urch Yard Sidings.			
	Incline G.F.	ing s	ne and befor gnal worke h London	d from		·			
Willesden	Kensington	On br	idge over			ensington (Olympia)			
	Č		near Mitre			Station, unless trainage run into the loop Viaduct Jn. in whice case brakes must			
						released whilst in t loop.			

chley.

Oxford

.. Bletchley

4½ mile post, between Swanbourne and Blet-

loop.

mile posts.

Midway between 3 and 2

IMBLE D. INSTRU	Jenons Low Work	m to bottom to the contract	
From the direction of	Proceeding towards	Point at which train must come to a stand for wagon brakes to be applied	Point at which train must come to a stand for wagon brakes to be released
RUGBY MI	DLAND TO STAFFOI	RD (VIA BIRMINGHAM)	AND BRANCHES
Soho South Jn	Perry Barr South Jn.	Gradient Board after	Signal NS.265.
Soho South Jn	Perry Barr North Jn.	passing signal NS.316. Gradient Board after	Signal NS.268.
Soho North Jn	Perry Barr South Jn.	passing signal NS.316. Gradient Board after	Signal NS.265.
Soho North Jn	Perry Barr North Jn.	passing signal NS.317. Gradient Board after passing signal NS.317.	Signal NS.268.
Drivers intending the Power Box accord gradient board.	to stop at these gradic lingly when they have st	ent boards for wagon brake copped at Signal NS.316 or 3	s to be applied must advise 317 before proceeding to the
Soho Road	Soho Pool	Signal NS.285	Overbridge, north end of wharf.
Tipton Curve Jn	Wednesbury	Gradient Board on the Wednesbury side of	Wednesbury up home 2 signal.
Bloxwich	Walsall, Ryecroft Jn.	Princes End box. Bloxwich up starting signal.	Walsall, Ryecroft Jn. sig- nal WL.55.
Hednesford	Rugeley	Hednesford No. 2 box	Rugeley, signal
Heath Town Jn	Wednesfield Road goods yard.	Heath Town Jn	RY 1, 14. In goods yard.
In the event of a must be advised and	train exceeding a single the must arrange for the	locomotive load, the Forema shunting locomotive to pilot	nn Shunter in the goods yard the train down the gradient.
Madeley Jn	Ironbridge C.E.G.B.	Lightmoor Jn	Ironbridge C.E.G.B.   signal S.1.
Horsehay & Dawley	Lightmoor Jn	Horsehay & Dawley adjacent to siding connection.	Lightmoor Jn.
BIRMINGHAM	AND DROITWICH S	' PA (W.R.) TO WOLVERH D BRANCHES	AMPTON, WALSALL
Smethwick (West) .	. Stourbridge Jn	Rowley Regis and Black- heath down starting signal.	Cradley Heath East signal box.
Dudley	. Kidderminster	Round Oak North up starting signal.	M.P. $143\frac{1}{4}$
Dudley	. Walsall	Dudley down starting signal.	Great Bridge North down home signal.
	DERBY TO BLACKY	VELL (W.R.) AND BRAN	CHES
Stoke-on-Trent . Uttoxeter *Coalville or Measham.	~ . —	Caverswall Moira West Jn. home signal from Coalville or	Carter's L.C. Drakelow C.E.G.B.
*Coalville or Measham.	Branston Sidings or Leicester Jn.	Measham.  Moira West Jn. home signal from Coalville or Measham.	Branston Sidings or Leicester Jn.
Baddesley Colliery . Hall End	.l Hall End	kes must be pinned down in Before leaving sidings	all cases.) Bridge 23 near 3½ m.p. Kingsbury Branch Sidings.
	1	1	1

				ING DOWN INCLINES—	-commuca.
From direction of		Proceeding toward		Point at which train must come to a stand for wagon brakes to be applied	Point at which train must come to a stand for wagon brakes to be released
		COLWICH TO M	IAC(	CLESFIELD AND BRANC	CHES
Birchenwood Colliery.		Kidsgrove		Colliery connections	Liverpool Road Yard.
Caldon Quarry		Leek Brook Jn.		Ipstones signal box	Leek Brook Jn.
Heaths Jn		Milton Jn	• •	Bridge No. 33 between Heaths Jn. and Chatt- erley Whitfield Colli- ery Sidings Ground Frame.	Ford Green up home signal.
Pratt's Siding		Pratt's Shops	••		Hyde's Siding.
			,		The second secon
	C	RAVEN ARMS (V	<b>V.R.</b> )	TO CREWE AND BRAN	NCHES
Talerddig		Cemmes Road	• •	Stop Board at Talerddig down loop (61m. 35ch.)	Llanbrynmair L.C.
Aberystwyth		Borth		Stop board at Llandre (89m. 56ch.)	Borth (81m. 28ch.)
Dovey Jn		Barmouth		Stop board north of	Morfa Mawddach (97n
Portmadoc		Harlech		Llwyngwril (96m. 63ch.) Stop board near Min- ffordd (117m. 25ch.)	Penrhyndeudraeth (116n
Pwllheli Leaton		Portmadoc Shrewsbury		Stop board (121m. 45ch.) Stop board near Coton Hill North up distant	47ch.) Portmadoc (119m. 77ch Coton Hill North Box.
Wrexham	• •	Chester	• •	signal (173m. 48ch.) Stop board near United Colliery down distant signal (202m. 75ch.)	Rossett (North of dow loop connections).
				dings brakes must be applied	immediately the locomotive
		ding to the down li	ne.		*.
Porthywaen	• •	Oswestry		Stop Board east of Porthywaen (0m. 64ch.)	Llynclys Yard.
Minera	• •	Croes Newydd		Stop board near Coed Poeth $(5\frac{3}{4} \text{ m.p.})$	Brymbo West signal box
Brymbo	• •	Croes Newydd	• •	400	Croes Newydd West hom signal.
Wrexham		Dee Marsh Jn.	• •	Buckley Jn. down starting signal.	
		CHESTER TO	но	LYHEAD AND BRANCH	ES
Mold		3.6.11.Y		Hope & P. A.W.B. board	
	••	Prestatyn		near 5¼ m.p	* Berry
Dyserth Blaenau Ffestinio Blaenau Ffestinio		Betws-y-Coed			Betws-v-Coed.
Gaerwen		Amlwch		end. M.P. 1 M.P. 15½	M.P. $2\frac{1}{4}$ .
		ONIDON OF THE		C TO TRENT AND DD	NOTES
Dlandala				AS TO TRENT AND BRA	
Bletchley Loddington				Near Ridgmont Station at 7 mile post. Overbridge No. 6 (A.W.B.	Station.) Overbridge No. 3 between
<b>9</b>		<i>U</i>	-	board at $2\frac{1}{4}$ m.p.)	$0\frac{3}{4}$ and 1 m.p.

### TABLE L.—INSTRUCTIONS FOR WORKING DOWN INCLINES—continued.

From the direction of	Proceeding towards	Point at which train must come to a stand for wagon brakes to be applied.	Point at which train must come to a stand for wagon brakes to be released
TR	ENT TO NEWARK	CASTLE (E.R.)AND BRA	NCHES
Cinder Hill	Basford Jn	A.W.B. board, 250 yards on the Basford Jn. side of Cinder Hill Ground Frame.	Basford Jn. home signal.
Bestwood Colliery	Bestwood Park Jn	Exit from Loaded wagon sidings.	Bestwood Park Jn. home
Bentinck Colliery	Pinxton Station	A.W.B. Board at Langton Crossing, 50 yards on Pinxton side of 136 <sup>1</sup> / <sub>4</sub> m.p.	signal. Pinxton Station branch stop signal.
!	1		
T	RENT TO CHESTER	FIELD (E.R.) AND BRAN	NCHES
New Hucknall Colliery.	Blackwell East	A.W.B. Board, 240 yards on the Blackwell side of New Hucknall box.	Fordbridge Lane L.C.
Sutton Colliery Jn	Tibshelf Sidings	J &	Opposite Tibshelf Sidings
Williamthorpe Colliery.	Avenue Sidings	A.W.B. board at Alma Jn.	Half released at end of single line; remainder at Avenue arrival loop.
**************************************			
TRE	NT TO CLAY CROS	S (VIA DERBY) AND BR	ANCHES
Denby Wirksworth Incline	Little Eaton Jn Wirksworth Station	Denby	Wirksworth Yard.

### TABLE M.—PLACING TRAINS OR VEHICLES OUTSIDE HOME SIGNALS ON FALLING GRADIENTS. (RULE 114(c)).

Trains or vehicles must not be placed outside (a) outermost home signals or (b) the signal next in advance of an outermost home signal where more than one home signal is provided in the normal direction of travel—where the line is on a falling gradient towards the signal box in rear, except as shown below:-

- (i) A locomotive, or a locomotive with one or two brake vans.
  (ii) Trains or vehicles, provided the locomotive is at the lower end.

### (2) On gradients not steeper than 1 in 260.

Trains or vehicles, provided the vehicle at the lower end is a brake van in which a Guard or Shunter is riding.

#### (3) On gradients steeper than 1 in 260.

Only as shown in clause (1) above, or as authorised in the following table.

In any of the above-mentioned cases the setting back movement must not be made beyond a point which will bring the train or vehicles immediately outside the signal referred to unless the movement is required to pass through a connection beyond that point.

Those places for which special authority is given are shown below:— Except where otherwise shown:—

- (a) in the case of freight vehicles, a brake van must be provided at the lower end of the movement and a Guard or Shunter must ride in it to attend to the brake until the movement comes to a stand.
- (b) in the case of coaching stock vehicles, a brake van must be provided and a Guard or Shunter must ride in it to attend to the brake until the movement comes to a stand. The continuous brake must be connected up and in use.

### TABLE M.—PLACING TRAINS OR VEHICLES OUTSIDE HOME SIGNALS ON FALLING GRADIENTS. (RULE 114(c))—continued.

Signal box	Line		Remarks
RUGBY MIDLAND TO	O STAFFORD (VIA B	RMING	HAM) AND BRANCHES
Birmingham New Street	Up		34 freight vehicles.
(at Soho Rd., Signal NS.285) Walsall (at Ryecroft Jn. Signal WL.61)	Down fast		Coal trains up to 400 yards in length from Castle Bromwich line to Lichfield or Cannock line.
Wolverhampton H.L. (at Signal WN.57)			35 freight vehicles.
Wellington No. 3 Lightmoor Jn	Up Up through siding		Trains having to work before proceeding to Madeley Jn.
OXFORD, WOLVERCOT JI	N. (W.R.) TO BIRMIN	GHAM, (	GRAND JN. AND BRANCHES
Hatton South Jn	Down goods		
BIRMINGHAM AND DRO	DITWICH SPA (W.R.) AND BRANCH		VERHAMPTON, WALSALL
Oldbury and Langley Green Middle.	Down goods	••	
DERBY T	O BLACKWELL (W.F	2.) AND 1	BRANCHES
Stenson Jn	Down Chellaston Up Up Weddington Up Redditch		Freight trains. 10 freight vehicles. Freight trains. Empty DMU. ECS.
CRAVEN A	ARMS (W.R.) TO CRE	WE AND	BRANCHES
Croes Newydd East	Single goods (down)		Freight trains to be shunted
Croes Newydd West Penyffordd Station	Down Down		towards South Fork. Freight trains. Freight trains.
CDEW		ANID DD	ANICHTEC
Ellesmere Port No. 1	E TO BIRKENHEAD		
LONDON (S	ST. PANCRAS) TO TR	ENT AN	D BRANCHES
St. Albans South Wellingborough (Mid. Rd.) Station.	Down slow Down main		ECS. ECS.
TRENT TO	NEWARK CASTLE (I	E.R.) ANI	D BRANCHES
Rectory Jn  Mansfield South Jn	Up (Carlton Field) Up through siding		<u> </u>

### TABLE N.—LENGTHMEN'S TROLLEYS GOING INTO OR THROUGH TUNNELS.

The following is a list of tunnels to which Rule 215 (I) and Block Regulation 9 apply:—

### LONDON EUSTON TO CREWE AND BRANCHES

Hampstead Heath.

Canonbury.

Crewe-Down Liverpool Independent.

Crewe-Up Liverpool Independent.

# TABLE N.—LENGTHMEN'S TROLLEYS GOING INTO OR THROUGH TUNNELS—continued. LONDON MARYLEBONE TO CLAYDON AND BRANCHES

South Harrow.

### RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES Oakengates.

#### OXFORD, WOLVERCOT JN. (W.R.) TO BIRMINGHAM AND BRANCHES

Brill. Ardlev

### BIRMINGHAM AND DROITWICH SPA (W.R.) TO WOLVERHAMPTON, WALSALL AND BRANCHES

Swan Village.

Wolverhampton L.L.

Old Hill.

Dudley.

#### DERBY TO BLACKWELL (W.R.) AND BRANCHES

Meir.

#### CREWE TO BIRKENHEAD AND BRANCHES

Sutton.

#### CHESTER TO HOLYHEAD AND BRANCHES

Penmaenbach.

Bangor.

Belmont.

Britannia Tubular Bridge.

#### LONDON ST. PANCRAS TO TRENT AND BRANCHES

Manton.

### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES

Milford.

Clay Cross.

Willersley.

#### TABLE O.—EXEMPTION FROM RULE 39 (a)

The provisions of Rule 39 (a) are exempt at the following signals, and these signals may be cleared before a train has been brought quite or nearly to a stand at them, although the stop signal in advance may be at danger.

Signal Box	Signal at which Rule 39 (a) is exempt	Remarks
Acton Wells Jn	Up main home 2 to Midland branch.	_
Lichfield City No. 2	Down platform home 1 (No. 1 box starting signal).	Only for passenger trains timed to stop at the station.
Leamington Spa	Up main home 1	Applies to passenger trains timed to stop at the station and freight trains.
Rowley Regis and Blackheath Station.	Up main home 1	Applies to trains assisted in the rear only.
Chellaston Jn	Down main home 1	In clear weather only.
Severn Bridge Jn	Up platform home	!
Kentish Town Sidings	Up slow starting	<del></del>
Kirkby Sidings	Up home 1	_
Spondon Station	Down outer home	Only for passenger trains timed to stop at the station, and in clear weather only.

#### TABLE P1.—LEVEL CROSSING GATES—OPENING AND CLOSING BY TRAINMEN

The following is a list of level crossings where, in the absence of a Crossing Keeper, the gates must be opened and closed by the Trainmen.

Trains must be brought to a stand well clear of the gates, after which the gates must be unlocked and opened by the Secondman for the passage of the train over the crossing. When the train has passed over the crossing. the Guard (or Secondman in the case of a light engine) must close the gates across the railway and re-lock them, the Driver taking care not to again proceed on his journey until he has received an "All Right" signal from the Guard. Enginemen and Guards concerned must see that they are supplied with keys of the gates.

Unless special arrangements are made to the contrary, where the driving cab is single-manned, the Guard must open the gates for the passage of the train over the crossing.

Any defects in the gates or the locks securing them, or in the lamps, must be reported immediately by the Guard or Secondman to the Area Manager concerned.

Name of	Crossing	Situated at or between	Remarks
RUGB	Y MIDLAN	D TO STAFFORD (VIA BIRMING	GHAM) AND BRANCHES
Dawley Parva		Lightmoor Jn. and Horsehay Dawley.	& See page 340.
Doseley	••	Lightmoor Jn. and Horsehay Dawley.	& See page 340.
	DER	BY TO BLACKWELL (W.R.) AND	D BRANCHES
Sinfin Derby Street Victoria Street Dallow Street Wellington Str		<ul> <li>Melbourne Jn. and Chellaston</li> <li>Horninglow Branch</li> <li>Horninglow Branch</li> <li>Horninglow Branch</li> <li>Burton, Leicester Jn. and Shobi Maltings.</li> </ul>	::  = =
	COI	WICH TO MACCLESFIELD AND	<b>BRANCHES</b>
<b>Boltons Siding</b>	s	Oakamoor B.I.S. Siding and L	eek —
Cheddleton	••	Brook Jn. Oakamoor B.I.S. Siding and L. Brook Jn.	eek —
	CRAV	EN ARMS (W.R.) TO CREWE AN	ND BRANCHES
Short Hill Plealey Road Pontesbury Malehurst Porthywaen White Gates		Cruckmeole Jn. and Minsterley  Porthywaen  Nantmawr Jn. Ground Frame a Nantmawr Quarry Sidings.	Keys in Hookagate box. Guard to open and close gates.  Gates not locked. See page 367. Gates not locked.
Smelt Pentre Saeson Gegin Coed Poeth		Brymbo West and Coed Poeth	See page 370.
Vicarage Cae Glas		Coed Poeth and Minera	
Berwig Hightown		Wrexham Central and Marchwi	iel Key attached to train staff.
	C	REWE TO BIRKENHEAD AND B	RANCHES
Wallasey Bridg	ge Road	Birkenhead North Traffic Yard	See Special Instructions, page 375.
	C	IESTER TO HOLYHEAD AND B	BRANCHES
Llong Bryn Rhosyn		Hope & Penyffordd and Mold Prestatyn and Dyserth	See Special Instructions, page
Cwmbowydd	••	Blaenau Ffestiniog and Trav fynydd C.E.G.B. Sidings	ws- See Special Instructions, page 377.

### TABLE P1.—LEVEL CROSSING GATES—OPENING AND CLOSING BY TRAINMEN—

Name of Crossing	Situated at or between	Remarks
TRENT T	O NEWARK CASTLE (E.R.) AND	BRANCHES
East Leake Road	. Gotham Branch	I —
TRENT	TO CHESTERFIELD (E.R.) AND I	BRANCHES
Fordbridge Lane	Blackwell East Jn. and New Huck-nall Colliery.	Gates worked by travelling shunter. (See local instruction on page 390.)
Williamthorpe	Alma Jn. and Holmewood Colliery Branch Jn.	1
TRENT TO	CLAY CROSS (VIA DERBY) ANI	D BRANCHES
Little Eaton Station Crossing		
	Denby Branch	
	Denby Branch	<del>-</del>
	Denby Branch	
	Denby Branch	<del>-</del>
	Denby Branch	
Street Lane Crossing	Denby Branch	_

### TABLE P2.—LEVEL CROSSINGS—AUTOMATIC HALF-BARRIERS.

The following equipment is provided at automatic half-barrier level crossings:—

(i) a half-barrier on each side of the crossing which closes the nearside of the road;

(ii) twin red flashing road lights on either side of the road visible along the road in both directions;

(iii) a single tone bell on each side of the crossing;

(iv) whistle boards on each rail approach to the crossing.

The normal position of the half-barriers is raised, the twin red road lights normally out, and the bells normally silent. The approach of a train will, by track circuit and treadle operation, set in motion the following sequence of events, provided the rail movement passes in the right direction:

(i) The twin red road lights flash and the bells sound;

(ii) after an initial warning period, the barriers fall;

(iii) when the barriers are lowered, the bells cease to sound;

- (iv) the barriers remain lowered and the twin red road lights continue to flash until the whole of the train has cleared the crossing;
- (v) the barriers then rise and the twin red road lights are extinguished, unless a second train is closely approaching the crossing.

A telephone is provided on each side of the crossing, giving communication with the supervising signalbox.

The following instructions will apply at the level crossing(s) shown in the table below.

- (a) Drivers must sound a short warning on the horn at each of the two whistle boards on the approaches to the crossing. The horn must not, however, be sounded between 23 30 hours and 07 00 hours, except in emergency.
  (b) Wrong Line Order form "C" must not be issued for a movement which requires to pass over
- (b) Wrong Line Order form "C" must not be issued for a movement which requires to pass over the crossing until permission has been obtained from the Signalman at the supervising signalbox.
- (c) A ballast train which has passed over the crossing is prohibited from returning to the signalbox in rear in accordance with Rule 175 (c).
- (d) A ballast train which has passed over the crossing must not be set back in accordance with Rule 216 (j) if it would approach nearer than \( \frac{1}{4} \) mile from the crossing.
- (e) A trolley must not be allowed to occupy any of the controlling track circuits or treadles without permission of the Signalman at the supervising signalbox.
- (f) In any of the following circumstances, a Crossing Keeper must be appointed who will operate barriers locally:—

(i) A failure of the apparatus affecting the normal working of the barriers.

- (ii) A disabled train or portion of a train is occupying the controlling track circuits or has actuated the controlling treadles, resulting in the barriers being lowered.
- (iii) Road works in the vicinity of the crossing which are likely to affect the normal flow of road traffic over the crossing.
- (iv) A wrong direction movement is to be authorised to pass over the crossing on any line.

(v) Single line working is to be brought into operation.

- (vi) A trolley is to be placed on the line and will occupy any of the controlling track circuits or actuate any of the controlling treadles.
- (vii) The Engineer is to take Absolute Possession of one or more lines unless specific arrangements are made to prevent the controlling treadles or track circuits being actuated.
- (viii) A train requiring to stop in section on any of the controlling track circuits or within the controlling treadles, is to be allowed to enter the section.

### TABLE P2.—LEVEL CROSSINGS—AUTOMATIC HALF-BARRIERS—continued.

Prior arrangements must be made for the Crossing Keeper to be in attendance in the case of items (vii) and (viii) and whenever possible in connection with items (iv), (v) and (vi).

(g) During the time the Engineer has Absolute Possession of a running line(s), should it be necessary for a movement to be made over the crossing on the blocked line(s), the Person in charge of the possession must arrange for the Driver to be reminded of the location of the crossing and instructed not to pass over it until he has received authority from the Crossing Keeper. Where practicable, the Crossing Keeper must be advised of the movement.

Name		Signal boxes between (Supervisory box first)
	LONDO	N, EUSTON TO CREWE AND BRANCHES
Watford North		Watford Jn. No. 3 and St. Albans (Abbey) station.
RUGBY	MIDLAND T	O STAFFORD (VIA BIRMINGHAM) AND BRANCHES
Burton Old Road Brookhay		Lichfield Trent Valley Jn. and Lichfield City No. 2. Lichfield T.V., Trent Valley Jn. and Alrewas Station.
OXFORD, W	OLVERCOT	JN. TO BIRMINGHAM, GRAND JN. AND BRANCHES
Sandy Lane Yarnton Lane		Wolvercot Jn. and Aynho Jn. Wolvercot Jn. and Aynho Jn.
	DERBY	TO BLACKWELL (W.R.) AND BRANCHES
Findern		.  Stenson Jn. and Egginton Jn.
Willington .		. Stenson Jn. and Egginton Jn.
Egginton		Egginton Jn. and Stenson Jn.
Loxley Lane .		
Bramshall .		Desfand In and Desfand Cally Sidings
Desford . Swannington .		Manufla Tana and Maine West In
Swannington .		. White Lake and Mora West Sil.
	COLWIG	CH TO MACCLESFIELD AND BRANCHES
Hixon		. Colwich and Meaford Crossing.
Aston-by-Stone	••	. Meaford Crossing and Colwich.
	CRAVEN	ARMS (W.R.) TO CREWE AND BRANCHES
Shrewbridge .		. Nantwich Station and Wrenbury Station.
		. Nantwich Station and Willaston.
Pulford		. Rossett and Green Lane Crossing.
Balderton .		. Green Lane Crossing and Rossett.
	LONDON,	ST. PANCRAS TO TRENT AND BRANCHES
Marston .		.  Millbrook Station and Ridgmont Station.
Asfordby .		. Frisby and Melton Jn.
Brooksby .		. Frisby and Queniborough.
Rearsby		. Frisby and Queniborough.
Broom Lane .	• • • •	. Queniboro' (Frisby when this box is closed) and Frisby.
	TRENT TO	O NEWARK CASTLE (E.R.) AND BRANCHES
Barton Lane .		. Attenborough Station and Attenborough Jn.
Stoke Lane .		. Carlton & Netherfield and Burton Joyce.
Gonalston .		. Lowdham and Thurgarton
Sutton Forest .		. Sutton Jn. and Mansfield South Jn.
	TRENT T	TO CHESTERFIELD (E.R.) AND BRANCHES
Nutbrook .		Stanton New Works Sidings and Stanton Gate North. (See Special Instructions on pages 389 and 390.)
	TRENT TO	CLAY CROSS (VIA DERBY) AND BRANCHES
Sawley	IKENI IO	.  Sawley Jn. and Draycott & Breaston Station.
bamby		Same on and Diagoon of Distances Diagons

#### TABLE P3—AUTOMATICALLY OPERATED MINIATURE RED/GREEN WARNING LIGHTS AT LEVEL CROSSINGS.

Attendance is not provided at the crossings listed below which have gates opening away from the railway. The normal position of the gates is across the roadway and they are operated as required by road users.

Miniature red/green light indicators are provided for the guidance of road users. These indicators work automatically by the occupation and clearance of track circuits or equivalent means, provided that, on double lines, all rail movements pass in the right direction.

The indicators will normally display a green aspect, but a red aspect will be exhibited when a train approaching the crossing operates the track circuit or other device.

The following instructions must be applied at these level crossings:-

Drivers must sound a short blast on the whistle/horn at each of the whistle boards on the approaches to the crossing. The whistle/horn need not, however, be sounded between 23 30 hours and 07 00 hours, except in emergency.

Whenever it is necessary for any of the following to pass over such level crossings in either direction, the vehicle concerned must be first brought to a stand and not proceed over the crossing until the Person-in-charge is satisfied that it is safe to do so:

- Tamping machines
- (ii) Track recording machines
- (iii) Ballast cleaning machines
- (iv) Engineer's rail motor
- (v) Diesel rail bus

Whenever it is necessary for a movement to pass over any of the level crossings concerned in the "wrong" direction, such movement must first be brought to a stand clear of the level crossing. The movement must not proceed over the crossing until the Person-in-charge of the movement, or the handsignalman provided when Single Line Working is in operation, is satisfied that it is safe to do so.

Arrangements must be made for the crossings to be manned before Single Line Working is

commenced.

A ballast train is prohibited from returning to the box in rear in accordance with Rule 175 (c). A ballast train must not be set back in accordance with Rule 216 (j) if it would approach nearer than  $\frac{1}{4}$  mile from the crossing.

A trolley must not be allowed on the line on any of the controlling track circuits or treadles.

			<u></u>		
		Located between	At		_
		(Supervisory box first)	miles	chains	Remarks
-		DERBY TO BLACKW	ELL AND	BRANCHI	ES
Dovefields		Sudbury Station and Uttoxeter.	19	62	
	C	DLWICH TO MACCLE	SFIELD A	ND BRAN	CHES
Barthomley		Radway Green & Barthomley and Crewe N.S. Sidings.	4	77	_
CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES					
Rhydwhimen		. Montgomery and Welshpool.	39	70	_
Cilgwrgan		NT	45	22	
Old Chapel		The least of the second of	63	34	
Llanbrynmair		. Talerddig and Cemmes Road.	64	57	_
Llandre, Vicar Crossing.	age	Borth and Aberystwyth	90	1	_
CHESTER TO HOLYHEAD AND BRANCHES					
Llanddaniel	••	Gaerwen and Llanfair	243	76	_
	LON	DON, ST. PANCRAS T	TO TRENT	AND BRA	ANCHES
Washstones		Frisby and Queniboro'	109	51	<u> </u>
				ļ	1

#### TABLE P4.—OPEN LEVEL CROSSINGS.

Attendance is not provided at Open crossings and there are no gates or barriers.

At certain of these crossings trains must stop before proceeding over them; at others, trains will be required to pass over the crossing at reduced speed.

At some of these crossings red flashing road signals, operated automatically by the occupation and clearance of track circuits or equivalent means are provided on the road approaches. When any Engineering operations are to be carried out which will cause the red road signals to flash continuously, arrangements must be made for the road signals to be disconnected by the S. & T. Technician, and, if any rail movement is to be made over the crossing, a Handsignalman must be provided at the crossing to regulate such rail movement(s). After completion of the work, arrangements must be made for the road signals to be reconnected by the S. & T. Technician.

### (a) CROSSINGS WHERE TRAINS MUST STOP BEFORE PROCEEDING OVER THE CROSSING.

An advance warning board, consisting of a black cross on a white background, is provided about  $\frac{1}{2}$  mile on the approach to the crossing.

(i) At the undermentioned crossings, a stop board, worded "Stop. Press Plunger" and "Obtain white light and whistle before proceeding" is provided on the approach side of the crossing. Red flashing road signals are provided on the road approaches.

Where there is a station platform immediately on the approach side of the crossing the plunger must not be operated until the train is ready to depart.

The white light (flashing) indicates that the road lights are flashing. If the white light is not exhibited, the Driver must not pass over the crossing until he is satisfied that it is safe to do so. He must report the failure by the first available means.

		Located		
Name of Crossing	Between	Miles	Chains	Remarks
	NIL			

(ii) At the undermentioned crossings, a stop board, worded "Stop. Whistle before proceeding" is provided on the approach side of the crossing. Red flashing road signals are NOT provided on the road approaches.

The driver must not pass over the crossing until he is satisfied that it is safe to do so.

Name of Crossing	Located			Remarks
	Between	Miles	Chains	Remarks
	NIL			

### (b) CROSSINGS WHERE TRAINS ARE REQUIRED TO REDUCE SPEED BEFORE PROCEEDING OVER THE CROSSING.

An advance warning board, consisting of a black cross on a white background, is provided about  $\frac{1}{2}$  mile on the approach to the crossing.

(i) At the undermentioned crossings, red flashing road signals are provided on the road approaches. The exhibition of a white light (flashing) adjacent to the crossing indicates that the road signals are flashing.

If the white light is not exhibited when the Driver passes the whistle board, he must bring his train to a stand and not pass over the crossing until he is satisfied that it is safe to do so. In these circumstances, the warning horn must again be sounded before the train proceeds over the crossing. The driver must report the failure by the first available means.

Name of Consider	Located			Remarks
Name of Crossing	Between	Miles	Chains	Kemarks
	NIL			

#### TABLE P4.—OPEN LEVEL CROSSINGS—continued.

Whenever it is necessary for any of the following to pass over these Open Level Crossings, the vehicle concerned must first be brought to a stand and must not proceed over the crossing until the Person in charge is satisfied that it is safe to do so.

- (i) Tamping machines.
- (ii) Track recording machines.
- (iii) Ballast Cleaning machines.
- (iv) Engineers' rail motor.
  (v) Engineers' Trolley.
- (vi) Diesel rail bus.

(ii) At the undermentioned crossings red flashing road signals are not provided:—

Name of Crossing	Located			ъ
. value of Crossing	Between	Miles	Chains	Remarks
	NIL			

### TABLE Q-LIGHTING AND EXTINGUISHING OF SIGNAL LAMPS-RULE 73.

Running signals.

Except as shown below, the lamps of all running signals must be lighted during the hours of darkness and during fog or falling snow whilst the line is open for traffic, whether the signal boxes are open or closed:—

Exception 1.—On lines where the train service is confined to the hours of daylight, the signals should not be lighted except during fog or falling snow, but the lamps must be kept in readiness for immediate use, if necessary.

Exception 2.—At the undermentioned signal boxes which are opened for limited periods or special traffic, the signals shown below will not be lighted during the period shown:—

Signal box	Signals affected	

### LONDON EUSTON TO CREWE AND BRANCHES.

Kelmarsh Station.

| All.

### RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES.

Leamington Spa (Milverton).  §Hadley Jn.  §Donnington No. 3.  §Donnington No. 2  §Donnington No. 1	Discs and signals for down sidings. All signals and discs. All signals and discs. All signals and discs. All signals and discs.
†Lightmoor Jn.	All signals and discs.

### OXFORD WOLVERCOT JN. (W.R.) TO BIRMINGHAM, GRAND JUNCTION AND BRANCHES

DIANCIES.
Up branch home and distant.
All signals and discs on branch
line.
All signals and discs.

### BIRMINGHAM AND DROITWICH SPA (W.R.) TO WOLVERHAMPTON, WALSALL AND BRANCHES.

s and	discs.
s and	discs.
1	Is and Is and Is and Is and Is and Is and

### CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES.

	CREWE AND DIVANCIES.
§Oswestry North.	All signals and discs.
§Oswestry South.	All signals and discs.
†Broughton Crossing.	All signals and discs.
†Brymbo Station.	All signals and discs.
†Brymbo Middle.	All signals and discs.
†Brymbo West.	Down home.
Brymbo West.	All other signals and discs.
† May 1st to August 31st.	2
§ March 1st to September 30t	h.

### TABLE Q.—LIGHTING AND EXTINGUISHING OF SIGNAL LAMPS—RULE 73—continued.

When it is necessary for any signal which forms one of a group to be alight, the whole of the lamps must be lighted.

#### Shunting signals:-

At places where shunting operations are seldom carried out after dark, the lamps of ground shunt signals need not be lighted but the lamps of such signals must be kept in readiness for use so that if the circumstances require the lamps to be lighted this can be done.

Should it be necessary for a shunting movement to be made during darkness at places where there are no lights in the ground signals the Guard or Shunter (Driver in the case of a light locomotive) must see that the signal is cleared before any movement is made over points to which such signals apply.

### TABLE R.—MAIL BAG APPARATUS.

The position of mail bag pick-up standards is indicated by black and yellow chequered enamel plates fixed on or adjacent to the mail apparatus, which will be illuminated at night when the apparatus is actually in use. In addition, a white light is exhibited at night on the platform of the apparatus at the undermentioned places, at an approximate height of 7 feet above rail level when the arm supporting the pouch is extended towards the line.

Enginemen and Guards of ALL trains are warned not to lean out of the window when approaching and passing the apparatus, whether it is actually in use or not.

Lengthmen and other staff are specially warned when in the vicinity of the pick-up standards to keep well clear of the trains which pick up or deliver mail bags as the apparatus on the van used for the purpose projects several feet when extended for use.

### Trains conveying mail apparatus, running in duplicate or out of course.

When a train which conveys a Post Office mail van with apparatus for leaving or taking up mails is running in duplicate, the person in charge starting the first part of the train must ascertain from the Post Office officer in charge of the mail van at what places the apparatus will be used, and a telegram must then be sent by the person in charge to the places where mails will be dealt with by apparatus stating whether the Post Office mail van is on the first or second part of the train. Similar steps must be taken at places where a train conveying a Post Office mail van is running late and another passenger train is allowed to go in front of the mail train and in its running times.

When trains conveying Post Office mail vans are run in duplicate and a special notice (either printed or written) is issued, Area Managers must make the necessary arrangements with the local Post Master to ensure the apparatus being set for the proper trains.

Whenever it is necessary for a train that picks up or sets down mail bags by means of the apparatus to be diverted from the line upon which it usually runs, and for which the apparatus is fixed, the person in charge of the station where mail bags are thus dealt with must take steps to stop the train for the purpose of making the exchange of the mail bags by hand, instead of by the apparatus. In all such cases the Post Office official must be previously advised if it is possible to do so.

Location		Down or up side			Situation	
Harrow & Wealdstone		Down fast		••	563 yards before reaching Signal WJ.9.	
Watford Jn		Down fast			840 yards before reaching signal WJ.179.	
Hemel Hempstead & Boxmoor		Down fast Down fast Down fast		• •	968 yards before reaching signal WJ.84. 898 yards before reaching signal WJ.84. 823 yards before reaching signal WJ.84.	
Berkhamsted		Down fast			1,028 yards before reaching signal WJ.224.	
Leighton Buzzard		Down fast Down fast Down fast Up fast			830 yards before reaching signal BY.5. 750 yards before reaching signal BY.5. 670 yards before reaching signal BY.5. 747 yards before reaching signal BY.3.	
Bletchley		Down fast Down fast			958 yards before reaching signal BY.28. 883 yards before reaching signal BY.28.	
Rugby Midland		Down fast			364 yards before reaching signal RY.97.	

# TABLE S1.—INTERMEDIATE SIDINGS AT WHICH TRAINS MAY BE SHUNTED FOR OTHER TRAINS TO PASS.

The following is a list of intermediate sidings at which trains may be shunted for other trains to pass:—

Name of Siding	Situation	Line connected with	Method of control	
L	ONDON, EUSTON TO	CREWE AN	D BRANCHES	
Camden Yard	Camden Jn	Down goods loop, up goods loops Nos.	Shunting frame.	
Kilburn Yard	Camden Jn	loops Nos.  1 and 2 .  Down and  up  goods loop.	Ground frame electrically controlled from Willesden.	
North Wembley No. 1	North Wembley	Up slow	Ground frame electrically controlled from Willesden.	
North Wembley No. 2	North Wembley	Down slow	Ground frame electrically controlled from Willesden.	
Up Sidings	Harrow & Weald- stone station.	Down and up slow.	Shunting frame.	
Bushey South	D 1 0 1	Up slow	Ground frame electrically controlled from Watford Jn.	
Bushey Refuge Siding	Bushey Station	Down slow	Ground frame electrically controlled from Watford Jn.	
Bushey North	Bushey Station	Down slow	Ground frame electrically controlled from Watford Jn.	
Kings Langley Middle	Kings Langley Station	Up slow	Ground frame electrically con-	
Kings Langley North	Kings Langley Station	Down slow	trolled from Watford Jn. Ground frame electrically con-	
Boxmoor South	Hemel Hempstead & Boxmoor Station	Up slow	trolled from Watford Jn. Ground frame electrically con-	
Boxmoor Yard	Hemel Hempstead & Boxmoor Station.	Down and	trolled from Watford Jn. Ground frame electrically con-	
Tring South	Tring Station	up slow. Down fast	trolled from Watford Jn. Ground frame electrically con-	
Tring Carriage Sidings	Tring Station	Down and up slow and up	trolled from Watford Jn. Shunting frame.	
Tring North End	Tring Station	goods loop. Down and up slow and up	Shunting frame.	
Tring Cutting	Cheddington and Tring.	goods loop. Up slow	Ground frame electrically con-	
Leighton Buzzard No. 2	Leighton Buzzard	Up slow	trolled from Watford Jn. Ground frame electrically con-	
Up Sidings (North end of station.)	Leighton Buzzard	Down and	trolled from Bletchley. Shunting frame.	
Leighton Buzzard No. 3.	Leighton Buzzard	up slow. Down branch.	Ground frame electrically controlled from Leighton Buzzard	
Lambs	Leighton Buzzard and Bletchley.	Down fast	shunting frame.  Ground frame electrically con-	
Traffic Sidings	Wolverton South	Down and	trolled from Bletchley. Shunting frame.	
Incline Sidings	Wolverton South	up slow. Up slow	Wolverton No. 1 Ground frame electrically controlled from shunt-	
Newport Bay and Siding.	Wolverton North	Up slow	ing frame. Shunting frame.	
Up and down sidings	Blisworth Jn	Up and down.	Shunting frame.	

# TABLE S1.—INTERMEDIATE SIDINGS AT WHICH TRAINS MAY BE SHUNTED FOR OTHER TRAINS TO PASS—continued.

OTHER TRAINS	10 I ASS—continued.		
Name of Siding	Situation	Line connected with	Method of control
LONDON	N, EUSTON TO CREV	VE AND BRAN	NCHES—continued.
Heyford Up Sidings	•		Ground frame electrically con-
Down Sidings	Rugby Station	Down slow	trolled from Rugby.  Ground frame electrically controlled from Rubgy.
Up Siding	Rugby Station	Up slow	Ground frame electrically controlled from Rugby.
Nuneaton Down Sidings.	Nuneaton	Down Midland goods.	Shunting frame.
Hartshill	Nuneaton and Atherstone.	Down and up.	Shunting frame.
Hartshill North End	Nuneaton and Atherstone.	Down slow.	Ground frame electrically controlled from Nuneaton.
Atherstone South		Up slow	Ground frame electrically controlled from Atherstone.
Baddesley	4	Down slow	Ground frame electrically con trolled from Atherstone.
Salt Sidings	Queensville and Milford & Brocton.	Up goods loop.	Ground frame electrically con- trolled from Milford & Brocton
English Electric Co	Stafford No. 2 and Queensville.	Up through siding.	Two ground frames. Annett's key (released from Stafford No. 2.
Crinoline	1 a & 1 x 1 1	Up through siding.	Ground frame, Annett's key (re leased from Stafford No. 2.)
Whitmore	NT D	Down slow.	Ground frame electrically con trolled from Norton Bridge Jn
Gospel Oak "Up"	0 10 1	Up	trolled from Gospel Oak.
Newton Longville	Bletchley and Swanbourne Sidings.	Down and up.	Two ground frames controlled from Swanbourne Sidings.
Long Buckby South	Long Buckby	Up	Ground frame electrically con trolled from Northampton No. 4
Long Buckby North	Long Buckby		Ground frame electrically con trolled from Northampton No.4
Long Buckby Down	Long Buckby	Down	Ground frame electrically con trolled from Northampton No. 4
LOND	ON, MARYLEBONE	TO CLAYDON	AND BRANCHES
Grendon Underwood, Ministry of	Aylesbury South and Claydon L.N.E. Jn.	Single	Ground frame, controlled by section token
Technology.			
RUGBY MIDI	AND TO STAFFORD	(VIA BIRMIN	IGHAM) AND BRANCHES
	Canley Gates Halt and		Ground frame electrically cortrolled from Coventry.
Up Sidings	Tile Hill Station. Adderley Park	. Up	Ground frame electrically controlled from Birmingham Ne
Up Siding	Monument Lane .	. Up	trolled from Birmingham Ne
High Park Coal Depot	Soho North Jn	. Up main	St. Ground frame electrically controlled from Birmingham Ne
Up Sidings	Spon Lane		St. Shunting frame.
•		loop.	Shunting frame.
Up Sidings	. Spon Lane	Down and up main.	Shunting traine.

Name of Siding	Situation Line connecte with		Method of control	
RUGBY MIDLANI	O TO STAFFORD (V	IA RIRMINGH	[AM] AND BRANCHES—cont.	
W.M.G.B. Tipton Works Sidings.		. Up goods .		
Up Siding		Up main Down and up.	Shunting frame. Shunting frame.	
Up and down Sidings	Spring Vale	Down and up.	Shunting frame.	
Bushbury Gas Works	Bushbury	. Down main	Ground frame electrically controlled from Wolverhampton.	
Four Ashes No. 1	Four Ashes	. Up	Ground frame electrically con-	
Up Sidings	Littleton Colliery .	Down and up.	trolled from Wolverhampton. Shunting frame.	
Cox Long Importers Ltd. Coundon Road	No. 1.	Down	trolled from Stafford No. 1	
II. 0:1:	G: 16 1	1	trolled from Coundon Road.	
		Jn.	Shunting frame.	
The second secon	· · · · ·	Up Grand Jn.	Ground frame electrically controlled from Birmingham New St.	
Robinson's Sidings	Aston	Down Grand Jn.		
Up Sidings	Witton	Up main	Ground frame electrically con- trolled from Birmingham New	
Down Sidings	Witton		St. Electrically controlled from Bir-	
Up Sidings	Great Barr	loop. Up	mingham New St. Ground frame electrically con-	
	Crescent	Up	trolled from Walsall.  Ground frame electrically con-	
Willenhall, Bilston Street No. 1.	Willenhall	Down	trolled from Walsall. Ground frame electrically con-	
	Willenhall	Down	trolled from Wolverhampton. Ground frame electrically con-	
	Wednesfield Heath	Up		
	Bushbury	Up Grand Jn.	trolled from Wolverhampton. Ground frame electrically con-	
Up and down Sidings	Vauxhall	Down and	trolled from Wolverhampton. Shunting frame.	
	e guer	main and goods and		
		down through		
Gas Works	Vauxhall and Aston	siding.	Ground frame electrically con-	
S.P.D	Perry Barr South Jn.	Up branch	trolled from Birmingham New St. Ground frame electrically controlled from Birmingham New	
Up and down Sidings		Down and up fast	St. Shunting frame.	
Birchills Siding	Bloxwich	and slow. Down	Ground frame electrically con-	
Brindley Heath Colliery	Hednesford and	1	trolled from Bloxwich.  Ground frame electrically con-	
	Brereton Siding. Hollinswood Sidings and Wellington		trolled from Hednesford No. 3. Ground frame electrically controlled from Hollinswood Sdgs.	
	No. 2.	!		

# TABLE S1.—INTERMEDIATE SIDINGS AT WHICH TRAINS MAY BE SHUNTED FOR OTHER TRAINS TO PASS—continued.

OTHER TRAINS	TO TASS—continueu.		
Name of Siding	Situation	Line connected with	Method of control
OVEODD WOLVEDO	OT IN (WP) TO R	IRMINGHAM	GRAND JN. AND BRANCHES
Bletchington Cement Sidings.	Wolvercot Jn. and Aynho Jn.	Down	North and South Ground frames electrically controlled from Wolvercot Jn.
Budbrook	Budbrook and Warwick Station.	Up	Ground frame. Key control instrument released from Budbrook.
Bicester North	Aynho Jn.	"Down and up" main.	Ground frame electrically controlled from Princes Risboro.
Ardley	Princes Risboro' and Aynho Jn.		Ground frame electrically controlled from Aynho Jn.
BIRMINGHAM AND	DROITWICH SPA (W	R.) TO WOL	VERHAMPTON, WALSALL AND
T11 T	BRA   Droitwich Spa and	<b>NĆHES</b>   Up	Ground frame electrically con-
Elmley Lovett	Hartlebury Station. Wednesbury	•	trolled from Hartlebury Station.  Ground frame electrically con-
Darlaston Sidings	wednesdary	Down	trolled from Wednesbury.
Brindley Street	Stourport-on-Severn and Bewdley South.	Single	strument.
British Sugar Corporation Sidings, Foley Park.	Kidderminster Jn. and Bewdley South.	Single	Intermediate Electric Token Instrument.
$\mathbf{D}$	ERBY TO BLACKWEI	LL (W.R.) AND	) BRANCHES
Uttoxeter, Up Sidings	Uttoxeter and Sudbury.	Up	Ground frame electrically controlled from Uttoxeter.
Brook Street, Alex Dock Road.	Horninglow Bridge		Horninglow Bridge.
Mantle Lane West	Mantle Lane.	Down and up.	Ground frame electrically controlled from Mantle Lane. Ground frame electrically con-
Daw Mill Colliery	Arley & Fillongley Colliery Sidings and Shustoke Station.	Up	trolled from Shustoke Station.
Marshalling Sidings, Kings Norton.	Kings Norton and Halesowen Jn.	Down goods	Ground frame electrically controlled from Kings Norton Station Jn.
C	OLWICH TO MACCL	ESFIELD ANI	D BRANCHES
	Stone	Down	Ground frame electrically controlled from Stoke.
Down Sidings		Down	Ground frame electrically controlled from Stoke.
Meaford Power	Stone Jn. and Barlaston & Tittensor Station.	Down and up	Electrically controlled from Stoke.
Hem Heath Colliery .	Wedgwood	Up	
Stoke Yard	. Stoke	and down goods.	Shunting frame.
Cockshute Up Sidings	Stoke Etruria Jn	. Up goods	Ground frame electrically controlled from Stoke.
Down Sidings	. Kidsgrove Central .	. Down	trolled from Kidsgrove Central.
Birchenwood Branch and through siding.	Kidsgrove, Liverpool Road.	and goods.	Shunting frame.
Astbury Sidings .	Mow Cop.		trolled from Mow Cop.
Up and down sidings.		Down and up.	Ground frame electrically controlled from Macclesfield. Ground frame electrically con-
Macclesfield Moss .	North Rode and Macclesfield.	Down	trolled from Macclesfield. Shunting frame.
Pratt's	. Stoke	branch.	Shancing Italiio.

# TABLE S1—INTERMEDIATE SIDINGS AT WHICH TRAINS MAY BE SHUNTED FOR OTHER TRAINS TO PASS—continued.

Name of Siding	Situation	Line connected with	Method of control
CRA	AVEN ARMS (W.R.) T	O CREWE AN	ND BRANCHES
Rolls Royce Ltd	Harlescott Crossing	Up	
Cruckmeole	and Crewe Bank. Hookagate and Westbury.	Single, connection facing Hookagate.	trolled from Harlescott Crossing. Ground frame locked by electric token. Intermediate token instrument worked by guard.
Minffordd	Penrhyndeudraeth and Portmadoc.	Single, connection facing Penrhyndeudraeth.	Ground frame locked by electric token. Intermediate token instrument and telephone. Worked by station staff. See page 362.
Pwllheli East Carriage Sidings.	Criccieth and Pwllheli.	Single, connection facing Criccieth.	Ground frame locked by electric token. Intermediate Token Instrument and telephone worked by Guard or shunter.
Shell Mex & B.P	and Whittington.	Down	Ground frame electrically controlled from Whittington.
Station Down Sidings	Croes Newydd North Fork and Wrexham North.	Down main	Ground frame electrically controlled from Croes Newydd North Fork.
	CREWE TO BIRKEN	HEAD AND B	BRANCHES
No. 1 Warehouse	Birkenhead, Canning Street North.	Up goods	Tumbler one-way points. Siding protected by padlocked scotch-block. Key kept in Canning Street North box.
Shell	Ellesmere Port No. 5 and Stanlow & Thornton.	Down and up.	Ground frame electrically controlled from Ellesmere Port No. 5 and Stanlow & Thornton.
Exchange	Helsby and West Cheshire Jn.	Up Hooton branch.	Ground frame electrically controlled from Helsby Jn.
LON	DON, ST. PANCRAS	TO TRENT A	ND BRANCHES
Limbury Road Down Line.	· _	Down slow	Ground frame electrically con-
Line. Limbury Road Up Line.	Leagrave. Leagrave and Luton North	Up slow	trolled from Luton North. Ground frame electrically controlled from Leagrave Station.
Up Siding	Bedford Jn. and Kempston Road.	Up slow	~
Finedon	Finedon Station and Neilson's Sidings.	Up goods	Ground frame controlled by Annett's key from Finedon Station.
Up Sidings, Kettering South.	Kettering Jn. and Kettering Station.	Up slow	Ground frame electrically controlled from Kettering Station.
Mountsorrel	Sileby Station and Barrow-on-Soar Station.	Down passenger.	Ground frame electrically controlled from Sileby Station.
Skimpots	Luton and Dunstable North.	Single	Ground frame controlled by electric token.
Cambridge Sidings	Bletchley and Fenny Stratford.	Down	Ground frame electrically controlled from Fenny Stratford.
Marston Valley Brick	Ridgmont and Millbrook.	Down	Ground frame electrically controlled from Ridgmont.
Manton South	Manton Jn. and Harringworth Station.	Up	Ground frame electrically controlled from Manton Jn.
Ashwell Down Lie-by	Ashwell and Whissendine.	Down	Ground frame electrically controlled from Ashwell Station.
Ashwell Station Yard	Ashwell and Whissendine.	Up	Ground frame electrically controlled from Ashwell Station.
Pilton	Luffenham Jn. and Manton Jn.	Up	Ground frame electrically controlled from Luffenham Jn.

# TABLE S1.—INTERMEDIATE SIDINGS AT WHICH TRAINS MAY BE SHUNTED FOR OTHER TRAINS TO PASS—continued.

Name of Siding	Situation	Line connected with	Method of control
TRE	NT TO NEWARK CA	STLE (E.R.) A	ND BRANCHES
Clifton Colliery	Lenton South Jn. and	Up goods	Ground frame electrically con-
Down Sidings	Beeston North Jn. Hucknall Colliery Sidings and Linby Colliery Sidings.	Down	trolled from Lenton South Jn. Ground frame bolt locked from Hucknall Colliery Sidings.
Mansfield North	Sherwood Colliery Sidings South and Mansfield South Jn.	Up	Ground frame electrically controlled from Sherwood Colliery Sidings South.
Sherwood Colliery North end.	Sherwood Colliery Sidings South and Shirebrook West Sidings (E.R.)	Down	Ground frame electrically con- trolled from Sherwood Colliery Sidings South.
T	RENT TO CHESTER	FIELD (E.R.) A	AND BRANCHES
Toton Down Side	Long Eaton and	Down goods	
Centre Stop, Alfreton	Toton Centre.  Alfreton and Black-	Down goods	signals. Ground frame controlled by bolt
Doe Hill Goods Yard	well South Jn.  Morton Sidings and Westhouses Station.		from Alfreton Station. Ground frame electrically controlled from Morton Sidings.
except where shown to the when proceeding to and When assisted in reast to another when necessar Should a freight or in section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require to return the section require the section requires the sect	own, the instructions was contrary, the trains mare turning from such into under this arrangement, by the Guard, so that ballast train, or an Offirn to the token or staff	ust have a locomermediate siding at, the token must it is always carficer's special trastation in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in rear in the station in the s	trains not conveying passengers and notive in front and a brake van in rear g or station. st be transferred from one locomotive ried on the rearmost locomotive. ain, calling at an intermediate siding instead of going through to the token st be obtained before the train enters
Siding from		Γο	Remarks
LC	ONDON, EUSTON TO	CREWE ANI	D BRANCHES
Croxley Mill	' Croxley Gree	en Jn	15 freight vehicles in clear weather and during the hours of daylight. Propel on return.
BIRMINGHAM AND		/.R.) TO WOL ANCHES	VERHAMPTON, WALSALL AND
Arnold's Bewdley Back Road	Wednesbury Bewdley Sou		15 freight vehicles. Propel outward All Passenger Trains (either conveying passengers or empty).
Foley Park British Sugar Corporation.	Kidderminste	er Junction	Freight trains.
CRA	VEN ARMS (W.R.) T	O CREWE AN	ND BRANCHES
G 1: G'11	Hookagate Portmadoc		See page 361. For propelling see Table F.1.

# TABLE S2.—TRAINS RETURNING FROM INTERMEDIATE SIDINGS OR STATIONS ON SINGLE LINES OF RAILWAY TO THE TOKEN OR STAFF STATION IN THE REAR—

continued. Siding from To Remarks CREWE TO BIRKENHEAD AND BRANCHES ... Hooton South Jn. ... Factory Propel outward without brake van in front, return without brake van in rear. Mouldsworth Refuge Mouldsworth Jn. LONDON, ST. PANCRAS TO TRENT AND BRANCHES Laportes Siding ... Luton West ... TRENT TO CHESTERFIELD (E.R.) AND BRANCHES Kaldo Plant Sidings .. | Stanton Gate North .. | Freight trains, (For propelling on outward journey, see Table F1.) "A" Winning Colliery ... Blackwell East Jn. ... Freight trains without brake van. (For propelling on outward journey, see Table F1.) TABLE S3.—SIDINGS CONNECTED WITH RUNNING LINES WHICH ARE WORKED UNDER SPECIAL ARRANGEMENTS AND FROM WHICH TRAINS MAY RETURN IN THE WRONG DIRECTION WITHOUT A WRONG LINE ORDER TO THE SIGNAL BOX IN REAR. Drivers of movements requiring to return from the undermentioned sidings in the wrong direction to the box in rear are authorised to do so on the authority of the Signalman without a Wrong Line Order form. The wrong direction movement to the box in rear must not be commenced until the permission of the Signalman has been obtained. Unless otherwise shown, the movement may be propelled. Siding Position Remarks LONDON, MARYLEBONE TO CLAYDON AND BRANCHES Down line, between Sudbury Hill | Not more than 10 freight vehicles Northolt Park may be propelled, in clear weather only. (See Table F1.) and Northolt Jn. East. (Ground frame, controlled by lever in Sudbury Hill Station). RUBGY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES Hawkesbury Lane, up line Up DERBY TO BLACKWELL (W.R.) AND BRANCHES Up goods line, between Burton Station South and Horninglow Up Carriage Siding, Burton Station. Bridge. (Signal put to Danger and lever working disc in Burton Station South reversed by Guard or Shunter before self-acting lever points operated.) Down goods line, between Kings Propelling must be restricted to Marshalling Sidings, Kings Norton. Norton Station Jn. and Halesclear weather only. owen Jn. (Ground frame electrically controlled from Kings Norton Station Jn.) CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES Croes Newydd North Fork and Station Down Wrexham North. Sidings.

TABLE S3.—SIDINGS CONNECTED WITH RUNNING LINES WHICH ARE WORKED UNDER SPECIAL ARRANGEMENTS AND FROM WHICH TRAINS MAY RETURN IN THE WRONG DIRECTION WITHOUT A WRONG LINE ORDER TO THE SIGNAL BOX IN REAR—continued.

Siding	Position	Remarks
LONDO	ON, ST. PANCRAS TO TRENT A	ND BRANCHES
Vauxhall Siding, Luton South.	Up slow line, between Luton South and Harpenden Jn. (Ground frame, electrically controlled from Luton South.)	Not more than 10 freight vehicles may be propelled.
Ashwell Station Yard Sidings.	Up line, between Ashwell and Whissendine. (Ground frame, electrically controlled from Ashwell Station.)	
Ashwell Down Lie-by	Down line, between Ashwell and Whissendine. (Ground frame electrically controlled from Ashwell Station.)	
TRENT	TO NEWARK CASTLE (E.R.) A	ND BRANCHES
Down Sidings.	Down line, between Hucknall Colliery Sidings and Linby Colliery Sidings.	<del></del>
Linby Colliery Empty Wagon Sidings.	Down line between Linby Colliery Sidings and Annesley.	Light locomotives and locomotives and brake vans. Guard or shunter in charge of movement must be in possession of Annett's Key which is kept in Linby Colliery Sidings box.
TREN	TT TO CHESTERFIELD (E.R.) AN	D BRANCHES
Tibshelf Sidings.	Up goods line, between Morton Sidings and Westhouses Station. (Ground frame, controlled by bolt from Morton Sidings.)	

#### TABLE T1

#### LINESIDE FIRES.

Referring to page 109 of the General Appendix, the following information supplied by the Forestry Commission shows zones where the risk of lineside fires is greatest. The period of greatest risk is February to May (inclusive).

County and Forest		Location of Zone	Periods when risks are greatest
Stafford—Cannock	• •	Between Hednesford No. 3 and Brereton Siding— Both Sides. $(11\frac{1}{4}-11\frac{1}{2} \text{ miles posts}).$	_
Montgomery—Bechan		Between Montgomery and Newtown— Down Side. $(45\frac{1}{4} - 45\frac{1}{2})$ mile posts.)	
Montgomery—Dovey	• •	Between Talerddig and Cemmes Road— Down Side. (663—674 mile posts.)	
Cardigan—Rheidol		Between Borth and Aberystwyth— Up Side. (88 m. 65 c. and 89 m. 9c.) Between Borth and Aberystwyth— Down Side. (91 m. 62 c. and 91 m. 76 c.)	<del>-</del>
Merioneth—Dovey		Between Gogarth and Abertafol— Up Side. (81—81½ mile posts.)	
Cardigan—Rheidol		Between Capel Bangor and Devil's Bridge— Both Sides. (5\frac{3}{4}\)—11\frac{1}{4}\text{ mile posts.})	Danger in all dry periods.
Cheshire—Delamere	• •	Between Cuddington and Mouldsworth— Both Sides. (26\frac{3}{4}-30 mile posts.)	_
Anglesey—Penrhos	••	Between Valley and Holyhead— Both Sides. (Stanley Embankment.) (2614—2613 mile posts.)	Greatest risk December to April (inclusive).

County and Forest	Location of Zone	Periods when risks are greatest
Caernarvon—Gwydyr	Between Llanrwst and Betws-y-Coed— Up Side. (12\frac{3}{4}\top14\frac{3}{4}\text{ mile posts.})	Extreme Danger.
	Between Betws-y-Coed and Dolwyddelen— Down Side. $(15\frac{1}{4}-20\frac{3}{4} \text{ mile posts.})$ Up Side. $(15\frac{1}{4}-18\frac{3}{4} \text{ mile posts.})$	Extreme Danger.
	Between Dolwyddelen and Roman Bridge— Down Side. (22½—22½ mile posts.)	Extreme Danger.
Anglesey—Newborough	Between Gaerwen and Amlwch— Both Sides. (5½—6¼ mile posts.)	Extreme Danger on the steep grade.
Nottingham—Sherwood	Between Linby and Kirkby-in-Ashfield— Both Sides. (133—136 mile posts.) Between Bestwood Park Jn. and Calverton	Danger in all dry periods.
	Colliery.  Both Sides. (134 <sup>1</sup> / <sub>4</sub> —135 <sup>1</sup> / <sub>4</sub> mile posts.)	Danger in all dry periods.

#### TABLE T2 LINESIDE HOT AXLEBOX DETECTORS.

Apparatus to detect hot axleboxes has been installed adjacent to the running lines at the places listed below.

The axleboxes of each passing train are scanned electronically by the apparatus, and warning of any axlebox running hot, or tending to run hot, is immediately transmitted to the signal box shown. When the Signalman receives this warning, he will at once take action as may be expedient and, where possible, divert the train concerned to a less important running line or siding where the defective vehicle can be dealt with.

Drivers of trains stopped out-of-course in these areas, having passed over one of the hot axlebox detectors, must immediately telephone the Signalman for instructions.

Situation of Detector	Line	Signalbox to which warning sent
Between Leighton Buzzard and Bletchley, near signal BY.134 Between Wolverton and Bletchley, near signal BY.161 Between Wolverton and Bletchley, near signal BY.162 Between Brinklow and Rugby, near signal RY.333. Between Brinklow and Rugby, near signal RY.334. Between Shilton and Nuneaton, near signal NN.86 Between Colwich and Milford & Brocton, near signal MB.5/7 Between Great Bridgeford and Stafford, near signal NB.17 Between Great Bridgeford and Stafford, near signal NB.18	Up slow	Nuneaton Milford & Brocton Stafford No. 5
Near Berkswell Box	Down Up	Coventry. Coventry Birmingham N. St.
DERBY TO BLACKWELL AND BRA		
		Branston Jn. Perrin & Harrison' Sdgs.
COLWICH TO MACCLESFIELD AND	BRANCHES	
Barlaston Station, near signal SE.210 Between Congleton and Mow Cop, near signal MC.5	Down Up	Stoke-on-Trent Kidsgrove Central
TRENT TO CHESTERFIELD AND BR	ANCHES	
Between Bennerley Jn. and Ilkeston South Jn. at 127 m. 568 yds.	Up goods	Bennerley Jn.
TRENT TO CLAY CROSS (VIA DERBY) AN	ND BRANCH	ES
Between Duffield Jn. and Breadsall Crossing at 132 m. 1,378 yds.	Up main	Breadsall Crossing

#### TABLE U1—TOWING OF VEHICLES—RULE 110 (c).

Referring to page 1 of the General Appendix, the following is a list of places where towing of vehicles is authorised.

(\*Indicates road vehicle used.)

Place			Line Remarks
*Congleton			Goods Depot —
*Ettiley Heath			Loading stage
*Birkenhead			All Goods Depots
*Finchley Road			Down Sidings Only in emergency to move wagons clear of connections.
*Leicester	• •		Humberstone Road Goods — — — — — — — — — — — — — — — — — — —
*Colwick Estates	• •		Between single line and unloading point in Top Shell Siding Maximum 5 wagons.

## TABLE U2.—PLACES AT WHICH SPRAGS ARE LOCATED.

## LONDON EUSTON TO CREWE AND BRANCHES

North London Incline
Stafford Common . . . Foreman's Office.
Madeley Chord . . . Signal Box.

#### RUGBY MIDLAND TO STAFFORD (VIA BIRMINGHAM) AND BRANCHES

.. Signal Box.

Hawkesbury Lane . . Foreman's Cabin.
Lichfield (City) . . No. 1 Box.
Bescot Curve . . Motorway overbridge.
Mid-Cannock Colliery . . Ground Frame.
Hednesford . . . No. 3 Box.

#### DERBY TO BLACKWELL (W.R.) AND BRANCHES

Brereton Siding

Worthington ... . . Station. Signal Box. Cresswell . . . . Signal Box. Caverswall . . . . . . Signal Box. Foley Crossing Stores Office. Cheadle . . . . Desford Colliery Sidings ... Signal Box. Signal Box. Bagworth & Ellistown . . Ellistown Colliery Sidings ... Signal Box.

## COLWICH TO MACCLESFIELD AND BRANCHES

Etruria .. .. Station.
Alsager .. .. Entrance to sidings.

# CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES

Shunter's Cabin. Machynlleth ... . . . . Porter's room. Barmouth . . United Colliery Sidings Signal Box. . . Croes Newydd West .. Signal Box. Broughton Crossing Signal Box. . . Brymbo East . . . . . . Signal Box. . . Signal Box. Brymbo Middle . . . . Minera Platelayer's Cabin. . .

#### CHESTER TO HOLYHEAD AND BRANCHES

Colwyn Bay .. .. Goods Yard.

#### LONDON ST. PANCRAS TO TRENT AND BRANCHES

Glendon & Rushton Station . . . Signal Box.

Junction Road Jn. . . . Signal Box.

Neasden (Midland) Jn. . . P.W. ganger's hut.

Dunstable North . . . A.P.C.M. Sidings, East G.F.

Storefield Sidings ... Signal Box
Ashwell Sidings ... Ground Frame.

#### TABLE U2.—PLACES AT WHICH SPRAGS ARE LOCATED—continued.

#### TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES

Nottingham ... .. Goods Yard West G.F.

Bestwood Park Jn. . . Signal Box. Linby Colliery Sidings . . Signal Box. Annesley . . . Signal Box.

#### TRENT TO CHESTERFIELD (E.R.) AND BRANCHES

Toton Jn. .. .. Near Down goods line home signal.

Tibshelf Sidings ... Top and bottom end.

Morton Sidings ... Signal Box. Avenue Sidings ... South end block.

#### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES

Little Eaton Jn. . . Signal Box.

Kilburn Crossing . . At level crossing.

Park Lane Crossing . . At level crossing.

#### TABLE V1—WITHDRAWAL OF GUARDS OF TERMINATING FREIGHT TRAINS.

Guards working freight trains terminating at the following places and standing on the lines shown must report to the person in charge for instructions. Before doing so they must see that their trains are clear of the main line and properly secured, and advise the Driver. This arrangement will not apply during fog or falling snow unless otherwise shown. Where authority is given for the arrangement to apply during fog or falling snow, the Guard must carry out the first paragraph of Clause 2 of Instructions to Trainmen on lines (Passenger and Goods) worked on Permissive Block System as shown on page 21 of the General Appendix, or Clause 7 of the Regulations for Working Trains over Goods Lines not worked on any Block System, as shown on page 22 of the General Appendix, before leaving the train.

Place	Line	Remarks
Willesden, High Level Sidings.	Up High Level arrival	Also applies during fog or falling snow.
	Nos. 1 and 2 through sidings	Also applies during fog or falling snow.
Bletchley	Down goods between Bletchley and Denbigh Hall. Up goods between Denbigh Hall and Bletchley.	Also applies during fog or falling snow.
Nuneaton Stafford	Nos. 1 and 2 up goods Nos. 1 and 2 down through sidings between Stafford No. 1 and Stop and Await Instructions Boards, Down Salop Sidings.	Also applies during fog or falling snow.
Crewe, Basford Hall Sidings	Up goods line at No. 2 box Down slow independent between Sorting Sidings Middle Down and Sorting Sidings North boxes.  Up slow goods Up loop Nos. 1 and 2 arrival Sidings Middle Sidings Middle	Also applies during fog or falling snow.
Crewe, Gresty Lane Down Sidings.	Nos. 1 and 2 "down and up" through sidings between Gresty Lane No. 1 and No. 2 boxes.	Also applies during fog or falling snow.
Northampton C	No. I down goods between No. 3 and No. 4 boxes. Up goods between No. 4 and No. 3 boxes.	Also applies during fog or falling snow.
Curzon Street	Up goods	Guards must not withdraw until a locomotive is attached in
Bescot	Down Reception sidings	rear.  Also applies during fog or falling snow.

TABLE V1.—WITHDRAWAL OF GUARDS OF TERMINATING FREIGHT TRAINS—continued.

Place	Line	Remarks
Norton Jn	Down goods between Ryders Hayes Crossing and No. 1 box.	<del>_</del>
Burton-on-Trent, Wetmore Sidings.	Nos. 1 and 2 West Yard Reception	Also applies during fog or falling snow.
Washwood Heath	Nos. 1, 2 and 3 down reception between Washwood Heath Jn. and Washwood Heath Sidings Nos. 3 and 2 boxes.	<del></del>
Stoke Yard, South	Down goods signal SE.96	Also applies during fog or falling snow.
	Up goods signal SE.87	Also applies during fog or falling snow.
Stoke	Up goods signal SE.39	Also applies during fog or falling snow.
Grange Jn	Down goods	Also applies during fog or falling snow.
Longport Jn	Up goods	Also applies during fog or falling snow.
Alsager	Down goods at Station box	Also applies during fog or falling snow.
	Up goods at East Junction box	Also applies during fog or falling snow.
Cricklewood	Down goods between West Hamp- stead and Cricklewood Jn. or Cricklewood Down Sidings G.F.	Also applies during fog or falling snow. A man is specially appointed to advise Guards of trains travelling on these lines to leave their trains when they come to a stand in accordance with this instruction. This man will also advise the Drivers of such trains that the train Guards are being withdrawn, but the train Guards must also advise the Driver when they leave.
Wellingborough Down Sidings.	Down goods at Finedon Road	
Leicester Up Sidings	Up goods between Humberstone Road Jn. and Bell Lane boxes and between Bell Lane and Leicester North boxes.	Also applies during fog or falling snow. A Guard must always be in charge of the rear train.
Westhouses & Blackwell, Blackwell Sidings	Down line between Blackwell South Jn. and Blackwell East Jn.	Also applies during fog or falling snow.

# TABLE V2.—USE OF GUARD'S TELEPHONES—RULE 147.

The following lines are provided with one or more Guards' telephones, and when a train complete with tail lamp attached comes to a stand clear of the connection with the main line, the Guard (or Secondman in the case of a light or banking locomotive) must immediately advise the Signalman of this by the most convenient telephone. To avoid delay in advising the Signalman, the Driver of a light locomotive or short train may bring it to a stand opposite the first telephone, and after the Signalman has been advised, proceed as far as the line is clear.

Where the signal box is situated midway between the entrance and exit of the loop, the advice may be given either verbally or by telephone, according to circumstances.

Signal box		Line
I		STON TO CREWE AND BRANCHES
Willesden Low Level	Down	(from Kensal Green Jn.).
RUGBY MID	LAND TO ST	AFFORD (VIA BIRMINGHAM) AND BRANCHES
Walsall Norton Jn. No. 1	Bescot Down	Nos. 1, 2, 3 and 4 Up reception. goods loop.

Signal box Line WOLVERCOT JN. (W.R.) TO BIRMINGHAM, GRAND JN. AND BRANCHES Banbury Jn. .. Down reception. DERBY TO BLACKWELL (W.R.) AND BRANCHES Sunny Hill Up goods. Burton-Wetmore Sidings ... Nos. 1 and 2 West Yard Reception. Drakelow . . West arrival. . . COLWICH TO MACCLESFIELD AND BRANCHES Hassall Green ... Up loop. CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES Church Stretton Down goods loop. Sutton Bridge Jn. Down goods loop. . . Newtown Down platform. . . CREWE TO BIRKENHEAD AND BRANCHES Frodsham Jn. Up goods loop. Rock Ferry Nos. 1 and 2 platforms. Stanlow & Thornton Down reception Up reception. **Shotwick Sidings** Coal reception Ore reception and departure. Seacombe Jn. Iron Ore Sidings. CHESTER TO HOLYHEAD AND BRANCHES Bagillt Down loop. Prestatyn Down slow. . . Abergele Down slow. . . . . \*Colwyn Bay Down platform loop. . . \*Llandudno Jn. Down main platform "Up and down" platform (for down trains). \*Bangor Down platform loop. Holyhead Station Down goods.
Cattle Yard Siding. . . Holyhead Station ST. PANCRAS TO TRENT AND BRANCHES Wigston North Jn. .. Down sidings. Mortimer St. Jn. Down north curve. \*Clay Cross South Jn.

2nd down goods.

#### TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES

\*Duffield Jn. ... Down through siding.

(Guard's telephones are provided at certain places other than those shown above and separate Appendix instructions are issued for each such place.

At these places where delay would be avoided by notifying the Signalman that a train on the adjoining main line has been brought to a stand with the rear portion of the train, complete with tail lamp, clear of the connections, the telephone alongside the adjoining line may be used, the Signalman being informed on which line the train is standing.

#### TABLE W.-STATION YARD WORKING-RULES 96 AND 98.

The following is a list of through stations where authority is given for trains to enter an occupied platform line, the entrance to and exit from which are controlled by one signal box under the provisions of these rules.

Unless specially authorised, a passenger train must not be allowed to enter a platform line which is already occupied by a freight train, nor must a freight train be allowed to enter a platform line

already occupied by a passenger train.

Before a train is signalled into an occupied platform line, the Signalman must be aware, or have ascertained from the person in charge of the platform that there is room for the train to be dealt with.

Station			Line			
Leamington Spa			Down platform. Up platform.			
Machynlleth			Up platform.			
Macclesfield		- •	Down main between signals MD.42 and MD.40. Up main between signals MD.15 and MD.17. "Down and up" platform.			
Bangor			Down passenger loop. Up passenger loop.			

# TABLE X.—TAIL LAMPS—LIGHTING WHEN PASSING THROUGH TUNNELS—RULE 120.

All trains and light locomotives must carry a lighted tail lamp when passing through any of the under-mentioned tunnels. Guards of trains and Drivers of light locomotives must see that this is done, and during daylight must also see that the lights are extinguished as soon as possible after passing through the tunnel.

Tunnel	 	 			
Lord's St. John's Wood Hampstead	 				

## TABLE Y.-LINES EQUIPPED WITH AUTOMATIC WARNING SYSTEM.

Referring to the instructions contained on pages 16 to 19 of the General Appendix; the following lines are equipped with A.W.S. track equipment.

Signals which read from branch or other lines on to A.W.S. equipped lines, are fitted, except

where the line concerned is a goods line, or as shown below.

Certain bay platform starting signals, platform starting signals at terminal stations and starting signals applicable to facing line movements, have not been fitted.

At places where the W.R., A.W.S. system abuts on the B.R. system a notice board is displayed.

From	То	Line	Remarks			
LO	ONDON, EUSTON	TO CREWE ANI	) BRANCHES			
Euston	Crewe South Jn.	Down main, fast and slow. Up main, fast and slow.	Commencing at signal EN.84 (down fast) and signal EN.85 (down slow).  Terminating at signal EN.87 (up fast), and signal EN.86 (up slow).			
Roade Jn. (via Northampton Castle.)	Rugby Midland	Down and up main, fast and slow.	Also signal NH2.9.			
Crewe Gresty Lane	Crewe, South Jn.	Down	Commencing at Gresty Lane No. 1 home signal.			
Crewe, N.S. Sidings	Crewe South Jn.	Down	Commencing at Crewe N.S. Sidings home No. 1 signal.			

TABLE Y.—LINES EQUIPPED WITH AUTOMATIC WARNING SYSTEM—continued.								
From	То	Line	Remarks					
LONDO	ON, EUSTON TO CRI	EWE AND BR	ANCHES—continued.					
Crewe North Jn	Coppenhall Jn	Down main, fast and slow.	Commencing at signal CY.55 (down independent) signal CY.48 (down fast) and signal CY.52 (down slow).					
		Up main, fast and slow.	Terminating at Crewe North Jn. fast and slow home signals.					
Crewe Salop Goods Jn.	Sydney Bridge Jn	Down main and	Commencing at Salop Goods Jn. starting (down independent) and					
Crewe North Jn.		independent. Up main and independent.	signal SH.75 (down main line). Terminating at Salop Goods Jn. home No. 2 (up independent) and Crewe North Jn. home No. 2 (main line).					
			GHAM) AND BRANCHES					
	Stafford No. 1 mingham.)	Down and up main.	Inductors are not provided for Birmingham New Street Station platform and platform starting signals.					
Steehford Jn	Bushbury Jn	Down and up Grand Jn.						
Proof House Jn	Aston Jn	Down and up main and down and up fast and slow.						
Soho South Jn	Perry Barr South Jn.	Down and up.						
Soho East Jn	Soho North Jn	Down and up.	Valence de la Constantina del Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la Constantina de la					
Perry Barr West Jn	Perry Barr North Jn.	Down and up.						
Bescot Jn	Walsall	Down main and down fast and slow.	Terminates at signals WL.92 (down fast) and WL.94 (down slow).					
		Up fast and slow and up main.	Commencing at signals WL.81 (up fast) and WL.83 (up slow).					
Walsall	Darlaston Jn	Down and up.	-					
Portobello Jn	Wolverhampton H.L.	Down and up.						
OXFORD, WOLV	VERCOT IN TO BIR	 Mingham c	RAND JN. AND BRANCHES					
Princes Risborough	Aynho Jn							
(W.R.) Galton Jn	Smethwick West	Down and up.						
) DF	ERBY TO BLACKWEL	: J. (W.R.) AND	RRANCHES					
Exchange Sidings	Birmingham New Street.	Down Derby	Commencing at Exchange Sidings down home signal from Derby and down home signal from St. Andrews Jn. Terminating at					
Church Road Jn	Grand Jn	Up Gloucester	signal NS.151. Commencing at Church Road Jn.					

Princes Risborough (W.R.)	Aynho Jn	. Single	
Galton Jn	Smethwick West .	Down and up.	
	DERBY TO BLACKWE	LL (W.R.) ANI	D BRANCHES
Exchange Sidings	Birmingham New Street.	Down Derby	Commencing at Exchange Sidings down home signal from Derby and down home signal from St. Andrews Jn. Terminating at signal NS.151.
Church Road Jn.	Grand Jn	. Up Gloucester and up Derby.	Commencing at Church Road Jn. up home signal.  Terminating at signal NS.133.  Inductors are not provided for Birmingham New Street Station platform and platform starting signals.
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TABLE Y.—LINES EQUIPPED WITH AUTOMATIC WARNING SYSTEM—continued.

From	То	Line	Remarks
C	OLWICH TO MACCL	ESFIELD AND	) BRANCHES
<b>C</b>	Stone Jn	up main. Down and up.	— —
Etruria Jn	Hanley	Single	One ramp is provided on the approach side of signal SE.7. This ramp, though not suppressed, does not apply to trains travelling in the down direction.
'	CREWE TO BIRKEN	HEAD AND B	RANCHES
Crewe North Jn Waverton	CO . No. 41. To	Down Up	
LON	DON, ST. PANCRAS	TO TRENT A	ND BRANCHES
St. Pancras	Market Harborough	Down fast and main.  Up fast and main.	Commencing at St. Pancras starting signal (Dock Jn. home signal). An inductor is not provided for Irchester South home signal or Desborough North home signal. An inductor is not provided for Kettering Station outer home
Kempston Road Jn	Finchley Road	Up slow and	signal.
Finchley Road	Bedford Jn	local.  Down local	Terminating at Bedford Jn. inner
•	bedioid in	and slow.	distant signal. An inductor is not provided for Napsbury home signal.
Silkstream Jn	Glendon North Jn Kettering Jn		An inductor is not provided for Kettering Station outer home signal.
TABLE Y.—LINES EQ	UIPPED WITH AUTON	IATIC WARNI YPE).	NG SYSTEM (WESTERN REGION
From	То	Line	Remarks
RUGBY MIDLAN	ND TO STAFFORD (V	IA BIRMINGI	HAM) AND BRANCHES
Wolverhampton, Stafford Road Jn.	Shrewsbury, Severn Bridge Jn.	Down main Up main	Terminating at Severn Bridge Jn. down distant signal. Commencing at Abbey Foregate up
			I.B. distant signal.
		_	M, GRAND JN. AND BRANCHES
Oxford, Wolvercot Jn. (W.R.)	Bordesley South	Down main	Continuation of W.R. system. Terminating at Bordesley South down main starting signal.
Tyseley South	Small Heath South	Up main Down and	Commencing at Bordesley South up distant signal from Bordesley Jn.
Bearley West Jn	Marta (W/ D.)	up relief.  Down and	_
Tyseley South Jn	Bearley West Jn.	up main. Down and up.	

TABLE Y.—LINES EQUIPPED WITH AUTOMATIC WARNING SYSTEM (WESTERN **REGION TYPE)**—continued. From To Line Remarks OXFORD, WOLVERCOT JN. (W.R.) TO BIRMINGHAM, GRAND JN. AND BRANCHES -continued. Bordesley South Birmingham Moor St. Down and up main. Birmingham Snow Hill Down and Wolverhampton Low Level. up main. Birmingham Snow Hill Handsworth Jn. Down and up relief. Handsworth Jn. Smethwick West Down and up. Smethwick West Stourbridge Jn. North Down main Commencing at Smethwick West down starting signal. Up main Terminating at Smethwick West up inner distant signal. BIRMINGHAM AND DROITWICH SPA (W.R.) TO WOLVERHAMPTON, WALSALL AND **BRANCHES** Droitwich Spa (W.R.) Dudley Down main Continuation of W.R. system. Terminating at Dudley down main distant signal. Up main Commencing at Dudley up main starting signal. CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES Craven Arms Shrewsbury, Crewe Jn. Continuation of W.R. system. Down and Crossing (W.R.) up main. There are no ramps at Shrewsbury applicable to trains to or from the Crewe line. There are no ramps in the Shrewsbury Station area between Severn Bridge Jn. and Crewe Jn. Shrewsbury, Crewe Jn. | Saltney Jn. Down main Terminating at Saltney Jn. down distant signal. Up main Commencing at Green Lane cross-

On these sections of line the following instructions apply:—

#### WESTERN REGION AUTOMATIC WARNING SYSTEM

ing up distant signal.

#### Objects of the System

The primary object of this system is to give an audible warning (siren) in the driving compartment as a train is approaching a distant signal which is in the "on" position, and, if this warning is disregarded, to apply the brakes automatically, to ensure that the train is stopped before it reaches the home signal.

In the case of a multiple aspect signal capable of displaying a double yellow, single yellow or red aspect, the warning indication and brake application will also be given when any of these aspects is displayed.

Another and distinctive audible indication (bell) is given in the driving compartment when the Distant signal is in the "clear" position or a green aspect is displayed in a colour light signal which is capable of exhibiting a "Caution" aspect.

It is emphasised that this system is merely an aid to a Driver and does not relieve him of his responsibility for observing all signals. He must continue to keep a sharp lookout and although the "bell" may indicate a "clear" signal it does not relieve him of his responsibility for observing the signal to which it applies and the line ahead.

#### Location at which audible signals are given

The point at which the audible signals are given is usually about 440 yards (200 yards in multiple aspect signalling areas) before the distant signal is reached. Where, however, the distant signal is a lower arm on a 'Stop' signal, the audible signals are given just as the 'Stop' signal is passed.

#### Apparatus on Permanent Way and Locomotive and Multiple Unit Train

A contact shoe underneath the locomotive or multiple unit trains, rides over a metal ramp bolted between the running rails. As the shoe passes over the ramp the audible signal is given in the driving compartment. In addition, on some locomotives, a visual indication is also provided.

# TABLE Y.—LINES EQUIPPED WITH AUTOMATIC WARNING SYSTEM (WESTERN REGION TYPE)—continued.

# WESTERN REGION AUTOMATIC WARNING SYSTEM—continued.

Cancelling brake application

By raising the re-setting handle or by pressing and releasing the re-setting button, the Driver will stop the siren sounding, thus cancelling the warning indication and the brake application, but he must then act in accordance with the signal aspect displayed.

Failure of electrical apparatus

Any failure of the electrical apparatus will produce the Warning indication, with automatic brake application irrespective of the signal aspect.

## Action to be taken during irregular working of A.W.S. Apparatus

- (a) When the Bell is received with signal not in the clear position.
- (b) When Caution indication is received with the signal in the clear position.
- (c) When no audible warning received.

Drivers must record any irregularity in the working of the A.W.S. apparatus on form B.R.29957, which must be filled up and handed in when booking off duty.

If an Engineman is relieved at any intermediate point, he will still be required to report the defect at the Depot where he books off duty but must inform his relief of the type of failure he has experienced. There will be no necessity for the latter to submit a further B.R.29957 report unless an irregularity is experienced while he is in charge.

#### Wrong Side Failures

If the driver receives the bell indication when a distant signal is at caution, or a colour light signal is showing double yellow, single yellow or red, he must stop at the next signal box ahead and report the circumstances'

If the failure occurs at an automatic or semi-automatic signal or at a controlled colour light signal after passing the controlling signal box, the Driver must report the failure from the telephone at the first convenient signal ahead of the A.W.S. ramp concerned. He must also arrange for the locomotive or unit to be tested on arrival at the Depot or stabling point.

The Signalman who receives advice of the failure must, if he does not control the signal affected, advise the Signalman concerned and make an entry in his train Register.

The Signalman controlling the affected signal or in the case of an automatic or semi-automatic signal, the Signalman controlling the last controlled signal before the affected signal, must immediately carry out the following procedure:—

- 1. Arrange for Drivers of subsequent trains to be stopped and advised that the A.W.S. ramp is defective, until the defect has been put right, or a Handsignalman has been appointed as provided for in the last paragraph of these instructions.
- 2. Arrange for the attendance of the technician.
- 3. Until it is established that the ramp is in order, maintain the signal concerned at Caution. In the case of a multiple aspect signal, the technician must be requested to disconnect the circuits so that it will not be possible to exhibit a "Proceed" aspect other than Caution (one yellow).
- 4. Advise the Divisional Control Office.
- 5. Make an appropriate entry in the Train Register.

When the defect has been put right the Signalman must enter the time in the Train Register and the entry must be countersigned by the technician. Normal working may then be resumed.

If, however, owing to the distance involved, considerable delay would be incurred by the technician going to the signal box, he may telephone the Signalman that the ramp is restored and the latter must endorse the Train Register entry accordingly.

## Clipping up and resetting

When locomotives are fitted with Western Region apparatus it is essential before proceeding on to electrified lines (four rail system), or on to certain lines of other Regions for the A.W.S. shoe to be clipped up, unless specially authorised to the contrary. The clipping up must be done manually by Maintenance Staff before the locomotive proceeds on to the restricted lines, and similarly, the shoe must be released from its clipped up position before the locomotive returns to lines which are equipped with W.R., A.W.S. track apparatus.

#### A.W.S. Ramps under repair

When an automatic warning system ramp is under repair and out of use, or removed for other purposes, a Handsignalman must be provided at the Distant or Colour Light Signal to which the ramp is applicable, to act as if he were fog signalling at that particular signal.

#### W.R./B.R. Systems

At places where the W.R., A.W.S. system abuts on the B.R. system a notice board is displayed.

#### TABLE Z.—STATION LIMITS WHERE TRACK CIRCUIT BLOCK IS IN OPERATION.

The instruction headed "Station Limits" on page 61 of the General Appendix will not apply on lines worked on the Track Circuit Block system, and where station limits are required on such lines for the purposes of Rules 149 and 153 these are defined, for the signal boxes concerned, in the table below.

Wrong direction movements may be made only in accordance with the instructions on page 3 of the General Appendix.

The area encompassed by the following points may be treated as Station Limits:—

Signal box/Location	Line		Between
Euston	Down fast		To rear of set back signal EN.49.
	Down fast	• •	To rear of set back signal EN.51.
	Up fast		From limit of shunt indicator at rear of
	- F 2000		set back signal EN.47.
	Up slow		From limit of shunt indicator at rear o
	1		set back signal EN.46.
	Up engine		From signals EN.108 and EN.113.
	Up engine No. 1		From signals EN.91 and EN.92.
	Up engine No. 2		From signal EN.105.
	Down empty carriage		To signal EN.105.
Willesden	Down fast		Signal WN.146 and signal WN.212.
	Up fast		Signal WN.123 and signal WN.214.
	Down slow		Signal WN.145 and signal WN.211.
	Up slow		Signal WN.58 and signal WN.148.
	Down Low Level goods		Signal WN.137 and rear of set back signal WN.38.
	Up Low Level goods		Signal WN.34 and rear of set back signa
			WN.136.
Watford Junction		1	
Station Area	Down fast		Signal WJ.24 and rear of set back signa
			WJ.63.
	Up fast	)	Signal WJ.68 and rear of set back signa
	-	1	WJ.38.
	Down slow		Signal WJ.25 and rear of set back signa
			WJ.64.
	Up slow		Signal WJ.69 and rear of set back signa
			WJ.26.
	Down branch		To rear of signal WJ.48.
æ : <b>.</b>	Up branch	• •	From signal WJ.44.
Tring Area	Down slow		Signal WJ.94 and rear of set back signa
	T		WJ.112.
	Up slow		Signal WJ.114 and rear of set back signa
Dla4aklass			WJ.95.
Bletchley Station Area	Down fast		Circuit DV/ 10 at C at 1 1
Station Area	Down tast		Signal BY.10 and rear of set back signa
	I.I. Cont	į	BY.76.
	Up fast	• •	Signal BY.35 and rear of set back signa
	Down slow		BY.53.
	Down slow		Signal BY.11 and rear of set back signal
	Up slow		BY.71. Signal BY 36 and your of got book signal
	Op slow		Signal BY.36 and rear of set back signal BY.52.
	Down goods	į	Signal BY.27 and signal BY.30.
	TT 0	• •	From Limit of shunt indicator at rear
	Op Oxford	• •	of signal BY.16.
	Down Oxford		To rear of set back signal BY.51.
	TT. D. 1C1		From signal BY.26.
	Down Bedford	• •	To rear of set back signal BY.64.
Wolverton Area	Down slow	• •	Signal BY.166 and north end of station
Wolverton Mea	Down slow	••	platform.
	Up slow		Signal BY.43 and signal BY.168.
Rugby	Down fast		Signal RY.97 and rear of set back signal
			RY.148.
	Down Northampton		From rear of set back signal RY.64.
	Down slow		Rear of set back signal RY.82 and rear
			of set back signal RY.149.
	Down goods		Signal RY.75 and rear of set back signal
			RY.165.

TABLE Z.—STATION LIMITS WHERE TRACK CIRCUIT BLOCK IS IN OPERATION—continued.

Signal box/Location	Line		Between
	Southam branch		To notice board at set back signs
	Up fast/main	••	RY.171.  Limit of shunt indicator at North er of station and rear of set back sign
	Up slow		RY.59.  Limit of shunt indicator at North en of station and rear of set back sign
	Up goods	• •	RY.73. Signal RY.153 and rear of set back sign RY.62.
Nuneaton	Down Clifton Mill Down fast		From rear of set back signal RY.52. Signal NN.76 and signal NN.4.
Nuneaton	Down tast Down slow	: :	Signal NN.77 and signal NN.5.
ľ	Down Leicester		From signal NN.81.
	Down Coventry		From signal NN.78.
	Down Midland goods		To rear of set back signal NN.13.
	Up fast	• •	Signal NN.9 and a point opposite signa NN.76/77 on down lines.
	Up slow	• •	Signal NN.7 and a point opposi signals NN.76/77 on down lines.
	Up Midland goods		From signal NN.6.
	Up Leicester	• •	To rear of set back signal NN.68.
	Up Coventry	• •	To rear of set back signal NN.74.
Northampton Castle No. 1	Up main	• •	To rear of 3-arm set back signal outsi up main line.
Northampton Castle No. 4	Down main	• •	To rear of furthest set back signal fro box outside down main line.
Coventry	Down main	• •	Signal CY.18 and signal CY.38.
	Up main		Signal CY.37 and signal CY.23.
	"Down and up" slow line Down Leamington		Signal CY.18 and signal CY.35. Signal CY.4 and signal CY.26.
	Up Learnington	• •	Signal CY.23/24 and signal CY.3.
	Up Nuneaton		Signal CY.53 and signal CY.24.
	Down Nuneaton		Signal CY.26/27 and signal CY.51.
Birmingham			
Stechford Area	Down main	• •	Signals NS.35 to rear of set back signal SD.30/31.
1	Up main	• •	SD.9/23.
	Up Grand Jn		From signal NS.426.
New Street Station Area	Down lines	• •	Signals NS.151 (down Derby), NS.1 (down Stour) and signal NS.2 (down Stour), in rear of set ba
	Up lines		signal NS.242 (down Gloucester). Signals NS.243 (up Gloucester), NS.2
			(up Stour) and in rear of set ba signals NS.152 (up Derby), NS.1
Monument Lane Area	Down		(up Stour). Signal NS.305 and signal NS.212.
	Up		Signal NS.309 and signal NS.245.
Soho North Junction Area	Up	• •	Signal NS.338 and signal NS.313 ma line, in rear of set back signal NS.33
0111	TT.		curve line.
Oldbury Area	Up	• •	Signal NS.483 and signal NS.481.
	Down	• •	Signal NS.480 and in rear of set ba signal OY.15/23/24.
Wolverhampton H.L	Down Stour		Limit of shunt indicator in advance signal WN.112 and rear of set ba
			signal WN.64.
	"Down and up"		Signal WN.99 and signal WN.78.
	Up Stour		
D			WN.109.
Birmingham Vauxhall Area	Down fast		Signal NS.82 and rear of set back sign

TABLE Z.—STATION LIMITS WHERE TRACK CIRCUIT BLOCK IS IN OPERATION—continued.

Signal box/Location	Line	Between
Vauxhall Area—continued.	Up fast	Signal NS.75 and rear of set back signals VL.67/61/62.
	Down goods and down slow	Signal NS.83 and rear of set back signals VL.36/27/35/10.
	Up slow and up goods	Signal NS.76 and rear of set back signals VL.96/95/66.
Perry Barr South Jn. Area	Down Grand Jn	"Limit of shunt" board in rear of set back signal NS.258, and facing points of junction with up Perry Barr (West) line.
	Up Perry Barr	Facing points of junction with down Grand Junction line and rear of signal NS.278.
Bescot	"Down and up" goods	0' 170750 11' '/ 0 1 / ' '
Walsall Bescot Area	Down Grand Junction	Signal WL.27 and rear of set back signal WL.36.
	Up Grand Junction	A point opposite signal WL.36 on the down line and rear of signal WL.24.
G A	Up goods	Connection from up Grand Junction line and rear of signal WL.8.
Station Area	Down fast	Signal WL.92 and rear of set back signal WL.56.
	Up fast Down slow	Signal WL.68 and rear of signal WL.102. Signal WL. 94 and rear of set back signal WL.58.
	Up slow	Signal WL.69 and rear of set back signal WL.93.
Birmingham Snow Hill	Down platform loop Down main	From rear of set back signal WL.85. To signal SH.30.
	Down relief Up main	To signal SH.32.
Stales on Tuent	Up relief	From signal SH.5.
Stoke-on-Trent	Down main	Signal SE.118 and rear of set back signal SE.53.
	Down goods	Connection from down main adjacent to set back signal SE.123 and rear of set back signal SE.24.
	Up Leek Brook branch	From signal SE.202.
	Up main	Signal SE.16 and rear of set back signal SE.125.
	Up platform loop Up goods	Damenia Terratian con aide access d'Englis
		and signal SE.105.
	No. 1 Viaduct Siding	Connection from up main line a Station end and rear of set back
	Down Leek Brook branch	signal SE.107. To signal SE.121.
Kidsgrove Central	Down main	Signal KC.39 and signal KC.38.
	Up main	Signal KC.27 and rear of 2-arm set- back signal outside up main line.
Macclesfield	Down main	Signal MD.42 and in rear of set-back signal down main to down sidings.
	"Down and up"	Signal MD.15 and signal MD.17. Signals MD.15 (up main), MD.13 (up branch) and down line "Limit of shunt" board.

#### INSTRUCTIONS RELATING TO STANDARD RULES

(Rule Book, 1950, reprinted January, 1962)

#### RULE 55.

Referring to the Notes on Pages 62-66 of the Rule Book:

Firemen's call plungers.—Where the indication "Rule 55 exempt—Press Key" is given at a signal post or at a pillar, the operation of the plunger will indicate in the signal box the position of the train without a bell sounding at the signal post or pillar. In such cases, it will not be necessary for the Guard, Shunter or Secondman to go to the signal box to remind the Signalman of the position of the train after the plunger has been pressed.

Telephones.—Where both a Fireman's call plunger and a telephone are provided at a signal (indicated by the sign shown in Diagram No. 3 and a "T" sign), the requirements of Rule 55 must be carried out by operating the Fireman's call plunger and not by use of the telephone.

#### RULE 58, Clause (d).

Detonators dealt with in accordance with this clause must be sent to the concentration point shown below and not to the Stores:

Detonators from To be sent to: London Division Holyhead station. . . Holyhead station. Birmingham Division . . Holyhead station. Stoke Division . . Liverpool Division ... Canada Dock Goods. . . Nottingham Division Melton Mowbray station.

#### RULE 114-STABLING OF VEHICLES ON RUNNING LINES.

Unless otherwise authorised, running lines must not be blocked for the purpose of stabling vehicles, except on the authority of the Divisional Control Office. The following precautions must be observed when such lines are blocked unless special instructions are issued to the contrary:

Where it is possible for a train to approach on the same line as that on which the vehicles are stabled, three detonators, 20 yards apart, must be placed upon one rail of the obstructed line not less than  $\frac{3}{4}$  mile from the rear of such vehicles, unless there is a signal box within that distance in which case the detonators must be placed upon the rail at that signal box in such a position that no train can go towards the rear of the stabled vehicles without exploding the detonators. Where a train is required to enter the blocked line towards the stabled vehicles for any purpose, the Driver and Guard must be suitably warned and the detonators, if exploded, must be replaced as soon as the operation is completed. The Area/Station Manager, Inspector Foreman or other person in charge is responsible for seeing these arrangements are carried out and also that, during darkness, fog or falling snow, a red light is exhibited and maintained at the rear of the stabled vehicles in accordance with Rule 152 (c).

The Signalman at the signal box controlling the entrance of trains into the blocked section

The Signalman at the signal box controlling the entrance of trains into the blocked section must place a lever clip over the lever of each signal controlling the entrance of trains into the blocked section and the clip(s) must not be removed until the line is again clear, except where it is necessary for a train to enter the obstructed line for shunting or other purposes, when the clip(s) must again be brought into use as soon as the work is completed. Before the signal is taken off for such shunting or other movement, the Driver must be verbally instructed as to the state of the line ahead.

At the time the line is blocked, the entry "............ line blocked for stabling purposes" must be made in the train register or other book provided at the signal box in rear of the stabled vehicles, and this entry must be repeated at each change of duty of the Signalmen while the line is blocked. When the vehicles have been removed and the running line is again clear, the entry "....... line clear—vehicles removed" must be made.

Where the signal box in rear is closed during the time a running line is blocked with stabled vehicles, that part of clause (b) of Absolute Block Regulation 24 relating to not closing with a train in section and the clearing of signals will not apply. The signals giving access to the blocked line must be left at Danger when the signal box is closed, and the last entry in the train register at the signal box in rear must read "......line blocked for stabling purposes".

Where the signal box in rear of the stabled vehicles is not provided with a switch to enable the signal boxes on each side to be put into through communication, such signal box may be closed before receipt of the Train out of Section signal for the stabled vehicles.

#### RULE 117.

Klaxon horns, gongs or bells are provided in connection with hump shunting at the following yards:

Willesden. Toton.
Banbury. Blackwell East.
Bordesley.

Washwood Heath Up & Down Sidings.

Except where special instructions are issued to the contrary, the following codes for signalling to Drivers will apply:

CodeIndicatesOne......Hump slowly.Two......Hump fast.Three......Stop.

Four ... Draw back from hump.

#### RULE 175, Clause (c).

Ballast trains must not be allowed to return in the wrong direction during fog or falling snow, or in sections where Rotary Interlocking Block instruments are provided, nor must they be allowed to return in the wrong direction through a tunnel unless the man in charge of the train has ascertained that the tunnel is clear from the point where the train is standing to the exit from the tunnel and has made arrangements for all men who may be in the tunnel to be kept clear until the ballast train has returned in the wrong direction.

# RULES 179, 180, 215, 216 and 217—PROVISION OF PROTECTION BY DETONATORS AND SITING OF WARNING BOARDS ON HIGH SPEED LINES.

The distance at which protection of trains, obstructions, etc., is given on the following main or fast lines between:

Euston and Crewe. Rugby and Stafford (via Birmingham). Colwich and Macclesfield. St. Pancras and Nottingham. Nottingham and Chesterfield (via Radford). Trent and Derby.

and on the down slow line between:

Armitage and Colwich.

must be increased as shown when the following Rules are applicable:

#### Rule

2.44.2	
179(a) Protection of trains stopped by accident or other exceptional cause.	The detonators must be placed one at $\frac{1}{4}$ mile, one at $\frac{1}{2}$ mile, and three 20 yards apart not less than 1 mile from the obstruction.
180(a) (First para.) When line or lines used by trains running in the opposite direction are obstructed.	Increased from $\frac{3}{4}$ mile to 1 mile.
(Fourth para.) If locomotive disabled, Secondman to protect obstruction.	The detonators must be placed one at $\frac{1}{4}$ mile, one at $\frac{1}{2}$ mile, and three 20 yards apart not less than 1 mile from the obstruction.
(Last para.) Protection of opposite lines during fog.	Increased from $\frac{3}{4}$ mile to 1 mile.
215(d), (g), (k) Protection of Trolleys	Increased from $\frac{3}{4}$ mile to 1 mile.
216(a), (e) Protection of Ballast Trains	Increased from $\frac{3}{4}$ mile to 1 mile.
217(g) Protection of Engineer's temporary speed res-	Increased from $\frac{1}{2}$ mile to 1 mile.

On these lines Warning Boards provided in accordance with Rule 218(a) must be fixed at 1 mile from the point where speed restrictions commence, except where a greater or shorter distance is agreed in special circumstances.

Protection at Level Crossings in accordance with Rule 104 must be given at a distance of 1 mile in the direction from which a high speed passenger train is due or expected; if two or more lines are obstructed, the Crossing Keeper must, unless assistance can be obtained immediately, use discretion as to which line or lines must be protected first.

#### INSTRUCTIONS RELATING TO THE GENERAL APPENDIX

(GENERAL APPENDIX TO WORKING TIME TABLES AND BOOKS OF RULES AND REGULATIONS, 1960)

# Pages 20/21 INTERMEDIATE BLOCK SIGNALS CONTROLLED FROM SIGNAL BOX IN ADVANCE.

The instructions "Intermediate Block Signals Controlled from the Signalbox in Rear" shown in the General Appendix are applicable to these signals except that when intermediate block signals controlled from the signalbox in advance are provided, an "Intermediate Block Section" is the section of line between an intermediate block home signal and the home signal, both of which are operated from the same signalbox.

#### Page 39 COUPLING TOGETHER OF LOCOMOTIVES.

Not more than five diesel or electric locomotives under power may run coupled together, except where a lower number is shown in any publication dealing with the working of locomotives.

#### Pages 40/41

#### WORKING OF DIESEL MULTIPLE-UNIT TRAINS.

The following additional instructions apply:

#### 1. Composition of trains.

A loaded or empty diesel multiple unit train may consist of up to eight vehicles and, exceptionally, up to twelve vehicles, in accordance with the formations shown below.

Diesel multiple-unit trains are timed in accordance with the following combinations and the appropriate D1, D2, D3, D4 or D5 indication is included at the head of the columns of the Passenger Working Timetable:

D1. Trains composed of the following formations:

Motor Coach		Trailer		Tc	otal No. of Vehicles
1	 	 1	 		2
2	 	 2	 		4
3	 	 2	 		5
3	 	 3	 		6
4	 	 3	 		7
4	 	 4	 		8
5	 	 3	 		87
5	 	 4	 		9
5	 	 5	 		10 į
6	 	 4	 		10 🔭
6	 	 5	 		11 [
6	 	 6	 		12 ]

also Diesel Parcels Trains.

D2. Trains composed of the following formations:

Motor Coach				Trailer		To	tal No. of Vehicles
2				1	 		3
3				1	 		4
4				1	 		5
4				2	 		6
5				1	 		6)
5				2	 		7
6				1	 		7 >*
6	• •	• •	• •	2	 		8
6	• •	• •	• •	<u> </u>	••		ă
U					 		<i>-</i> ,

D3. Trains composed of the following formations:

Motor Coach			Trailer		To	tal No. of Vehicles
1	 			 		1
2	 		_	 		2
3	 			 		3
4	 			 		4
5	 			 		5 <b>)</b> *
6	 	• •	_	 		6 <b>^</b>

D4. High Density Suburban Trains composed of the following formations:

Motor				Tc	otal No. of
Coach		Trailer			Vehicles
2	 	 2	 		4
4		4			8

A diesel parcels van, powered by 2 x 230 h.p. engines may be coupled to a 4-car high density diesel unit and the train so formed will run in D4 timings.

D5. Trans-Pennine sets composed of:

Motor				7	otal No. of
Coach		Trailer			Vehicles
4		 2			6

<sup>\*</sup>Note.—These formations apply only when the driving compartment from which the Driver is operating is fitted with panels indicating the operation of six motor coaches.

#### 2. Tail Traffic.

On those sections of line, shown in Table 'A', where diesel multiple unit trains are permitted to run at speeds higher than other trains, only the lower speeds permissible for other trains will be applicable to diesel multiple unit trains when conveying additional vehicles having a wheelbase of less than 15 feet, except that any special easements over bridges for diesel multiple unit trains will continue. Otherwise, the instructions in the General Appendix relating to the conveyance of four-wheeled vehicles by passenger trains will apply.

#### 3. Coupling.

When coupling the non-gangwayed driving ends of inter-city diesel vehicles to vehicles of any other type the buckeye coupling must not be used. They must be screw-coupled, using an emergency screw coupling with the buffers in the long position.

#### 4. Where Guards must ride.

Except as laid down in Instructions Nos. 8, 12 and 13, the Guard must always ride in the rear Guard's compartment.

#### 5. Signalling.

Diesel multiple unit trains must be signalled by the bell signals applicable to Class 1-6 trains according to the classification shown in the Working Time Table.

#### 6. Heating.

See instructions on page 304.

#### 7. Fire Precautions.

A secondary system of fixed fire extinguishing equipment is installed on diesel multiple unit train power cars fitted with Rolls Royce 238 h.p. engines operating on the St. Pancras-Bedford service.

The system is designed to be used manually, by pressing any one button, situated on the solebar of each of these power cars, if it is considered that the automatic extinguisher has not adequately extinguished a fire and that any remaining fire cannot be dealt with by hand extinguishers. The button will operate the secondary system only if the automatic system has been discharged; it cannot, therefore, be operated accidentally under normal conditions.

The position of each button is indicated by a white plate bearing the words in red lettering: 'PRESS BUTTON TO OPERATE SECONDARY FIRE EXTINGUISHERS'.

If this apparatus is operated by Guards, Shunters or station staff, the Driver of the train must be informed, and report the incident when finishing duty.

# Page 43 FREIGHTLINER TERMINALS EQUIPPED FOR ELECTRIC TRACTION—LIMITING REQUIREMENTS FOR TRAIN MOVEMENT BY ELECTRIC LOCOMOTIVES.

At all Freightliner Terminals equipped for overhead electric traction it is necessary to restrict the movement of a Freightliner train entering the terminal to ensure that it is berthed within certain prescribed limits, which are related to the termination of the overhead equipment and the position of the pantograph and the electric locomotive.

An illuminated board lettered "Locomotive Stop—Wait Instructions" is provided at a minimum distance of 30 ft. on the main line side of the last overhead electrification structure within the terminal, and Drivers, when propelling, must bring their train to a stand when the locomotive reaches this board. All further propelling movements from the board must be carried out under the direction of the person in charge on the ground to ensure that the train is correctly berthed.

To indicate the limiting tolerances within which a Freightliner train must be berthed in the terminal, a double row of ground markers is provided on the terminal side of the overhead line anchor structure. The person in charge must ensure that the train is brought to a stand with the buffers on the outer end of the last Freightliner vehicle positioned between these rows of markers, and must on no account permit the train to over-run the inner row when electrically propelled.

#### Pages 48 to 51 PLASSER BALLAST CLEANING MACHINE, Type R.M.62.

Instructions 1-19 of the "Instructions in regard to the Running and Working of Ballast Cleaning Machines" apply to Plasser ballast cleaning machines, Type RM.62, with the following alterations and additions:—

#### Instruction 2

Two sprags must be carried on the machine and one on the match wagon.

#### Instruction 3

When the machine is travelling under its own power on running lines (other than in an Engineer's possession) a brake van must be coupled to the match wagon. The additional man (who must be a Guard) must ride in the brake van and be prepared to apply the hand brake; during propelling movements he must keep a sharp lookout, warn any person on or near the line, and hand signal to the Driver if necessary.

#### Instruction 4

Clause (ii)—The Driver/Operator must test the air brake.

Clause (vi)—The Driver/Operator must test the siren and warning horn.

#### Instruction 9

When necessary, the match wagon and brake van may be propelled by the machine at a speed not exceeding 15 m.p.h.

#### Instruction 11

Type RM.62 machines will actuate track circuits and Instruction 11 need not be observed.

#### Instruction 12

Clause (iii), item (d)—The clean ballast distributors and guide beams must be placed and locked in their normal travelling position.

#### Instruction 17

The maximum permitted speed under own power in high gear is:

With waste spoil conveyor supported on match wagon, 33 m.p.h.

With waste spoil conveyor not supported, 17 m.p.h.

#### Instruction 19

Clause (b), item (i)—The main clutch and all other controls must be set at "Neutral" or "Off" and the driving cab must be locked.

Clause (b), item (ii)—Not applicable.

Clause (b), item (iii)—The spoil elevator base locking pin must be withdrawn and the control valves locked in the "open" position to allow the elevator to pivot on curves.

Clause (c)—The match wagon, machine vehicle and dormitory coach (or other vehicle fitted with standard carriage type oval head buffers) must be regarded as one set for travelling in train formation, and this set (either way round) must be marshalled next to the brake van.

Clause (d)—The air brakes or vacuum through pipes, as the case may be, must be coupled if possible. (Note—The air brake is provided on the machine vehicle, but a vacuum brake **through** pipe is also fitted).

Clause (e)—The "caretaker" or "rider" must travel in the dormitory coach adjacent to the machine vehicle. If the dormitory coach is not available, he must ride in the Driver/Operator's cab on the machine vehicle.

Clause (g)—The machine vehicle must not be loose shunted or passed over marshalling yard humps, and must be secured by hand brake when detached from the train.

In addition, before any movement of the machine is made past loading bays, etc., in sidings, or on sharp curves, the route must be carefully examined to ascertain that the machine is within the available clearance.

Note.—This machine is not out-of-gauge and, in its travelling condition, can be conveyed by any freight train which does not exceed a speed of 50 m.p.h. at any point on its journey.

#### Page 51 PERMANENT SPEED RESTRICTION INDICATOR SIGNS.

Between

Euston and Crewe.

Rugby and Stafford (via Birmingham).

Colwich and Macclesfield.

Cut-out numeral type speed indicator signs are provided on the main and fast lines at the terminating points of permanent speed restrictions to indicate where the maximum permissible speed for the line may be resumed.

# Page 53 PROTECTION OF TRAINS RUNNING ON LINES WHICH MAY BE FOULED BY MECHANICAL EQUIPMENT.

At those places where Rotary Interlocking Block Instruments without B.B.I. release keys are provided and where Drop Handle Interlocking Block Instruments are in use it will be necessary, in connection with the "Blocking Back Inside Home Signal" bell signal, for the special release key to be used to release the block indicator from the "Train on Line" position. The glass covering the release key need not be restored until the working with mechanical equipment is completed, but care must be taken to see that the release key is not used irregularly during this period.

#### Page 57 OFFICERS' SPECIAL TRAINS

Trains comprising a locomotive and saloon only, run for Railway Officers, will not be accompanied by a Guard. Drivers and Secondmen, when working such trains, must carry out the Rules and Regulations applicable to men in charge of a light locomotive.

The Driver will be responsible for satisfying himself that the saloon is properly coupled to the locomotive, including the brake pipe, and for testing the continuous brake from the saloon.

Trains conveying more than a single saloon must be accompanied by a Guard.

#### Page 64 FAILURE OF ELECTRICALLY OPERATED POINTS.

Crank handles are provided to operate points by hand during a failure and are kept:-

- (i) in the controlling signal box, or
- (ii) adjacent to the points in an instrument released from the signal box, or
- (iii) adjacent to the points in a locked cabinet.

Should the points fail, the Signalman must, in addition to sending for the Signal Technician, immediately send for the person appointed to operate the points by hand (who may act as hand-signalman), and also advise the Area Manager and request him to arrange for any other handsignalman who may be required.

When the point operator has obtained the crank handle, he must act in accordance with the instructions given him by the Signalman. He must then insert the crank handle in the point machine concerned and tell the Signalman whether or not the points are damaged. If they are undamaged he must say in which position they are correctly fitting.

If the points are undamaged, the Signalman must instruct the operator to set, clip and scotch them in the position required and to advise him when this has been done. When this advice has been received, the Signalman must operate the point lever (switch) concerned as far as possible to the position corresponding with the lie of the points before allowing a train to pass over the points or to pass any signal concerned at Danger.

The operator must not remove the crank handle, clip and scotch until instructed to do so by the

Signalman.

The Signalman must instruct the operator to return the crank handle to the signal box or replace it in the instrument or cabinet adjacent to the points when:—

- (i) an assurance has been obtained from the Signal Technician that the failure has been rectified and that the points are in proper working order, or
- (ii) the points themselves are not damaged and traffic working permits them to remain in either the normal or reverse position, provided:—
  - (a) an assurance has been received from the operator that the points are clipped, scotched and padlocked in the required position,
  - (b) the point lever (switch) is in the position corresponding with the lie of the points, and
  - (c) the indicator shows an indication corresponding to the position of the point lever (switch).

When this has been done, the handsignalman referred to in Rule 81(c) may be withdrawn.

The time the crank handle is taken from and returned to the signal box must be recorded in the Train Register, and the entries countersigned by the person appointed to operate the points. At those locations where the crank handle is kept adjacent to the points, the Signalman must record the times at which the crank handle is taken from and replaced in the instrument/cabinet.

(Separate instructions are issued to signal boxes to cover power installations worked by route

relay panels.)

#### Page 69 SHUNTING MOVEMENTS OVER LEVEL CROSSINGS.

When vehicles are to be moved over a level crossing, roadway or other similar place, the Person in charge of the movement must post an assistant at a point where he can see any persons or vehicles approaching, and they must be prevented from crossing until the movement has finished.

# Pages 72/73 STANDARD CLASSIFICATION AND CODE OF HEAD LAMPS AND DISCS.

The following special classification numbers will be used for the description of train shown:

Special Classification Number	Description of Train						
1 Z 99	Breakdown van train or snow plough going to clear the line, or light locomotive going to assist disabled train.						
1 Z 01	Officers' Special train not requiring to stop in section.						
2 Z 99	Breakdown van train not going to clear the line.						
6 Z 07	Weed spraying train.						
7 Z 06	Matisa track recording machine—when not recording.						
7 Z 08	Elliott track recording machine—when not recording.						
9 Z 01	Officers' Special train, mechanically propelled on-rail tamping machine ballast-cleaning machine requiring to stop in section.						
9 Z 02	Mechanically propelled on-rail tamping machine or ballast cleaning machine not stopping in section.						
9 Z 05	Trolley requiring to go into or pass through tunnel.						
9 Z 06	Elliott track recording machine—when recording.						
9 Z 08	Matisa track recording machine—when recording.						
0 Z 00 0 † 00 Regional letter)	Light locomotive to Depot or not to work a train: Local to L.M.R. Inter-regional.						

#### 1. General.

#### Passenger Comfort.

Every endeavour must be made to ensure trains are properly heated, and the comfort of passengers assured. The satisfactory heating of trains depends on the personal attention and co-operation of many people. Supervisors attached to the Departments concerned with the heating of trains must ensure that the following instructions are carefully observed and carried out by the staff

Complaints from passengers about the heating of a train must be reported to the Driver at the first stopping place of the train and to Carriage and Wagon staff at that place or as soon as possible afterwards.

Where trains are stabled during the day or night, arrangements should be made for them to be pre-heated before being put into service, either by the train locomotive being called out earlier or by a special locomotive where steam or electric heating from a fixed installation is not available. Where C. & W. staff are employed, advantage must be taken of this pre-heating to test the heating apparatus thoroughly.

In cold weather Guards and Train Attendants must take care that the heater controls in empty compartments are placed in the "ON" position and the windows and compartment doors of corridor vehicles kept closed.

On arrival of a train at its destination, or at a turn-back station, the Guard and station staff must ensure that the windows are closed to retain the heat created during the journey.

#### 2. Steam Heating.

#### Pre-heating of Trains.

The following arrangements must be made for pre-heating:—

Train		Period of pre-heating	Minimum Supply Pressure at leading coach
10/15 coaches	 	90 minutes	55 lbs./sq. in.
6/9 coaches	 	60 minutes	50 lbs./sq. in.
4 1 194	 	45 minutes	40 lbs./sq. in.
Pressure ventilated coaches	 	30 minutes	Subject to number of coaches as above.

When using a diesel locomotive to pre-heat 10-15 coaches, a single type '4' locomotive or type '2' locomotive (numbers 5379-5415) may be used; otherwise two type '2' locomotives must be used with BOTH boilers working.

At certain stations, trains can be heated from stationary boilers while standing at platforms or in Carriage Sheds before the locomotive backs on to the train. Area Managers must see that trains are placed in a position where full benefit can be derived from pre-heating facilities. The stationary boiler heating arrangements are controlled by the Maintenance staff.

In very cold weather, whilst trains are being pre-heated at a station, steps must be taken to see that carriage doors and windows are kept closed as far as possible, and that the heater control handles are in the "ON" position.

When trains composed entirely of coaches fitted with the pressure ventilation system are being pre-heated, the steam pressure must be applied for thirty minutes only before departure time. If such coaches are coupled to ordinary steam-heated coaches which require pre-heating for more than thirty minutes, the coaches fitted with pressure ventilation must have the equipment left in the "OFF" position until the last thirty minutes before departure time. This is to avoid undue drain on the batteries.

#### Testing of Locomotive Steam Heating Equipment.

Before a locomotive leaves a Maintenance Depot, holding siding or fuelling point, the steam heating equipment must be tested as shown below.

Open the buffer beam cocks at No. 1 and No. 2 ends of the locomotive, start the boiler and blow steam through the pipes and cocks to clear any water. Close both cocks and ensure that a minimum of 55 lbs./sq. in. steam pressure can be registered on the steam heating gauge in either cab, and that the flexible hoses, couplings and drain valves are in good order.

Shut down the boiler and ensure that the hosepipes are secured to avoid damage to the coupling lugs.

If any defects are found, the Supervisor must be informed immediately.

WARNING.—Steam hosepipes must be correctly hooked up to prevent steam being directed towards any electrified equipment.

#### Steam Heating with Two Diesel Locomotives Coupled Together.

When it is necessary for two diesel locomotives to be coupled together to haul a train which requires heating, only the leading locomotive will supply steam for heating purposes. The jumper cable plugs (where fitted) for controlling the locomotives must be coupled in addition to the steam heating hosepipes and the isolating cocks must be placed in the "OPEN" position.

The Master key on the second locomotive must not be inserted if the locomotive control cables are coupled for multiple working.

If, for any reason, it is impossible to supply train heating from the leading locomotive and the second unit is manned, then heating can be supplied from the latter, but the steam heating cocks between the locomotives must be closed.

When two diesel locomotives are coupled together and one of these is not fitted with a steam boiler, they must be so marshalled that the locomotive with a boiler is leading.

#### Steam Heating End Couplings on Locomotives and Coaching Stock.

Locomotives and vehicles fitted for steam heating are provided with a steam slide valve end cock.

On this valve there is a saw cut on the end of the valve spindle which is in line with the operating handle; to open the valve, the operating handle must be placed in the horizontal position and to close it, it must be turned upwards to the vertical position.

The handles of steam cocks on locomotives and coaches and flexible hosepipes and connections must not be struck with hammers or other instruments, which may strain and damage the fittings.

#### Before a train commences each Journey.

Vehicles not fitted with heating pipes must be marshalled at the rear of trains. Empty coaches not intended for conveyance of passengers must be similarly marshalled, whenever possible.

The Guard must ensure that the heating pipes are coupled between all fitted coaches and the cocks at the end of the coaches are open; also that the heater controls in the compartments are in the "ON" position. When steam is first applied at a starting point, the cock at the rear of the train must be left open until steam is seen to escape from the pipe. This cock must then be closed and the pipe secured by the chain.

In very cold weather, Guards must open the cocks at the base of the heaters in brake vehicles to drain the heating pipes, and where coaches are stabled in the open the pipes are to be disconnected and the steam cocks at the ends opened, ensuring the heating system is free from water to avoid freezing. Area Managers must see that these points are given special attention.

When the weather is mild during the heating season, and it is considered unnecessary to heat a train, the Guard must inform the Driver accordingly, but sufficient steam must be put through the train to provide hot water in the toilets.

#### Coupling Locomotive to a Train.

- (i) Couple the locomotive to the train with the draw coupling, and see that the washers of the steam heating hosepipes are in position and are clean;
- (ii) Couple the hosepipes between locomotive and train;
- (iii) Place the stop cock on the first vehicle in the "OPEN" position, and then open the stop cock on the locomotive;
- (iv) After this, the steam supply valve on the locomotive must be opened, when a small amount of steam will issue from the "bleed hole" in the locomotive end cock, which is normal. Notice must be taken of any excessive leakage from the flexible hosepipes between the locomotive and train

As soon as the locomotive is attached to its train or is working empty stock between the Carriage Sidings and a station, steam must be supplied to ensure the train is well warmed before the commencement of the journey, and to give the Carriage & Wagon staff an opportunity of testing the apparatus.

#### Coupling and Uncoupling Vehicles en route.

When a train is required to attach or detach vehicles en route, the Guard must advise the Driver accordingly.

The Driver must shut off the steam heating apparatus five minutes (ten minutes in the case of D.C. Electric Locomotives) before reaching the place where the work has to be performed. This is very important to avoid a man being scalded when the heating pipes between locomotive and train, or between vehicles, have to be disconnected.

When attaching or detaching, care must be taken to close the cocks between the locomotive and train or on the ends of the coaches before uncoupling the heating pipes, and pipes not in use must always be secured by the chain.

If a vehicle is detached en route from a train, and transferred to a train not so fitted, the cocks on the ends of the vehicle must be opened and the pipes secured by the chains.

#### Uncoupling Locomotive from a Train.

- (i) Ensure that the Driver has shut off the steam supply from the locomotive;
- (ii) Close the stop cocks on the locomotive buffer beam, and on the first vehicle of the train;
- (iii) Lift up one hosepipe coupling hinged catch carefully to allow the coupling joint to open slightly, thus releasing any steam trapped in the hosepipes, then release the other coupling catch and part the hosepipes;
- (iv) Finally, uncouple the draw coupling AFTER all hosepipes have been uncoupled and properly secured.

#### Lack of Heating Supply.

If it has not been possible to give a full supply of steam for heating, or if any complaint has been made to the Driver by the Guard, this must be reported and the reason given when booking off duty.

Gauges registering the steam heating pressure are fitted in many passenger brake vans and brake vehicles. At the commencement, and at various points on the journey, the Guard and Train Attendants must record on the journal or report form the pressure registered in different parts of the train, care being taken to state the position in the train of the brake vehicle in which the steam pressure is taken. Before recording the pressure in any brake van, the cock at the bottom of the heater (where provided) must be opened to allow any water to be blown out, and then closed again.

#### Defective Heaters.

When defective heaters or gauges are found, particulars must be reported to the Carriage & Wagon staff.

#### Disposal of Locomotive.

Upon arrival of the locomotive at a Maintenance Depot, holding siding or fuelling point, any known defects on the steam heating apparatus must be recorded in the locomotive repair book. Where the equipment is considered unfit for further service, the matter must be reported immediately.

#### Floods, Derailments, Snow and Frost.

Where possible Drivers must maintain steam heating on trains delayed in these circumstances, with due regard for available water and fuel supplies on Diesel locomotives.

In freezing conditions, when running into Terminal Stations, the train heating boiler must not be shut down until the train arrives. If the locomotive stands for long periods in the station, the boiler must be re-started, and the buffer beam cocks and pipes blown through at intervals. (See instruction under heading "Testing of Locomotive Steam Heating Equipment".)

#### Assistance given to a Disabled Train from the Rear.

If the locomotive fails en route, and an assisting locomotive is attached to the rear of the train, the steam heating hosepipes must not be coupled to the rear coach. When the train has been propelled to the first suitable place where the locomotive can be attached to the front of the train, the steam heating hoses must be coupled in accordance with the previous instructions for the working of trains with two locomotives coupled together.

## Stone's Pressure Ventilation and Heating System.

Coaches of recent construction are fitted with Stone's Pressure Ventilation and Heating System which is automatic in operation throughout the year. The equipment is controlled by a rotary switch with two "ON" and two "OFF" positions, on the main control panel, situated in the Guard's compartment of brake vehicles and in the lobby of other vehicles. Access to the panel is gained by unlocking the door with a carriage key.

If steam leakage occurs within the underframe-suspended heating unit, the steam shut-off valve, fitted in the feed pipe to the unit, must be shut by turning in a clockwise direction.

Guards are responsible for seeing that their trains are properly heated and must satisfy themselves that the equipment in each coach is working satisfactorily. If a defect develops on a journey when heating is required and cold air is delivered into a vehicle, or if a vehicle is overheated, the main control switches must be switched "OFF" in the coaches concerned.

The correct operation of the equipment can be detected by placing a hand over the duct aperture on the wall a few inches above the floor in the toilet or Guard's compartment.

The toilet water in these coaches is electrically heated by a supply from the train lighting alternator, and as this operates only when the train is running, the toilet water cannot be pre-heated.

#### Maintenance Staff (C. & W.).

C. & W. staff, where available, will be responsible for making arrangements for the heating of trains before all journeys, by train locomotive or stationary boiler. Where there is no C. & W. staff, the local Movements staff will be responsible.

The Examiner must see that all heating pipes are properly connected and cocks opened throughout the train, and satisfy himself that when a locomotive is attached the pipes are properly connected and cocks opened between locomotive and train.

The cock at the rear of the train must be left open until the Examiner has satisfied himself that steam has passed through the train, when the cock must be closed and the rear pipe secured by the chain.

If there is a leakage at any of the flexible joints, the steam cocks on each side must be closed and, after ensuring the steam has escaped from the pipes, the couplings must be disconnected and the washers cleaned or replaced as necessary. The flexible pipes must then be recoupled and the steam cocks opened.

Examiners must see that condensed water escapes regularly at the drip valves without any undue waste of steam, and take what action is necessary to rectify defects.

The flexible couplings and washers, compartment heater controls, etc., should be regularly examined to see that they are in good condition in accordance with the C.M. & E.E. Standing Orders and Instructions.

#### General.

Considerable damage is caused to steam heating hosepipes by failure to uncouple them when vehicles are being detached, and to hang them up when out of use.

HOSEPIPES MUST BE UNCOUPLED AND HUNG UP ON THE HOOK BEFORE THE DRAW COUPLING IS DISCONNECTED.

#### 3. Electric Heating.

#### Pre-heating of Trains.

Electrically-heated locomotive-hauled coaches must be pre-heated 30 minutes before departure time.

At certain Maintenance Depots and main stations, heating current will be taken from a static "Shore" supply. Before connecting the "Shore" supply, the jumper cable plug at the other end of the train must be correctly fitted in its dummy receptacle. The supply may then be connected by inserting the plug from the "Shore" supply into the train live receptacle and the plug from the train into the "Shore" supply receptacle.

No attempt must be made to connect a "Shore" supply socket to a "Shore" supply plug.

At least five minutes before a locomotive is due to be coupled to a train, or when a locomotive arrives to work the train, the "Shore" supply must be disconnected from the train and the jumper cable plug housed in the dummy receptacle. The locomotive may then be coupled to the train.

The "Shore" supply must not be connected to a train if the locomotive is still connected electrically at the other end.

At places where sleeping cars are pre-heated electrically either from locomotives or from "Shore" supplies, or by locomotives hauling the empty cars to departure platforms, heating current must be supplied whenever the ambient temperature falls below 60°F. If the ambient temperature is higher than 60°F. electric heating makes the compartments excessively hot.

To indicate to train and shunting staff whether sleeping cars are to be heated or not, signs 18 in. square, with black lettering on a yellow background, showing "H ON" or "H OFF" have been provided at the locations shown below:—

Willesden Carriage Sidings ... Fixed to train indicator board. Middle Frame

Vauxhall .. .. On post, 25 yards on Birmingham side of Downside Shunters' Cabin.

Longsight...... On Shunters' Cabin, North End.

Queen's Road .. .. On Shunters' Cabin, Cheetham Hill End.

Edge Hill ... ... On Shunters' Cabin, bottom end of Downhill Carriage Sidings.

Preston ... .. At overbridge steps on No. 3 platform.

Barrow-in-Furness ... On wall, opposite C. & W. Foreman's office.

Carlisle .. .. Adjacent to "Shore" supply panel on No. 8 platform.

For these arrangements to work satisfactorily, the compartment heating controls must be turned on in all sleeping cars prepared for departure.

During the time the "Shore" supply is connected to the train, the instructions on pages 56 and 57 of the General Appendix regarding protection by a red flag or red light must be observed. This procedure must also be adopted when a locomotive draws a train into a station and remains to heat the coaches, to prevent another locomotive backing on to the other end and connecting the heating equipment.

Area Managers must see that trains are placed in a position where full benefit can be derived from the pre-heating arrangements.

In very cold weather, whilst trains are being pre-heated at a station, care must be taken to see that carriage doors and windows are kept closed as far as possible, and that the heating control handles are in the "ON" position.

#### Testing of Locomotive Electric Heating Equipment.

#### WARNING.

# THE ELECTRIC HEATING EQUIPMENT OPERATES AT 800 VOLTS.

Before any adjustment or maintenance to electric heating equipment is undertaken, the heating circuits must be made "DEAD". The jumper cable plugs must be disconnected at both ends of the vehicle on which work is to be carried out. A special notice "DANGER—Do Not Connect To Shore Supply" must be suspended on each coach-end jumper cable until the work is completed.

Any adjustment or attention required on the equipment must be given only by APPROVED Divisional Maintenance Engineer's Staff and all other staff are warned that they must not interfere with the equipment other than to couple or uncouple the plugs and receptacles and operate the rotary switch in emergency as outlined in these instructions.

It should also be noted that the live receptacles at the leading end of the locomotive and the rear end of the last electrically heated coach of the train are alive when the heating circuit is complete and the receptacle flaps must not be opened.

Before a locomotive leaves a Maintenance Depot, holding siding or fuelling point, the electric heating equipment must be tested as shown below.

#### (i) Electric Locomotives.

Ensure that the electric heating jumper cable plugs are correctly fitted into their respective dummy receptacles at each end of the locomotive. Raise the pantograph and check that the "LINE" light is illuminated and that the train heat indicator lights in both cabs are not illuminated

Press train heat "ON" button and ensure that the train heat indicator light is illuminated in the driving cab.

If the indicator fails to light, check the indicator in the trailing cab. If this is illuminated, a lamp failure may have occurred and this should be reported immediately. If not illuminated, the Train Heat Fuse Failure Fault Light on the fault indicator panel must be checked. If this is dimly illuminated, the fault must be reported immediately.

#### (ii) Diesel Locomotives.

Ensure that the electric heating jumper cable plugs are correctly fitted into their respective dummy receptacles at each end of the locomotive. Start the diesel power unit and place the reversing handle into the Engine Only ("E.O") position.

Check that the train heat indicator lights in both cabs are not illuminated. Press train heat "ON" button and ensure that the train heating indicator light is illuminated in the driving cab. If the indicator fails to light, check the indicator in the trailing cab. If this is illuminated, a lamp failure may have occurred and this should be reported immediately. If it is not illuminated, check that the Control Circuit Breakers are in the "ON" position, in which case request assistance. If the Circuit Breakers are in the "OFF" position, they must be switched "ON". Any circumstances that are detected which make the train heating equipment suspect must be reported immediately.

# Working of Trains with Two Electric Locomotives Coupled Together.

When it is necessary for two electric locomotives to be coupled together to haul a train which requires heating, the leading locomotive must supply power and train heating; the jumper cable plugs between the two locomotives must be coupled in addition to the plugs between the train and second locomotive.

The Master Controller key on the second locomotive must not be inserted.

If for any reason the second locomotive is manned, the Driver must ensure that Instruction 63 of the A.C. Electrified Lines Working Instructions is carried out. This must be done before the heating controls of the leading locomotive are operated. If the leading locomotive fails and it is necessary to raise the pantograph on the second locomotive to provide power and train heating, the jumper cable plugs between the two locomotives must be uncoupled before the pantograph on the second locomotive is raised.

#### Working of Trains with Electric and Diesel Locomotives Coupled Together.

When it is necessary for electric and diesel locomotives to be coupled together to haul a train which requires heating, the following instructions will apply:—

#### (i) Electric Locomotive Assisting Diesel Locomotive Fitted with Electric Train Heating Equipment.

Before the jumper cable plugs between the two locomotives are coupled, both Drivers must ensure that the train heat "OFF" buttons are pressed and the train heat indicator lights are not illuminated.

The Driver of the diesel locomotive must then shut down the power unit and hand his Master Controller key to the Driver of the assisting locomotive, who will then control the train heating.

# (ii) Diesel Locomotive Fitted with Electric Train Heating Equipment Assisting Electric Locomotive.

Before the jumper cable plugs between the two locomotives are coupled, both Drivers must ensure that the train heat "OFF" buttons are pressed and the train heat indicator lights are not illuminated.

The Driver of the electric locomotive must then lower the pantograph and return the reversing handle to the "OFF" position and remove the Master Controller key, handing this to the Driver of the assisting locomotive, who will then control the train heating.

# (iii) Two Diesel Locomotives Fitted with Electric Train Heating Coupled Together.

When it is necessary for two diesel locomotives to be coupled together to haul a train which requires heating, the leading locomotive only will supply train heating; the jumper cable plugs (where fitted) for controlling the locomotives must be coupled and also the heating jumper cable plugs.

The Master Controller key on the second locomotive must not be inserted if the locomotive control cables are coupled for multiple working.

If the second locomotive is manned and it is not possible to supply train heating from the leading locomotive, then the jumper cables for heating between the locomotives must be uncoupled and placed in their dummy receptacles. The second locomotive may then be used to supply train heating.

# Electric Heating End Couplings on Locomotives and Coaching Stock.

The equipment fitted is shown below:-

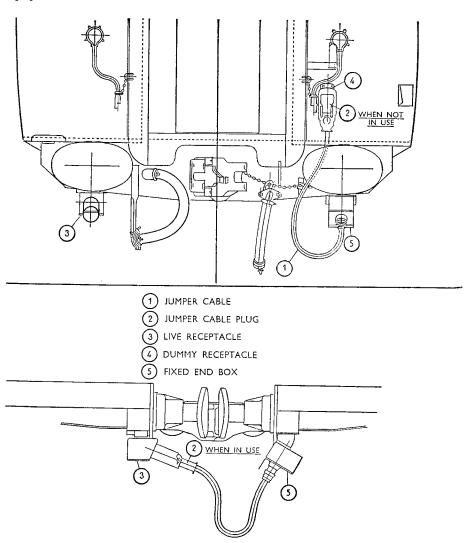


DIAGRAM OF LOCOMOTIVE OR COACH END COUPLINGS FOR ELECTRIC HEATING.

- (1) Jumper cable.
- (2) Jumper Plug.
- (3) Live receptacle.
- (4) Dummy receptacle.
- (5) Fixed end box.

A jumper cable (1) with plug (2) attached is fitted beneath the right hand buffer at each end of each coach. Similarly fitted under each left hand buffer is a live receptacle (3).

The heating supply is taken from the locomotive, which is also fitted with similar plugs and receptacles.

The plugs and receptacles of locomotives and coaches are situated directly opposite to each other and can be coupled or uncoupled at platform or rail level.

When coupling, each jumper cable plug must be fully inserted into a receptacle and rotated in a CLOCKWISE direction to lock the cable into position, thereby completing the electric heating circuit.

Similarly, when uncoupling, each jumper cable plug must be rotated ANTI-CLOCKWISE to break the electric heating circuit before removal of the plug.



This system is design to ensure maximum safety for the staff. The receptacles and jumper cable plugs are "DEAD" until ALL plugs have been locked into a receptacle.

NOTE.—The electric heating supply must be switched "OFF" before attempting to uncouple any jumper cable plugs.

#### Before a Train commences its Journey.

Vehicles not fitted with electric heating jumper cables must be marshalled at the rear of trains. Empty vehicles not intended for the conveyance of passengers must be similarly marshalled whenever possible.

Where a train is composed of some vehicles with electric heating marshalled together and the remainder fitted with steam heating only, the coaches with electric heating must be coupled and the jumper cable plug at the end of the last electrically heated coach or coaches must be placed in the dummy receptacle.

The Guard must ensure that all jumper cable plugs are correctly coupled between electrically heated coaches, and that the heater controls in the coaches are in the "ON" position.

When satisfied that all is in order, the Guard must advise the Driver that the electric heating may be switched "ON". The Driver must press the train heat "ON" button, ensuring that the train heat indicator light is illuminated, and inform the Guard that the train heat is operating.

If the indicator fails to light the driver must investigate the fault in the normal way. If the train heating still fails to function, all Rotary Switches throughout the train must be checked to ensure they are in the "ON" position. If the train heating still fails to operate correctly, the fault must be reported immediately.

#### Coupling Locomotive to a Train.

- (i) Find out if the train is being pre-heated by an electric shore supply or by locomotive. This will be readily seen by a red flag or red light exhibited on the end vehicles in accordance with pages 56 and 57 of the General Appendix. NO ATTEMPT MUST BE MADE TO COUPLE THE LOCOMOTIVE WHILE THE ELECTRIC PRE-HEATING SUPPLY IS STILL CONNECTED. If the train is receiving an electric supply for heating, the Depot Supervisor or Person in charge must be requested to have the shore supply or locomotive uncoupled and red flags or lights removed.
- (ii) The train locomotive must first be coupled to the train by the draw coupling. Obtain assurance from the Driver that the train heat supply is "OFF".
- (iii) Remove one jumper cable plug from its dummy receptacle and couple to the live receptacle opposite. Similarly couple the other jumper cable plug.

UNDER NO CIRCUMSTANCES MAY JUMPER CABLE PLUGS BE ALLOWED TO TRAIL ON THE GROUND.

Each time a jumper cable plug is uncoupled it must be inserted and locked in a receptacle before attending to the next jumper cable plug.

The jumper cable plug at the leading end of the locomotive must be correctly fitted in its dummy receptacle. Similarly, the jumper cable plug at the rear of the last electrically-heated coach must be correctly fitted to complete the circuit.

### Coupling and Uncoupling Vehicles en route.

When a train is required to attach or detach vehicles en route the Guard must advise the Driver accordingly.

The Driver must press the train heat "OFF" button and ensure that the train heating indicating light is extinguished before reaching the place where vehicles are to be attached or detached.

The Movements staff must obtain assurance from the Driver that the train heat supply is switched OFF before proceeding to couple or uncouple vehicles in the normal manner.

After coupling or uncoupling a vehicle from a train the Driver must not switch on train heating until assurance has been received that the coaches are correctly coupled.

#### Uncoupling Locomotive from a Train.

- (i) Obtain assurance from the Driver that the train heat supply is "OFF".
- (ii) Remove one jumper cable plug from the live receptacle and couple it to the dummy receptacle. Similarly uncouple and house the other jumper cable plug.
- (iii) ALL JUMPER CABLE PLUGS MUST BE CORRECTLY FITTED IN THEIR DUMMY RECEPTACLES BEFORE MOVING EITHER LOCOMOTIVE OR COACHES.
- (iv) Finally, uncouple draw coupling between locomotive and coach.

#### Toilet Water Heaters.

In coaches fitted with underseat electric heating, the toilet water is heated electrically from the locomotive.

#### Lack of Heating Supply.

If it has not been possible to give a continuous supply of electricity for heating or if any complaint has been made to the Driver by the Guard, this must be reported and the reason given when booking off duty.

#### Defective Heaters.

When defective heaters are found, particulars must be reported to the Carriage & Wagon staff.

#### Disposal of Locomotive.

When disposing of the locomotive on arrival at the holding siding, maintenance depot or fuelling point, any known defects on the electric heating equipment must be recorded in the Locomotive Defect Report Book and immediately reported.

## Floods, Derailments, Snow and Frost.

Where possible, Drivers must maintain electric heating on trains delayed in these circumstances with due regard for available fuel supply on Diesel locomotives.

#### Precautions in case of Fire.

On Electric Locomotives.—The Driver must follow the procedure in Instruction No. 71 of the Working Instructions for A.C. Electrified Lines.

On Diesel Locomotives.—The Driver must first switch OFF the train heating supply and then follow the procedure given in B.R.33003/6.

On Coaching Stock.—A rotary switch covered by a glass panel is fitted in each coach next to the fire extinguisher, which is only to be used in extreme emergency. In the event of a fire the glass over the rotary switch should be broken and the switch moved into the "OFF" position, thereby disconnecting the heating circuit. This must be done before fire extinguishers are brought into operation.

The Guard must communicate with the Driver as soon as possible and the Driver must immediately switch the Electric heating off.

#### Brake Application Not Initiated by Driver.

When the Driver observes that the brake is being applied either by the passenger communication system or by the Guard, or from other causes, he must, after taking the necessary action to control the train, press the train heat "OFF" button.

After investigation, the Driver must switch on the heating as soon as possible.

# Assistance given to Disabled Train from the Rear.

If a locomotive fails en route, and an assisting locomotive is attached to the rear of the train, the electric heating jumper cable plugs **must not** be coupled to the rear coach. When the train has been propelled to the first suitable place where the locomotive can be attached to the front of the train, the jumper cable plugs must be coupled in accordance with the foregoing instructions for the working of trains with two locomotives coupled together.

# Stone's Pressure Ventilation and Heating System.

Coaches of recent construction are fitted with Stone's Pressure Ventilation and Heating System, which is automatic in operation throughout the year. The equipment is controlled by a rotary switch with two "ON" and two "OFF" positions on the main control panel situated in the Guard's compartment of brake vehicles and in the lobby of other vehicles. Access to the panel is gained by unlocking the door with a carriage key.

Guards are responsible for seeing that their trains are properly heated and must satisfy themselves that the equipment in each coach is working satisfactorily. If a defect develops on a journey when heating is required, and cold air is delivered into the vehicle, or if the vehicle is overheated, the main control switches must be switched "OFF" in the vehicle concerned.

The correct operation of the equipment can be detected by placing a hand over the duct aperture on the wall a few inches above the floor in the toilet or Guard's compartment.

The toilet water in these coaches is electrically heated by a supply from the train lighting alternator and as this operates only when the train is running the toilet water cannot be pre-heated.

#### Maintenance Staff (C. & W.).

Carriage & Wagon staff, where available, will be responsible for making arrangements for the heating of trains before all journeys, by train locomotive or shore supply. Where there is no C. & W. staff, the local Movements staff will be responsible.

The Examiner must see that all jumper cable plugs are properly coupled and that all the rotary interlock switches are in the "ON" position, and satisfy himself that when a locomotive is attached the jumper cable plugs between the locomotive and the train are properly coupled.

The jumper cables, heater switches, compartment heater controls, etc., should be examined to see that they operate satisfactorily in accordance with the C.M. & E.E. Standing Orders and Instructions.

### 4. Electric Multiple-Unit Trains.

The following additional instructions apply to Electric Multiple-Unit trains only:—

# Responsibility for operation of heating controls.

The Driver and Guard are responsible for the operation of the train heating control switches in their respective compartments.

On some lines boards lettered "H ON" and "H OFF" are fixed at certain points to indicate when electric multiple-unit trains must be heated. The "H ON" board will be displayed when the ambient temperature falls below 50°F. Guards must observe these boards and arrange for the heating to be switched "ON" or "OFF" accordingly.

Empty trains proceeding to carriage sheds or stabling points must not be heated.

#### Coupling and Uncoupling.

The person coupling or uncoupling multiple units must first obtain an assurance from the Guard that the train heating supply is "OFF" and then follow the procedure given in the Electrified Lines Working Instructions books.

## Pre-heating and Frost Precautions.

Electric multiple-unit trains required for passenger service must be pre-heated in accordance with the Electrified Lines Working Instructions book or as instructed by the Divisional Manager.

# Floods, Derailments, Snow and Frost.

Where possible, Drivers and Guards must maintain the heating on Electric Multiple-Unit trains delayed by any of the above circumstances.

#### Train becoming Divided.

If an Electric Multiple-Unit train becomes accidentally divided, the heating circuits must be switched "OFF" immediately and staff must avoid coming into contact with severed train jumper cables while the electricity supply is connected to the train.

On no account must the heating circuits be switched "ON" again until the Divisional Manager's Electrical Engineer's representative has inspected the train.

# Assistance given to Disabled Electric Multiple-Unit Train.

If an Electric Multiple-Unit train fails en route and assistance is given by:-

- (i) A similar Electric Multiple-Unit train.—The jumper cable plugs must be coupled to the disabled train so that heating can be provided.
- (ii) Locomotive or other Multiple Unit.—No attempt must be made to couple the jumper cable plugs.

#### Disposal.

When disposing of an Electric Multiple-Unit train on arrival at the Maintenance Depot or holding siding, any known defects on the train heating equipment must be recorded in the Defect Report Book, and the defect immediately reported.

#### 5. Diesel Multiple Units.

The following instructions apply to Diesel Multiple-unit trains only:—

#### Semi-Automatic.

Cars are fitted with either one or two heaters, each controlled by its own switch panel in the driving cab or, on intermediate trailer cars, in the passenger compartment. Either heating or cold air ventilating can be selected.

For heating, turn selector switch clockwise to "FULL HEAT" position. The "GLOW PLUG" indicator lamp will light and, after a half minute, the "AIR FAN" indicator lamp will also light. After a further three minutes, the "GLOW PLUG" indicator lamp will go out and the heater will be working. All other switch panels on the train must be similarly operated. If, when the "GLOW PLUG" indicator lamp goes out, the "AIR FAN" indicator lamp also goes out, this means the heater has failed to fire and has shut down, and the selector switch should be returned to the "OFF" position before again selecting "FULL HEAT". After three consecutive attempts to start, if the heater still shuts down, return switch to "OFF" until Carriage & Wagon staff have put the defect right. Any further attempt to start is not only useless, but unheated air blown into the car will make conditions worse.

For cold air ventilating, turn selector switch anti-clockwise to "COLD" position.

With semi-automatic control, the temperature inside the car is controlled only by manual operation of the switch, and Guards must, as their duties permit, check the conditions inside each car and switch heaters on or off as necessary.

When a complete shut down of this equipment is required, all selector switches are to be placed in the "OFF" position.

#### Fully Automatic.

Cars are fitted with two heaters, each controlled by its own control panel in the driving cab, or, on intermediate trailer cars, in the passenger compartment. A control panel in each Guard's van enables all heaters in the train to be controlled from the van in which the Guard rides.

For heating, selector switches on ALL control panels throughout the train must be switched to "HEATING". The isolator switch in the van occupied by the Guard must be switched "ON" and on all other control panels in the train be switched "OFF". The "FAILURE" and "ISOLATOR" indicator lamps on the Guard's control panel will now be "ON" and, to start the heaters, the "START" button on this panel must be pressed and the "FAILURE" lamp will go OUT. If, after three minutes, the "FAILURE" lamp re-lights, one or more heaters will have failed to start and the "START" button must again be pressed. Two further attempts to start may be made, but, if unsuccessful, equipment must be left alone until rectified by Carriage & Wagon staff. When running, each heater is automatically controlled by its own thermostat to maintain an even temperature.

For cold air ventilation, all selector switches in the train must be switched to "VENTILATING" and all "ISOLATOR" switches in train switched "OFF". The Guard can now switch train ventilating on or off by use of the "ISOLATOR" switch on his own panel. Whilst this switch is "ON", the "ISOLATOR" indicator lamp will light.

To shut down heating or ventilating, turn "ISOLATOR" switch on Guard's panel "OFF". If an "ISOLATOR" switch is "ON" elsewhere on the train the associated heater will continue to run and it is the Guard's responsibility to ensure all such switches are "OFF". Any left "ON" can be readily located as the indicator lamp on the affected panel will be "ON".

When transferring to another van, the Guard must first shut down the equipment from the van he is vacating, before re-starting in the van to which he transfers.

#### Heating Defects.

Any defect in the system must be advised by the Guard to the Driver. The Guard must also advise the person in charge at the first station at which the train calls after the defect is noticed, the information to be transmitted to the Divisional Control Office, who should arrange for attention by Carriage & Wagon staff at the next point where time is available without delay to the train.

The Guard must also inform the Carriage & Wagon staff at the next appropriate point, with a view to rectification of the defect.

# Page 95 RELEASING HAND BRAKES ON VEHICLES EQUIPPED WITH AIR AND/OR VACUUM BRAKES AND WITH THE EMPTY/LOADED BRAKING DEVICE.

- (a) Vacuum or air pressure must be created and the power brake applied before releasing any hand levers; or
- (b) The hand brake levers must be held down with a brake stick and the hand levers released gradually, the hand lever being pinned in each position until fully released.

When pinning down the hand brake lever after the power brake has been applied, the pin should be inserted about three-quarters of the way down the guide and not in the bottom hole.

# Page 97 HAULING OF "DEAD" LOCOMOTIVES AND MULTIPLE UNIT STOCK OWNED BY BRITISH RAILWAYS (EXCLUDING SMALL "DEPARTMENTAL" SERVICE LOCOMOTIVES).

Clause 1(b) of Part I—Locomotives, in the General Appendix, is superseded by the following:

Except where a lower number is shown in any publication dealing with the working of locomotives, up to four "dead" locomotives may be run coupled to the hauling locomotive, without the assent of the Chief Civil Engineer, provided that none of the locomotives has a wheel or wheels raised off the rails.

#### Page 99 CONVEYANCE OF COACHING STOCK BY FREIGHT TRAIN.

Empty passenger carrying vehicles or passenger brake vans must not be conveyed on unfitted freight trains except where specially authorised by the Movements Manager.

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#### Page 111

## SNOW AND ICE CLEARANCE ARRANGEMENTS.

The following additional instructions are applicable:

#### (a)(i) Independent Snow Ploughs.

#### (ii) Miniature Snow Ploughs.

These are located at:
Willesden. Crewe.
Toton.
Stoke.

## (b) Portable Steam Lances.

Steam lances are to facilitate the clearance of snow and ice from points, and the equipment comprises a length of insulated metal tubing with a 15–17 feet length of armoured hose attached. An adaptor attaches the hose to the flexible pipe of C.W.A. boiler-fitted diesel locomotives. The emission of steam is controlled by the man operating the lance, using a trigger.

The equipment is for use in the vicinity of the signal box or other place to which it is allocated, and, when required, the person in charge must request a C.W.A. fitted locomotive through his Divisional Control Office. If it is not possible to contact the Control, the request must be made direct to the nearest Depot. If a suitable locomotive is available in the vicinity of the signal box, authority to use it must be obtained from the Control Office or Depot.

Enginemen of locomotives requisitioned for this purpose are responsible for coupling the apparatus to the locomotive. The steam jet must be directed on to the switches by any available member of the Traffic or Permanent Way staff, who will be responsible for operating the lance, and for spreading salt after the snow and ice have been melted. The person in charge must collaborate with the Permanent Way staff to ensure that sufficient salt is on hand. If no member of the Traffic or Permanent Way staff is available, the lance must be operated by the Secondman, provided arrangements are being made for staff to spread the salt.

When using the lance, care must be taken to avoid the force of the jet lifting ballast which could fall on slide chairs and other connections, causing subsequent failures.

After the points have been cleared and the apparatus uncoupled by the enginemen, it must be returned immediately to the place where it is allocated, so that it may be available if subsequently required at any other point in the vicinity.

The Area Manager who supervises the place where the equipment is stored must inspect it monthly to satisfy himself that the whole of the equipment, including spanner, is available, that there is no sign of deterioration and it is clean and ready for use.

Steam lances must not be used on or near electrified lines unless the overhead line or conductor rail equipment has first been isolated and earthed in accordance with the procedure laid down in the Electrified Lines Working Instructions books, and the appropriate form has been issued to the person in charge of the work.

Divisional Managers must arrange for steam lances and adaptors, supplied to signal boxes or stations, to be sent to the nearest Depot during the last week in April for storage. They must be tested and any defects remedied at the Depot, and reissued to the signal boxes or stations during the last week in October.

#### (c) Fixed Position Steam Lance Equipment.

This equipment, for use with C.W.A. boiler-fitted diesel locomotives, must be dealt with as shown in C.M. & E.E.'s Standing Instruction, P.L.D.18, dated 26th August, 1968.

(d) Divisional Managers will issue instructions annually, showing where steam lances of both types are located.

#### (e) Gas Point Heaters manually lighted and extinguished.

At places where these gas point heaters are provided, the Signalman must arrange for them to be lit if he is advised that rail temperatures are expected to fall below freezing point due to rain, snow or wet fog, with the consequent likelihood of points becoming frozen or blocked by snow. Where possible, arrangements must be made for the heaters to be lit two hours before these weather conditions are expected.

During their normal working hours the heaters will be lit by the Permanent Way Staff on duty and the Signalman must make arrangements for the Ganger or Chief Civil Engineer's person in charge to be instructed when it is necessary for them to be lit.

Outside normal working hours, the Signalman must initiate the local call-out arrangements, so that the appointed member of the Chief Civil Engineer's staff is advised that the point heaters have to be lit.

At places where Traffic Staff have been trained to light heaters, the Signalman must arrange for them to start doing so pending the arrival of the Chief Civil Engineer's Staff.

If no advice is received, but the Signalman considers that there is a risk of the points becoming frozen or blocked by snow, he must arrange for the point heaters to be lit in accordance with the above instructions.

When there is no further risk of freezing or blockage, the Permanent Way Ganger or Chief Civil Engineer's person in charge during normal working hours, or the Chief Civil Engineer's appointed person outside these hours, will ask the permission of the Signalman before the point heaters are extinguished. The Signalman must consult his Supervisor, where possible, before giving permission.

An entry must be made in the Train Register/Occurrence Book when the point heaters are lit and when they are extinguished.

#### OTHER GENERAL INSTRUCTIONS

# LOADS OF COACHING STOCK TRAINS: MAXIMUM LOAD AND LENGTH LIMITS OF LOCOMOTIVE-HAULED PASSENGER AND PARCELS TRAINS.

#### 1. Maximum Load which may be hauled by locomotives.

The tonnage at which each passenger, parcels or empty coaching stock train has been timed is shown at the head of the timetable column applicable to that train, preceded by the latter E when electric locomotives are used and D when diesel locomotives are used (e.g. E450, D385). Any class of electric locomotive will maintain the timings at the tonnage shown, but the diesel locomotive hauled timings are based on the use of Type 4 locomotives (class 40, 45/46, 47 or 50, depending on the route.) Details of the class of diesel locomotives on which timings are based are given in the passenger working timetables, which include a table showing the maximum tonnage which different classes of locomotive can haul to maintain the timings shown.

The maximum load in tons which any class of locomotive may haul on a particular section of line may be obtained by referring to the table of class 8 train loads in the Freight train loads book.

#### 2. Compilation of Loads.

All coaching stock is marked with the tare weight in tons. The total load of the train is obtained by adding tare weights. The timings are based on tare weights and include an allowance for weight of passengers, luggage and parcels.

If the indication of the weight on any vehicle is obscured or missing, the following weights should be assumed:

Horsebox or SPV	 	 	10 tons.
CCT, PMV or BZ	 	 ٠.	18 tons.
Bogie parcels vehicles	 	 	32 tons.
Passenger carriages	 	 	34 tons.
Dining or Sleeping cars	 	 	42 tons.

The loads of all trains must be calculated by guards and the information given to the train driver at the starting point. At subsequent points where vehicles are attached or detached, the revised load must be given to the driver by the train guard or person in charge of the platform.

#### 3. Maximum Loads and Lengths.

The maximum load and length which may be hauled on coaching stock trains over L.M.R. lines are set out in the table below:

			Maximum Load Tons	Maximum Standard Wagon Lengths	Length Standard Carriage Lengths
Loaded Passenger Trains	 		600*		17*
Empty Coaching Stock Trains	 		700		20
Parcels Trains	 		700†	50†	17†
Empty Van Trains	 		700	60 '	20

<sup>\*—</sup>A maximum of 700 tons or 20 carriage lengths may be conveyed if specially authorised by the Movements Manager.

Length of parcels vehicles should be assessed as follows:

CCT, PMV or BZ	 	 2 standard wagon lengths.
B, BG, GUV or SYPHON G	 	 3 standard wagon lengths.
6 SPV	 	 7 standard wagon lengths.

<sup>†-</sup>Except where specially authorised by the Movements Manager.

#### 4. Marshalling and Strengthening of Passenger Trains.

Passenger trains must be marshalled in accordance with the passenger marshalling circular, the carriage and multiple unit programmes, or the special notices.

Extra vehicles for passengers must not be attached to trains unless authorised in the Special Traffic Notices or other special notices, or through the Regional/Divisional Control organisation.

The person arranging the marshalling or strengthening of a train must ensure that it does not exceed the length which can be accepted at intermediate and terminal stations. For guidance, details will be held in Divisional Control offices of length limitations at principal stations. Where unrostered strengthening takes place the Divisional Control office which has obtained or given authority must advise the Regional Control Office and all other Divisional Control offices concerned. Divisional Control offices are responsible for advising all stations in their Division which are affected.

In exceptional circumstances, when there is insufficient time to telephone the Divisional Control, the Area/Station Manager may authorise extra vehicles to be attached for the accommodation of passengers, provided the maximum tonnage for the locomotive working the train is not exceeded and the working is not likely to be upset en route.

The Divisional Control must immediately be told precisely what has been done.

#### 5. Marshalling and Strengthening of Parcels Trains.

Parcels trains must be marshalled in accordance with the Marshalling and Loading Orders. Additional vehicles may be attached to parcels trains to meet traffic requirements if the Marshalling and Loading Orders do not limit the number and type of vehicles to be conveyed, provided that the tonnage for the locomotive working the train is not exceeded, and prior authority is obtained from the Divisional Control.

#### WORKING OF SPECIAL PASSENGER AND FREIGHT TRAINS.

#### 1. Special Reporting Numbers.

All Special Passenger and Freight Trains must be described by the reporting numbers shown in the Special Traffic Notices, Special Notices or other operating publications. When a return special is run, it must carry the same reporting number as on the outward journey.

Trains will be identified by a four-figure number exhibited on the locomotive and on those multiple-unit trains which are equipped with four-position indicator boxes. Multiple units with two-position indicator boxes must exhibit a four-position number on a board with the two-position indicator set in the blank position.

A standard code provides for the class, destination and number of the train as under:

First position ... Classification of Train (Numbers 0 to 9) as shown on page 36 of Supplement No. 2 to the General Appendix.

Second position ... Destination and character of the train. Special Passenger and Special Freight Trains must be indicated as follows:

T Passenger \(\)\)\ Local to L.M.R.

L Passenger and Freight

Z Passenger and Freight Inter-Regional. X Royal Trains and Out of Gauge Loads. For Freight Trains T indicates trip trains.

Third and fourth positions

Individual identity number of train as shown in the notice where the arrangements are published.

Relief passenger trains, or ordinary trains run in more than one portion, must carry a separate number allocated when the arrangements are agreed and published in the appropriate notice.

Diesel and Electric locomotives not fitted with four-position indicator boxes must carry the reporting numbers printed in black on white paper from the starting point on a headboard.

The Depot providing the power will be responsible for supplying the locomotive headboard where necessary, with the correct letters and numbers, and having it exhibited as mentioned above.

#### 2. Loading of Passenger Trains.

Guards must obtain and render passenger loading details of nominated ordinary, relief and special trains in accordance with separate instructions.

#### 3. Duties of Guards.

Guards working special trains must not leave the station on arrival at destination without permission from the person in charge, and must ascertain from him the place and time they are to book on for the return journey, in order that they may render any assistance the person in charge may require, and see that their trains are properly lighted and labelled. Any spare marginal time must be made available for assisting with station duties.

When trains are handed over at a junction, Guards must not travel beyond the point to which they are shown to work the train unless instructed to do so, and, when relieving, must sign on 15 minutes before the train is due at the junction.

#### 4. Crowds on platforms.

Area Managers, Inspectors and others concerned must not allow crowds to assemble on platforms or about stations, to the inconvenience and danger of passengers arriving or departing by trains.

When assistance is required to keep the platforms and approaches clear, the Area Manager has authority to instruct other B.R. employees who may be available to assist, or to request the attendance of the Civil police, to prevent accidents.

#### 5. Short notice of extra traffic.

Should any Area Manager, Inspector or other person concerned become aware that an unusual number of passengers is likely to travel by a particular train, he must advise the Divisional Control Office so that proper accommodation may be provided.

#### 6. Caucellation and alteration of scheduled working.

The Divisional Control Office must be advised of any alteration in the booked arrangements for special trains shown in the Special Traffic Notice, so that the stations affected may be immediately informed of the altered working.

#### WEED SPRAYING TRAINS

Two firms, Messrs. Fison's and Messrs. Chipman's, who will each use their own train, carry out weed spraying throughout the Region.

Both trains must be signalled as Class 6 freight trains. The speed must not exceed 45 m.p.h., whether spraying or not spraying, and if a lower speed is laid down for spraying operations, it must be observed.

The maximum permissible speed and all lower speed restrictions must be strictly adhered to on all lines.

Both firm's trains may be propelled where necessary. A white light must be carried on the leading vehicle when propelling after sunset or through a tunnel, and the instructions for propelling trains shown in Table F1 must be complied with.

The marshalling of weed spraying trains will be shown in the Special Notices for the trains concerned.

When the Engineer's or Contractor's staff require to sleep on the train whilst stabled overnight, all points must be securely clipped and scotched to prevent any movement being made on to the line or siding on which it is stabled. A red light must be placed on the end of the train from which a movement would normally be made. Where it is possible to make a movement from both ends, a red light must be placed on each end of the train. The person in charge of the line or siding must ensure that these instructions are carried out.

#### Electrified Lines.

11. Conductor Rail System. On lines fitted with conductor rails the following conditions must be observed before spraying operations commence:

Isolation of the conductor rails is not required. The train must be accompanied by a representative of the Divisional Manager's Maintenance Engineer. Where a weed spraying train has to cross or pass over a portion of electrified line which is not scheduled for spraying, the person in charge of the train must ensure that spraying operations are suspended whilst crossing or passing over the electrified portion of line.

2. Overhead Line System. No restrictions.

#### TRAINMEN TO USE MOST EXPEDITIOUS MEANS FOR TRAVELLING

When travelling as passengers whilst on duty, trainmen must use the most expeditious means available, including public road services. If a better rail service is provided by another Region or London Transport, they must use it. To establish their identity they must produce their job card, deviation card, journal or working sheet, except when travelling on L.T. trains, when a Bearer pass is required. Area Managers, Controllers, and other persons empowered to instruct trainmen should direct them accordingly.

Although men may be rostered to travel by a particular train, if a quicker means of reaching the locomotive or guard's Depot presents itself, this must be used. Instructions on this point given by the Area Manager, Controller, etc., must be carried out, and trainmen must consult the person in charge in cases when they are in doubt as to the quickest means of reaching their Depot.

#### WORKING OF TRAINS TO MECHANISED MARSHALLING YARDS

#### 100-ton GLW Bogie Tank Cars.

These vehicles must not be taken over humps in marshalling yards, and must not be loose shunted. When conveyed empty on ordinary services they should be marshalled next to either the locomotive or brakevan to facilitate avoiding the hump.

#### Bescot Down Marshalling Yard.

The undermentioned types of vehicles are prohibited from passing over the Hump in the Down yard, and, when such vehicles are conveyed on trains into Bescot, they must be marshalled next to the locomotive or brake van, and particulars stipulated in the loading advice:

Bocar						• •		Loaded
Boiler EB								Loaded and empty
Borail WC								Loaded and empty
Borail WG								Loaded
Carflat								Loaded
Coilwag								Loaded
Dolphin								Loaded
Flatrol EAA							• •	Loaded and empty
Flatrol EL E			• •				• •	Loaded
Gane A	2 1713	• •	• •	• •	• •		• •	Loaded
Girdwag	• •	• •	• •	• •	• •	• •	• •	Loaded and empty
	 MO	• •	• •	• •	• •	• •	• •	
Glaswag EO		• •		• •	• •	• •	٠.	Loaded
Macgregor C	omerai	n Vans	3					Loaded
Parrot								Loaded
Sturgeon								Loaded
Tierwag								Loaded and empty
Transformer								Loaded and empty
	AG E	Ċ.						Loaded
Weltrol EB B						••	• •	Loaded
			• •	• •	• •	• •	٠.	
Weltrol EN	ENC E	SNN						Loaded and empty

All passenger carrying vehicles.

All vehicles, loaded or empty, stencilled "Not to be hump shunted".

Continental vehicles, loaded or empty, bearing international sign X "Not to be hump shunted".

Vehicles having a gross weight of less than 6 tons.

Route Setting. Any wagon with an inner wheel base exceeding 47 feet and up to 50 feet must be routed with manual point setting only, care being taken not to move any individual point switch until the wagon has cleared the points operated by that switch.

#### Carlisle Down and Up Sidings.

The undermentioned types of vehicles are prohibited from passing over the Humps in the Down and Up Sidings and, when such vehicles are conveyed on trains into Carlisle, they MUST be marshalled next to the brake van and particulars stipulated in the loading advice:

Bocar			 	 	 Loaded	
Boiler EB			 	 	Loaded and Empty	
Borail WC			 	 	 Loaded and empty	
Borail WG			 	 	 Loaded	
Carflat			 	 	 Loaded	
Coilwag			 	 	 Loaded	
Dolphin			 	 	 Loaded	
Flatrol EV	MUU		 	 	 Loaded and empty	
Flatrol EL	EZ MJ		 	 	 Loaded	
Gane A			 	 	 Loaded	
Girdwag			 	 	 Loaded and empty	
Glaswag EC			 	 	 Loaded	
Macgregor (		Vans	 	 	 Loaded	
Parrot			 	 	 Loaded	
Sturgeon			 	 	 Loaded	
Tierwag			 	 	 Loaded and empty	
Transformer			 	 	 Loaded and empty	
Trestol AD			 	 	 Loaded	
Weltrol EB			 	 	 Loaded	

All coaching stock vehicles.

All vehicles, loaded or empty, stencilled "Not to be hump shunted". Continental vehicles, loaded or empty, bearing international sign X X "Not to be hump shunted".

Livestock must be marshalled next to the locomotive where practicable.

#### Toton Down and Up Sidings.

Transformer wagons are prohibited from passing over the Down Hump and the Up Hump. The 290-ton Boiler EB Wagon is prohibited from passing over the Down Hump and Down Hump Avoiding Line, Up Hump and Up Hump Avoiding Line. These wagons must not be worked into Toton except by prior agreement of services with the Divisional Manager, Nottingham.

Coaching stock vehicles must not be conveyed on trains for Edge Hill Gridiron.

Bogie freight vehicles must not be worked through the Gridiron, but should be marshalled next to the locomotive for detaching at the Foot of the Grid.

#### LEVEL CROSSINGS BETWEEN PLATFORMS

At stations where passengers have to cross the track from one platform to another the staff must excercise the utmost possible supervision to prevent the risk of accident.

At all stations where footbridges or subways are provided special care should be taken to prevent passengers using the level crossings.

#### FAILURE OF OIL TAIL LAMPS

If a tail lamp fails on the journey, it must be exchanged at the earliest opportunity for a fresh lamp. The Guard must submit a report of the failure.

The lamp which has failed must be examined by the person appointed by the Area Manager, and a report on the cause of failure, with the train and date on which it occurred, submitted to the Divisional Manager's Accident section.

If the fault can be remedied locally, the failed lamp may be returned to service unless otherwise instructed. If not, it must be sent to the Works for repair.

#### REPAIR OF DEFECTIVE LAMPS

Hand, Side, Tail and Roof Lamps for repair must be forwarded from Stations/Depots to the designated point in the Division from where they must be despatched as follows:

Divisio	n				To be sent to
London (for				 	 Derby Works
		Western		 	 Wolverton Works
Birmingham			 	 	 Crewe Works
Stoke			 	 	 Crewe Works
Nottingham			 	 	 Derby Works
Liverpool			 	 	 Horwich Works

Signal and Gate Lamps must be dealt with in accordance with local instructions.

# A.C. ELECTRIFIED LINES—TELEPHONE CONTACT WITH ELECTRICAL CONTROL ROOMS

Contact with the Electrical Control Operator can be made either by the Electrification telephones situated along the lineside and at stations, signalboxes, etc., or by ringing the telephone numbers shown below:

#### Crewe Electrical Control Room

Crewe Railway Exchange (GPO No. Crewe 55123) Extn. 2711.

#### Rugby Electrical Control Room

Rugby Railway Exchange (GPO No. Rugby 3456) Extn. 2222; also GPO No. Rugby 6256.

#### Willesden Electrical Control Room

Willesden Railway Exchange (GPO No. 01–965 4071) Extn. 6333/4/5 (07 00 to 19 00 SX) (07 00 to 14 00 SO) (Railway exchange closed on Sundays); also GPO No. 01–965 7080.

In emergency only the following GPO telephone numbers may be used as alternatives to those shown above:

Crewe 55582 Rugby 6257 Willesden 01–965 2304

#### LINESIDE STAFF EMERGENCY CALL SYSTEM

This equipment is provided at certain signal boxes controlling long sections of line, and consists of loudspeakers spaced approximately  $\frac{1}{2}$  mile apart on the lineside. When operated by the Signalman, one of the following codes will be transmitted through the loudspeakers:

Chief Signal and Telecommunications Engineer's Line Staff — 3 note bugle call.
Chief Civil Engineer's Line Staff . — 2 note "Cuckoo" call.
Chief Mechanical & Electrical Engineer's Line Staff . — Interrupted tone.
Cancel . . . . . . . . . . . . . . . . . . Steady tone.

On hearing the appropriate code, the senior member of any party working on the line must go at once to the nearest signal post telephone, ground frame telephone, circuit telephone, or, in the case of the Signal Engineer's staff, the nearest plug point on the Signal Engineer's Maintenance Telephone Circuit, and ascertain from the Signalman what is required. When the Signalman is satisfied that the message has been delivered to the correct person and is understood, he will transmit the "Cancel" code.

When the C.M. & E.E. staff code is transmitted, and an Electrification telephone is nearest, the C.M. & E.E. staff concerned must communicate with the Electric Control Operator. He must then immediately advise the Signalman to cancel the loudspeaker code.

To avoid complaints from residents in built-up areas and obviate unnecessary use of the loud-speakers, staff must answer the calls as soon as possible.

# INSTRUCTIONS FOR OPERATING INTERMEDIATE TOKEN INSTRUMENTS

- (G.W.R. TYPE)
  (1) To obtain Token from instrument. After obtaining, by telephone, the authority of the Signalman to withdraw a token, lift it from the magazine to the centre opening of the instrument, press it forward as if using an ordinary key in a lock (the key end of the token must engage on the centre pin of the instrument), then turn it anti-clockwise as far as possible. Wait until the needles in both the indicators are deflected (this takes place when both Signalmen hold down their respective token ringing keys), and then continue to turn the token anti-clockwise until it is free, when it can be withdrawn from the instrument. Advise the Signalman by telephone that the token has been obtained from the instrument.
- (2) To replace Token in instrument. Press token forward into the aperture in the centre of the instrument as if using an ordinary key in a lock (the key end of the token must engage on the centre pin of the instrument), then turn the token clockwise as far as possible, withdraw token from centre pin and lower it into one of the slots of the magazine. Advise the Signalman by telephone that the token has been placed in the instrument.

When the token has been replaced in the instrument the Signalmen must immediately withdraw tokens in accordance with Regulation 26 (Testing Instruments) of the Electric Token Regulations, and the person responsible for operating the intermediate token instrument must remain there until the test has been made and the Signalman has informed him that everything is again in order.

#### INSTRUCTIONS FOR WORKING GROUND FRAMES RELEASED/LOCKED FROM SIGNAL BOXES.

When movements have to be made over connections worked from a ground frame, the Person in Charge must telephone the Signalman and come to a clear understanding regarding the movements to be made and request him to unlock the frame. The Signalman must inform the Person in Charge when the frame has been unlocked. Where a plunger working in connection with a release lever at a ground frame is provided, it must be pressed and held in until the lever is out of the catch.

When the movements have been completed, and the train is clear of the points ready to depart or has been shunted into the siding(s) clear of the main line(s), and the ground frame levers placed in the normal position, the Person in Charge must inform the Signalman accordingly and request him to lock the ground frame. The Signalman must inform the Person in Charge when this has been done. Until this advice is received, the Person in Charge must not rejoin the train or allow it to proceed.

At ground frames where bell communication is also provided with the signal box, the following code must be used if there is a failure of the telephone.

The Call attention signal, 1 beat, must be sent and acknowledged before the required code is sent.

#### To Signal Box.

Unlock ground frame Train shunted clear of main line(s)—Lock ground frame Train on main line ready to depart—Lock ground frame 3 5

The codes will be acknowledged by repetition when the ground frame has been unlocked/locked.

#### From Signal Box.

Clear main line(s) for train to pass To be acknowledged by repetition and the code 3 sent when the line(s) has been cleared.

The following additional instructions must also be observed at those places at which they apply:—

Released by interlocking lever at signal box and key release instrument at ground frame.—When informed by the Signalman that the interlocking lever has been operated, the Person in Charge must turn the key in the key release instrument anti-clockwise from No. 1 to No. 2 position. When the indicator shows "Free" the key must be turned to No. 3 position and then withdrawn. The key must then be inserted in the Annett's lock to release the ground frame.

After the work is completed, the key must be withdrawn from the Annett's lock, re-inserted in the key release instrument and turned clockwise to No. 1 position. Where a plunger is provided, this must be pressed and the Signalman advised accordingly. The Signalman must press the plunger in connection with the electric lock on the interlocking lever and place the lever to normal.

Released by key control instrument at signal box and key release instrument at ground frame.— When the ground frame is to be released, the Signalman must, when he is in a position to do so, turn the handle of the key control instrument from No. 1 to No. 2 position and then to No. 4 position and advise the Person in charge that the ground frame key has been released.

The Person in Charge must then turn the key in the key release instrument at the ground frame from No. 1 to No. 2 position. When the indicator shows "Free" the key must be turned to No. 3 position and then withdrawn. The key must then be inserted in the Annett's lock to release the ground frame.

After the work is completed, the key must be withdrawn from the Annett's lock and re-inserted in the key release instrument, turned clockwise to No. 1 position and the Signalman advised accordingly. The Signalman must turn the handle of the key control instrument from No. 4 to No. 3 position and then instruct the Person in Charge at the ground frame to press the plunger. When this has been done, the Signalman must turn the handle of the key control instrument from No. 3 to No. 1 position.

Released by Annett's key taken from signal box.—The key must be inserted in the lock provided on the ground frame lever to release it. The key will be locked in the lever until it is restored to the normal position. The Annett's key must be returned to the signal box when the work has been completed.

#### LOCAL INSTRUCTIONS

#### LONDON EUSTON TO CREWE AND BRANCHES

#### LONDON EUSTON

Working into and out of the Passenger Platform Lines. Drivers of trains running into Euston must have their trains thoroughly under control so as to stop at any part of the platforms that may be required. The locomotives of trains running into the Passenger platforms at Euston must either remain coupled to the train or be uncoupled, according to the instructions contained in the driver's programme. Where the locomotive is programmed to remain coupled for heating the coaches, the Station Inspector must make arrangements to have it uncoupled before the train locomotive is attached. If the locomotive of an incoming train has to remain coupled to propel the coaches to the Backing Out Roads or the Up Side Shed, the Station Inspector must inform the driver what is required.

If the locomotive of an incoming train is not required to propel the coaches from the platform, it must (if manned) immediately follow the train when it draws out of the platform, and come to a stand at the platform starting signal. Electric locomotives which have been left unmanned at the buffer stops, and have been subsequently manned, must not be moved without permission of the Signalman. The drivers of such locomotives will be responsible for advising the Signalman when they are ready to move.

Trains propelled to the Up Side Shed or to the Backing Out Roads must have the continuous brake connected and be controlled by a Guard or Shunter riding in the leading vehicle.

Uncoupling of Train Locomotives. Drivers of incoming trains, if programmed to leave locomotives coupled and unmanned, must always leave the locomotive sufficiently eased up to slacken the coupling between the locomotive and train when the type of locomotive allows this to be done without further movement to the train whilst passengers are alighting.

Working of Empty Trains from Euston via the Down Empty Carriage Line. When it is necessary to back an empty train off the down empty carriage line on to one of the Backing-Out roads already occupied, this operation must be supervised by the Inspector or Person in charge, who must be near to Bridge No. 6 ready to signal to the Driver. A man must always be in the brake van at the South end of the train ready to apply the continuous brake if needed. This working is only allowed under very urgent circumstances and IS ABSOLUTELY PROHIBITED during fog or falling snow.

Propelling Movements on the Up Engine Line 2 and Down Empty Carriage Line. Propelling movements on the Up Engine Line 2 and the Down Empty Carriage Line must not exceed two coaching stock vehicles.

Backing Trains out of the Platforms to the Backing-Out Roads, Nos. 1, 2, 3 and 4. When a train is propelled from the station to one of the Backing-Out roads on the down side of the line, the locomotive must remain attached until the Shunter gives the Driver permission for it to be detached. Before the Shunter does so he must put on and chain the hand brakes in each van if not more han three, place at least four scotches under the wheels of the two vehicles nearest the station, and release the continuous brake. He must also see that a red light is placed on the vehicles at both ends of the train after dusk and during fog or falling snow.

After the train has been secured, it must not be moved again until the Shunter in charge of the operation has satisfied himself that the scotches have been taken from under the wheels and the hand brakes released.

After dusk and during fog or falling snow, a red light must be exhibited on the locomotive at the station end.

A red light must be exhibited on the leading vehicle of all trains backing out of platforms after dusk and during fog or falling snow.

A locomotive going on to the Backing-Out roads at the North end, to bring stock off these roads, must not run with vehicles attached at the Euston end of the locomotive.

Trains from the Down Side Marshalling Shed, Camden Carriage Sidings, and Backing-Out roads to Euston Station. A plunger is provided at the south end of each of the Backing-Out roads at the outlet shunting signal, and Shunters working trains from the down side shed or down empty carriage line to the station, via the Backing-Out roads, must bring their train to a stand at that signal. When the signal has been taken off, the Shunter must operate the plunger to cause an illuminated "R" to be displayed on the stencil indicator at the North end of the road. Drivers must not proceed until this indication has been given.

Trains which are propelled from Camden Sidings should, whenever possible, be routed over the up engine line No. 1, in which case the normal approach control on signal 26 will be effective. When it is necessary to route such a movement via the Backing-Out roads, the instructions in the previous paragraph must be applied. In either case, propelling of any train exceeding four coaches from Camden Carriage Sidings signals EN.108 or EN.113 must not be started until a route has been set on to the up engine line or Backing-Out road. Short trains of four coaches or less may be propelled as far as signal EN.103 if necessary, to await acceptance on to the Backing-Out roads or down side shed.

Shunters must not release the locomotive which has brought vehicles on to the Backing-Out road until they have satisfied themselves that the hand brake of the controlling brake vehicle is in working order.

The man who works vehicles off the Backing-Out roads into the platforms must satisfy himself that the hand brake is in working order.

When a train to be gravitated from any of these roads has not sufficient brake power to enable a Shunter to move it with safety, the additional brake power necessary must be provided before any attempt is made to move it.

If a train consists of more than seven standard vehicles, two men must accompany it when it is being gravitated into any of the roads in the station.

After dusk and during fog or falling snow, trains from the down side shed or the Backing-Out roads to the station must have a red light on the front end of the leading vehicle.

Propelling of Empty Trains into Euston Station. When trains are being propelled from the Backing-Out roads or Up side shed into the platforms there must be a brake vehicle leading into the platform in which the Shunter must ride. If this cannot be arranged the train must be drawn into the platform by a locomotive.

This instruction does not apply when shunting odd vehicles on to trains already set.

Working into and out of the Up Side Carriage Shed at Euston. All Electric Multiple Unit trains must be driven into the Shed from the leading end. The Shunter at the Up Side Shed will be responsible for resetting the road inside the shed after the arrival of each train and advising the Signalman when another train may be released from the station.

When vehicles equivalent in length to twelve standard coaches have been placed on No. 5 Road, the Shunter must satisfy himself in every case that the points leading to No. 5 road have been re-set for No. 4 road.

Ordinary coaching stock may be either propelled or hauled into this Shed as required. When a locomotive has been put into the Shed to bring a train out, it must be at once coupled. Loco-hauled trains and E.M.U.'s must not move towards the exit signal until the Shunter has advised the Signalman at Euston Box that the train is ready, where the coaches are for, and has obtained the necessary permission. Trains being propelled from the Sidings by a locomotive must have a Shunter or Guard in the leading vehicle and a road must be obtained into the station before any movement is made.

When the Shed, including Nos. 4 and 5 roads outside the Shed, has been filled up, the Shunter must advise the Signalman. When the last train has been taken out, or when the Shunter, after putting a train in the Shed, is going away, the points must be set for the Siding likely to be required next.

Starting of Trains—Rules 141 and 143. Indicators, not normally illuminated, are provided on the starting signals for each platform, and immediately the Guard's signal to start has been given the person in charge of the platform, or Guard or Shunter in charge of the train, must press the plunger, which will cause the indicator to display the letter "R", indicating to the Driver that the Guard's signal has been given.

The "R" indication is repeated on the "Off" indicators situated within sight of the stopblock end of each platform.

Electric Multiple Units entering Euston Down Side Shed. All E.M.U.'s entering this Shed must be driven from the leading end. Those routed from the Station to the Down Side Shed via the Down E.C.L. must be brought to a stand behind Signal EN.93, where the Driver must change ends.

Working in Euston Parcels Dock. After working trains into the Parcels Dock, drivers of locomotives must await instructions from the Area Yard Inspector or Person in charge before moving towards the exit signal.

Drivers subsequently taking over unmanned locomotives stabled on the stopblock ends of Roads 15-22 must telephone the Area Yard Inspector (Ext. 3622 or 4905) for permission to move.

Up Empty Carriage Line between Camden Signal EN.146 and Euston Signal EN.94. A banner signal at the Camden end of the subway repeats the position of signal EN.94. When the banner signal is cleared, it means that the line is clear to signal EN.81 on the Up Engine line No. 1 or to signal EN.82 on Up Engine line No. 2, at which the Driver must be prepared to stop.

Up Engine Line. This line is worked as a siding to signal EN.103. Spring points, lying normally for Gloucester Gardens sidings, are provided immediately South of the Regent's Canal bridge.

#### **CAMDEN**

Carriage Stabling Sidings. A movement which requires to enter the Sidings at either end will be held at the signal controlling the entrance to the Sidings until the Person in charge has operated the hand points for the siding to which the train is required to run, and has advised the Signalman at Euston accordingly by telephone.

When empty stock requires to leave the Sidings for Euston Station, the Person in charge must advise the Signalman at Euston what train it will form. He must also advise the Signalman at Euston of shunting movements to be made past the outlet signal at either end of the Sidings.

Shunting movements at the South end of the depot which require to enter on to the heavy gradient on the Up Engine Line towards Signal EN.103, must be made with great care, and sufficient brake power must always be available to the Driver, considering the weight of train and condition of rail. The Person in charge of the Shunting movement must advise the Driver the number of vehicles on the shunt and how many have the continuous brake connected.

Camden Yard. Up arrival Roads. An electric bell at the entrance to the arrival roads enables Guards to advise the Signalman their train has arrived complete on one of the arrival roads and is not foul of any other road.

#### High Capacity Container Service to and from Camden

Instructions for Berthing Train. The train, composed of five Freightliner I.S.O. Twin Sets drawn by an electric locomotive, will arrive on an Arrival line and, after coming to a stand in clear, the Driver must fully apply the air brakes on the train. The Shunter must immediately uncouple the electric locomotive, which should go to the Holding Sidings or proceed as programmed.

A Yard shunting locomotive must be used to dispose of the train as follows:

Four ISO Twin Sets into "Crane" roads One ISO Twin Set into "Public" road via the Hay Line.

If the shunting locomotive is not available immediately, the Shunter must apply sufficient hand-brakes on the ISO vehicles to prevent any movement. The air brakes must be released on all vehicles before any further move is made.

Indication Boards at 8 feet from ground level are in position along the Hay Line, carrying a figure 10 or 6. When making the first shunt back along the Hay Line, the Driver must bring the train to a stand with the board showing 10 opposite the buffers of the last freightliner vehicle. When the second shunt is made back along the Hay Line, the Driver must bring the train to a stand with the board showing 6 opposite the buffers of the last freightliner vehicle.

Instructions for Departure of Train. Thirty-five minutes before departure time, the Yard shunting locomotive must commence to assemble the three portions of the train, and, when this has been completed, the whole train must be drawn along the Hay Line towards the yard signal box, stopping at the point alongside the board indicating the limit for electric locomotives on the Hay Line.

The Shunter must then apply the handbrakes on half the freightliner ISO vehicles and uncouple the shunting locomotive, which will be placed clear of the outlet from the Hay Line to the electrified departure line.

The electric locomotive, previously situated at a convenient point, must be hand signalled on to the train by the Shunter, coupled up and the brake pipes connected, the air brake applied and hand brakes released.

When this has been done, the Driver must apply the independent air brake on his locomotive and release the air brakes on his train, and, together with the C. & W. Examiner who will be at the rear of the vehicles, carry out the "Simple Brake Test" in accordance with Clause 4(A) of the Instructions on page 4 of the General Appendix.

The Movements Inspector will then hand to the Guard a certificate indicating that:-

- (1) A "Complete Brake Test" and a "Simple Brake Test" have been satisfactorily carried out.
- (2) All containers are correctly loaded and clamped.
- (3) All vehicles are correctly coupled and that the prescribed brake power is available and in proper working order.
- (4) A tail lamp, filled, trimmed and lit as necessary is in position at the rear of the train.

The Station Manager will be responsible for the complete preparation of the train before departure and the above mentioned certificate will exempt the Guard from the observance of Rules 129 (iv) a, b, c, and d, and 131 (i) before departure. The Movements Inspector will then advise the Signalman that the train is ready to depart.

#### WILLESDEN

Acton Lane Middle Siding—Stabling of Electric Locomotives. Drivers stabling locomotives in the Middle Siding at Acton Lane on arrival in the siding must report to the Acton Lane Shunting Frame the number of the locomotive.

Locomotives for Brent Sidings. Drivers are responsible for seeing that their locomotives are clear over the self-acting points from the Down engine slip, before setting back. Immediately a locomotive to work a train from Brent Sidings arrives on No. 3 Goods Departure line from the Down engine slip, the Secondman must advise the Signalman at Brent Sidings box, by telephone, what train it is required to work.

Sudbury and High Level Sidings. Guards making up or working trains must note that hump shunting in these sidings is continuous. Vehicles are liable to be sent down any road at any time unless the yard staff are requested to divert traffic temporarily from a particular road until the departure of trains to enable Guards to complete their examination.

Guards, before preparing their trains, must advise the Foreman at each end of the sidings that they are about to do so.

Sudbury South End Sidings. The Up engine line to High Level Sidings is worked in accordance with the instructions "Lines worked under 'No Block' Regulations" on page 22 of the General Appendix. Before wagons are drawn or propelled in the wrong direction between these points, the Yard Inspector must obtain the authority of the Foreman at Sudbury South End Sidings.

Sudbury Reception Lines. The double-sided indicator carried on a gantry spanning Nos. 3-6 Sidings, situated 7 yards on the Willesden side of the footbridge across the reception roads and working in conjunction with the semaphore humping signals, is applicable to reception roads Nos. 1 to 8 inclusive. These signals apply only to drivers of locomotives actually engaged in humping a train, or standing behind a train on one of the arrival roads preparatory to humping, and not to drivers of incoming trains on the reception roads.

C.E.G.B. Acton Lane Siding. No more than the number of wagons ordered must be put into these sidings, and they must be brought to a stand with the last wagon just clear inside the gate; the brakes on two wagons must be pinned down.

Before removing wagons the locomotive must not propel them further into the siding.

Wagons must be drawn out slowly owing to the curve.

#### WILLESDEN FREIGHTLINER TRAIN TERMINAL

Except in case of emergency, vehicles other than those connected with Freightliner trains must not be left in the Holding Sidings. The Holding Sidings are provided for Freightliner train arrivals or departures.

Berthing of Inwards Freightliner Trains. All Freightliner trains about to enter the Terminal will be so routed or drawn from the Holding Sidings on to the Up West London line or No. 2 Shunting neck. The Driver must bring his train to a stand with the locomotive immediately ahead of the double-sided set-back indicator concerned. These are situated 462 yards on the London side of South West Sidings Shunting Frame (for the West London line) and 237 yards on the London side of South West Sidings Shunting Frame (for No. 2 Shunting neck).

When the indicator is illuminated it will display the indication "SET-BACK", and the Driver must commence to propel his train into the Terminal. No hand signals will be given.

Notice boards lettered "Locomotives Stop—Await Instructions" are provided at the entrance to each berthing line and Drivers when propelling must bring their train to a stand when the locomotive reaches this board. They must propel their train to this point as expeditiously as possible, but must not exceed 10 m.p.h. All further propelling movements beyond this notice board must be carried out under the guidance of the Person in Charge of the Terminal to ensure the train is correctly berthed for unloading.

After the vehicles have reached the final berthing position the Driver must fully apply the air brakes, and the Guard, or Secondman on the locomotive, if provided, must immediately uncouple the locomotive from the train.

Immediately the train is finally berthed, the Guard must apply handbrakes on at least half the vehicles and advise the Person in Charge accordingly.

Departure of Freightliner Trains. The Guard must, immediately on arrival with the locomotive, report to the Person in Charge of the Terminal who will, when ready, inform the Guard that the air brakes of the train have been fully applied with the static equipment and that he should proceed without delay to check and take off all the handbrakes on the train. When this has been done the Guard must advise the Person in Charge of the Terminal accordingly. It will not be necessary for the Guard to examine any other feature of the train and Rule 131 (i) is modified accordingly.

In the case of a train departing towards Wembley, five minutes before the booked departure of the train the Person in Charge of the Terminal must advise the Person in Charge of Acton Lane Shunting Frame of the impending departure and instruct the Shunter to signal the shunting locomotive on to the train. The Shunter will couple the locomotive to the train, and when this has been done the Driver must apply the independent air brake on his locomotive and then release the air brakes on the train. In the case of a train departing towards Euston or Kensington, five minutes before the booked departure of the train the Person in Charge of the Terminal must advise the Person in Charge at Acton Lane Shunting Frame of the impending departure and instruct the Guard to signal the locomotive on to the train. The Guard, or Secondman, where provided, will couple the locomotive to the train, and when this has been done the Driver must apply the independent air brake on his locomotive and then release the air brakes on the train.

Together with the C. & W. Examiner, who will be at the rear of the train, the Driver must carry out the simple brake test in accordance with Clause 4(A) of the Instructions on page 4 of the General Appendix. When the C. & W. Examiner is satisfied that the brake test has been satisfactorily carried out he must signal to the Driver accordingly. This signal must also be observed by the Guard.

Before giving the right away signal to the Driver, the Guard must receive from the Person in Charge at the Terminal a certificate to the effect that the containers on the train have been secured properly and that the tail lamp, filled, trimmed and lit as necessary, is in position at the rear of the train.

Two minutes before departure of the train, the Person in Charge of the Freightliner Train Terminal must advise the Person in Charge of Acton Lane Shunting Frame of the imminent departure of the train. The Person in Charge at Acton Lane Shunting Frame, on receipt of this information, must ensure that no avoidable delay occurs to the departure of the Freightliner Train concerned.

Trains departing for the Wembley direction will be drawn out of the Terminal by the shunting locomotive to No. 2 Shunting Neck. The train locomotive will then be coupled to the Wembley end of the train by the Guard or Secondman, if provided, after which the Driver and Guard must carry out the simple brake test in accordance with Clause 4(A) of the Instructions on page 4 of the General Appendix.

Working of trains through carriage cleaning machines. Trains of empty coaches arriving via the Down Empty Carriage line at Willesden Carriage Sidings South, must stop at the "Stop and Await Instructions" board adjacent to the stripping and sluicing point. The Person in Charge will authorise the Driver to move forward when this work is completed and all windows have been closed.

The carriage solutioning and washing machines are worked automatically. When the controlling signal is taken off, Drivers must draw their trains forward through the machines at a speed not exceeding three miles per hour.

Backing of Trains through Carriage Shed—Rule 108. The clearing of the subsidiary signal concerned at the North entrance to the Shed will be the only authority for a Driver to commence propelling into the shed.

Carriage Shed Reception Roads. Drivers of empty coaching stock trains on Nos. 1, 2 or 3 Carriage Shed Reception Roads must bring their locomotive to a stand at the "Stop Boards" at the North end of these roads. Unless instructions to the contrary are given, the locomotive must then be uncoupled and proceed via the shunt spur to the exit Signal at the South end of the spur, where the Secondman, or Driver if single-manned, must telephone to inform the Signalman at Carriage Shed North box the destination of the locomotive.

Locomotives proceeding on to the shunt spur to pass along a Reception Road from North to South must be accompanied by a Shunter.

A Foreman or Shunter must ride in the leading brake vehicle of all empty coaching stock trains being propelled from the Reception Roads into the Carriage Shed.

Carriage Shed North Box. When necessary, trains of not more than 12 wagons may be propelled without brake van leading over the Down Carriage line from Carriage Shed North Box to the Stores Siding.

Protection of Staff working on Carriage Shed Roads. Special apparatus is provided for the protection of Staff working in the Carriage Shed and Carriage Shed Roads, and the "Regulations for the protection of Brake Fitters, Lifters, Repairers, etc." shown on pages 56 and 57 of the General Appendix do not apply to such Staff.

Carriage Sidings—Empty Train Location Board. To assist the staff in ascertaining the location of empty carriage trains, a board is provided in the Carriage Sidings adjacent to the Middle Frame.

The titles of the empty carriage trains will be shown in the centre of this board, and the siding on which the train is standing will be shown on the board to the left of the train title, as follows:

Nos. 1—15 .. .. Marshalling Sidings.
Nos. 1S—7S .. .. Stabling Sidings.

Guards arriving at Willesden Carriage Sidings to work trains must note from the indicator the siding on which their train is standing and report immediately to the pointsman at the Middle Frame.

#### NORTH WEMBLEY

General Electric Co.'s Siding. On arrival at the gate to these Sidings, the Guard or Shunter must call the attention of the General Electric Co.'s Shunter who will be responsible for placing warning boards in position and giving an assurance that all is clear before opening the gate.

Before leaving the Siding, the Guard must obtain an assurance from the firm's Shunter that all is clear to do so.

#### WATFORD JUNCTION

Examination of line through Watford Tunnels. To facilitate the transmission of messages to the signalman at Watford Junction Box whenever an examination of the line through Watford Tunnels is necessary, telephones are provided at the North and South ends of the tunnels at the points where the fast and slow lines diverge as follows:—

South End of tunnels —Fixed in cupboard between the up fast and down slow lines, 835 yards north of Watford Junction Station.

North end of tunnels

—In cupboard outside lengthmen's cabin between up fast and down slow lines adjacent to overbridge No. 68.

These telephones may also be used by trainmen in an emergency.

#### **BLETCHLEY**

Turning of Royal Train Empty Vehicles via Chord Line. When it is necessary to turn the Royal Train at Bletchley, a maximum of 12 empty coaching stock vehicles may be propelled over the Down chord (goods) line in the wrong direction, although there is no fixed signal for such movement, and the following instructions must be observed:—

- 1. All movements must be under the supervision of a Traffic Inspector.
- 2. The Traffic Inspector must give an assurance to the Signalman at Bletchley box that the self-acting catch points immediately ahead of the connection from the up flyover line to the down Oxford line (No. 208 points), have been clipped and scotched in the closed position. When the Signalman has received this assurance he will clear signal BY.14 for the train to proceed along the Down Oxford line.
- 3. The train must stop clear of the connection from the Down Oxford line to the Down chord (goods) line and must not set back until authority is received from the Signalman at Bletchley box.
- 4. When the Signalman is ready for the train to set back over the Down chord (goods) line, he will advise the Traffic Inspector accordingly, by telephone, who must instruct the Driver that he may set back only to a point immediately in rear of signal BY.10.

Up Arrival Line. When no yard staff are on duty, trainmen must telephone the signalman at Bletchley box for permission to pass the "Stop and await instructions" board.

#### KILSBY TUNNEL

Telephones are provided at each end of Kilsby Tunnel adjacent to the Platelayers' cabins, which are available for use by Trainmen in case of emergency.

#### **RUGBY MIDLAND**

Freight Train Relief Arrangements. Trainmen who are to relieve trains must report to the Train Crews Inspector at the Central signing-on point.

Trainmen should make frequent enquiry respecting the running of the trains they are to relieve.

Rugby D.E.D. Derailers are positioned on Nos. 1 and 2 shed roads at the entrance to the Maintenance Shed, and Drivers of trains or locomotives proceeding to the Maintenance Shed must stop at the "Stop and Await Instructions" board and await instructions before proceeding into the Maintenance Shed.

#### NUNEATON

Shunting in Up Sidings at South end. No shunting may be done on the Down Leicester goods line beyond signal NN.37 without the authority of the Person in Charge at Up sidings shunting frame, and Drivers must be verbally informed that this authority has been obtained before they make a shunt outside that signal.

Trains propelled from Abbey Junction to Nuneaton Down Sidings. When the banner repeating signal 428 yards on the approach side of signal NN.6 is in the ON position, Drivers propelling more than 25 wagons must stop with the locomotive at the banner repeating signal and remain there until it indicates that signal NN.6 has been cleared.

#### LICHFIELD T.V.

"Down and Up" Goods Line between Lichfield box and Trent Valley Junction box. If the interlocking signalling apparatus fails, a Pilotman will be appointed who must accompany each train over the section of line.

#### **STAFFORD**

Crinoline Sidings and English Electric Company's Sidings. Trains which have been working at these sidings must not return to Stafford No. 2 box on the Up through siding or goods siding until the Shunter in charge has obtained permission from the Signalman at that box.

Trains arriving at No. 1 Down Through Siding. When traffic staff are not on duty in Salop sidings, Guards of trains arriving at No. 1 Down through siding from the direction of No. 1 box must obtain the authority of the Signalman at No. 4 box for the train to pass the "Stop and await instructions" board, and must convey this authority to the Driver.

#### CREWE STATION

Coaching Stock Trains and Light Locomotives entering platforms already occupied by other trains during fog or falling snow. Drivers of Down and Up trains allowed to enter the station by the clearing of a subsidiary signal must proceed cautiously, prepared to stop short of any obstruction, and keep a sharp look-out for the ground Fogsignalman, who will advise the Driver immediately he enters the platform of the position of the obstruction ahead, when No. 1 Down platform line is occupied at any point in rear of "A" signal box, No. 2 Down platform line is occupied between Crewe South Junction home 2 and starting signals, or No. 4 or 5 Up platform line is occupied between Crewe North Junction home and starting signals.

When No. 1 Down platform line is occupied ahead of "A" signal box, the train will be brought to a stand at the home signal for that box. When No. 2 Down platform line is occupied ahead of Crewe South Junction starting signal the train will be brought to a stand at that signal. When No. 4 or 5 Up platform line is occupied ahead of Crewe North Junction Up starting signals, the train will be brought to a stand at that starting signal. Before the subsidiary signal is cleared, the Driver will receive a verbal warning from the ground Fogsignalman of the position of the obstruction ahead.

Before the Fogsignalman arrives at his post, the duty of instructing the Driver must be carried out by the Inspector who orders the train to be allowed to enter the station.

Nos. 3 and 6 Platform Lines. If a passenger train arrives in Platforms 3 or 6 drawn by two locomotives and both have to be detached from the train, they must come out attached together.

No. 3 Platform Line. When a shunt is made from the box in rear, for the purpose of attaching to or detaching from the rear of a train standing at the platform, and it is necessary for the shunt to follow the train out of the section, Drivers are authorised to follow the train through on instruction from the Inspector in charge.

Advice to Drivers of Loading, etc., of Passenger Trains. Referring to Instruction No. 3, clause (d), of the Regulations for Working the Vacuum Brake, on page 5 of the General Appendix, the Platform Inspector is specially authorised, if the locomotive has been changed, to inform the Driver the number of vehicles there are on the train, etc.

The Platform Inspector is also authorised to tell the Guard the Driver's name and depot, the locomotive number, and whether it is single or double manned; additionally, when extra vehicles are attached, the Inspector is authorised to give the Guard details of such vehicles, with the necessary assurances that they are in proper order, and that the Driver has been given the train tonnage and advice of any speed restriction necessitated by the conveyance of a speed-restricted vehicle. Guards of trains booked to change locomotives or attach vehicles at Crewe must contact the Platform Inspector as quickly as possible.

Starting of Trains—Rules 141, 142 and 143. Indicators, not normally illuminated, are provided at the North end of Nos. 1 and 2 platforms, suspended from the platform roof, and immediately the Guard's signal to start has been given, the Person in Charge of the platform must press the plunger, which will cause the indicator to display the letter "R", indicating to the Driver that the Guard's signal has been given.

Indicators not normally illuminated, are provided as follows:-

- (i) 60 feet before reaching North Junction No. 1 Down through home signal fixed to the screen pillar.
- (ii) Adjacent to North Junction No. 2 Down through home signal, between No. 2 Down through and No. 2 carriage siding, 2 ft. 6 ins. above ground level.
- (iii) Adjacent to South Junction No. 5 Up through home signal between No. 5 Up through and No. 5 platform lines, 2 ft. 6 ins. above ground level.

These are operated by plungers respectively located:—

- (i) Adjacent to "A" signal box.
- (ii) On the S. & T. track cupboard on the south side of centre overbridge (No. 78B), between No. 2 platform and No. 2 Down through line.
- (iii) 1,000 feet in rear of South Junction No. 5 Up through home signal between No. 5 Platform and No. 5 Up through line.

Before proceeding to the platform, Guards of trains other than Freightliner trains, who have been relieved, must, after coming to a proper understanding with the relief Guard, press the appropriate plunger, which will cause the indicator to display the letter "R" indicating to the Driver that the Guard's signal has been given.

In the case of Freightliner trains, the person conducting the simple brake test must, on satisfactory completion, operate the plunger; when the letter "R" is illuminated, the Inspector, or other Person in charge at the front of the train, must give the "Train ready to start" signal to the Signalman, who will then clear the signal for the train to depart. The Driver must not proceed until he has received a hand signal from the Guard in addition to the illuminated "R" indication.

Down Carriage Sidings, Horse Landing and No. 8 Siding. No movement which requires to go to the north side of "A" box may be made from the carriage sidings to the Horse Landing siding until permission has been received from the Signalman at that box, nor may a movement be made to No. 8 siding when required to go to the south side of South Junction box until permission has been received from the Signalman at that box.

Horse Landing Siding. Drivers of all locomotives proceeding to "A" box must report to the Signalman at that box.

#### CREWE YARD

Down Arrival Line between Basford Hall Junction and Sorting Sidings South. When this line is not clear throughout, Drivers will not receive any verbal warning or hand Caution signal, but the train will be brought to a stand at the signal controlling the entrance to the line, and when it is cleared they must proceed with caution as far as the line is clear towards the first stop signal for the box in advance, prepared to stop short of any obstruction.

Sorting Sidings South. When a train comes to a stand at the Up Fast Independent line home signal at Sorting Sidings South for any purpose, or because the signal is at Danger, the Secondman must operate the call plunger, and also inform the Signalman by telephone when the train is ready to proceed or make any movement.

Down Warehouse Road between Sorting Sidings Middle and Sorting Sidings North. Drivers must be prepared to stop short of any other train which may be on the line in front of them. During fog or falling snow, when trains are brought to a stand on this line, the Guard or Secondman must act in accordance with Rule 178.

A light locomotive may be allowed to follow another light locomotive, but the Driver must be prepared to stop short of any obstruction.

Sorting Sidings North—Examination of Trains on Down Slow Independent Line. The electrically worked loud-sounding bell fixed on the bank 30 yards North of overhead structure LL.157.06 at the back of the goods warehouse roads between Sorting Sidings Middle Down and Sorting Sidings North boxes will ring to warn staff examining wagons on the Down Slow Independent line, during the time the Sorting Sidings Middle Down Fast Independent home signal, or relative calling-on signal, is "off". until the signal concerned is replaced to Danger, but this will not relieve the men from responsibility for keeping a good look-out themselves.

Sorting Sidings North. The clearance of the starting signal from the shed to the Up slow line must only be taken as permission to go forward as far as the line is clear.

Tail Lamps on Brake Vans of Terminating Freight Trains. Guards of trains terminating at Nos. 1 or 2 arrival roads, or the loops at Basford Hall and Reception Sidings at Basford Hall Down Yard, must not remove the tail lamps. On arrival at the latter place, Guards must give details of their train, locomotive number and load to the Hump Chargeman.

Working of Up Through Siding between Crewe South Junction and Basford Wood Shunting Frame. Before a movement is made in the wrong direction from the Carriage Shed ground frame or from Basford Wood towards South Junction, the permission of the signalman at South Junction box must be obtained by telephone.

When Basford Wood shunting frame is open, movements must not be made in the Up direction past the "Stop and Await Instructions" boards applicable to the Up through siding and Brooks Sidings without the permission of the Person in Charge of the shunting frame. When Basford Wood shunting frame is closed, the Guard or Shunter (Secondman in the case of a light locomotive) will be responsible for authorising the Driver to pass the boards, after ensuring it is safe to do so.

North Stafford Sidings. When a train, complete with tail lamp, comes to a stand on the through siding clear of the connection from the down main line, the Guard (or Secondman in the case of a light locomotive) must immediately advise the Signalman, using the telephone near the trailing points. In the case of a movement proceeding towards the Sorting Sidings which does not come to a stand on the through siding, the Person in Charge at "Through Siding" ground frame will be responsible for advising the Signalman that it has passed clear of the trailing points from the Down main to the through siding, complete with tail lamp.

Down and Up Goods Lines between Sorting Sidings South and North Stafford Sidings. If either of these lines is blocked necessitating the other line being worked as an "up and down" line, a Pilotman must be appointed who will accompany every train over the section of line.

Gresty Lane No. 1 Box—Cattle Market Sidings. The telephone situated near the dwarf shunting signal at the exit from the Cattle Market Sidings must be used to communicate with the Signalman at Gresty Lane No. 1 box in all cases when it is necessary for a movement to be made past this signal.

Gresty Lane No. 1 box—Dead End Siding. The telephone situated near the dwarf shunting signal at the exit from the dead end siding must be used by Drivers of electric locomotives to advise the Signalman at Gresty Lane No. 1 box when they are ready to leave the siding.

Down Carriage Sidings between South Junction and Gresty Lane. When it is necessary for vehicles to be propelled through any of the through carriage sidings, in the Up or Down direction, the Shunter, or Person in Charge, must ride in the leading brake compartment, and be prepared to apply the brake to stop clear of any obstruction.

Should there be no brake compartment on a propelled movement, the Shunter, or Person in Charge, must bring the vehicles to a stand at the entrance to the siding, and then the shunt must move at a walking pace. Before reaching the fouling point at the outlet from the siding, the shunt must again be brought to a stand.

In all cases, before a movement is made through the sidings, the Shunter, or Person in Charge of the shunt, and the Driver, in the case of a light locomotive, must ascertain that the through siding is clear.

Salop Goods Junction—Diesel Depot Sidings. The telephone at the "Stop and Telephone" board situated 30 yards south of the connection to the Depot Sidings must be used by Drivers of locomotives to advise the Signalman at Salop Goods Junction when they are ready to leave the depot for the Chester line.

#### LONDON SUBURBAN AREA D.C. ELECTRIFIED LINES

General Description. The Down and Up lines between the following points, including certain crossover roads and sidings, are equipped with positive and negative conductor rails for the operation of electric trains:—

- (a) Broad Street and Richmond (via Hampstead Junction line). (No. 2 lines only between Camden Road Junction and Broad Street.)
- (b) Willesden (Low Level) and Kensal Green Junction.
- (c) Euston and Watford Junction (slow lines Euston to Camden Junction, thence via the D.C. electrified lines).
- (d) Watford (High Street Junction) and Croxley Green.
- (e) Camden Road Junction and junction with Down and Up D.C. electrified lines at Camden Junction.

Electric Trains—Broad Street, Richmond and Watford. The restriction on stock exceeding 57 feet long by 9 ft. 2 ins. wide over projections working on the Hampstead Junction line does not apply to electric trains working on the Broad Street, Richmond, and Watford services.

Special Stop Orders. Referring to the instructions on page 75 of the General Appendix, the following modification will apply:—

If it is necessary for the working to be altered or additional stops to be made at short notice, Special Stop Orders will not be issued, but instructions will be given verbally to the Driver and Guard by the station staff.

W.R. Locomotives working over the North London Line. W.R. locomotives and multiple units equipped with the W.R. Automatic Warning System are required to have the A.W.S. shoe clipped up when passing over D.C. electrified lines. This will not, however, apply over the portion of line at Acton Wells Junction between the junctions with the Acton Yard and Cricklewood lines for trains working to and from the Cricklewood line.

#### **BROAD STREET**

Shunting at Passenger Station. The distinctive shunt-out signals beneath the signals reading from all bays when cleared authorise locomotives to shunt out from Nos. 1, 2, 3 and 4 bays as far as Skinner Street Junction No. 1 line Down home signal, and from Nos. 5, 6, 7, 8 and 9 bays to the Limit of Shunt on No. 2 Down line, situated between that line and the goods yard.

When a train is pushed from a bay partly past the starting signal for the locomotive to cross to another bay, the shunt-out signal must be cleared.

Locomotives and trains drawing out of the station for shunting must carry a tail lamp. Before a train is drawn out, either from the station or sidings, the Person in Charge must tell the Signalman what is about to be done, and come to a clear understanding with him.

When Nos. 1, 2, 3 and 4 bays are blocked and it is necessary to bring a light locomotive from Skinner Street Junction to take a train out, the Person in Charge must arrange for the engine to be conducted into the bay with Caution.

Method of working. The crossover road points at the south end of Nos. 1—4 bays inclusive are worked by levers on the ground, fixed near the buffer stops, and bell communication is provided. Cards of instruction are exhibited on the ground.

When there are two locomotives at the South end of the bays and it is necessary for one to cross before the other follows a train out, the Driver of the one requiring to cross must, before allowing his Secondman to communicate with the Signalman, inform the other Driver what is intended, and tell him not to move until the operation is complete and the bays are re-set.

### YORK WAY FREIGHTLINER TRAIN TERMINAL, MAIDEN LANE

The Person in Charge of the Terminal will be responsible for the operation of the 2-lever ground frame and all hand points in the Reception Line.

The Reception line will normally be kept clear with the handworked facing points set for through movements towards York Road Junction.

Except in emergency, wagons must not be detached from trains at York Road Junction and left in the Reception line.

Berthing Inward Trains. Freightliner Trains on arrival in the Reception line must be drawn down to the Outlet signal at York Road Junction.

On arrival in the Reception line the Driver must fully apply the air brakes on the train and when this has been done the Secondman must uncouple the locomotive from the train without delay. After uncoupling, the locomotive, provided the Outlet signal is "Off", will draw out on to No. 1 Up line for return to Maiden Lane in the wrong direction over that line.

On arrival in the Reception Sidings, the Guard of the Liner train must proceed immediately to the Broad Street end of the train. It will not be necessary for him to apply any hand brakes on the train, and Rule 151 is modified accordingly. Immediately the running round movement is completed and the Secondman has recoupled the locomotive to the train, the Driver and Guard must carry out the simple brake test in accordance with Clause 4(A) of the Instructions on page 4 of the General Appendix.

On completion of this test the Guard must proceed to the entrance to the berthing roads to await the berthing of his train.

The Driver must, when the brake test has been successfully completed and provided the necessary fixed signals are clear, draw the train forward (without any handsignal from the Guard) to the "Limit of Shunt" board on No. 1 Up line. This board is so placed as to ensure that any Liner train drawn up to it will be clear of the points in the Reception line which give access to the Terminal berthing roads.

An illuminated "set back" indicator adjacent to the "Limit of Shunt" board is associated with the signal reading to the Reception line. When the points are set for the proper berthing road and it is safe for propelling to commence, the signal will be taken off and the indicator illuminated. No hand signal will be given.

Two illuminated "STOP AND AWAIT INSTRUCTIONS" boards are provided near the entrance to the berthing roads working area, and Drivers, when propelling, must bring their train to a stand when the locomotive reaches these boards. Drivers must propel their train to this point as expeditiously as possible, but must not exceed 10 m.p.h. All further propelling movements from the "STOP AND AWAIT INSTRUCTIONS" boards must be carried out under the instructions of the Person in Charge to ensure each train is correctly berthed for unloading.

Drivers should travel in the leading cab in the direction of travel when propelling into the berthing roads.

After the train has been brought to a stand in its final berthing position and the Driver has fully applied the air brake on the train, the Guard must apply hand brakes on at least half the vehicles and advise the Person in Charge accordingly. The Guard, or Secondman if provided, must then immediately uncouple the locomotive from the train; the Driver must draw the locomotive clear of the road level crossing and await instructions.

Departure of Freightliner Trains. When the light locomotive is turned into the Reception line at Maiden Lane Junction, the signalman must advise the Person in Charge of the Terminal, who will be responsible for setting the handpoints in the Reception line towards the required berthing road and calling the Driver forward.

Immediately on arrival with the locomotive the Guard must report to the Person in Charge of the Terminal who will, when ready, inform the Guard that the air brakes of the train have been fully applied with the static equipment and that he should proceed without delay to check and take off all the handbrakes on the train. When this has been done, the Guard must advise the Person in Charge of the Terminal. It will not be necessary for the Guard to examine any other feature of the train and Rule 131(i) is modified accordingly.

Seven minutes before the booked departure of the train the Person in Charge of the Terminal must ascertain from the Signalman at Maiden Lane Junction whether or not the train will be able to leave to time. It is important that if any delay is anticipated in despatching the train to the running line the locomotive is not attached prematurely, blocking the road level crossing in the Terminal.

Five minutes before departure time, the Person in Charge of the Terminal must request the Guard to signal the locomotive on to the train. The Guard must then couple the locomotive to the train and, when this has been done, the Driver must apply the independent air brake on his locomotive and then release the air brake on the train. Together with the C. & W. Examiner, who will be at the rear of the train, the Driver must carry out the simple brake test in accordance with Clause 4A of the Instructions on page 4 of the General Appendix.

When the C. & W. Examiner is satisfied the brake test has been satisfactorily carried out he must signal to the Driver accordingly.

Before giving the right away signal to the Driver, the Guard must receive from the Person in Charge at the terminal a certificate to the effect that the containers on the train have been secured properly, and that the tail lamp filled, trimmed and lit as necessary is in position at the rear of the train. He must also have observed the signal from the C. & W. Examiner at the rear that the brake test has been completed.

Two minutes before departure time, the Person in Charge at the terminal must reverse No. 2 lever in the ground frame and advise the Signalman at Maiden Lane Junction of the imminent departure of the Freightliner train. The Signalman at Maiden Lane Junction must keep a sharp look-out for the train approaching on the Reception line to give it a clear run on to the running line.

#### GOODS AND MINERAL JUNCTION TO ST. PANCRAS YARD

The Single line between Goods and Mineral Junction and St. Pancras Yard Shunter's Cabin is worked in accordance with the "One Train Working" Regulations.

The Train Staff is kept in Goods and Mineral Junction box, and the Secondman of each trip proceeding to St. Pancras Yard must obtain the staff from the Signalman, and return it to him immediately on reaching the yard on the return trip.

When trains proceed from St. Pancras Yard direct to Ferme Park, the North Yard Inspector must go to Goods and Mineral Junction and transfer the Staff from the Driver to the Signalman.

#### NORTH LONDON INCLINE

The Incline between the North London and Midland Lines is worked by token instruments in accordance with the instructions exhibited in the Midland token hut at the top of the incline and the North London Incline ground frame.

No train may proceed on to the incline unless the Driver is in possession of a token, or has seen one in the possession of the Driver of a locomotive to which his train is attached.

The key to the door of the Midland Token hut supplied for the use of the Inspectors must, when not in use, be kept in the St. Pancras (Midland) Yard Inspector's Office. A spare key is kept in Maiden Lane Junction signal box and in the North London Incline ground frame. The St. Pancras Inspector will be responsible for ensuring the door of the Midland Token hut is locked at weekends when the incline is not in use.

When a train requires to proceed from North London Incline ground frame to the North London line during the time a train is at the Wharf or Exchange sidings, the Person in charge at the North London Incline ground frame will ring the bell outside the Midland Token hut. The Guard at the wharf or sidings must go at once to the telephone to ascertain what is required, and if it is necessary to clear the line the train must be placed in the sidings clear of the incline. After this has been done, the Secondman must place the token in the token instrument, and the incline must not again be fouled until another token has been obtained. If the token becomes wet or dirty, it must be dried or cleaned before being placed in the token instrument.

If the block apparatus fails on the North London Incline "Up and Down" through siding or if a key token is lost or damaged so that it cannot be placed in the instrument, the matter must be reported to the Area Manager and arrangements made for a Pilotman to be appointed in accordance with Rule 191, who must accompany each train.

All movements towards Church Yard Sidings must have a locomotive at the lower end of the vehicles. Trains from Church Yard Sidings direction must have a locomotive in front and a brake van in rear in which a Guard must ride.

Midland trains going to the Exchange sidings must be brought to a stand at the points leading into the Wharf siding, until permission has been obtained from the Person in Charge for the train to enter the Exchange siding.

#### WILLESDEN HIGH LEVEL

Starting of Passenger Trains. Guards of passenger trains stopping at the station must not give the signal for their trains to start unless the "Off" indicator on the platform concerned shows that the signal ahead of the platform has been cleared.

#### **ACTON WELLS JUNCTION**

Trains conveying carflats must not be propelled into the Goods loop lines.

#### KEW EAST JUNCTION

Up freight trains changing or releasing locomotives at Old Kew Junction will be set back into either the up relief siding or down relief siding.

The train must proceed on the L.M.R. line towards Kew East Junction sufficiently far to clear the shunting signal controlling the backward movement into the siding concerned. To assist drivers in determining when their trains have proceeded the required distance, illuminated boards have been provided on the left-hand side of the up line towards Kew East Junction indicating where the locomotives of trains comprising 30, 50 or 70 basic wagon units respectively, should be brought to a stand on the forward movement. Trains requiring to be set back into the down relief siding must proceed an additional distance beyond the board concerned equivalent to 15 basic wagon units.

A banner repeating signal, working in conjunction with and repeating the position of the shunting signal controlling movements from the up L.M.R. line to the relief sidings, is provided on the left-hand side of the up L.M.R. line 255 yards beyond Old Kew Junction box. When this banner repeating signal is cleared, the driver is authorised to commence the propelling movement without first receiving a hand signal as required by Rule 108.

#### WILLESDEN LOW LEVEL

District Electric Car Depot. Drivers of trains brought to a stand at the dwarf shunting signal at the exit from the Departure/Arrival line must immediately advise the signalman by means of the telephone at the signal.

#### WATFORD-ST. ALBANS BRANCH

Except during fog or falling snow, the Driver of a D.M.U. on this service need not hand the "One Train Working" staff to the Signalman at Watford Junction No. 3 box after returning from the St. Albans direction, provided that it is shown to the Signalman each time the D.M.U. passes that box.

When a down train timed to stop at Watford North has completed station duties and is ready to depart for St. Albans, the Guard must operate the "Train ready to start" plunger. The level crossing barriers will not be lowered, nor will the Down advanced starting signal be cleared, until this plunger has been operated. The train must proceed on its journey immediately the signal has been cleared, and the Guard has given the signal to start.

The Coal Sidings at Watford North must be served only by trains which have departed from Watford Junction No. 3 box directly to these sidings.

Shunting of trains on the Single line at Watford Halt is strictly prohibited.

Electric Tail Lamps. The use of an illuminated electric tail lamp is permitted on D.M.U.'s on the Watford Junction-St. Albans branch line, using the lower centre marker light fitted with a red shade.

An oil tail lamp must be used for all movements of the unit other than those over the branch. An oil tail lamp must be carried in the Guard's compartment for use in emergency.

#### **NORTHAMPTON**

**E.M.G.B.** Sidings. (1) All movements into and out of these sidings must be worked by a diesel locomotive at a speed not exceeding 5 m.p.h. and will be under the control of the Guard.

- (2) Before the train enters the sidings
- (i) The brakevan(s) must be detached.
- (ii) The train crew must ensure that:
  - (a) All naked lights, i.e. oil hand, head, tail and side lamps have been extinguished and placed in the Driver's cab or brakevan.
  - (b) Matches, cigarette lighters, etc., are deposited in the receptacle provided at the entrance to the E.M.G.B. siding.
- (3) The Guard must work in conjunction with the E.M.G.B. staff and no movement may be made in the sidings without their permission.
  - (4) Oil hand, head, tail and side lamps must not be relit until the train is clear of the private sidings.

Hardingstone Junction. Trains proceeding to the Ministry of Supply Depot at Piddington must stop immediately the whole of the train has passed the Notice Board at the commencement of the Ministry of Supply sidings approximately 350 yards on the Piddington side of Hardingstone Ground Frame, and the Signalman at Hardingstone Junction signal box must be informed, by telephone, that the whole train is inside the Ministry of Supply siding.

#### PITSFORD AND BRAMPTON

Boughton Crossing—Cold Store. British Railways locomotives working in Boughton Cold Store Private siding must not exceed 5 miles per hour.

#### STAFFORD COMMON BRANCH

Except for up trains from 16 MU Sidings, trains may be propelled in either direction over the "Down and Up" Through siding between Stafford No. 5 box and Venables ground frame.

Drivers are authorised to deliver up the Train Staff on arrival at Stafford No. 5 Home 1 signal.

Before allowing a train to proceed on the "Down and Up" Through siding in either direction during the time shunting is taking place between Stafford No. 5 box and Venables ground frame, the Signalman at Stafford No. 5 box will obtain an assurance from the Person in Charge of shunting operations that the siding is clear.

After this assurance has been given, the Person in Charge must not allow any further movement to be made which will foul the "Down and Up" Through siding until the train has passed clear of that line.

#### APEDALE JUNCTION

Before the locomotive is detached from a train standing on the Through sidings, the handpoints at the Apedale Junction end of the sidings must be set for the Silverdale direction. This does not relieve the Guard of his responsibility for securing the train on the falling gradient in accordance with Rule 151.

#### MADELEY CHORD

Telephones are provided at each end of the Siding line, and the Guard (or Secondman in the case of light locomotives) must inform the Signalman immediately his train, complete with tail lamp, has arrived on the Siding line clear of all connections.

## LONDON MARYLEBONE TO CLAYDON AND BRANCHES

#### **MARYLEBONE**

Working of Trains in Platform Lines. The line for 55 yards from the buffer stops of each platform line is not track circuited, and Drivers receiving a green aspect to enter the station must be prepared to find vehicles standing on this portion of each platform line.

When a platform is fully occupied, the Calling-on signal will only clear for a light locomotive. Drivers must draw well up to the signal to occupy the short track circuit in rear of the signal.

Locomotives Detached from Trains in Platforms. Drivers of locomotives which are detached from inwards trains and remain in the platform until the departure of the train must, when the train is leaving, immediately follow it towards the platform starting signal in accordance with Rule 97. If it is necessary for the locomotive to remain at the end of the platform line after the departure of the train the Signalman must be advised by the station staff that it is being held and for what purpose. When it is ready to proceed towards the platform starting signal, it must not be allowed to do so until the Signalman's permission has been obtained.

Diesel Depot Siding. No movements may be made on to the Diesel Depot siding from the Tunnel siding at the North end without permission from the signalman at Marylebone signal box.

All movements from St. John's Wood siding, Fuelling road or the Washer siding, must be brought to a stand before the fouling point with the Diesel Depot siding, and Drivers must not proceed to the Tunnel siding until they have ascertained that no conflicting movement is taking place from the Diesel Depot siding.

Signal D23. This signal is provided with a repeating aspect, 6 feet below the main aspect. Drivers must understand that this signal is NOT capable of displaying a preliminary caution aspect (Rule 43).

#### NEASDEN SOUTH JUNCTION

Trains arriving on Down Loop or Down Goods Line—Rule 147. A plunger to ring a bell in the South Junction box is fixed at the side of the Down Goods line, 250 yards north of the box, and Guards must give two rings to indicate to the Signalman when their train is in clear on the Down Loop or Down Goods line.

# LONDON TRANSPORT RAILWAY BETWEEN HARROW-ON-THE-HILL AND AMERSHAM

#### HARROW-ON-THE-HILL

Goods Yard and Reception Road. Before a train can enter the goods yard or No. 2 or No. 3 northside shunt necks off the reception road, the Shunter, or Trainmen, when the former is not available, must telephone the Harrow-on-the-Hill Signalman for "Shunters Control" and when this has been given, the indication light will show "Shunters Control", and the hand point indication lights "Free". The Shunter or Trainmen then have full control of the yard and may work the hand points in the normal manner.

When shunting in the yard is complete, the train must be marshalled on the reception road and the hand points along the reception road must be restored to their normal position. The Signalman must then be advised that shunting has been completed, and the "Signalmen's Control" plunger adjacent to the indicator and signal JB. 74/76/80/82, depressed until such time as the indicator light is showing. The Signalman can now despatch the train as required.

If the "Signalmen's Control" lamp fails to become illuminated when the plunger is operated, the Guard or Secondman must communicate with the Signalman by the telephone provided.

#### PINNER

No movement may take place in Pinner Yard unless "Yard Control" has first been obtained by the Shunter.

#### **NORTHWOOD**

No movement may take place in Northwood Yard unless "Yard Control" has first been obtained by the Shunter.

#### MOOR PARK

Moor Park Crossover is under the control of the Station Supervisor, Moor Park, and can be used only with the permission of the Signalman in the adjacent boxes on either side. The telephones at Moor Park signals communicate at all times with the next box open ahead on the line concerned, whether or not Moor Park Crossover is in use.

#### INSTRUCTIONS RESPECTING ELECTRIFIED LINES

The instructions under this heading will apply generally to L.M. Region Staff working over the electrified portion of London Transport Railway, with the following additions:—

#### 1. Traction Current Supply.

#### (a) Switching off in emergency.

Current may be switched off in emergency by the Driver, Secondman or Guard, as may be most expedient, proceeding to the nearest telephone, station, or signal box, and requesting the station staff or Signalman to have the current switched off the section affected, or, if no station staff are readily available at a station, by dialling "75CE" on the automatic telephone. The Traffic Controller will answer and the person telephoning must explain the circumstances to him.

In all cases, the person requiring the current to be switched off must give his name and grade, the number and description of his train, the section or sections from which current is required to be switched off and the reason therefor, to the person to whom the request is made, and must wait until an assurance is received that current has been switched off.

#### (b) Restoring current which has been switched off.

Current will be restored to a section from which it has been switched off by the Traffic Controller after he has ascertained from all concerned (including the person who originally requested that traction current should be switched off) that all is in order for this to be done, except that the Traffic Controller may, after the lapse of 7 minutes from the time current was taken off, have the current restored if he has not already been advised that it has been taken off on account of trouble on a particular train or section.

Telephones at Signals. Telephone circuits are so arranged that when the signal box to which a signal telephone is normally connected is switched out the telephone is connected to the next signal box ahead on the line concerned. If two adjacent boxes are switched out, the telephone circuit will again be connected to the next box ahead.

Speed Restriction Signs. Certain speed restrictions signs are illuminated by the traction current supply, and when that supply is switched off, the signs will not be illuminated.

Automatic Brake Tripgear. Locomotives working over the local lines north of Harrow-on-the-Hill are required to be fitted with automatic brake tripgear. Except as shown in Rule 126, the tripgear must be operative at all times when the locomotive is running over London Transport Railway.

Note.—If it is necessary to work an unfitted locomotive over this section, either in emergency or to meet special requirements, special arrangements will be made for this purpose.

Before passing on to London Transport Railway, and before reversing when on it, each Driver must see that the tripcock isolating cock at the leading end of his locomotive is opened and the striking arm on the right-hand side in the direction of travel placed downward in the operative position. On leaving London Transport Railway, the isolating cocks must be shut and both striking arms raised to the horizontal position.

When necessary, locomotives must be specially stopped at the last signal before entering London Transport Railway, or at the first signal after leaving London Transport Railway, as appropriate, for the purpose of carrying out these instructions.

#### 2. Station Limits.

The definition of "Station Limits", as shown on page 61 of the General Appendix, is applicable to the following areas only on the London Transport Railway:—

(a) Harrow-on-the-Hill (excluding Pinner and Northwood).

#### (b) Rickmansworth.

Down line—between the outer home signal (JP.47) and the advanced starting signal (JP.43).

Up line—between the home signal (JP.1) and the shunt-back signal from the up line into the goods yard (JP.41).

#### (c) Amersham.

Up line—between Amersham home signal JW.1 and Chalfont & Latimer starting signal JT.10.

Down line—between Chalfont & Latimer outer home signal JT.82 and Amersham advanced starting signal JW.70, provided that no vehicle/s shall be propelled on either line in the Southbound direction without a brake van leading, or drawn on either line in the Northbound direction without a brake van at the rear unless:—

- (i) the vehicle farthest from the locomotive is fitted with the continuous brake of the pattern in use on the locomotive and the train pipe is connected through between the locomotive and that vehicle, or
- (ii) it is necessary to work the vehicles a short distance only on to, or from, the rear of a standing train.

#### 3. Current Rail Gap Indicators.

Special current rail gap indicators, installed either independently or in conjunction with fixed signals, are provided at certain locations and consist of a white triangular plate with a red light at each angle. The red lights will be illuminated in the following circumstances:—

- (i) in the case of independent indicators and indicators associated with through running signals, at all times when current is off the current rail section ahead.
- (ii) in the case of indicators associated with crossover signals (including wrong line starting signals) if a route is cleared for a movement on to another line and the current rails on that line are dead.

Repeaters (where provided) consist of yellow lights set in a yellow triangular plate.

If the Driver of a train other than an electric train finds a current rail gap indicator illuminated he must, if a telephone is provided at the indicator or at a signal with which it is associated, stop at it and use that telephone to obtain instructions. If no telephone is provided, or if no reply is received, he must proceed cautiously past the indicator, keeping a sharp-look-out, and be prepared to stop short of any obstruction there may be: he must stop at the first signal provided with a telephone from which he can communicate with the Signalman next ahead or at the next signal box or station then open, inform the Signalman or station staff, as the case may be, of the circumstances, and remain there until authorised to proceed.

It will not, however, be necessary for Drivers to take any action after the normal time of switching off current at night. The normal hours during which current is switched off are:—

	Down line	Up line	
Harrow to Northwood	00 50 — 04 45 (main) 00 50 — 04 45* (local) *03 45 (winter)	01 45 — 05 40 (main) 01 45 — 05 40 (local)	Monday to Friday nights
	00 50 — 06 25 (main) 00 50 — 06 25* (local) *05 25 (winter)	01 45 — 01 00 (main) 01 45 — 07 00 (local)	Saturday night
	00 25 — 04 45 (main) 00 25 — 04 45* (local) *03 45 (winter)	01 00 — 05 40 (main) 01 00 — 05 40 (local)	Sunday night
Northwood to Watford Jn.	00 50 — 04 55 (main) 00 50 — 04 55 (local)	01 45 — 05 35 (main) 01 45 — 05 35* (local) *04 35 (winter)	Monday to Friday nights
	00 50 — 06 30 (main) 00 50 — 06 30 (local)	01 45 — 06 55 (main) 01 45 — 06 55 (local) *05 55 (winter)	Saturday night
	00 25 — 04 55 (main) 00 25 — 04 55 (local)	01 00 — 05 35 (main) 01 00 — 05 35* (local) *04 35 (winter)	Sunday night
Watford Jn. to Chorleywood	01 00 — 05 00 (04 00 winter)	01 30 — 05 20	Monday to Friday nights
Choricy wood	01 00 — 06 40 (05 40 winter)	01 30 — 06 40	Saturday night
	00 45 — 05 00 (04 00 winter)	00 45 — 05 20	Sunday night
Chorleywood to Chalfont &	00 55 — 05 30 (04 55 winter)	01 25 — 06 00	Monday to Friday nights
Latimer	0 55 — 06 55 (05 55 winter)	01 25 — 07 30	Saturday night
	24 00 — 05 30 (04 55 winter)	00 40 06 00	Sunday night
Chalfont & Latimer to Amersham	01 10 — 06 00 (04 55 winter)	01 20 — 06 00	Monday to Friday nights
to Amersham	(04 55 winter) 01 10 — 07 05 (05 55 winter)	01 20 — 07 05	Saturday night
	(05 55 winter) 00 10 — 06 00 (04 55 winter)	00 20 — 06 00	Sunday night

#### 4. Telephones at Stop Signals.

Referring to the instruction on page 63 of the General Appendix, the following arrangements are applicable on the London Transport Railway:—

Train to be held at signal ... If after a period of 2 minutes signal does not clear, Driver must again communicate with the Signalman.

Signal defective, or cannot be cleared and train must **not** proceed.

Driver must communicate with Signalman at intervals of not more than 3 minutes.

Where a train is detained at a semi-automatic signal (other than an intermediate block signal) provided with a telephone, and no reply is received within 2 minutes of the telephone being used, the person designated in Rule 55(c) must proceed to the nearest signal box or station, report the circumstances to the person in charge and act on his instructions.

#### 5. Modifications to Rules.

The following modifications to B.R. Rules are in opeation on the London Transport Railway between Harrow-on-the-Hill and Amersham.

#### Rule 35—Distant Signals

Distant signals (where provided) are of the externally illuminated disc type with a black fish-tail bar on a yellow ground. They are distinguished by plates bearing the name of the area to which they refer.

#### Rule 35 (b) (ii)—Repeating Signals

Certain repeating signals are of the colour light type.

#### Rule 35 (c)—Automatic and Semi-automatic Signals

Automatic stop signals are distinguished by the letter "A" prefixed to the number of the signal. Semi-automatic stop signals are distinguished by the identification letters of the signal box or interlocking machine room prefixed to the number of the signal.

At certain places an automatic stop signal in rear of a controlled section is distinguished by the identification letters of the signal box followed by the letter "X" and the number of the signal. Such signals must be regarded as semi-automatic stop signals and must only be passed at Danger as laid down in Rules 37 (a) and 38 (a) and (b), or where specially authorised.

#### Rule 35 (e)—Route Indicators

Route indicators of the theatre type (i.e. a number of lamps in a rectangular frame illuminating figure/s to indicate the line over which the train will run), are provided at certain shunt signals applying to more than one route. The illuminated figure/s indicate the route for which the signal is cleared, number "1" indicating that the route is set to the line on the extreme left, number "2" to the line next in order from the left, and so on.

#### Rule 35—Additional Clause—Trainstops

Trainstops are provided outside the right-hand running rail at running stop signals and some shunt signals. When the signal is at Danger the trainstop arm is raised to open the tripcock on a train overrunning the signal; when the signal is cleared, the trainstop arm is lowered. Trainstops are not provided at repeating signals.

If a trainstop fails to operate at a signal which has been cleared, red and green aspects will be displayed simultaneously. The signal must be regarded as being at Danger and must not be passed except in accordance with Rule 55 or Rule 81.

#### Rule 36 (c)—Distant Signals passed at Caution

After passing a distant signal at Caution, Drivers must be prepared to stop at any of the associated stop signals.

#### Rule 39—Operation of Signals

Clause (a) will not apply. Provided that their controls permit, stop signals will be cleared as necessary without regard to the aspect of the stop signal next in advance.

#### Rule 42—Repeating Signals

Repeating signals are distinguished by a yellow number plate displaying the letter "R" prefixed to the letters and number (in the case of semi-automatic signals) or to the number only (in the case of automatic signals) of the signals which they repeat. Colour light repeating signals fixed below and on the same post as a stop signal will not be illuminated when that stop signal is at Danger.

Fog repeating signals are mounted in a white frame bearing the letters "FR" prefixed to the letters and number (in the case of semi-automatic signals) or to the number only (in the case of automatic signals) of the signals which they repeat. These signals display a yellow aspect with a black "F" superimposed when the signal which they repeat is at Danger, and a lunar white aspect with a black "F" superimposed, when that signal is displaying a yellow, double yellow or green aspect, and are fixed about 100 yards before reaching the stop signal which they repeat. Where only one fog repeating signal is provided for a diverging junction it applies to all trains approaching it.

#### Rule 50-Hand Signals.

Additional exception (a)

To indicate to Driver that a repeating signal is defective and cannot be placed at Caution (Rule 81).

Red hand signal held steadily by Handsignalman at repeating signal.

Additional paragraph (c) 6

To indicate to Driver of following train that he is required to move forward (Rule 179).

White light waved slowly from side side across the body by Guard of defective train.

Additional paragraph (d) 20

To indicate to Driver that a repeating signal fixed below a stop signal is defective and cannot be placed at Caution (Rule 81). Green light moved vertically up and down above shoulder level.

#### Rule 55-Detention of Trains at Signals on Running Lines

#### General

Except in the case of a semi-automatic signal not provided with a telephone, or when no reply can be received from a telephone at a semi-automatic stop signal, it will not be necessary for Trainmen to go to the signal box. During fog or falling snow, however, if a train is detained at a signal on a running line for more than one minute, the Guard must at once satisfy himself that the tail lamp and side lamps, where provided, are alight and showing properly.

#### Controlled signals without telephones

If a train is detained at a signal which is not an automatic signal and at which a telephone is not available, the person designated in Rule 55 (c) must proceed to the nearest signal or station at which a telephone is available or, if necessary, to the signal box to advise the Signalman of the circumstances.

#### Two-aspect automatic signals

If a train is detained at a two-aspect automatic signal, the Driver must wait one minute and then proceed in accordance with sub-clause (ii) of clause (g), whether or not he can see or ascertain that the line is clear to the next stop signal.

#### Reporting of signals remaining at danger

Whenever a Driver passes an automatic stop signal (other than a platform starting signal at a station which is open) at Danger without the prior authority of a Signalman, he must so inform the Signalman at the next box or the staff at the next station then open (at which a special stop must be made if necessary), and must state the identification letter and number of the signal. In the case of a platform starting signal at a station which is open, the Driver must inform the station staff that he is about to pass the signal at Danger, unless he has been informed by the Station Supervisor that the signal is remaining at Danger.

#### Platform Starting Signals

The Driver must not restart a passenger train until he has received a signal to start from the Guard in accordance with Rule 141.

The final sentence of Rule 55, clause (h) (ii) will not apply.

#### Rule 77 (i)—Duties of Handsignalmen at inoperative automatic signals

After a train has been brought to a stand, the Handsignalman must inform the Driver of the circumstances (i.e. "Signal No. . . . . . is inoperative") and, unless he has been instructed to hold the train, withdraw the hand Danger signal.

When the hand Danger signal is withdrawn, the Driver MUST ACT IN ACCORDANCE WITH THE PROVISIONS OF RULE 55.

No verbal or written authority or instruction will be given to a Driver by the Handsignalman to pass the signal which has been made inoperative.

#### Rule 81 (h)—Signal failing in the Clear Position

A Driver finding another train in the section, although the signal in rear was not at Danger for his train, must bring his train to a stand and the Guard must protect the train as required by Rule 179, thereafter returning to his train. The Person in Charge at the station or the signal box in rear must also be advised.

#### Rule 81 (1)—Authority to Drivers to pass signals at Danger

Drivers may be authorised to pass signals at Danger verbally or by telephone by the Station Supervisor or Signalman, or by the appropriate hand signal displayed by a Handsignalman posted at the Signal, or by a properly completed "Station-to-Station Working" form (see below).

Note.—Drivers will not be hand-signalled past automatic stop signals at danger on London Transport Railway, and verbal instructions to pass such signals at Danger may be given by Signalmen only; such instructions must not be accepted when given by station staff, even if the signalman's authority is claimed.

#### Station to Station Working

When Station-to-Station working is in force as a means of dealing with the failure of one or more automatic signals (or semi-automatic signals working automatically) between two or more stations, a red hand Danger signal will be exhibited near the starting signal of the first station concerned, and all trains must stop there whether booked to do so or not. Drivers will be authorised to proceed by the Station Supervisor after he has issued a completed "Station-to-Station Working" form to the Driver and notified the Guard that Station-to-Station working is in force. The "Station-to-Station Working" form is the Driver's authority to pass at Danger the signals which have failed. The Guard must not give the Driver the signal to start until he has received a green hand signal from the Station Supervisor.

When Station-to-Station working is in force, Drivers will be authorised by the Station Supervisor to close the tripcock isolating cock, and they must then proceed with extreme caution. On arrival at the last station to which Station-to-Station working is in force, the Driver must open the tripcock and the Station Supervisor will check that he has done so. The Driver must hand his "Station-to-Station Working" form to the Station Supervisor at that station.

A Driver must not regard a "Station-to-Station Working" form as authority to pass a semi-automatic stop signal at Danger, except when the Station Supervisor handing him the form has endorsed it "Pass ....." (letter/s and number of semi-automatic stop signal).

STRICT OBSERVANCE OF THE PRECAUTIONS LAID DOWN FOR STATION-TO-STATION WORKING AND TAKING ALL NECESSARY STEPS TO AVOID ANY MISUNDERSTANDING ARE OF GREATER IMPORTANCE THAN ANY DELAY TO TRAINS WHICH MAY BE OCCASIONED THEREBY.

	LONDON TRANSPORT
STA	tion to station working
	STATION
To MOTORMAN OF TRAIN	1 NO
Castian to Station Working	is in operation between this Station and
	dance with Rule G.15 to that Station. The Guard has been notified.
You must proceed in accord	dance with Rule G.15 to that Station. The Guard has been notified.  Timehrs
You must proceed in accordance	dance with Rule G.15 to that Station. The Guard has been notified.

#### Rule 81—Trainstop defective

The failure of a trainstop will be treated as a failure of the signal in connection with which it operates.

#### Rule 82—Signal not shown or imperfectly shown

The action to be taken by this Rule will also apply to the absence of a route indication where one is ordinarily shown, and to a repeating signal as to a distant signal. If a Signalman is not available, the circumstances must be reported to the staff at the next station.

#### Rules 84 to 95-Signalling during fog or falling snow

Fogsignalmen are not employed South of Great Missenden, but fog repeating signals will be switched on and remain on while the stop signals are not visible at a distance of at least 200 yards.

When a train is stopped from any cause on the running line during fog or falling snow, the Guard must immediately satisfy himself that the tail lamp, and side lamps, where provided, are alight and showing properly.

#### Rule 111 (a)—Availability of continuous brakes

Except in non-electrified goods yards and sidings, when it is required to shunt vehicles fitted with the continuous brake, such vehicles must be coupled up to a vehicle or locomotive from which the necessary brake power can be obtained, except when vehicles fitted with the air brake are being shunted by a locomotive fitted only with the vacuum brake. The train pipe must be coupled throughout the train, the angle cocks opened, and the proper air pressure or vacuum created.

#### Rule 121—Side Lamps

All running lines and loops must be treated as FAST lines.

#### Rule 126 (i)—Engine to be in proper order

The Driver must ensure that the tripcock isolating cock at the leading end of locomotives so fitted is open except in the following circumstances:—.

- (i) When Station-to-Station working is in operation (Rule 81); or
- (ii) When assisting a train from the rear (Rules 133 and 179); or
- (iii) When single line working is in operation (Rule 200 (a)).

The tripcock isolating cock at the leading end in the right direction must be closed while a wrong direction movement is being made.

#### Rule 127 (vii)—Use of Locomotive Horn

One long blast must be given when necessary to warn staff on the track or where a "Whistle" board is fixed, and on approaching a station platform at which the train will not stop.

#### Rule 127 (xii)—Train stopping at Signals at Danger

The Driver must always draw his train as closely as practicable to stop signals at Danger, except in the case of station starting signals, where he must use his discretion, taking into account the length of his train in relation to the platform and the station buildings.

#### Rule 136 (a)—Passenger Trains overrunning Platforms

The train must not be set back without the authority of the Signalman. Where a Signalman is not on duty, this authority may be given by the Station Supervisor.

#### Rule 136 (b)—Passenger Train running past a Station

If the whole of a train runs past a platform, the Guard may instruct the Driver to set back after obtaining the authority of the Signalman in accordance with Rule 184. Where a Signalman is not on duty, this authority may be given by the Station Supervisor.

#### Rule 136 (c)—Train Overrunning Signal

If a train overruns an automatic or semi-automatic stop signal at Danger, or overruns and restores a starting signal to Danger, it may come to a stand in such a position as to prevent the clearing of the signal. In such circumstances the Driver must not set back unless he receives the authority of the Signalman or Station Supervisor where a Signalman is not on duty. If such authority is not received, the Driver must, subject to the provisions of Rule 55 or 81, proceed with the signal at Danger.

#### Rule 141 (a)—Starting of Passenger Trains

No passenger train may be started before the time stated in the timetable, except on instructions from the Station Supervisor.

#### Rule 141 (b)-

The Guard must not give the signal to start unless the starting signal, where provided, is cleared except when it is necessary to pass the signal at Danger in accordance with Rules 55 or 81.

#### Rule 142 (b)—Starting of Freight Trains

The Guard must not give the signal to start unless the starting signal, where provided, is cleared, except when it is necessary to pass the signal at Danger in accordance with Rules 55 or 81.

#### Rule 148 (b)—Hand Signals given by Goods Guard

If the Guard of a freight train should see any reason to apprehend danger to a train on an adjoining line, he must, if his train passes a station, exhibit a red hand signal waved slowly from side to side to the platform staff.

#### Rule 179-Protection of Train stopped by accident, failure, etc., when only one line obstructed

Except as shown in respect of modified Rule 81 (h), the Guard will not go back  $\frac{3}{4}$  mile, placing detonators at the prescribed distances, nor to the next automatic or semi-automatic signal in rear if that signal is showing Danger, but, after satisfying himself that the tail lamp and side lamps, where provided, are alight, when necessary, and showing properly, go to the signal box or station in rear, exhibiting a hand Danger signal, and report the circumstances. During fog or falling snow, if a train approaches while the Guard is on his way back to the signal box or station in rear, he must, if practicable, place one detonator on the rail. If the Guard stops an approaching train, he must advise the Driver of the circumstances, and if assistance is required, pilot the assisting train forward to the rear of the disabled train.

If a following train arrives within sight of the defective train before the Guard has left to obtain assistance he must exhibit a white hand lamp signal waved slowly from side to side to authorise the Driver of the following train to draw forward. The Driver of the following train must not pass a semi-automatic signal at Danger without the permission of the Signalman.

#### Rule 179(d)—Assistance obtained from the rear

When assistance is obtained from the rear, the assisting train will not be detained at the signal box or station in rear to await the arrival of the Guard of the disabled train.

#### Rule 179 (f)—Assistance obtained from the front

Where the signal box or station ahead is the nearer, the locomotive may be uncoupled to run forward to that box or station for assistance, or the Secondman will go forward on foot. If, however, it is afterwards found assistance can be given from the rear, any "Wrong Direction Movement Order" issued must be cancelled and, in clear weather, the Guard must wait at the rear of his train and hand-signal the assisting train forward. During fog or falling snow, the Guard must go back 100 yards, place three detonators on the rail, exhibit a hand Danger signal, and await the arrival of the assisting train, which he must pilot to the rear of the disabled train.

#### Rule 181 (f)-Protection of train stopped by passenger communication

It will not be necessary for a train which has been stopped by the use of the communication between passenger, Guard and Driver, to be protected in rear whilst the Guard attends to the passenger who used the communication.

#### Rule 183(d)-Protection of rear portion of a train which has to be divided

It will not be necessary for the rear portion of a train which has to be divided to be protected in the rear.

### Rule 183 (g)-Disabled train Secondman taking "Wrong Direction Movement Order" to signal box

The Secondman of the disabled train on his way to the signal box must satisfy himself that the line over which the wrong direction movement is to be made is clear, before handing the written authority to the Signalman.

# Rule 183 (i)—Front portion of train which has become accidentally divided in section setting back to re-couple

If the Driver requires to set back in order to re-couple the two portion of his train, and both portions are standing in an automatically signalled area, with no controlled area intervening, he may do so on his own initiative.

If both portions are standing in a controlled area, or one portion is standing in a controlled area and one in an automatic area, the Driver must advise the Signalman of the circumstances by the most expeditious means. The Signalman must advise the Station Supervisor, and when all is in order for the movement to be made, the Station Supervisor will pilot the front portion back to the rear portion. If the two portions are standing in two separate controlled areas, the Driver must obtain the permission of each Signalman concerned in this way, before setting back into or through is controlled area. IN ALL CASES, THE DRIVER MUST, BEFORE SETTING BACK, BE IN POSSESSION OF A PROPERLY COMPLETED "WRONG DIRECTION MOVEMENT ORDER". In no circumstances must a setting back movement be made over any points until the Driver has assured himself they are secured in the proper position for the movement.

#### Rule 184—Train travelling in wrong direction

If the whole of a train runs past a station platform, it must not be set back without the authority of a "Wrong Direction Movement Order".

The Driver of a train or portion of a train travelling in the wrong direction to the station in rear on the authority of this order must approach the starting signal with great caution, bring his train to a stand at it, and wait for a green hand-signal before attempting to enter the platform.

Where automatic signalling is in operation and no signal box exists, a "Wrong Direction Movement Order" may be issued by the Station Supervisor.

When a wrong direction movement is to be made within an area comprising a number of stations remotely controlled from a signal box within the area, the "Wrong Direction Movement Order" will be issued by the Signalman controlling the area and countersigned by the Station Supervisor at the station to which the wrong line movement is to be made.

Black on white card	LONDON TRA	ansport	
,	WRONG DIRECTION	ON MOVEMENT	
To: Motorman of train No.		•••••	
I authorise you to proceed in	the wrong direction as far	as	10ITAT2
The section is clear and poir	nts have been secured for the	ne movement.	317(10)
Date:		Time:	hrs.
Signed:		Grade:	
Countersigned:	MOTORMAN	Depot:	

#### Rule 187—Detraining passengers from disabled trains

Passengers must not be detrained on to the track until authority is received from the London Transport Controller or, in extreme emergency, and in any case only after electric current has been switched off. Detrainment must normally be supervised by an Operating Official or Supervisor

#### Rule 188-Train on fire

If fire or fusing occurs on a passenger train while running, the Driver must make every effort to reach the next station, where arrangements will be made for passengers to be detrained, for traction current to be removed (if necessary) and for the vehicle/s concerned to be dealt with. If the Driver is forced to stop by the use of the passenger communication, he must endeavour to continue to the next station at the earliest possible opportunity.

#### Rule 189.7.1—Single Line Working—Duties of Train Crews

The Pilotman will accompany every freight train passing over the single line. In conditions of poor visibility he will accompany every train passing over the single line in the wrong direction, except that an empty coaching stock train need not be accompanied, provided that the following train is not a passenger train.

The rear tripcock of each locomotive or train passing over the single line in the wrong direction must be latched up in addition to the tripcock isolating clock closed. This must always be done to avoid damage to transtops by the tripcock arm striking them in the reverse direction. Where possible, a Driver or Car Examiner will be provided to latch up the tripcock arm, but in his absence the Driver of each train concerned will be responsible for carrying out this duty. The tripcock must be reset at the earliest possible opportunity after the train has passed clear of the single line.

#### Rule 192—Single Line Working—Automatic and Semi-Automatic Signals

Trains passing over the single line in the proper direction will be controlled by the signals relating to that line, but trains in the wrong direction will not be controlled by the signals relating to the obstructed line.

#### Rule 218 (a) and (e)—Protection of running line during repair, etc.

Warning boards are not provided where two-aspect signalling is in operation, but the commencement of the speed restriction is marked by an illuminated speed indicator.

#### 6. Diesel Multiple-Unit Trains Assisting

Referring to the instruction on page 43 of the General Appendix:—

- (a) If a diesel multiple-unit train fails, it may be propelled or drawn by any type of light locomotive or train, including L.T. electric multiple-unit surface type stock (Types "A", "O" "CO", "P" and "CP" subject to the conditions shown below, and the instruction in the Drivers' Handbook (BR.33003/-"Blue square" cars):—
  - (i) Assistance by a train of L.T. electric multiple-unit surface type stock (Types "A", "O", "CO", "P" and "CP").

The movement, either propelling or drawing, must be made with extreme caution at a speed not exceeding 5 m.p.h.

- (ii) Assistance by electric or diesel locomotive, or by locomotive-hauled train which has the vacuum brake operative throughout.
  - If the automatic brake is operative on the diesel multiple-unit train, propelling movements may be made at a speed not exceeding 10 m.p.h. and drawing movements at a speed not exceeding 25 m.p.h. If the automatic brake is not operative on the diesel multiple-unit train, propelling or drawing movements must be made with extreme caution at a speed not exceeding 5 m.p.h.
- (iii) Assistance by locomotive-hauled train which does not have the vacuum brake operative throughout.

If the automatic brake is operative on the diesel multiple-unit train, propelling movements may be made at a speed not exceeding 10 m.p.h., but drawing movements must be made with extreme caution at a speed not exceeding 5 m.p.h.

If the automatic brake is not operative on the diesel multiple-unit train, propelling and drawing movements must be made with extreme caution at a speed not exceeding 5 m.p.h.

- (b) If a train of L.T. electric multiple-unit surface type stock fails (Types "A", "O", "CO", "P" and "CP"), it may be propelled or drawn by a diesel multiple-unit train, provided the movement is made with extreme caution at a speed not exceeding 5 m.p.h.
- (c) In all cases where assistance is given to a diesel multiple-unit train, the assisting train or locomotive must be coupled to the train by a screw coupling, except that in the case of assistance being given by or to a train of L.T. electric multiple-unit surface type stock (Types "A", "O", "CO", "P" and "CP"), the coupling must be made with the special coupling apparatus provided.

If the automatic brake is operative on the disabled diesel multiple-unit train, the vacuum hose pipes, where provided, must be connected between the two trains and the automatic brake operated from the leading driving cab.

(d) If the disabled diesel multiple-unit train is being propelled without the automatic brake being in operation between the two trains, the Driver of the diesel multiple-unit train must ride in the leading driving cab of that train and advise the Guard, using the bell communication, what instructions have to be relayed to the Driver of the assisting train. The Guard of the diesel multiple-unit train must ride in the rear driving cab of that train and handsignal to the driver of the assisting train, as necessary, the instructions received from the Driver of the diesel multiple-unit train.

(e) Except as shown below, passengers must be detrained from both trains concerned at the next station.

In cases where the diesel multiple-unit train is being drawn by a locomotive or locomotive-hauled train and the vacuum brake of the diesel multiple-unit train is coupled to the vacuum brake of the assisting locomotive or train and is operative throughout, the L.T. Line Controller at Baker Street, after consultation with the L.M. Controller at Euston, will decide whether passengers need be detrained.

(f) Diesel multiple-unit trains must not be used to assist any train other than a diesel multiple-unit train of similar type, or a train of L.T. electric multiple-unit surface type stock (Types "A", "O", "CO", "P" and "CP").

#### NEASDEN NORTH JUNCTION

#### Rule 55.

On Sundays, while the box is closed, the track circuit on the approach side of the Up slow home signal (also controlled from Neasden South Junction as an outer home signal) is inoperative, and the South Junction Signalman must be reminded of the presence of trains standing at this signal in accordance with Rule 55.

#### WEMBLEY STADIUM LOOP

#### Rule 55.

The Stadium Loop line is track circuited throughout, but although the automatic signals LA1, LA2 and LA3 bear identification plates (an oblong white plate with horizontal black stripe) as described in Rule 35 (c), telephones are not provided and Drivers of trains detained at any of these signals must act in accordance with Rule 55 (h) (i).

### RUGBY AND STAFFORD VIA BIRMINGHAM AND BRANCHES

#### **COVENTRY**

#### Platforming of Down Express Passenger Trains.

Three white indicator boards with black figures, bearing the numbers 10, 11 and 12, are situated adjacent to No. 3 platform line, 295 feet, 230 feet and 160 feet respectively before reaching signal CY 27.

Drivers of Down express passenger trains conveying 10, 11 or 12 coaches must stop with the front of the locomotive at the appropriate indicator board.

#### TILE HILL

#### Mobil Oil Co.'s Sidings.

After tank wagons have been berthed, the Guard must detach the barrier wagons and brake van (if provided) and draw these vehicles forward clear of the gateway.

#### ADDERLEY PARK DOWN SIDINGS

The two sets of hand points between the Down Sidings and the "Down and Up" Through Siding must normally be clipped and padlocked for movements on the "Down and Up" Through Siding. The Guard must obtain the key from the Signalman at Exchange Sidings Box.

The Guard of a train requiring to do work in Adderley Park Down Sidings must, upon the instruction of the Signalman at Exchange Sidings box, clip and padlock the points for the "Down and Up" Through Siding when his train has been shunted in clear and return the key to the Signalman at Exchange Sidings box at the earliest opportunity.

#### **EXCHANGE SIDINGS**

Trains leaving Exchange Sidings for the Up Derby direction, requiring to propel on to the Down Derby line, must not exceed 30 wagons in length.

#### BIRMINGHAM—NEW STREET

#### Working in New St. Station.

Trains having come to a stand at any portion of the platforms must not again be moved until proper warning has been given to passengers, who may be getting in or out or near the train.

Drivers having brought their trains to a stand at any portion of the platforms must receive a signal from the Person in Charge before moving forward again.

#### Starting of trains—Rules 141 and 143.

Indicators, not normally illuminated, are provided on the signals for all platforms in both directions and, immediately the Guard's signal to start a train has been given, the person in charge of the platform, or Guard or Shunter in charge of the train, must press the plunger, which will cause the indicator to exhibit the letter "R", indicating to the Driver of the train that the Guard's signal has been given.

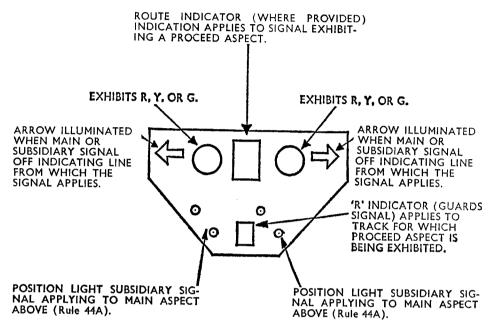
#### Assisting trains in the rear.

When a Down train departing from a platform exceeds the tonnage authorised for the locomotive and the Driver requests assistance in starting, this may be given in rear.

If a Driver, after departing to the Down Wolverhampton line, has to request assistance through the locomotive being overpowered he must at once send his Secondman to the signal box. The assisting locomotive must not pass signal NS.471 unless the Driver has requested assistance to signal NS.305.

#### Colour Light Platform Starting Signals.

Searchlight signal units of the special type illustrated below are provided as starting signals from the island platforms. The two main aspects (which apply to the appropriate platform line either to the left or right of the signal unit) are a minimum distance of 1 foot 8 inches apart. Before acting on these signals Drivers must ensure that the arrow is pointing towards the platform line on which their train is standing.



Trains leaving Suffolk Street Tunnel, and running into the Station, must sound the horn to warn Shunters and others of their approach.

#### SOHO

#### **Down Sidings**

Wagons left in these sidings must be clear of the Through siding, and the points must be left set for that line after work has finished.

#### Soho North Junction-Up Branch Siding.

Wagons with loads which project over the side of the wagon on the fence side must not enter this siding either from the Coal Yard end or the Soho North Junction end.

#### **ALBION**

#### Gulf Oil Co.'s Sidings.

- (1) All movements into and out of these sidings must be worked by diesel or electric locomotive at a speed not exceeding 5 m.p.h. and will be under the control of the Guard.
- (2) On arrival clear of the points and before a train proceeds towards the siding:

The Guard must ensure that the brakevan fire(s) has been thoroughly extinguished.

The Trainmen must ensure that:

- (i) All other naked lights, i.e. oil hand, head, tail and side lamps have been extinguished and placed in the Driver's cab or brakevan.
- (ii) Matches, cigarette lighters, etc., are deposited in the receptacle provided at Albion Shunting Frame.
- (3) The Guard must work in conjunction with the Gulf Oil Co.'s staff and no movement may be made into the sidings without their permission.
- (4) The train must be berthed in such a position that the first and last tank wagons are within the marker boards B and C. The barrier wagons and brakevan if provided must then be drawn forward clear of the insulated rail section situated between boards A and B.
- (5) Oil hand, head, tail and side lamps must not be replaced or relit until the train is clear of the sidings.

### Watery Lane Shunting Frame-West Midlands Gas Board's Sidings.

- (1) All movements into and out of these sidings must be worked by diesel or electric locomotive at a speed not exceeding 5 m.p.h. and will be under the control of the Guard.
- (2) Before entering the sidings the Trainmen must ensure that
  - (i) All naked lights, i.e. oil hand, head, tail and side lamps must be extinguished and removed.
  - (ii) Matches, cigarette lighters, etc., must be deposited in the receptacle provided.
- (3) A clear understanding must be reached with the Person in Charge of the shunting frame as to the siding to be occupied, and an electric hand lamp must be obtained by the Guard for use in the sidings.
- (4) The train must be berthed in such a position that the first and last tank wagons are within the markers provided.
- (5) No further movements may be made without the permission of the W.M.G.B. staff.
- (6) After completion of duties in the sidings the electric hand lamp must be returned to the Person in Charge of the shunting frame.
- (7) Oil hand, head, tail and side lamps must not be replaced or relit until the train is again clear of the sidings.
- (8) The Guard of a train with tank wagons will be responsible for ensuring that the barrier wagons and brake van (if provided) are drawn forward clear of the insulated rail section (as indicated by boards A and B) after the tanks have been berthed.
- (9) When the locomotive of a terminating freight train is single manned, the Guard, before accompanying the locomotive during the running round movement, must inform the Person in Charge at the Shunting Frame that the train will be left unattended during the movement.

#### SPRING VALE SIDINGS

No movement must be made from No. 1 or No. 2 Tarmac Sidings to the "Down and Up" Through siding, neither must a movement be allowed to foul the facing connection from the Up Main line to the "Down and Up" Through siding, nor vehicles be left foul of this connection, without permission of the Person in Charge of the shunting frame.

#### WOLVERHAMPTON

Starting of Trains-Rules 141 and 143.

Indicators, not normally illuminated, are provided on the signal at the Stafford end of platform 1 and on the signal at the Birmingham end of platform 3, and immediately the Guard's signal to start the train has been given, the Person in Charge of the platform must press the plunger which will cause the indicator to exhibit the letter "R", indicating to the Driver that the Guard's signal has been given.

#### BUSHBURY

Working of Up and Down Through Sidings between Bushbury and Cannock Road.

If it is necessary for the Up Through siding to be occupied at the Bushbury end, the permission of the Signalman at Cannock Road Junction box must be obtained.

If a through train is brought to a stand at the signal controlling the exit from the Down Through siding at Bushbury, the Driver must immediately telephone the Signalman at Wolverhampton (High Level) box for instructions.

#### FOUR ASHES

#### Midland Tar Distillers Sidings.

Before any brake van enters the sidings its fire must be extinguished.

#### STAFFORD

Cox Long Importers Ltd. Sidings, Rickerscote.

Trains of not more than 12 vehicles with brake van leading, in which the Guard must ride, may be propelled over the Down line in the wrong direction from Stafford No. 1 box to Cox Long Importers Ltd. ground frame.

In clear weather only, these trips may be worked from Stafford No. 1 box to the ground frame without brake van leading, in charge of a Shunter, and from the ground frame to Stafford No. 1 box without a brake van in rear.

Before any movement is made into these sidings, the Guard or Shunter must obtain an assurance from Cox Long Importers Ltd. staff that no conflicting movement will be made with the travelling steam crane or other vehicle, nor a fouling movement with the jib of the crane, until shunting is completed and train has left the sidings.

The Guard or Shunter must advise Cox Long Importers Ltd. staff when shunting is completed and the train is about to leave the sidings.

#### GOSFORD GREEN

Working of Carflat and Bocar Vehicles. Propelling movements with Carflat and/or Bocar vehicles, loaded or empty, must not be made, in either direction, through the hand-operated crossover points connecting the yard shunting neck with the Down through siding. Such movements must be made via the Up through siding towards the former Humber Road Junction.

Outgoing trains must be formed on the Down through siding and incoming trains split on the Up through siding.

#### **ASTON**

#### Nechells Gas Works Sidings.

Before a train is allowed to enter the Gas Works Sidings, the Guard must ascertain that the sidings are clear and that no conflicting movements are being made by the Gas Board's staff.

Locomotives must not enter Nos. 3 and 4 sidings, and must not go more than their own length beyond the points into Nos. 1 and 2 sidings.

Wagons which are to be left in the sidings must be secured by brakes and sprags before the locomotive is detached. When wagons are placed in the sidings against others, the whole of the wagons must be coupled and secured before the locomotive is detached.

Not more than 15 loaded wagons may be taken out of, or put into, the sidings at one time.

#### Robinson's Siding.

Guards detaching wagons must see they are secured by brakes or sprags before the locomotive is detached, unless the Firm's Men are present to take charge of them. If the Firm's Staff are not present, two Guards must accompany the wagons into the siding and use brake sticks to control the wagons. When wagons have to be attached they must be coupled together before the locomotive is attached and the last wagon on the line, whether drawn out or left, must be secured by a sprag.

Locomotives may enter the sidings only far enough to leave wagons clear and to pick up from the outgoing road.

#### BESCOT

#### Down Reception Sidings.

The Guard of a Down or Up freight train terminating in the Down Reception Sidings must satisfy himself, before leaving his train, that sufficient hand brakes have been applied to prevent the wagons moving when the locomotive is detached.

#### Down Stowage Sidings.

The Supervisor responsible for train movements and information for the Stowage Sidings is the Inspector at the Down Hump cabin. Internal locomotive movements must not commence until permission has been obtained from Bescot Down Tower Signalman or through the Down Hump Inspector.

Drivers of locomotives departing from Bescot Down North End for the Stowage Sidings will receive instructions from the North End in conjunction with the Hump Inspector.

Dowty Retarder Units. Dowty Retarder Units are installed throughout each siding in the Main Down Yard. To prevent damage to these units, vehicles and locomotives must not pass over them at a speed exceeding six miles per hour, in either direction, and trains departing from the sidings must not, therefore, exceed 6 m.p.h. until the whole of the train has passed clear of the last retarder unit.

Boards, illuminated during darkness, indicating "Dowty Retarders 70 Standard Wagons Clearance" are situated on the Down Bushbury, Up Wednesbury and Down Walsall lines, approximately 520 yards after passing the last retarder, and trains leaving the North End of the sidings must not exceed 6 m.p.h. until the locomotive has reached this board.

#### VAUXHALL

A bell, fixed on a telegraph pole adjacent to the Up shunting neck on the Station side of the shunting frame, warns staff working in the Carriage Sidings that a train, not stopping at Vauxhall, is approaching on the Up Fast line.

#### PERRY BARR

#### Banking-Up Soho Road Line.

The train locomotive must draw the train to signal NS.283 and wait there until the assisting locomotive comes to the rear, from either Perry Barr South Junction or Perry Barr North Junction.

Locomotives assisting trains to the Stour Valley line must come to a stand at signal NS.315.

#### South Junction—S.P.D. Ltd. Sidings.

If it is necessary to leave wagons on the Up Branch line whilst serving the siding, the Guard or Shunter must pin down sufficient brakes to prevent the wagons moving after the locomotive is detached.

#### SOHO POOL BRANCH

The Regulations for One Train Working on Single lines apply, with the following modifications:—

The train staff is attached to an Annett's key, locked in a release instrument adjacent to signal NS.285 at Soho Road. Drivers must telephone the Signalman at Birmingham signal box to obtain the staff, and again on the return journey after the staff has been replaced in the release instrument.

When necessary, a train from Soho Pool may be assisted by a locomotive in rear, and in such cases the train staff must be shown by the Guard to the Driver of the train locomotive and then handed to the Driver of the assisting locomotive, which must assist the train to Soho Road, Signal NS.287. The Driver of the assisting locomotive, on arrival at Signal NS.287, must communicate with the Signalman at Birmingham signal box and act on his instructions.

When a train has travelled from Soho Road to Soho Pool, if the staff is required at Soho Road for a following train, the Driver must not surrender it until he is satisfied that the whole of his train is clear of the single (running) line and the arrival road. The staff must then be handed to the Guard or Shunter, who will return it to Soho Road and replace it in the release instrument, advising the Signalman at Birmingham signal box when this has been done.

#### WALSALL

#### Reception Siding.

When placing wagons in the reception siding at the Wolverhampton end, locomotives must only set back clear of the trap points in the Reception siding.

#### Midland Yard, Protection of Carriage Cleaners.

Before Shunting operations are commenced, the Guard or Shunter accompanying the movement must operate the bell switch in the Midland Yard (Loco. Sidings) Shunters' cabin and then go to meet the Carriage Cleaning Foreman to advise him what is to be done.

The Carriage Cleaning Foreman must go to meet the Guard or Shunter immediately the bell rings.

#### Yard Shunting Frame.

Drivers of trains arriving at the Stop board on the Through siding, must not pass it towards the Yard Shunting Frame unless instructed to do so by the Foreman or Shunter on the ground.

When there are no ground staff on duty, the Shunter or Guard in charge of the movement (the Secondman in the case of a light locomotive) must go on foot to the Yard Shunting Frame to obtain instructions.

#### Freight Terminal.

When the Goods Yard is closed, shunts from the Carriage Sidings may pass the Stop board outside the Departure line as required by the Carriage Shunter.

#### LICHFIELD CITY STATION

Rule 55 is exempt for starting D.M.U. trains standing on the Up platform line immediately ahead of No. 2 box starting signals in the centre of the Station. This exemption will not apply to a train detained at No. 1 box Up Home signals.

#### ESSINGTON WOOD SIDINGS

Guards of Up Freight trains brought to a stand inside the Up Outer Home signal before passing the box must advise the Signalman that the train is complete with tail lamp as soon as possible after the train stops.

Guards of trains which require to stop at Bloxwich to pin down wagon brakes must advise the Signalman at Essington Wood Sidings box.

#### HEDNESFORD

#### Rawnsley Branch.

During the time that B.R. trains are working on this branch, the Regulations for Working on Single Lines by Train Staff and Ticket, shown on page 27 of the General Appendix, must be strictly adhered to. When, however, the branch is being used solely by N.C.B. trains, a train may be allowed to leave the opposite end of the section to that where the train staff is held provided permission has been obtained from the Person in Charge at the opposite end by telephone, and the Driver has been handed a "Line Blocked by Telephone" ticket.

#### HEATH TOWN SIDINGS TO WEDNESFIELD

The train staff for the single line is locked in an instrument near the Stop board, electrically released from Wolverhampton signal box. Drivers must telephone the Signalman at Wolverhampton signal box to obtain the staff, and again on the return journey after the staff has been replaced in the release instrument.

#### WEDNESFIELD

Propelled trains from Heath Town Junction to Weldless Steel Tube Ltd., Wednesfield, and viceversa, must be provided with a fitted brake van at each end, and the Guard must ride in the leading brake van.

From the "End of Section" board at the Wednesfield end of the Single line to the "Stop and Await Instructions" board on the Wolverhampton side of Bridge No. 105, the speed of the train must not exceed 5 m.p.h., and it must be brought to a stand with the leading brake van opposite this stop board.

Before instructing the Driver to propel the train to the discharging gantries, the Guard must telephone from the notice board to the Person in Charge of the firm's shunting operations to obtain an assurance that the siding on which the train is required to travel is not obstructed in any way, that the gantry hoisting equipment is lifted clear of all vehicles on that siding and that propelling may commence.

When he is satisfied that it is safe to proceed, the Guard must hand-signal the Driver to recommence propelling. The speed must not exceed 5 m.p.h. and the train must be stopped with the leading loaded vehicle under the overhead gantry structure. The brake van handbrake must then be fully applied and the Driver hand-signalled to "ease-up" against the brake van. The Guard must then apply the handbrakes on all vehicles to hold them securely on the falling gradient, and ensure that the firm's shunters have placed all the instanter couplings in the long position before the locomotive is detached. The locomotive with Guard must then return light to Heath Town Junction under the authority of the "One Train Working" staff.

Gravitation shunting, wagon by wagon, will be performed by the firm's shunters and the train re-assembled coupled and brake pipes connected by them on the Willenhall side of the discharge gantries.

On returning for the empty wagons, the locomotive must cross to the unoccupied siding and proceed to the "Stop and Await Instructions" board. The Guard must obtain permission, by telephone from the Person in Charge, to proceed to the connection with the occupied siding, and, having crossed to it, the locomotive must proceed cautiously to the rear of the empty train.

Before signalling the Driver to commence propelling, the Guard must satisfy himself that the train is correctly formed and that the automatic brake is operative throughout the train. He must ride in the leading brake van whilst the train is being propelled.

#### **MADELEY JUNCTION**

All freight trains requiring to reverse at Madeley Junction must have a brake van at each end.

#### **OAKENGATES**

#### Warning Bell-Down Trains.

A bell is fixed on a telegraph post on the Down side at the Wellington end of the platform to give warning of the approach of Down trains.

#### WELLINGTON

#### Starting of Trains—Rules 141 and 143.

Indicators, not normally illuminated, are provided on the Up side of the Up platform line 50 yards from No. 2 Signal Box, on the Down side of the Down line 60 yards from No. 3 Signal Box, and immediately the Guard's signal to start has been given the Person in Charge of the platform must press the plunger to cause the indicator to exhibit "RA". This indicates to the Driver that the Guard's signal has been given.

The indicator on the Up side must not be used when Wellington No. 2 signal box is out of circuit.

The indicators will be used only for locomotive-hauled trains, and only when they are standing beyond the starting signal.

#### CANNOCK ROAD JUNCTION AND BUSHBURY

#### Working of Down and Up Through Sidings.

The Down and Up lines between Cannock Road Junction and Bushbury are "Through sidings" under the control of the Signalman at Cannock Road Junction Box.

If the Up Through siding has to be occupied at the Bushbury end the permission of the Signalman at Cannock Road Junction box must be obtained.

When the Through Sidings are used as a through route the Drivers and Guards of all trains must be advised of the circumstances and the Driver instructed to proceed cautiously, prepared to obey any hand signals or stop short of any obstruction.

A train must not be allowed onto the Down or Up Through siding until the two crossover roads at the Cannock Road end have been clipped and padlocked in the normal position and the keys handed to the Signalman at Cannock Road Junction box.

A handsignalman must be provided to prevent conflicting movements from the Carriage sidings and to clip and padlock the points of the appropriate connection between the Down or Up Through Siding and the Carriage sidings.

If a through train is stopped at the signal controlling the exit from the Down Through siding at Bushbury, the Driver must immediately telephone the signalman at Wolverhampton (High Level) box for instructions.

### IRONBRIDGE C.E.G.B. POWER STATION (BUILDWAS)

Rules 178 to 189 must be carried out so far as they can be applied, but Wrong Line Order and Single Line Working forms will not be used on the Down and Up Through sidings between Lightmoor Junction and the Power Station.

Whilst a train is inside the Power Station all movements are made under the authority of the

C.E.G.B. Controller, who is contacted by any of the signal post telephones.

If a telephone fails, the Guard must go to the Control Room to inform the C.E.G.B. Controller, but if another telephone is passed en route this may be used, provided the C.E.G.B. Controller is made fully aware of the position.

If a train is detained at either signal S.1 or S.9, the Driver must telephone the C.E.G.B. Controller and advise him that his train is at that signal. The Driver must repeat the calls at intervals

of not more than 5 minutes.

During fog or falling snow, if a train is brought to a stand at signal S.1 when there is a telephone failure between Lightmoor Junction and the Power Station, the Guard must immediately go back

100 yards and protect his train by placing one detonator on the rail.

When a train has arrived in the sidings and is at a stand at Signal S.4 or S.6, the Guard must advise the C.E.G.B. Controller that it has arrived complete and also if it is double-headed. The C.E.G.B. Controller will give instructions for disposing of the additional locomotive and the Guard must advise him when this has been done.

Before a train draws through the unloading hopper the Guard must apply the handbrake of the last vehicle to keep the couplings in tension during unloading and weighing. Trains passing through the unloading hopper must not exceed \( \frac{1}{2} \) mile per hour, except in the case of a light locomotive, which may run through the unloading hopper only when authorised by the C.E.G.B. Controller, and then only if the Guard has obtained an assurance that the hopper has been switched out of use.

Alternate marker signals are provided with an additional red aspect above them, not normally illuminated. If an emergency stop indication is displayed at a marker signal, the Driver must immediately stop his train irrespective of the distance it is from the signal. He must not move again until the emergency stop indication is extinguished and the marker signal clears.

After unloading, the Driver must stop his train when it has passed clear of the automatic weighbridge at the Lightmoor Junction end of Departure line 1 or 2. The Guard must then examine

the train and report any defective vehicle to the Wagon Examiner.

After the Guard has examined the train, the hand brake on the last vehicle must be released and the train drawn to signal S.8 or S.11. The Guard must advise the C.E.G.B. Controller that either (a) the train is in order ready to depart, or (b) there is a defective vehicle on the train which must be detached.

When a train is standing at signal S.9, if the C.E.G.B. Controller informs the Driver that the signal cannot be cleared, the train must remain at the signal until the Driver is instructed to pass it by the B.R. Inspector at the Power Station.

#### HORSEHAY & DAWLEY BRANCH

When a train for Horsehay & Dawley arrives at Lightmoor Jn. the Guard must obtain the key to the padlock on the points at Horsehay & Dawley from the Signalman.

The normal position of the level crossing gates at Dawley Parva and Doseley is across the railway; the key to the padlocks is attached to the "One Train Working" staff for the Lightmoor

Jn.—Horsehay & Dawley section.

A Shunter must travel on the locomotive of every train over the Horsehay & Dawley branch and operate the level crossing gates en route. After the train has passed over each level crossing, the Driver must obtain an assurance from the Shunter that the level crossing gates have again been

padlocked across the railway.

A train returning from Horsehay & Dawley will be brought to a stand at the home signal at Lightmoor Junction, and after the Signalman has closed the catch points in the Up Branch line and secured them with a clip, it may draw on to the Up Branch line to stand between the crossover road and the connection between the Up and Down Branch lines for the locomotive to run round the train. The locomotive must not be detached until the Guard has secured the train by means of the handbrake in the brake van at the Buildwas end and by pinning down sufficient brakes on adjacent wagons.

When the locomotive has run round the train and is again attached, the Guard must go to the brake van at the Buildwas end of the train, and whilst the train is being propelled outside the Up

Through siding home signal see that the brakes are kept applied.

Beafore the train departs from Lightmoor Jn. the Guard must give an assurance to the Signalman that the points at Horsehay & Dawley have been clipped and padlocked for the single line, and return the key.

#### **HADLEY**

#### Shunting at Castle Works

The Signalman at Hadley Junction must see that the Shunter or Guard is in attendance before setting the points for a train to go into Castle Works. Vehicles must not be allowed to stand in the Sidings outside the gates unless attached to a locomotive.

On arrival at the ground frame, the Guard or Shunter must telephone the Signalman to release the bolt lock.

The Signalman must be advised by telephone when the work has been completed and requested to replace the bolt lock.

# OXFORD, WOLVERCOT JN. TO BIRMINGHAM, GRAND JN., AND BRANCHES

#### **BLETCHINGTON**

Working of South and North Ground Frames. Two ground frames are each released by an Annett's Key held in a release instrument adjacent to the applicable ground frame. When entering or leaving the Siding or using the crossover at Bletchington South ground frame two Annett's Keys must be obtained to operate the levers.

In addition to freight trains calling to attach or detach, a freight train may also be shunted into the siding and shut in for other trains to pass. A 2-rails' length track circuit is provided immediately in advance of the siding connection in the Down and Up Main Lines.

Attaching or Detaching Vehicles. When a freight train is to attach or detach vehicles and not be shut in, the rear portion having been left to the rear of the points, the front portion must be drawn just clear of the trailing end of the points so that it is standing on the 2-rails' length track circuit.

The Guard or Shunter must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission and provided the track circuit has been occupied for one minute, the Annett's Key must be withdrawn by the Guard or Shunter and the points set for the movement.

Under these circumstances the Key must not be replaced in the instrument until the train is ready to leave.

After the Annett's Key has been restored to the release instrument the Guard or Shunter concerned must not leave the ground frame until he has received an assurance from the Wolvercot Junction Signalman that everything is in order.

Shutting a freight train in for other trains to pass. The freight train must be drawn just clear of the trailing end of the points so that the rear of the train is standing on the 2-rails' length track circuit.

The Guard must telephone the Signalman for permission to use the Ground Frame. If the Signalman is in a position to grant permission, and, provided the track circuit has been occupied for one minute, the Annett's Key must be withdrawn by the Guard and the points set for the movement

As soon as the freight train has been shunted clear of the Down or Up Main Line and the points restored to normal, the Annett's Key must be replaced in the Key release instrument by the Guard who must advise the Signalman accordingly and enquire at what time the train will be required to proceed.

Freight train leaving the Siding. The Guard must telephone the Signalman for permission for the freight train to leave at the time previously agreed. If permission can be granted the Annett's Key must be withdrawn and the Signalman advised that the Key has been released.

The freight train must be brought to a stand on the Down or Up Main Line after which the points must be restored to normal and the Annett's Key replaced in the Key release instrument. The Guard must telephone the Signalman that the key has been restored and he must not leave the ground frame until he has received an assurance from the Wolvercot Jn. Signalman that everything is in order.

Alpha Cement Co's. Sidings. The Cement Company shunt at the Sidings with their own locomotive, accompanied by their Shunter. The locomotive works in Sidings Nos. 1, 2 and 3 (reading from Down Main Line). No. 1 Siding must, so far as practicable, be kept clear as a reception line.

The Firm's locomotive will cease operations in the Sidings when requested by the B.R. Guard or Checker to do so for a B.R. train to work. Guards of trains calling at the sidings must satisfy themselves that all is clear before commencing operations, and have a clear understanding with the man in charge of the Firm's locomotive if it is in the area.

The Firm's locomotive is prohibited from working on the Down or Up Main Lines.

#### **BANBURY**

Banbury South Down Main Home Signal—Rule 55 (a). To comply with the second paragraph of Clause (a) of Rule 55, the Secondman of a train detained an unusually long time at this signal must use the telephone at the London end of the Down Reception Siding to communicate with the Signalman. He must make it clear that he is carrying out Rule 55 in respect of a train standing on the Down Main Line at the Home Signal.

Banbury South—Relief of Enginemen. When enginemen on the down main line or down reception line have been relieved the incoming driver must advise the signalman by telephone from the trainmen's relief cabin that relief has been effected and the train is ready to depart.

Midland Tar Distillers, Ltd., Siding. The points leading to the private siding from No. 1 Mileage Siding are worked by ground lever, secured by padlock when not in use, the key being kept in the South end Shunters' Cabin.

The siding crosses a private roadway and is protected by gates, the Shunter being responsible for securing the gates across the roadway before any shunting movement is made across the roadway.

On completion of the work, the Shunter must see that vehicles left in the private siding are clear of the roadway, that gates and points are secured in the normal position, and return the key to the Shunters' Cabin.

"Middle Road" Between Banbury North and South Boxes. When an Up Freight Train or locomotive has to leave the Yard via this Siding the Shunter despatching the train must instruct the Driver to proceed to the Stop Board only. The South End Shunter will be responsible for seeing that the line is clear before instructing the driver to pass the board. Before the train leaves the Hump Yard the Head Shunter must advise the Signalman at the South Box, by telephone, what it is intended to do.

This Siding must not be used by locomotives from the South Box to the North Box unless accompanied by a Hump Yard Shunter.

Horse Box Sidings (North end). Not more than four coaches may be propelled into this siding.

#### BANBURY JUNCTION

**Down Reception Siding.** All drivers entering the Down Reception Siding must, at all times, expect it to be occupied by previous trains or wagons and run at slow speed, prepared to stop short of any obstruction.

Grange Siding. The points leading to the Siding are operated by hand lever. They must normally be set for No. 6 Hump Reception Siding and the lever secured in this position by padlock, the key being kept in Banbury Junction Ground Frame.

The Shunter at the Junction Ground Frame will be responsible for the key and for all movements to and from No. 6 Hump Reception Siding and the private Siding.

Before any train for the private Siding is allowed to enter the Hump Reception Sidings, the Signalman at Banbury Junction Box must obtain permission from the Ground Frame Shunter.

After a train has entered the private Siding, the Ground Frame Shunter will be responsible for seeing that it has drawn in clear, and must reverse the hand points to prevent it setting back to foul No. 6 Hump Reception Siding. In the Grange Sidings, shunting will be under the control of the Shunters there.

Up Reception Sidings, Hump Line, Hump Yard and Pilot Line. Up trains calling at the Yard must be diverted into the Reception Sidings at Banbury Junction Signal Box, but before doing so the Signalman must ascertain from the Junction Ground Frame Shunter that the points leading to the appropriate Siding are set and that he is ready to accept the train: this Shunter must see that the points are correctly set before giving permission for a train to enter the Reception Sidings.

Drivers must enter at reduced speed, keep a sharp look-out for hand signals, and be prepared to stop clear of the connections at the South end of the Reception Sidings, or short of any obstruction. On arrival the locomotive must be uncoupled and proceed via the Pilot Line.

The Junction Ground Frame Shunter will advise Banbury Junction Signalman when a train is inside and clear of running lines.

The Reception Sidings may be used for a locomotive or pilot trip to return from the Hump to the Junction end, but before it is allowed to do so, the Hump Ground Frame Shunter must ask permission by telephone from the Junction Ground Frame Shunter. The latter must not agree if any movement is approaching the Siding on which the locomotive or pilot trip is to return, nor must he allow any movement to enter the siding on which he has agreed the locomotive or pilot trip may return. The Driver must proceed cautiously, look out for hand signals, and stop short of the points at the North end unless hand signalled past by the Junction Ground Frame Shunter.

If the Junction Ground Frame Shunter has given permission to the Banbury Junction Signalman to admit a locomotive or train into the Reception Sidings, or has authorised shunting operations likely to foul the Banbury Junction end of the Reception Siding in question he must keep a sharp look-out for the engine or pilot trip returning and stop it clear of adjoining roads.

Locomotives returning light from the Hump end to the Junction end via the Reception Sidings, must, after sunset or during fog or falling snow, carry the head and tail lamps appropriate to shunting locomotives.

Before a locomotive or train is despatched via the Pilot Line the Hump Ground Frame Shunter must advise the Signalman at Banbury North Box, stating the number of wagons, and also advise the Head Shunter at the London end of the Yard. These movements may be made only in the Up direction between the Hump Ground Frame and the North Box and a tail lamp must be carried on the locomotive or last vehicle.

Staff at the Hump Summit must be immediately informed when wagons are cleared from the London end of the Yard. Guards working trains out of the Yard must tell the Trainmeeter the number of wagons cleared from each road and he must advise the Hump Summit immediately. If any siding has been completely cleared of wagons, this must be pointed out. The same information must be given if wagons are removed by shunting locomotive at the London end of the Yard.

#### **FENNY COMPTON**

Road Under Railway at 95 m.p. During heavy rain this road is liable to flooding and become impassable for traffic. The following arrangements must be carried out:—

1. At the first sign of water accumulating in the dip, a red flag by day, and a red light by night, must be placed in the centre of the road on each side of the Railway to stop traffic along the sunken roadway, and divert it over the level crossing.

2. A Handsignalman must be stationed on each side of the Level Crossing to open and close the gates. The Signalman must advise the Area Manager who must arrange to call the Handsignalmen.

3. The flags or lamps on the road, and the Handsignalmen, must not be withdrawn until the flooding has subsided and traffic can pass along the road under the Railway in safety.

4. When there is a possibility of flooding taking place when the signal box is closed, the Area Manager must take action for these arrangements to be put into operation if required.

#### GREAVES' SIDING

- 1. The Associated Portland Cement Company shunt at these sidings with their own locomotive and shunter. It works into and out of the two sidings set apart for the Firm's traffic, on the Down side of the main line.
- 2. There is a connection to the sidings from the Up Main line at the South end, and one siding extends at the North end into the Down Siding.
- 3. A wheel stop must be placed across the siding rail, clear of the connection from the Down Main line to the Down Siding at the North end, and secured by padlock, the key being kept in the Signal Box.
- 4. To remove the wheel stop for shunting, the Guard or Shunter must obtain the key of the padlock from the Signalman and after the work is completed must return the key to the Signalman after ensuring that all vehicles are clear inside the wheel stop, and that it is padlocked across the siding.
- 5. During the time the key of the padlock is out of the Signal Box no train must be diverted to the Down Siding without a clear understanding between the Signalman and the Guard in charge of the shunting operations.

The times at which the key of the padlock is taken from and returned to the Signal Box must be entered in the Train Register.

- 6. The Firm's employees must not be allowed to have possession of the key or interfere with the wheel stop in any way.
- 7. The Firm's locomotive must cease operations in the sidings when requested by the B.R. Signalman or Shunter.
- 8. When a train calls at these sidings to detach or attach, the Guard must satisfy himself that all is clear before commencing operations, and have a clear understanding with the man in charge of the Firm's locomotive if in the vicinity. If it is necessary to enter the Firm's Coal siding or disturb wagons standing there, before any movement takes place the Guard must have a proper understanding with the Firm's Foreman, see that the catch points are in the correct position for shunting and the Firm's Foreman must provide a man with a Red flag to protect all movements over the Level Crossing whilst shunting is in operation.

#### LEAMINGTON SPA

Shunting on Down Side at North end. Before shunting commences from the Bay or Dock Sidings, the Shunter must have a clear understanding with the Signalman.

A Passenger Shunter requiring to shunt along the "Bank Siding" in addition to communicating with the Signalman must have a clear understanding with the Goods Yard Shunter.

The Goods Yard Shunter may shunt from the North end of the "Bank Siding" up to the signal reading along the "Bank Siding" towards the down bay, but if it is necessary to go beyond that point towards the Gas, Dock or adjacent sidings, the Shunter must communicate with the Signalman, and go forward and see that all is clear, and if passenger shunting is in operation have a clear understanding with the Passenger Shunter as to the work to be done.

**Electric Klaxon Horn.** A Klaxon Horn is provided at the North end of the Down Sidings, operated by push button fixed on the post of the Down Platform Starting Signal. This must be worked in accordance with the Standard Code of Signals in Rule 117.

Oil Tank Siding. This Siding is connected with the Shunting Spur on the Down Side at the North end of the Goods Yard. A Wheel Stop Block fitted with padlock is provided, the key being kept in the Inspector's Cabin.

Hunters' and Wagon Repairs Siding. The hand points are padlocked when not in use, the key being kept in the Inspector's Cabin. Before commencing any shunting the Shunter must arrange with Rigley's Foreman for the traversing bridge to be clear and the shop doors open. The Driver must be verbally advised what has to be done, and B.R. locomotives must not go beyond the limit of B.R. track.

## WORKING OF UNBRAKED FREIGHT TRAINS BETWEEN LEAMINGTON SPA AND WARWICK

**Down trains.** Drivers must draw their trains slowly off the top of the incline when approaching the bridge, and when the locomotive is passing the white light fixed on a post on the down side of the line opposite the platelayer's hut halfway down the gradient speed should be increased to keep the couplings of the whole train tight, and power applied until the train has ascended the rising gradient. The guard must gradually apply the hand brake directly the train has started from Leamington Spa, and when passing the box he must apply it hard and keep it well on to the bottom of the gradient, releasing it gradually at Leamington Spa up distant signal.

Up trains. When passing the white light fixed on a post on the up side of the line opposite Warwick Goods Shed drivers must control the speed to keep the couplings tight on descending the dip before the river bridge and until the train has reached the top of the rising gradient, regard being paid to the aspect of the signals. The guard must apply the hand brake when opposite Warwick Goods Shed to keep the couplings tight when descending the gradient. The brake must be kept hard on until the bottom of the dip is reached and released entirely when passing Leamington Spa up distant signal.

A telephone is provided on the side of the Pumping House at the south end of the River bridge and guards must promptly advise the Signalmen at Leamington Spa and Warwick if a breakloose occurs to a train. The switch on the right hand side of the telephone box must be operated before contact can be made with the signalman at either box.

#### WARWICK

North Ground Frame. A ground Frame at the North end of the Station, electrically controlled from the Station Signal Box, works the points leading from Down Main Line to Sidings. Keys to the Frame are kept in the Signal Box.

The Points at the Station end leading to the North Sidings are worked from the Station Signal Box.

Guards and Shunters must use the telephone from the ground frame or the North end of the down yard to communicate with the Signalman.

The Ground Frame must be worked by a Porter, Guard or Shunter, who must go to the Signal Box for the key, and after completion of work must lock up the Cabin, inform the Signalman that the work is completed and the Main Line is clear, and return the key.

Entries must be made in the Train Register of the times the key is taken from the Box and returned.

#### **BUDBROOK**

Cold Storage Depot Sidings. A ground frame works the trailing connection in the Up Main Line, serving the sidings. The ground frame lever is released by Annett's Key kept in a Key Release Instrument in a cupboard at the ground frame.

- 2. A telephone communicates with the Signalman.
- 3. The Key Release Instrument is operated by the Guard in accordance with the instructions on page 312 of this Appendix.
  - 4. Freight trains calling to attach or detach vehicles may be shut in for other trains to pass.
- 5. A 2-rails' length track circuit is provided immediately in advance of the siding connection in the Main Line.
- 6. Attaching or detaching vehicles. When a freight train is to attach or detach vehicles and not be shut in, the rear portion having been left to the rear of the points, the front portion must be drawn just clear of the trailing end of the points so that it is standing on the 2-rails' length track circuit.

The Guard must telephone the Signalman for permission to use the Ground Frame. If the Signalman is in a position to grant permission and the track circuit has been occupied for one minute, the Annett's Key must be withdrawn by the Guard and the points set for the movement.

Under these circumstances the key must not be replaced in the instrument until the train is about to leave.

The Guard must not rejoin his train, or allow it to proceed, until he has been informed on the telephone by the Signalman that the Key Control instrument has been restored to normal and he has assured the Signalman that no vehicle has been left foul of the running line.

7. Shutting a freight train in for other trains to pass. The freight train must be drawn just clear of the trailing end of the points so that the rear of the train is standing on the 2-rails' length track circuit.

The Guard must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission and the track circuit has been occupied for one minute the Annett's Key must be withdrawn by the Guard and the points set for the movement.

As soon as the freight train has been shunted clear of the Main Line and the points restored to normal, the Annett's Key must be replaced in the Key Release Instrument by the Guard who must advise the Signalman accordingly and enquire at what time the train will be required to proceed. Under no circumstances must the key be replaced in the instrument until the Guard has given an assurance to the Signalman that no vehicle has been left on or foul of the Main Line.

8. Freight train leaving the siding. The Guard must telephone the Signalman for permission for the freight train to leave at the time previously agreed. If permission can be granted the Annett's Key must be withdrawn and the Signalman advised that the key has been released.

The freight train must be brought to a stand on the Main Line, after which the points must be restored to normal and the Annett's Key replaced in the Key Release Instrument. The Guard must telephone the Signalman that the key has been restored.

- 9. B.R. locomotives are prohibited from working into the sidings as follows:—
  - (a) Shed Road near the Main Lines—beyond the Stop Board 24 ft. from the Northern end of the platform.
  - (b) Shed Road outside buildings—beyond the Stop Board on the side of wall over curve, north of building.
- 10. When the Sidings are not in use, the handpoints to the Depot Sidings must be set for the Siding adjacent to the Up Main Line.

#### **KNOWLE**

Ground Frame. When a train requiring to work at the ground frame is at a stand on the Up Goods line, the Guard or Shunter in charge must place the ground frame home signal to Danger and advise the Signalman at Knowle & Dorridge box as soon as this has been done.

If it is necessary for a train to be shut inside at the ground frame, the Guard or Shunter must ensure that the points in the up goods line are in the normal position, clear the ground frame home signal and advise the Signalman that the train complete with tail lamp is inside the sidings clear of the up goods line, and the points in that line are in the normal position.

When a train or locomotive which has been shut inside at the ground frame is ready to leave the Guard or Shunter after obtaining permission from the Signalman must immediately place the ground frame home signal to Danger and until this has been done, the up goods line must not be fouled.

When a train or locomotive which has worked at the ground frame is on the up goods line ready to depart the ground frame home signal must be cleared by the Guard or Shunter.

#### TVSELEV

Goods Yard Electric Bell. An Electric Bell is provided on a telegraph pole about the middle of the Up Shunting Spur, operated by a push button on a post near Wharfdale Road Bridge which must be operated in accordance with the Standard Code of Signals in Rule 117.

Signal Department Siding. This Siding connects with the down through siding at the South end, the points being worked from a Ground Frame locked by Annett's Key, which is kept in Tyseley South Box.

To work at the Siding, the shunter must take the Annett's Key from the Signal Box, and after the work is completed return the key to the Signalman.

The times at which the key is taken from and returned to the Signal Box must be entered in the Train Register.

Cripple Wagon Sidings. These Sidings connect with the Engine Sand Siding at the South end of the Loco. Yard, the normal position of these points being for the Sand Siding Dead End.

During the daytime when men are working in the sidings, the points are secured by padlock, the key of which is kept in the C. & W. Cabin.

To shunt the Sidings during the daytime, the Carriage Shunter must obtain the key of the padlock from the C. & W. Cabin and on completion of work return it immediately.

Detention of Trains at Up Through Siding Home Signal. Drivers of through trains which are stopped at Tyseley South Up through siding home signal must, advise the Signalman if they require assistance to overcome the sharp rising gradient when starting away. A locomotive will assist the train as far as the connection from the carriage sidings, but will not be coupled to the train.

Carriage Shed and Sidings. Before a movement is allowed to enter the sidings from the South end the Signalman at Tyseley South box must obtain permission from the Person in Charge at the Carriage Sidings who must give an assurance that the line for which the points are set is clear sufficiently to accommodate the movement.

The Signalman will not clear the signal for a propelled movement to leave the Carriage Siding until the Person in Charge has advised him that he is ready for the movement to be made.

When a Shunter is not available at the North end of the Carriage sidings, trains must draw into No. 6 siding and Enginemen must stop clear of the connections at the South end and be dealt with by the Shunter. No. 6 siding must always be kept clear for this purpose and vehicles must not be stabled on this siding from the South end.

When vehicles have to be placed on any of the Operating Department lines at Tyseley Carriage Sidings, or into either of the Running and Maintenance lines, they must always be placed where required by a locomotive.

Loco and Carriage Sidings Emergency Connections.

- 1. The crossover between the up and down through sidings adjacent to No. 16 siding and the points leading to the line from the Running and Maintenance Depot must be clipped and padlocked for through movements on the down and up through sidings and used only in in emergency. The keys are kept in Tyseley Loco Box, and when it is necessary to use these points a Handsignalman must be stationed at them.
- 2. For oiling and testing the emergency fittings in the down and up through sidings the Ganger, or person acting in that capacity, is authorised, on the last Friday in each month, to obtain the keys to the fittings from the Signalman.
  - 3. Before the keys are handed to the Ganger the circumstances must be explained to the Signalman.
- 4. During the time the keys are held by the Ganger no train or locomotive may pass over the down and up through sidings between Tyseley South and Loco. boxes.
- 5. The time the keys are handed to the Ganger must be recorded in the Train Register and the entry signed by the Ganger.
- 6. When the work is completed the Ganger must secure the points in their normal position (for the down and up through sidings) by clips and padlocks. The keys must be returned immediately to the Signalman with an assurance that the points are in good working order and correctly secured. The time the keys are handed in must be recorded in the Train Register.

#### SMALL HEATH

**Empty Shed.** Movements into and out of the Empty Shed may be made only by permission of the Sundries Depot Foreman. He must be present when movements are required and be responsible for seeing that Depot staff lower wagon doors before wagons are berthed at the platform and close them again after vehicles have been drawn out of the Shed. Shunters must obtain permission from the Sundries Depot Foreman before making movements into and out of the Empty Shed.

#### **BORDESLEY JUNCTION**

Locomotives assisting trains for Bordesley South must stop clear of the connection from the down Camp Hill line and the Driver must advise the Signalman that the locomotive has arrived with tail lamp attached.

## WORKING BETWEEN PRINCES RISBOROUGH AND AYNHO JUNCTION

The instructions for working Single lines by the Tokenless Block System shown in the General Appendix will apply with the exception of Instructions 1 and 6. The section of line is fully track circuited and the clearing of the section signal will be the Driver's authority to proceed on to the Single line. Except as shown in Instructions 3, 4, 5, 7 and 8, Drivers must not proceed unless the section signal has been cleared.

Should a failure of the section signal only occur, Drivers may pass this signal at danger on instructions from the Signalman.

#### PRINCES RISBOROUGH

Guards of all Down Passenger trains terminating at Princes Risborough must, immediately upon arrival at the platform, telephone the Signalman to inform him that the train has arrived complete with tail lamp.

## **BICESTER NORTH**

Working of Ground Frame. A three-lever ground frame is provided on the Down/Up Main line, which is released by an Annett's Key held in a release instrument adjacent to the ground frame and controlled by Princes Risborough Signal Box. This ground frame is worked in accordance with the Instructions on page 312 of this Appendix except that the release from Princes Risborough Signal Box is by switch and not Interlocking Lever.

In addition to freight trains calling to attach or detach a freight train may also be shunted into the Sidings and shut in for other trains to pass. A 2-rails' length track circuit is provided in advance of the connection in the Down/Up line.

Attaching or Detaching Vehicles. When a freight train is to attach or detach vehicles and not be shut in, the front portion must be drawn just clear of the trailing end of the points, so that it stands on the 2-rails' length track circuit, the rear portion of the train having been left to the rear of the points.

The Guard of Shunter must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission the Annett's Key must be withdrawn by the Guard or Shunter and the points set for the movement.

Under these circumstances the Key must not be replaced in the instrument until the train is ready to leave.

Shutting a Freight Train in for Other Trains to Pass. The freight train must be drawn just clear of the trailing end of the points so that the rear of the train is standing on the 2-rails' length track circuit.

The Guard or Shunter must telephone the Signalman for permission to use the ground frame. If the signalman is in a position to grant permission, the Annett's Key must be withdrawn by the Guard or Shunter and the points set for the movement.

As soon as the freight train has been shunted clear of the Down/Up line and the points restored to normal, the Annett's Key must be replaced in the release instrument by the Guard or Shunter who must advise the Signalman accordingly and enquire at what time the train is required to proceed.

Freight Train Leaving the Sidings. The Guard or Shunter must telephone the Signalman for permission for the freight train to leave at the time previously agreed. If permission can be granted the Annett's Key must be withdrawn and the Signalman advised that the Key has been released.

The freight train must be brought to a stand on the Down/Up line after which the points must be restored to normal and the Annett's Key replaced in the release instrument. The Guard or Shunter must telephone the Signalman that the Key has been restored, and he must not leave the ground frame until he has received an assurance from the Signalman that everything is in order.

#### **ARDLEY**

Southern Electricity Board—Neutral Wire. A neutral earth wire belonging to the Southern Electricity Board is located in a cupboard marked LOCX 11 & 12 C.H.T.F. opposite Ardley ground frame. If this earth wire is damaged in any way, the Southern Electricity Board, 37 George Street, Oxford, must be advised immediately.

## BIRMINGHAM (SNOW HILL) TO WOLVERHAMPTON & **BRANCHES**

## **BIRMINGHAM (SNOW HILL)**

Down Sidings North. Drivers of Diesel locomotives and Diesel Multiple Units must switch off the motors while standing on this siding to avoid possible corrosion of the Relay Room cable fastenings.

#### HANDSWORTH STATION

Up Siding. The hand points leading to the siding alongside the Loop are kept set for the Siding and padlocked, the key being kept in the Station Signal Box.

Trains turned directly into this Siding must stop clear of the connections at the Queen's Head end. Trains on this Siding must not pass the 'STOP' lamp between the Goods Loop and the Siding without permission from the Shunter or Guard in charge.

When this siding is used for reversing locomotives on Freight trains, the Guard or Shunter in charge must obtain the key of the hand points from the Signalman, and as soon as the shunt has been made the hand points must be set in the normal position, padlocked and the key returned to the

The time the key is taken from and returned to the Signalman must be entered in the train register.

#### HANDSWORTH JUNCTION

Birmingham Corporation Water Main over Halford Lane Bridge. To protect the railway if this Water Main bursts a valve has been fitted on the North side of Halford Lane Bridge. The key or spanner for manipulating the valve is kept in Handsworth Junction Signal Box, and if a burst occurs likely to affect B.R. property, the Signalman must have the water turned off at the valve.

#### OLDBURY AND LANGLEY GREEN

Rood End Sidings. An Electric Gong is provided alongside the Spur at the West end fixed on the post of the Branch to Up Main Starting Signal and operated by a push button in the Old Shunters' Cabin. The Standard Instructions for controlling shunting operations by Shunting Horns, Whistles, Bells, or Gongs apply, as shown in Rule 117.

British Industrial Plastics Ltd. This siding connects with the Up Marshalling Sidings at the East end of the Yard. The points are worked by a separate Ground lever and locked when not in use.

The key of the padlock, and the key of the gate across the Siding, must be kept in the East Signal Box, and when work has to be done at the Siding, they must be handed to the Shunter in charge.

When the keys are out of the Signal Box no train may be shunted to or from the Yard except by permission of the Shunter in charge, who will be responsible, on completion of the work, for locking the gate across the Siding, restoring and locking the points in their normal position, and returning the keys to the Signal Box.

British Industrial Plastics Ltd. (late Midland Iron and Hardware Co.). This Siding connects with the Up Marshalling Sidings at the East End of the Yard. The points leading to the Siding, and the Catch Points, are worked from the East Signal Box.

The gates across the Siding must be kept closed and padlocked when not in use, and the key kept in the Signal Box.

When work has to be done at the Siding, the Shunter must obtain the key from the Signal Box, and return it upon completion of the work.

Albion Bottle Co. Ltd. Siding. This Siding connects with the Shunting Spur at the East end of the Up Marshalling Sidings. The Points are worked by Ground Lever, which is padlocked when not in use. A Wheel Stop is also provided, and this must be locked across the rail when not in use.

The key of the padlock and Boundary Gate across the Siding must be kept in the East Signal Box, and when work has to be done at the Siding, must be handed to the Shunter.

Upon completion of work at the Siding, the Shunter must lock the Boundary Gate, the Wheel Stop and the Siding Points in their normal position and return the key to the Signal Box.

On no account must locomotives go into the Siding beyond the Wheel Stop.

Only four wheeled freight stock may be worked into this Siding which is on a sharp curve, and the greatest care must be exercised in detaching and picking up wagons.

Chemical Sidings. The Points leading from No. 1 Siding to Messrs. Albright & Wilson's Siding are worked by hand, and when not in use must be set and padlocked for No. 1. Siding.

The key of the padlock must be kept in the Middle Signal Box. The times when it is taken from and returned to the Box must be entered in the Train Register. The shunter must see that all wagons are secure in the Siding and the Points in their normal position before returning the key to the Signal

When shunting at Messrs. Albright & Wilson's Siding, the wagons must remain attached to the locomotive until secured in the Siding.

Shunters must see that the wagon brakes are secured, and the wagons spragged if necessary to prevent their moving on the incline. The wagons and brake van left on No. I. Siding must be secured before commencing shunting operations at the Sidings.

#### ROWLEY REGIS AND BLACKHEATH

Up through Freight Trains. Up through freight trains assisted in rear which have traffic to put off at Rowley Regis must stop with the assisting locomotive adjacent to the box to release it promptly. The driver of the assisting locomotive must work to the instructions of the signalman. Traffic on such trains must be put off at the East End.

## CRADLEY HEATH AND CRADLEY

Single Line Working. As there is a public level crossing at Cradley Heath and Cradley East and no catch point protection is available for trains travelling in one direction during Single Line Working, all freight trains (except fully braked) must be assisted in rear from Cradley Heath and Cradley East to Old Hill Junction in the Up direction.

When Single Line Working is necessitated by accident, until a locomotive is available to assist freight trains in rear as indicated, the level crossing gates must be kept closed against the road until each freight train has arrived complete at Old Hill Junction.

#### LYE

Warning Bells. Two Warning Bells are provided on the Up Side of the line between the Up Starting and Advanced Starting Signals to warn staff of the approach of Down Trains.

## DROITWICH SPA (W.R.) TO WALSALL AND BRANCHES

#### HARTLEBURY

Elmley Lovett Sidings. B.R. locomotives must not pass the stopboard beyond the exchange sidings.

Speed of movements to or from the R.A.F. Depot must not exceed 4 miles per hour.

Before a train conveying traffic for the private siding leaves Hartlebury Station the Signalman must advise the B.R. Foreman in the private sidings by telephone.

When the train has been shunted clear of the main line and before it is propelled into the private siding, the B.R. Foreman must arrange for shunting by the R.A.F. to cease and take steps to prevent the possibility of a conflicting movement. After doing so he must place a red flag (or light during darkness or fog or falling snow) on posts provided for the purpose at both ends of the Exchange Sidings. He must then contact the R.A.F. Leading Storeman i/c Marshalling Yard to inform him that work is to be performed in the Exchange Sidings.

During fog or falling snow the B.R. Foreman must place 3 detonators (10 yards apart) on the rails of the private sidings side of each of the posts referred to (at both ends of the Exchange Sidings) before a B.R. locomotive or train is permitted to enter any of the sidings or the line leading to them.

The B.R. Foreman must contact the Air Ministry Police Office to have the gates into the depot opened. He must then proceed to the first rail crossing 115 yards inside the gate and contact the Air Ministry Police Officer and receive his assurance that it is safe for a train to proceed to the Exchange Sidings. He will then authorise the Guard to commence the movement.

The propelling movement may not consist of more than 25 wagons of ordinary length or the equivalent. Rule 112 must be observed and the B.R. Guard must precede the propelling movement on foot, warn any person who may be on the route of the vehicles and hand signal to the Driver as necessary.

Before any movement is made from the Exchange Sidings to the Up Siding the B.R. Foreman must obtain permission from the Air Ministry Police Officer.

When all movements by the B.R. locomotive have been completed within the Exchange Siding area the red flags, lights and detonators must be removed and the R.A.F. Leading Storeman i/c Marshalling Yard advised accordingly.

All movements from the Exchange Sidings to the Up Siding must be carried out with the locomotive leading, at a speed not exceeding 4 m.p.h. The Driver must keep a sharp lookout and be prepared to stop as necessary. Before a train proceeds from the Up Siding to the Up Main Line in the direction of Droitwich Spa the Guard must ensure that the hand points in the Up Siding are set for movements along the up siding.

#### KIDDERMINSTER

Detention of Trains at Kidderminster Junction Down Main Inner Home signal. Guards of trains brought to a stand at this signal must indicate to the Signalman by hand signal that the train has arrived complete with tail lamp. The Guard must continue to exhibit the hand signal until it is acknowledged by the Signalman who will, at night or during fog or falling snow, exhibit a white light held steadily.

Shunting in Kidderminster Yard. If it is necessary for a locomotive, light or with vehicles, to be shunted on to the front siding to stand clear while other movements are carried out in the Yard, a red flag or light must be exhibited and the locomotive and vehicles must not be moved from the front siding until this Danger signal has been removed and the appropriate hand signals given by the Shunter.

#### Audible Signals for Controlling Shunting Operations

Description	Position	Communications between
Shunting bell	On post between Coal Yard and Mileage Yard. Approximately 100 yards North of Shunters' cabin.	Yard Shunters and Enginemen performing shunting operations over shunting spur.

Cripple Wagon Sidings. The hand points for the Cripple Wagon Siding, situated on the Worcester side of the footbridge must be normally set for the new shunting spur, and kept padlocked. The key of the padlock is kept in the Yard Foreman's Cabin.

Messrs. Harvey's Private Siding. Traffic for these Sidings will be worked from the Goods Yard by a B.R. locomotive in charge of the Yard Shunter and placed inside Harvey's gate.

Traffic from the Works Sidings will be drawn to their gate by Messrs. Harvey. B.R. locomotives must not work beyond the gate into the Sidings.

#### CHURCHILL AND BLAKEDOWN

Single Line Working. As there is a public level crossing at Churchill & Blakedown and no catch-point protection is available for trains travelling in one direction during Single Line Working, all freight trains, (except fully-braked) must be assisted in rear from Churchill & Blakedown to Stourbridge Junction South in the Down direction.

When Single Line Working is necessitated by accident, until a locomotive is available to assist Freight trains in rear as indicated, the level crossing gates must be kept closed against the road until each freight train has arrived complete at Stourbridge Junction South.

#### STOURBRIDGE JUNCTION

**Down Passenger Trains.** Unless ordered to the contrary all down passenger trains must run to the down main line platform.

When a down passenger train has to use the branch platform Line the movement must be made under the supervision of the Person in Charge, who will carry out the following instructions:—

- (a) If any other train or locomotive is standing on the branch platform line, its Driver must be instructed not to move. The Person in Charge of the platform must have a clear understanding with both the South and Middle Box Signalmen and go himself, or send a competent man, to the south end of the platform, and after the train has been stopped at the South Box Down Home Signal, this signal may be cleared for the train to draw to the Branch Platform, being piloted from the south end of the platform by the man appointed.
- (b) If the branch platform line is unoccupied, a similar understanding must be come to with the Signalman, and the Person in Charge, or other competent man, must go to the north end of the platform and prevent any movement on to the line until the train from the south end has come to a stand, when the necessary signal may be cleared for the train or locomotive to draw from the North End to the train standing on the branch platform line.

All Up Diesel multiple units from the Town Station must be dealt with at the Branch Platform. On arrival the brake must be applied.

If a Diesel unit from the Town Station is required to go forward in the direction of Kidderminster, the Signalman at the Middle Box must be instructed, and he must arrange with the Signalman at the South Box by telephone to signal it forward and allow it to proceed as soon as the Line is clear.

No Train or Vehicle of any kind must be diverted from the Main Lines or the South End Sidings to the Branch Platform until permission has been given by the Signalman in the Middle Box by telephone to the South Box.

#### ROUND OAK SOUTH

Electric Shunting Bell. To facilitate shunting operations between the Up Main Line and the Up and Down Sidings a Shunting Bell is provided on the Up Main Advanced Starting Signal, operated by a push button on a post between the Up and Down Main Lines at the Round Oak South side of Stourbridge Road Overbridge, and worked by the Shunter.

The Standard Instructions for controlling Shunting Operations by Shunting Horns, Whistles, Bells or Gongs apply, as shown in Rule 117.

Steel Works Level Crossing. Round Oak Steel Works private railway, running from the Ironworks on the East side of the main lines at Round Oak to the Colliery on the West side passes over the B.R. Main Line and Sidings, at right angles.

The Level Crossing is controlled by a signal on each side of the B.R. line, worked from Round Oak South Box, and interlocked with the trap points on the private Line, and also with the B.R. Line Signals.

The locomotive will give two whistles when it requires to cross the B.R. Main Line from either direction.

B.R. locomotives approaching the Level Crossing will sound the horn to warn employees who may cross the Railway from the Steel Works to Wallows Sidings and Sheds.

Wagons standing in the B.R. Sidings, must be kept well clear of the Crossing, and secured by brakes or sprags.

When it is necessary to foul the Crossing, the Shunter must obtain permission from the Signalman in the South Box, and when the work is completed he must inform the Signalman that all vehicles are clear of the private Line.

After the Signalman has given the Shunter permission to use the Crossing, he must not allow any Round Oak Steel Works locomotive or vehicle to foul the Crossing, until the Shunter has given up possession of the line.

#### **DUDLEY**

**Freightliner Train Terminal.** The Person in Charge of the Terminal will be responsible for the operation of all hand points in the Down Goods Siding and the North End connection between Nos. 2 and 3 Depot Roads, and for ensuring that the former are normally set for movements along the Down Goods Siding.

It will be necessary, from time to time, to unload and stack containers on one of the three terminal sidings, blocking that particular siding to traffic. Before allowing this to be done, the Person in Charge must advise the Signalman, by telephone, and clip and padlock the points affected.

Berthing inwards trains. Terminating Freightliner trains arriving from the Horsley Fields direction will set back into the Terminal through the trailing crossover road nearest to the tunnel on the Round Oak side of the box.

The Person in Charge will be responsible for advising the Signalman to which terminal siding each train is to be directed. After the Signalman has set the route as directed, the Person in Charge must give him an assurance, by telephone, that the correct route has been set up and the siding is clear to receive the train; having received this assurance, the Signalman will clear the signal authorising the setting-back movement.

A plunger at the signal controlling setting-back movements from the up main line to the Terminal can be operated, to illuminate a stencil "set back" indicator situated adjacent to the permanent marker light in the tunnel. The Guard must operate this plunger when the dwarf shunting signal has been cleared and the route indication 'L' is displayed in the route indicator panel. When this has been done, the Guard must proceed to the Terminal and report to the Person in Charge. Upon receiving the "Set back" indication, the Driver must propel his train into the Terminal, at a speed not exceeding 5 m.p.h.

After advising the Signalman to which siding the terminating train is to be routed, and giving him the assurance referred to above, the Person in Charge must stand at the board lettered "Engines of propelled trains not to pass this board without instruction" and assist the Driver in berthing the train by handsignals. When the locomotive reaches the Stop Board, the Driver must await further instructions from the Person in Charge before setting his train back clear into the terminal.

When the train is brought to a stand in its final berthing position, the Guard must apply sufficient hand brakes on the train before the locomotive is detached by the Secondman.

Departure of Freightliner trains. Locomotives to work departing trains will normally arrive from the Horsley Fields direction and will proceed to the Terminal by the connection facing in the down direction to the Down Goods Siding, thence setting back over the hand points to the required terminal siding.

Before allowing this locomotive movement, or any other movement, through the connection facing in the down direction to the Down Goods Siding, the Signalman will obtain permission from the Person in Charge, by telephone, and the Person in Charge will be responsible for operating the hand points and ensuring that they are correctly set for the movement. In the case of a locomotive for the Terminal, the Person in Charge will be responsible for calling it back on to the train.

Immediately upon arriving at the Terminal, the Guard must report to the Person in Charge who, before departure of the train, must give him a certificate that the containers on the train have been secured properly and that the tail lamp, filled, trimmed and lit as necessary, is in position at the rear of the train.

After the locomotive has been coupled to the train by the Secondman, the Driver must fully apply the air brake; the Guard must then check and take off all hand brakes on the train. It will not be necessary for the Guard to examine any other feature of the train and Rule 131 (i) is modified accordingly.

In conjunction with the Maintenance representative, who will be at the rear of the train, the Driver must carry out the simple brake test in accordance with Clause 4(A) of the Instructions on page 4 of the General Appendix. When the Maintenance representative is satisfied that the brake test has been satisfactorily carried out, he must signal to the Driver accordingly; the Guard must also observe this signal.

The Person in Charge must advise the Signalman when the train is ready to depart. If the train is required to set back on to the up main line, the Guard must not obscure or remove the tail lamp when the train is standing completely on the up main line, and Rule 152 is modified accordingly.

Elders & Fyffes' Siding. Before a train which is to work at this siding is allowed to proceed through the connection facing in the down direction from the goods line to the Down Goods Siding, the Signalman must obtain permission from the Person in Charge at the Liner train terminal, who must ensure that the handpoints are correctly set.

Before a movement is made from the goods line to the Down Goods Siding via the North ground frame, the Signalman and Person in charge of the Liner train Terminal must come to a clear understanding to ensure that no conflicting movement is made on the Down Goods Siding or the run-round line from the Dudley end whilst the train is working at Elders & Fyffes' siding.

The key of the padlock securing the points leading to Elders & Fyffes' siding must be obtained from the signalbox by the Guard and returned there when the train has finished working at the siding.

#### WEDNESBURY

Hill Top Foundry Siding. Immediately on the arrival of a train which is to serve this Siding the Fireman's call plunger at the down home signal must be operated.

Darlaston Branch. The branch lines from Wednesbury ground frame are worked as sidings.

No movement must be made in either direction past Stopboard No. I without permission of the Shunter in Charge at Patent Shaft Sidings.

Freight wagons may be propelled without brakevan from Wednesbury Ground Frame to Stopboard No. 1, subject to the conditions set out in Table F1.

Freight wagons (without a brakevan in rear) may be worked in accordance with Rule 153(b) between Wednesbury ground frame and the end of the branch.

#### STOURPORT-ON-SEVERN

**C.E.G.B. Siding.** This siding is served by a connection with the Hartlebury line about  $\frac{1}{4}$  mile south of Stourport-on-Severn Signal Box, and comprises a single line  $\frac{3}{4}$  mile in length leading to a nest of 8 double-ended sidings.

Each train between Stourport and the C.E.G.B. Siding must be formed with a brakevan at front and rear and be accompanied by a Guard and a Shunter, one man riding in each van.

Standard head, side and tail lamps must be exhibited, lit during the hours of darkness and during fog or falling snow.

The speed of trains over the Power Station line must not exceed TEN miles per hour at any point during clear weather, and FOUR miles per hour during fog or falling snow.

Only one train may work over the Power Station Siding at one time, and after a train has been admitted to the siding the Stourport Shunter will be responsible for ensuring that a second train does not enter the siding until the first one has returned and has passed out of the siding on to the running line with tail lamp complete.

The Central Electricity Generating Board's locomotive must not proceed beyond the fouling point at the Stourport end of the loop between the Worcester Road and Hartlebury Road bridges in the direction of Stourport unless specifically instructed to do so by the B.R. Shunter.

The Signalman must advise the Power Station Weighbridge staff when a trip leaves the Main Line for the Power Station, and the B.R. Shunter must advise the Signalman when a return trip is about to leave Hartlebury Road Bridge for Stourport Station.

The normal method of working will be as under:—

Trains to the Siding. Each train from Stourport to the Private Siding must be drawn. It must stop at the Incline stopboard near the entrance to the Power Station line, to pin down brakes, and again at Mill Road Bridge to release the brakes.

The Shunter must ride in the front van to pin down and pick up brakes.

The train must again stop on the Stourport side of Hartlebury Road Bridge, and the B.R. locomotive must not proceed beyond this point until permission is received from the C.E.G.B. shunter.

**Trains from the Siding.** Trains not exceeding 50 empty wagons may be drawn from the Private Siding Loops to Stourport.

Only one brake van is necessary, formed at the extreme rear, in which the Guard must ride.

The train must be brought to a stand clear of the entrance to the Stourport Down (Loop) Siding, and the driver must not proceed until he has received a handsignal from the Shunter.

**Brindley Street Private Sidings.** The facing connection in the running line is operated from a two-lever ground frame controlled by a key on the token for the section Bewdley South—Stourport-on-Severn. An intermediate token instrument is also provided and telephone communication is available with the signal Box. (See Table S1).

Trains to and from the sidings must not exceed forty wagons in length.

#### KIDDERMINSTER JUNCTION

**Fouling Single Line for Shunting purposes.** Trains may be shunted on to the Bewdley Branch in accordance with Electric Token Regulation 7 provided that the leading vehicle when setting back is a Guard's van and that a Guard or other competent man rides and remains in it. When necessary for Shunting purposes the locomotive may be detached and the rear portion of the train left on the running line provided the Driver is in possession of the Token for the section.

Admittance of Freight trains direct from the Branch Line to the Front Siding. The Shunter, before giving permission to the Junction Signalman for a train to enter the front Siding, must, during darkness, place the red shades in the lamp-case fixed on the post or exhibit a red flag at the spot during daylight; a train may draw up to the red light or flag, but must not pass that point until the red signal has been removed and the Driver instructed to move by the Shunter.

#### FOLEY PARK

The Guard working the last train must extinguish the lamps and bring them back to Kidderminster.

Sugar Beet Factory Sidings. 1. An Intermediate Electric Token instrument is provided in the ground frame cabin, with a telephone to Kidderminster Junction Signal Box.

- 2. Traffic to and from the Sidings will be worked specially from and to Kidderminster under the following regulations:
  - (a) Trips on the forward journey must be accompanied by two men.
  - (b) Trips to the Sidings must not exceed 35 wagons, locomotive and van (except as provided in Table F1).
- 3. Trips may be run between Kidderminster and the Sidings at night during the time the branch line is closed, under the following conditions:
  - (a) When the first trip is worked to Foley Park Sidings, the points leading from the Yard to the Branch Line must be clipped by the Shunter, the Signalman being unable to clear the disc and the Branch Starting Signal which are locked by the Token Instrument. Authority to pass these signals in the "On" position must be given to the Driver by the Shunter in charge of the train.
  - (b) The Driver must keep the Token in his possession the whole of the time the train is on the branch except when it is required to operate the ground frame. The Token must not on these occasions be deposited in the instrument at the Sidings.
  - (c) Upon returning from the sidings, the Driver must approach Kidderminster Junction cautiously and be prepared to stop at the home signal.
- 4. When necessary, trips may be propelled from Kidderminster Junction to the Sidings in clear weather only, as shown in Table F1, and in connection with these movements the undermentioned regulations must be observed:—
  - (a) Upon arrival at the Sidings, before any shunting is commenced on the running line, the hand brake in the brakevan must be screwed on tightly, and if necessary, wagon brakes applied. After sunset the side and tail lamps on the brakevan must be replaced, and show red lights towards Bewdley, and the side lamps white lights towards Kidderminster.
  - (b) A brakevan must always be at the Bewdley end of vehicles shunted on the running line.
  - (c) A train not exceeding 60 loaded wagons may be propelled from Kidderminster Junction to the Sidings in clear weather during the hours that the branch line is closed for ordinary services, provided an additional brakevan is formed in the centre of the train with a man in it equipped with lamp and flags to relay hand signals from the Guard riding in the leading van to the Driver.

#### **BEWDLEY**

Loop Siding. This Siding, which runs parallel with the back road single line, is a traffic Siding only, and not a running loop line. Shunting must not take place at both ends of the Siding at the same time.

## STOURBRIDGE TOWN BRANCH

- 1. The Signalman at Stourbridge Junction Middle Box is the sole person authorised to deliver and receive the Train Staff, which may be retained by the Driver for all trips to and from Stourbridge Town and when working as far as is usual into the Branch Platform Line at Stourbridge Junction Station. When not in use the staff will be kept in Stourbridge Middle Signal Box.
- 2. A telephone is provided between Stourbridge Town Platform and Stourbridge Junction Middle Box, and the Guard must give one ring on the telephone when his train is ready to leave the Town Station which the Signalman must acknowledge by giving one ring back. No train must be allowed to leave until this acknowledgement has been received.

#### KINGSWINFORD JUNCTION SOUTH

Mobberley & Perry Ltd., Private Siding. This siding connects by facing points with the Down Branch Goods Loop and is controlled by a hand point lever. When not in use the points must be padlocked in the normal position and the key kept in the Signal Box.

To shunt at the Siding the Shunter must obtain the key from the Signalman and on completion of the work must see that the hand points are padlocked in the normal position, no vehicles left foul of the Down Branch Goods Loop and return the key to the Signalman.

Not more than 10 wagons may be propelled into the Siding in one shunt and at least two leading wagons must be firmly braked. Not more than 10 wagons in one shunt may be drawn from the Private Siding towards the Down Branch Goods Loop.

The times at which the key is taken from and returned to the Signal Box must be entered in the Train Register.

#### **PENSNETT**

Messrs. Lunt Comley Pitts Sidings. Locomotives are prohibited from working over the hopper plant. Sufficient additional wagons must be attached between the locomotive and the wagons to be detached or attached at the siding to obviate the necessity for the locomotive to go over the hopper plant.

## DERBY TO BLACKWELL (W.R.) AND BRANCHES

#### **DERBY (MIDLAND)**

**Derby (Midland)** is signalled as a terminal station and Drivers of trains approaching must understand that the signal or signals cleared simply give them permission to run into the station, and not through it, and they must be prepared to stop at any point circumstances render necessary, unless the line is clear, and the signals are cleared giving them permission to leave the station at the other end.

Drivers of trains entering the station either under the authority of a calling-on signal at the signal box controlling the entrance to the Station, or after receiving a warning by hand signal at that box, must be prepared to stop clear of any obstruction in the station, although the signal worked from Station "A" box may have been cleared for their train before they have come to a stand.

Down Goods Line between London Road Junction and L.N.W. Junction. When trains are working at the sidings connected with the down goods line a brakevan, with tail lamp attached, must always be left on the line at the London Road Junction end of the train.

Engineer's Self-Propelled Machines to and from the Outdoor Machinery Sidings. The Conductor Driver must verbally advise the Signalman at London Road Junction box when the self-propelled machine requires to enter the Outdoor Machinery Sidings by the hand-worked connection in the down goods line between London Road Junction box and L. & N.W. Junction box.

When the machine has entered the Outdoor Machinery Sidings and the points have been reset for the down goods line, the Conductor Driver must return to London Road Junction box and sign an entry in the Train Register certifying that the machine is completely in the siding and the down goods line is again clear.

Before a self-propelled machine leaves the Outdoor Machinery Sidings, the Conductor Driver must obtain permission from the Signalman at London Road Junction box. After the machine has left the sidings and is on the down goods line, the handworked points must be reset for the down goods line and when the machine arrives at L. & N.W. Junction box, the Conductor Driver must give an assurance to the Signalman that this has been done.

"Up and Down" Through Siding between L.N.W. Junction and London Road Junction—St. Andrews Yard. The Shunter or Guard in charge of movements on the "Up and Down" Through Siding must inform the Signalman at London Road Junction box, by telephone, if movements require to proceed from the Through Siding towards London Road Junction via the connection to the Up Passenger West line, giving the description and destination of the movement.

A down direction movement must not be made beyond the Notice Board, on the London Road Junction side of Osmaston Road Bridge, until the permission of the Signalman at L.N.W. Junction box has been obtained by telephone.

#### STENSON JUNCTION

C.E.G.B. Sidings, Willington Power Station. The Guard of a train proceeding to the Loaded Wagon Sidings via the arrival line must immediately advise the Signalman at Stenson Junction, by telephone, when the arrival line is again clear.

#### BURTON-ON-TRENT—LEICESTER JUNCTION

**Driver's Relief.** Drivers of down trains requiring relief must bring their trains to a stand at the "B" relief cabin, to ensure that the train is clear of the junction.

#### CASTLE BROMWICH

Messrs. T. W. Ward's Private Siding. Each of the two sidings will accommodate up to ten Presflo cement wagons which must be stabled with the discharge valve facing inwards, i.e. towards the adjacent siding.

Each raft of loaded cement vehicles must be positioned with the leading buffer beam of the eighth Presflo wagon from the stop block end opposite the marker board.

A light switch on the first stanchion of the elevated hoppers crossing both sidings will illuminate the track immediately in that vicinity. The guard of the train must operate the switch as necessary upon arrival and departure during the hours of darkness.

#### **BROMFORD BRIDGE**

Esso Co's Sidings. The speed of movements into and out of these sidings and shunting movements within the sidings must not exceed 5 miles per hour.

### WASHWOOD HEATH

West Midlands Gas Board Sidings. All movements into and out of these sidings must be worked by a diesel locomotive under the control of the B.R. shunter and at a speed not exceeding 5 m.p.h.

The following instructions must be complied with before a train is permitted to enter or leave the connection to or from the discharge siding.

- (1) The B.R. shunter must confer with the W.M.G.B. staff before a movement is made in either direction along the connection to the siding.
- (2) The B.R. shunter must work in conjunction with the W.M.G.B. staff while berthing or drawing out tank wagons at the discharge point.
- (3) Before any movement is made into or out of the sidings all naked lights (e.g., oil hand, head, tail and side lamps) must have been extinguished and removed.
- (4) Matches, cigarette lighters, etc., and any other items of an inflammable nature must be deposited in the Yard Inspector's cabin.
- (5) The B.R. shunter must obtain from the Yard Inspector's cabin an electric hand lamp and ensure that it is returned when the work in the sidings has been completed.
- (6) If it is necessary for a brakevan to be berthed, the fire must have been cleaned out.

West End Sidings. Drivers of locomotives to work trains from West End Sidings must advise the signalman at Washwood Heath Sidings No. 2 box what train they are to work using the telephone on the abutment of overbridge No. 146 adjacent to No. 1 goods line.

**B.M.C.** (Wolseley Works) Sidings. Traffic for these sidings must be propelled from Washwood Heath Junction and the movement brought to a stand before reaching the footpath crossing the siding adjacent to the entrance gates. The Person in Charge of the movement must obtain permission from the firm's employee in charge of the weighbridge for the B.R. train to enter the sidings after which the points controlling the entrance to the sidings can be unlocked.

Inwards traffic must be placed on Nos. 1 or 2 sidings and outwards traffic drawn from No. 3 siding. Boards prohibiting the movement of B.R. locomotives beyond the clearance points of these roads are provided. They must not use No. 4 siding.

On completion of work in the sidings, the points leading to Washwood Heath Junction must be again locked and the key returned to the Inspectors' office at Washwood Heath Up sidings, North end, by the Person in Charge of the movement.

## **DUDDESTON ROAD JUNCTION**

Subsidiary arms are provided on the posts of the up and down main home signals, for signalling to Drivers of locomotives not requiring to proceed beyond Duddeston Road, and Drivers of trains the rear portions of which are foul of Landor Street Junction.

When a subsidiary arm is taken off for a light locomotive not proceeding beyond Duddeston Road, it must stop immediately ahead of the points through which it is required to pass.

### CASTLE DONINGTON

Guard's Telephone. A telephone is provided adjacent to the two-arm dwarf signal reading "Set back from up line", and the Guard of an up train, or Secondman of a light locomotive, requiring to set back into the C.E.G.B. sidings or to the down line, must inform the Signalman immediately the train complete with tail lamp has come to a stand clear of the crossover road points in the up line.

## BETWEEN CHELLASTON JUNCTION AND STENSON JUNCTION

Working over Down Line. The first passenger train over the down line after Permissive Block Working has been in operation will be brought under control at the down home signal for Chellaston Junction box.

Authority for the train to proceed will be given by clearing the subsidiary signal and the exhibition of a green hand-signal which the Driver must acknowledge on the horn and must understand he must proceed with caution through the section.

A Guard's telephone is provided on the approach side of Stenson Junction down inner home signal from Trent. Guards of trains brought to a stand at this signal must immediately advise the Signalman when the train has arrived, complete with tail lamp, inside the down outer home signal.

Working over Up Line. The first passenger train over the up line after Permissive Block Working has been in operation will be brought under control at the up home 2 signal for Stenson Junction box.

After the signal has been cleared the Signalman will exhibit a green hand-signal which the Driver must acknowledge on the horn and must understand he must proceed with caution through the section. Permission for the train to proceed into the forward section will be given by the subsidiary signal being cleared.

A Guard's telephone is provided on the approach side of Chellaston Junction up inner home signal from Stenson Junction. Guards of trains brought to a stand at this signal must immediately advise the Signalman when the train has arrived, complete with tail lamp, inside the up outer home signal.

## **SUDBURY**

W.D. Sidings. Three sidings are provided at Sudbury for the exchange of traffic with the War Department, and trains entering these sidings must not pass the stop board applying to the approach line until the guard has ascertained that a siding is clear.

When a movement is ready to leave the War Department sidings, the Guard or Shunter must obtain permission from the Signalman at Sudbury Station box using the telephone outside the R.T.O. Office, before authorising the Driver to draw forward to the exit signal.

#### CHEADLE

On completion of shunting operations, the Guard, or Shunter in charge, must ensure that the points shown below are clipped and padlocked in the position indicated:—

#### **Points**

Trap points protecting platform line from sidings.

Connect on leading from single line to platform line.

## Position in which to be secured at close of work

Open.

To lie for movements from the single line to the platform line.

#### SAFFRON LANE CROSSING

A Guard's telephone is provided between the up main line and No. 1 Departure Siding, and Guards of trains brought to a stand at the up home 2 signal must immediately advise the Signalman when the train has arrived, complete with tail lamp, clear of the facing connection from the up main line to C.E.G.B. Sidings.

C.E.G.B. Sidings. The signal reading from the Electricity Works is operated by a lever immediately on the Desford side of Aylestone Road bridge. The normal position of this signal is clear, and during the time there is no B.R. Shunter on duty Guards of trains which require to enter the C.E.G.B. Sidings must, after satisfying themselves that no conflicting movements is being made, place the signal to Danger, and advise the Signalman at Saffron Lane Crossing when this has been done. After completion of work in the sidings, the Guard must place the signal to the Clear position, when the train has been drawn on to the up main line clear of the connection leading to the sidings.

Narborough Road Wharf. To avoid obstructing the footpath level crossing on the Leicester side of Narborough Road wharf, trains must not be left upon the crossing, and when Saffron Lane Crossing down advanced starting signal is at Danger, Drivers of freight trains requiring to proceed to Desford must stop on the Leicester side of the crossing.

Trains must not be shunted at this siding to allow other trains to pass.

Provided the Driver is in possession of the key controlling the ground frame, a down train working at Narborough Road Wharf may return on the down line up to the signal controlling movements from the down line to the up line through the crossover road at the Desford end of the up sidings, without the authority of the Signalman at Saffron Lane Crossing box being obtained by the Guard or Shunter.

#### **BRAUNSTONE GATE**

Gimson's Private Siding. Access to this siding is controlled by a one-lever ground frame, outside the down shunt neck "A". The key to operate this lever is kept in the Shunter's cabin.

# DESFORD JUNCTION, BAGWORTH & ELLISTOWN STATION AND MANTLE LANE SIDING CONNECTIONS BOLT-LOCKED FROM SIGNAL BOX

When a train requires to enter one of these sidings, the Guard or Shunter, or the Secondman in the case of a light locomotive, must immediately pull over the lever working an indicator in or near the signal box to show that the main line is occupied and it is necessary to unbolt the points; the lever must be kept in that position for the protection of the train until it is ready to leave and the starting or advanced starting signal, where provided, has been taken off for it to proceed, or it has been shunted into the siding and the main line is clear, when the lever must be put back in the frame.

After a train has been shunted into the siding to allow another train to pass, or for any other purpose, the lever working the indicator in or near the signal box must not be pulled over again until the Signalman has unbolted the points.

At Bagworth & Ellistown and Mantle Lane the starting or advanced starting signal ahead of the points may be passed at Danger for shunting purposes only.

### **BAGWORTH & ELLISTOWN**

Attaching by Up Freight Trains. When an up freight train has to attach wagons from the front and/or back sidings, sufficient wagon brakes must be pinned down to necessitate the Driver applying power to draw the train on to the up main line.

The Guard must accompany the wagons from the siding to the running line and apply additional brakes as necessary to ensure the train being kept under control.

When the Driver feels sufficient brakes have been applied, he must give two short blasts on the horn to indicate he is satisfied that sufficient brake power is available to control the train and to stop it clear of the connection in the up main line.

The Guard must then rejoin his brake and gravitate it on to the train. After the brake has been attached to the train and the wagon brakes lifted, the Guard must exhibit a green hand signal to the Driver to indicate that the train can leave, which the Driver must acknowledge on the horn. The train must not start until these signals have been exchanged.

#### **COALVILLE**

Whitwick Colliery Sidings. No. 2 (Back) road must be used for empty wagons only, which may be put on that road only when it is clear. The Colliery locomotive in removing wagons from that road to the colliery will draw the whole of the wagons forward, detach the number required, and leave the leading wagon of any that remain clear of the connection to No. 1 (Front) road.

No. 1 (Front) road must be used only for loaded wagons from the colliery during the day, and during the night additional empties.

The passage of staff between Nos. 1 and 2 roads is prohibited.

#### MANTLE LANE

Use of Guard's Telephone. Telephones are provided 400 yards and 300 yards before reaching the up main home 2 signal and the Guard of an up train, or Secondman in the case of a light engine, must inform the Signalman at Mantle Lane box immediately the train complete with tail lamp has arrived at the home 2 signal.

A telephone is provided at the locomotive holding siding and must be used to advise the Signalman when a locomotive is ready to leave and what train it is to work.

## SWADLINCOTE JUNCTION

Trains travelling over the siding between Swadlincote Junction and Cadley Hill Colliery must be drawn in each direction and have a brake van in rear.

## **BRANSTON SIDINGS**

A padlocked wheel scotch is provided at the exit from the Carriage & Wagon Sidings and must be secured across the line except when it is required to make a movement into or out of the sidings. The key to the padlock is kept in Branston Sidings Ground Frame.

## KINGSBURY BRANCH

Baddesley Colliery. Wagons must be propelled from Hall End Colliery Sidings to Baddesley Colliery and a brake van in which a Guard must ride, must be the leading vehicle.

Birch Coppice Colliery. Wagons for the colliery must be drawn into No. 1 siding alongside the Birch Coppice Colliery Branch by a B.R. locomotive, which must return to the Kingsbury end of the sidings over the Birch Coppice Colliery Branch.

The single-armed signal at the colliery end of the sidings, alongside the Birch Coppice Colliery Branch, must exhibit a Clear signal except when it has to be placed to Danger to protect B.R. trains working on the Birch Coppice Colliery Branch and the sidings alongside it.

Before any locomotive or vehicle is allowed to enter the Birch Coppice Colliery Branch or the sidings alongside it, the signal must be placed to Danger by the B.R. staff to indicate to the N.C.B. staff that the B.R. locomotive is at work in the sidings, and the signal must be kept in that position until the B.R. locomotive has left the sidings and the branch line is clear, when it must be again placed in the Clear position.

There is a telephone near the connection between the Kingsbury Branch and the Birch Coppice Colliery Branch for Guards and Shunters to communicate with the Colliery Weighing Machine Office and the Foreman's Office at Kingsbury Branch Sidings.

#### **NARBOROUGH**

Enderby Branch. When there is no Shunter on duty at Narborough, the Secondman of trains from the Enderby Branch must telephone the Signalman at Narborough Station box for permission to pass the "Stop and Await Instructions" board.

### **SHUSTOKE**

Daw Mill Colliery Sidings. There is a telephone to the Colliery Sidings Weighbridge Office and the signal box at the double sided "Stop" board at the lead to the Colliery Sidings. Trainmen must obtain permission to pass the stop board by telephone from the former when entering the sidings and from the latter when leaving.

## COLESHILL

West Midlands Gas Board Sidings. B.R. trainmen working these sidings must comply with instructions given them by the W.M.G.B. Person in Charge. B.R. locomotives and trains will not normally enter these sidings when there are no W.M.G.B. staff on duty, but if this is necessary the Signalman at Coleshill Station will advise the Driver and Guard for which siding the points are set.

Trains of Primary Flash Distillate will normally be propelled into No. 4 reception siding and on arrival the Guard must extinguish his hand lamp and obtain from the W.M.G.B. Person in Charge an electric hand lamp which must be used whilst working in the fuel discharge area.

The B.R. locomotive must run round the train via No. 2 reception siding. The brake van (if provided) must then be detached and placed on one of Nos. 5 to 9 reception sidings, but the barrier wagons must be left attached to the train. The Driver must then change cabs.

The train will be propelled from the reception siding to the P.F.D. discharge siding over a weighbridge at a speed **not exceeding 2 miles per hour.** Before this movement commences the Guard must proceed to the front weighbridge, where the W.M.G.B. Person in Charge will advise him when the movement may be commenced.

A two-aspect colour light signal on the roof of the front weighbridge, facing towards Water Orton, will be operated by the W.M.G.B. Person in Charge in consultation with the B.R. Guard, and will be illuminated only when trains are being propelled from the reception sidings to the P.F.D. discharge sidings. A green aspect indicates to the Driver that the train may be propelled into the P.F.D. discharge sidings; a red aspect indicates that the movement must stop.

West Midlands Gas Board's Lurgi Plant Sidings. The berthing of tank wagons in the Discharge Sidings will be carried out under the supervision of a W.M.G.B. shunter on the ground, who will pass the necessary instructions by radio-telephone to a W.M.G.B. shunter travelling in the cab of the locomotive; the Driver must work to the verbal instructions given him by the Shunter on the locomotive.

**Down Siding.** The connection to the down siding (Distillers Siding) from the down lie-bye is clipped and padlocked for movements along the lie-bye.

Guards and Shunters requiring to use the down siding must obtain the key from Coleshill signal box.

On completion of work at the down siding the points must again be secured for the lie-bye and padlocked and the key be returned to the Signalmen.

#### BOURNVILLE

Cadbury's Sidings. The semaphore signal off the private line to the Canal siding at the factory end of Messrs. Cadbury's sidings about 400 yards on the Bournville side of the stage working the connection between Cadbury's Inwards and Outwards sidings and the up main line, must be kept in the clear position except when B.R. trains are propelling wagons on the Inwards siding.

Wagons must not be propelled beyond Cadbury's weighbridge.

Rule 151 must be carefully observed before the locomotive is uncoupled from a train which has wagons to detach into this siding from the main line.

Movements must not be made from the up sidings on the King's Norton side of the box into the private siding until the permission of the member of Messrs. Cadbury's Staff in charge has been obtained, the private siding gate opened and the shutter to the loading deck raised.

## **EXCHANGE SIDINGS**

Trains leaving Exchange Sidings for the Up Derby direction, requiring to propel on to the Down Derby line, must not exceed 30 wagons in length.

## CAMP HILL

The rear portion of down freight trains having to attach or detach traffic at Camp Hill must be placed in one of the sidings, unless there is a locomotive assisting in rear.

## LONGBRIDGE

Movements of carflats in Longbridge Sidings must be restricted to five miles per hour.

All carflats are prohibited from entering the North Siding.

#### REDDITCH

Siding Connections Bolt locked from North Signal Box. When a train requires to enter the Down Sidings, the Guard or Shunter, or Secondman in the case of a light locomotive, must immediately pull over the lever working an indicator in the Signal box to show that the main line is occupied and it is necessary to unbolt the points; the lever must be kept in that position for the protection of the train until it is ready and the starting signal has been taken off for it to proceed, or it has been shunted into the siding and the main line is clear, when the lever must be put back in the frame.

After a train has been shunted into the siding to allow another train to pass, or for any other purpose, the lever working the indicator in the Signal box must not be pulled over again until the Signalman has unbolted the points.

The signal ahead of the points may be passed at Danger, for shunting purposes only.

## CRAVEN ARMS (W.R.) TO CREWE AND BRANCHES

## SUTTON BRIDGE JUNCTION

Coleham Goods Yard. Trains must be set back from the down main line into Coleham Goods Yard with great care to avoid the wagons becoming derailed. Any necessary shunting must be performed in the shunting neck and not through the crossings.

## ABBEY FOREGATE

Leaving Sidings, 1, 2, 10, 11 and 12 and Bridge Road. Drivers must treat the clearing of the signals from Sidings Nos. 1, 2, 10, 11 and 12 or from Bridge Road in exactly the same manner as "calling on" signals and proceed cautiously, prepared to stop short of any train which may be in front.

Main Siding, Shropshire Sidings. When vehicles are to be propelled to the Severn Bridge Junction end of this siding, the Shunter must telephone the Signalman at Severn Bridge Junction and when the signal is cleared for the movement, the protection signal worked by the Shunter must be cleared.

The Secondman of light locomotives not accompanied by a Shunter, must act in accordance with the instructions laid down for the Shunter.

Drivers must travel over the siding very slowly in both directions and be prepared to stop short of any obstruction.

#### SEVERN BRIDGE JUNCTION

Trains Detained at Up Hereford Line Home Signal. The telephone on the up side of the Hereford line near Severn Bridge Junction up home signal is provided solely for the purpose of carrying out the provisions of the second paragraph of Rule 55 (a) and Rule 133 (d).

Up Platform – Rule 44B (b). The "calling on" signal on the up platform line home signal may be cleared for approaching passenger trains only, when they have been brought nearly to a stand.

S.U. Yard and Howard Street Landing. Before any train or shunting movement passes the Stop Boards at the exits from the S.U. Yard and Howard Street Landing, permission must be obtained from the Severn Bridge Junction Signalman.

The wheel stop on the siding adjoining the warehouse approximately 76ft. from the stopblock must be kept across the rail except when it is necessary to berth wagons for loading or unloading. Loose shunting of vehicles on this and the adjacent siding is prohibited.

When a shunting movement is made from the up main line to the S.U. Yard or Howard Street Landing, the Person in Charge must telephone the Severn Bridge Junction Signalman when it is clear of the crossover road from the up main line.

## CASTLE FOREGATE

**Protection of Staff during Shunting Operations.** Between 06 00 and 19 00 daily or until Sundries Division work in the yard has ceased the points between the shunting neck and the empty line must be padlocked for the shunting neck and the key kept by Sundries Division Foremen except when it is necessary to shunt the Coal Line or Empty Line.

Between 19 00 and 06 00 or after Sundries Division work has ceased, the key of the points will be kept by the Coton Hill Yard Inspector.

On all sidings except the Coal Line and Empty Line, the Sundries Division staff must, before commencing work, and after coming to an understanding with the B.R. staff, place a red flag (or red light during hours of darkness) on the last wagon in the direction from which wagons might be shunted against those on which men may be at work. When B.R. staff require to shunt into the sidings where the danger signal is exhibited, they must contact the Sundries Division Foreman who must satisfy himself that all the men in the siding are clear before removing the red flag or light.

Transfer Siding. The hand points at the North End of the junction between the Transfer line and the Cattle Pen Road must be set and padlocked for the Cattle Pen Road. The key is kept by the Goods Shed Foreman who must arrange for the points to be unlocked when required to berth wagons for the Goods Shed on the Transfer line, after which the points must be reset and padlocked for the Cattle Pen Road.

After work has ceased in the Goods Shed, the Goods Shed Foreman must unlock the points to facilitate the berthing of wagons. Before commencing work in the Goods Shed each morning the Goods Foreman must ensure that the points are set and padlocked for the Cattle Pen Road.

Cattle Pen Siding. Before commencing work on the Cattle Pen Road, staff must arrange for the wheel stop to be placed across the Siding, and in addition a red flag by day, or a red light during darkness, fog or falling snow, must be prominently exhibited on the end of the Goods Shed wall facing the direction from which vehicles might be shunted towards the men at work. When work ceases the wheel stop must be removed from the siding and the red handsignal withdrawn.

The key to the padlock must be kept in the Foreman's Office on the Goods Shed.

Goods Shed. Gravitating of vehicles into the Goods Shed may be performed only by the Head Shunter.

Shunting the Shed is not to commence until the Head Shunter has received an assurance from the Shed Foreman or General Foreman that all men working on the Shed are standing clear of the wagons.

Valley Siding. Traffic for Castle Foregate Goods Yard is assembled on the Valley Siding and berthed in the Goods Depot as required by the Head Shunter.

As far as practicable, four vehicles securely braked should always be berthed at a point midway along the Valley Siding to act as a buffer stop for further vehicles gravitated into the Siding.

If all vehicles are cleared from the Valley Siding the Castle Foregate Head Shunter must inform the Coton Hill North End Shunter immediately and no further vechicles may be gravitated on to this siding until four securely braked vehicles have again been placed in position.

#### COTON HILL SOUTH

Shunting Trains on Up Side of Main Line. When a locomotive or locomotive and wagons is passing from Castle Foregate Yard to the North end or vice-versa, the Driver must stop at the Yard signal, whether at Danger or Clear, until he receives verbal instructions from the Shunter to move forward. The Shunter will be responsible for seeing that the line is not obstructed and the signal cleared before instructing the Driver to pass it.

No locomotive or train must enter the Yard at the North end, nor must the shunting locomotive set back from the North end spur when the Yard signal has been cleared for a through movement from South to North.

Up Goods Line between North and South Boxes. The first freight train to enter this line must draw up to the South end before commencing to shunt with the front portion, to permit a second train to draw in clear behind it.

I'a train is not clear inside the points but is inside the up inner home signal complete with tail lamp, the Guard must advise the Coton Hill North signalman, using the telephone near the entrance to the line, but if the telephone is engaged he must proceed to the signal box.

I p Goods Line between Coton Hill South and Crewe Junction. This line will hold 37 wagons, in addition to the locomotive and van, and 25 wagons can stand between the points leading to the Down main ine at the Coton Hill end and the trap points at the Crewe Junction end.

I uring fog or falling snow trains backing along this line must proceed very slowly and the men must ceep a sharp look-out for signals.

I rovided the weather is clear, not more than 60 freight vehicles may be propelled over this line towar is Crewe Junction. The leading vehicle must be a brake-van in which the Guard must ride and the movement must proceed to the "Down and Up" Platform line.

I own Trains Terminating at Coton Hill North – Working to Up Yard. Before a terminating down train s shunted to the up yard, the Signalman at Coton Hill North box must have permission from the down side Shunter. The down side Shunter must make the necessary arrangements with the up side Shunter.

## SHREWSBURY (CREWE JUNCTION) AND CREWE BANK

I own Loop. Drivers must treat signals from the down platform, down main, and "down and up" platform lines into the down loop between Shrewsbury (Crewe Junction) and Crewe Bank signal boxes as cal ing-on signals, and proceed cautiously, prepared to stop short of any train which may be in front.

## HARLESCOTT

I own Goods Loop. Guards working down trains into the down goods loop when Crewe Bank Signa Box is closed must advise the Harlescott Signalman by telephone immediately the train has arrive 1 in the loop complete with tail lamp.

#### **PREES**

I own Stopping freight trains. The rear of the train must stand near the box, clear of the level crossi 1g, during shunting operations. The Person in Charge must not allow the Driver to set back on to the re ir portion without permission from the Signalman.

#### WHITCHURCH

Chester Junction. When an up train is divided between Wrenbury and Chester Junction because the locomotive is unable to take the whole train forward, or if a train breaks loose between these points, and the locomotive has to return from Chester Junction for the rear portion, it must not run to Wrenbury on the down line to propel the rear portion to Whitchurch. It must be set back from Chester Junction on the up line to the rear portion of the train with a Wrong Line Order from the Guard to the Signalman in accordance with Rule 183 (f).

#### **WRENBURY**

Marley Green level crossing—"On call" barriers. A Wrong Line Order "C" must not be issued for a novement which requires to pass over the crossing until permission has been obtained from the Signa man at Wrenbury.

- A ballast train which has passed over the crossing is prohibited from returning to the box in rear in accordance with Rule 175 (c).
- A ballast train which has passed over the crossing must not be set back in accordance with Rule 216 (j if it would approach nearer than  $\frac{1}{4}$  mile to the crossing.
  - A trolley must not pass over the crossing without the permission of the Signalman.
  - Prior arrangements must be made for a Crossing Keeper to be in attendance:—
    - (i) if a train is required to stop in section (in accordance with Block Regulation 8).
    - (ii) if Single Line Working is in operation.

I own Stopping freight trains. The rear of the train must stand near the box, clear of the level crossing, during shunting operations. The Person in Charge must not allow the Driver to set back on to the rear portion without permission from the Signalman.

#### **NEWTOWN**

S unting. No trains or vehicles may be shunted from the Down Line to the Up Line or from the Sidings to the Up Line unless there is a suitable brake vehicle at the leading end and a competent person attending to it.

V'hen placing wagons on the "New Road" Siding, the locomotive must not be detached until the wagons are at rest and sufficient brakes applied to prevent collision with stop block or other wagons standing in the siding.

S unting on Cattle Pens Siding. Whenever it is necessary to perform shunting operations in the Cattle Pens Siding at a time when the discharging of petrol at the Oil Depot is taking place, the Shunter or Guard, after first carrying out the provisions of Rule 112, must attach two freight vehicles to the locomptive, and berth and properly secure the vehicles coupled together at the station end of the cattle pens to provide protection and act as a stop block whilst shunting on the sidings. Shunting by gravitation may then be carried out provided the Guard or Shunter accompanies the vehicles to apply the brakes. Special care must be exercised during such shunting operations.

Noving vehicles by hand into or out of Grain Warehouse. Vehicles that have to be moved by hand must be detached from any other vehicle and each vehicle lowered singly into or out of the Shed or along ide the Shed Deck.

#### **CAERSWS**

Flood Warnings. Flood warning messages to the County Controller of the Flood Warning Organisation at Welshpool, the Chief Constable of the Dyfed Constabulary, local police and others concerned may be transmitted over the railway telephone if the Post Office telephone system breaks down

Non-stopping trains required to pass over the loop line must be brought to a stand to exchange tokens.

Crossing Diesel Multiple Unit Trains. When it is necessary for two passenger trains to cross, and the one which has to run through the loop and set back to the platform is a diesel multiple unit, the propelling movement must be made in accordance with the instructions respecting the working of Diesel Mechanical multiple unit trains.

#### **TALERDDIG**

Rule 39 (a). To avoid up trains and down freight trains being stopped on the rising gradient, the home signal must be lowered for the train to proceed into the loop before it is brought to a stand.

## **CEMMES ROAD**

Crossing of trains. When an up passenger train consisting of more than two locomotives and eight vehicles is required to stop for crossing purposes the catch points at the Machynlleth end of the up loop must be secured by clip and padlock. The Signalman must personally supervise the working.

When up freight trains are required to cross down passenger trains, the load of the up freight train must not exceed locomotive, 32 wagons and brake van.

#### **MACHYNLLETH**

Telephones on Down and Up Home Signals. When a Down Train is stopped at the Down Home Signal, or an Up Train at the Up Home Signal, unless the signal is cleared immediately, the Driver must telephone the Signalman.

Rule 147. A telephone is provided at the Dovey Junction end of the Up Platform.

The Person in Charge of the platform is responsible for carrying out this instruction.

Up Freight Trains departing from Lower Yard. The Shunter must convey the Token from the Signalman to the Driver of an Up Freight Train starting from the Lower Yard.

Locomotive movements at Cemmes Road end of R. & M. Depot. All locomotives allowed to occupy the road between the two stop boards must move to the rear of the stop board on the Cemmes Road side of the water tank and the Signalman must be advised by telephone when this has been done.

When the Signal Box is closed, the Running and Maintenance Staff will have absolute occupation of the Rock Siding and Tank Road. Rock Siding Signal will be maintained at Danger and movements must only be made under the direction of the Person in Charge.

When closing the Signal Box and going off duty the Signalman must inform the Person in Charge that the Box is closed.

When the Signal Box is re-opened the Signalman must again inform him and obtain an assurance that all locomotives are back within the depot limits after which no further movements may be made without the Signalman's permission.

## **DOVEY JUNCTION**

Crossing Diesel Multiple Unit Trains. When it is necessary for two passenger trains to cross, either on the Aberystwyth line or on the Barmouth line, and the one which has to run through the loop and set back to the platform is a diesel multiple unit, the propelling movement must be made in accordance with the instructions respecting the working of Diesel Mechanical multiple unit trains.

Non-stopping trains required to pass over the Barmouth loop line must be brought to a stand to exchange tokens.

Up Barmouth Line Home Signal. When a train is stopped at the Up Branch Home Signal, unless it is cleared immediately, the driver must telephone the Signalman.

## ABERYSTWYTH

Points from No. 1 Platform Line to Middle Road. An Electric Bell in the Signal Box is operated from a point near the Ticket Barrier on No. 1 platform. Enginemen requiring the Signalman to reverse the points from No. 1 platform line to the Middle Road or vice-versa will give one long ring.

Shunting of Nos. 1 and 2 Coal Sidings. The hand points leading to the Old Coal Siding must be normally set for that siding and secured by clip and padlock, the key being kept in the Goods Working Foreman's cabin in the Goods Warehouse.

Before shunting commences on Nos. 1 and 2 Coal Sidings, the Shunter must observe the provisions of Rule 112 (a) and, in addition, when the Goods Warehouse is open, notify the Person in Charge of the Warehouse, who must prevent cartage vehicles crossing or fouling the sidings until shunting has been completed.

#### MINSTERLEY BRANCH

Cruckmeole Ground Frame. Trains between Hookagate and Minsterley will be drawn and the Guard will be responsible for the working of the Intermediate Token Instrument in accordance with the Instructions on page 312. The staff for the section Cruckmeole—Minsterley will be kept in Hookagate Signal Box and will be handed to the Driver together with the Hookagate—Westbury Token.

On arrival at Cruckmeole Ground Frame the Guard will obtain the Hookagate—Westbury Token from the Driver and operate the Ground Frame. When the whole train has drawn on to the Minsterley Line clear of the catchpoint, the Guard will restore the points and telephone the Signalman that the Shrewsbury—Welshpool line is clear.

On return from Minsterley the train must be brought to a stand at the Stop Board before reaching the catchpoint and not proceed until the Guard has obtained permission from the Hookagate Signalman and has obtained the Token and operated the Ground Frame.

#### BARMOUTH SWING BRIDGE BETWEEN LLWYNGWRIL AND BARMOUTH

The Bridge is controlled by two 2-lever Ground Frames released by keys lettered "Bridge Key North End" and "Bridge Key South End" respectively. The two bridge keys are locked in a special Instrument with three apertures in Barmouth South Signal Box, from which they can be released by the insertion, in the centre opening, of a special double-ended key token lettered "Barmouth Bridge Key Release," which is normally locked in the Llwyngwril—Barmouth South Electric Token Instrument in Barmouth South Signal Box, and released by co-operation between the Signalmen at Llwyngwril and Barmouth South. After the Bridge Keys have been released, the special token remains locked in the instrument until the Bridge Keys are restored.

Possession of the two Bridge Keys gives the Permanent Way Inspector or Ganger responsible for opening and closing the bridge absolute occupation of the Llwyngwril—Barmouth South Section for that purpose.

When he requires to open the bridge, the Permanent Way Inspector or Ganger must request the Person in Charge at Barmouth for absolute occupation of the section and the release of the Bridge Keys. The Person in Charge will then confer with the Person in Charge at Llwyngwril and, if the request can be agreed, the time at which the occupation must cease must be made clear to the Permanent Way Inspector or Ganger. The Persons in Charge will then instruct their Signalmen to release the Bridge Keys in accordance with the following paragraph.

The Llwyngwril Signalman must depress the plunger of the Electric Token Instrument for a few seconds to enable the Barmouth South Signalman to withdraw the Special Token lettered "Barmouth Bridge Key Release". The Barmouth South Signalman will then insert the Special Token in the centre aperture of the special Bridge Key Instrument and give it a half turn clockwise. This will enable the two Bridge Keys to be turned a half turn anti-clockwise and withdrawn from the Instrument, and at the same time lock the Special Token. The two Bridge Keys must then be handed to the Permanent Way Inspector or Ganger.

The Bridge Ground Frames may then be unlocked and the bridge opened. The Bridge Keys will remain locked in the Ground Frames until the bridge is closed and the levers replaced to normal, when the Bridge Keys will be withdrawn.

After the work has been completed, and the Permanent Way Inspector or Ganger is satisfied that the line is safe for the passage of trains, he must return to Barmouth South Signal Box with the two Bridge Keys and hand them to the Signalman.

The Signalman will then restore the Bridge Keys to the special Instrument, the North End Bridge Key in the left-hand aperture and the South End Bridge Key in the right-hand aperture. Both keys must be turned a half turn (clockwise) which will enable the Special Token to be turned a half turn (anti-clockwise) which locks the Bridge Keys in the instrument and enables the Special Token to be withdrawn.

The Special Token must then be restored to the Token Instrument in the usual manner and the Llwyngwril Signalman advised when this has been done. The token apparatus must then be tested and a section Token withdrawn as required by Electric Token Regulation 26. Both Signalmen must record in the Train Registers the times the Special Token is withdrawn from and replaced in the Token Instrument.

The Signal Department Technician must be present throughout the occupation to disconnect and reconnect the telephone cables.

#### **BARMOUTH**

Second Passenger Train or Shunting Locomotive entering occupied Platform Lines. During fog or falling snow or when the rear of a train at the platform cannot be seen clearly, and a second passenger train or shunting locomotive with or without vehicles has to be admitted to either of the Platform Lines behind a train already standing there, the second train must be accompanied from the "Calling On" Signal or disc by a competent man who knows the position of the train at the platform, and must instruct the Driver accordingly.

If it is necessary to bring a train to the rear of a train which has been set back into the Down Platform Line from the North end, or into the Up Platform Line from the South end, this must not be done until the person in charge has advised the Signalman at each end that the backing movement has come to a stand.

When either or both trains are withdrawn from the section at the box in rear the Guard, Shunter or person in charge must so advise the Signalman concerned.

Before detaching a vehicle at the platform, on either Up or Down Lines, the person in charge must inform the Signalmen at the North and South Signal Boxes.

#### **PENRHYNDEUDRAETH**

Non-stopping trains required to pass over the loop line must be brought to a stand to exchange tokens.

Crossing Diesel Multiple Unit Trains. When it is necessary for two passenger trains to cross, and the one which has to run through the loop and set back to the platform is a diesel multiple unit, the propelling movement must be made in accordance with the instructions respecting the working of Diesel Mechanical multiple unit trains.

#### MINFFORDD

**Granite Siding.** To prevent damage to Quarry Chutes high sided wagons must not be placed in the Siding.

Wagons placed on the Tar Siding leading off the Granite Siding must each be secured with brakes and, if necessary, sprags.

The Guard must work the Ground Frame points in accordance with the Standard Instructions.

#### **PORTMADOC**

Rule 147. The Person in Charge of the platform is responsible for carrying out this instruction in respect of Up trains, using the local telephone circuit.

#### BETWEEN PORTMADOC AND CRICCIETH

The attention of trainmen working Freight trains over the Wern gradient is specially called to Rule 131 (ii).

Guards of down trains must apply the hand brake when passing the Wern main road underbridge to keep the wagon couplings tight and keep it on as far as Coedllyn Culvert at the bottom of the incline.

After passing Wern main road underbridge the Guard and Secondman must exchange hand signals to confirm that the train is complete and under control, and the Driver must satisfy himself that his Secondman has done so.

## PWLLHELI EAST

Down Outer Home and Down Intermediate Home Signals. When a Down Train is stopped at the Down Outer Home or Down Intermediate Home Signal, unless it is cleared immediately the Driver must telephone the Signalman.

Down Freight Trains entering Goods Yard. Down Freight Trains must be brought to a stand at the Down Inner Home Signal. The Signalman will clear the signal controlling the entrance to the yard after obtaining the permission of the Shunter, who must ensure that the hand points are properly set for the siding on which the train has to run, and unless the siding is clear he must control the movement of the train into the siding.

Locomotives running round Trains at Goods Yard. When a Down Freight or Empty Coaching Stock Train arrives at the Goods Yard, provided the siding is clear the train may be drawn on to the Shed Road for the locomotive to run round and shunt it into the Traffic Sidings.

The Guard or Shunter must accompany the locomotive running round the train through the R. & M. Sidings, and must work the hand points and ensure that the line on which it is to run is clear.

After sunset or during fog and falling snow a red light must be placed on the leading vehicle of the train standing on the Shed Road.

Shunting in Goods Yard. Locomotives or Freight Trains shunting in the Goods Yard must not pass the Stop Board near the fouling point with the Shed Road. When necessary for a movement to be made beyond this point the Driver must sound the horn and if the Signalman is able to permit the movement he will exhibit a green hand signal held steadily.

Locomotives to R. and M. Dept. Sidings. Locomotives from the Down Main line to R. & M. Dept. Sidings must stop at the Down Inner Home Signal before the signal controlling the entrance to the Goods Yard is cleared. Clearance of this signal indicates only that the points worked from the signal box are properly set, and drivers must be prepared to stop short of any obstruction.

East Ground Frame. The connections from the single line to and from the sidings on the Up and Down sides of the line at the East end of the Yard are worked from a 5-lever Ground Frame which is locked by a key, kept in an Instrument in the Ground Frame Cabin and released electrically from East Signal Box. A telephone in the Ground Frame communicates with the Signal Box.

The Ground Frame will be worked by the Shunter or Guard or by a man sent there for the purpose.

To work the Ground Frame, the Shunter, Guard or other responsible person must request the Signalman by telephone to release the key.

Locomotives and Empty Coaching Stock Trains entering the sidings over points worked from the Ground Frame must be brought to a stand at the Down Intermediate Home Signal, before the signal for entering the siding is cleared. The Person in Charge of the Ground Frame must satisfy himself that the hand points are properly set for the siding which the locomotive or train is required to enter. Clearance of this signal indicates only that the points worked from the Ground Frame are properly set, and Drivers must be prepared to stop short of any obstruction.

After the work has been completed and the Person in Charge of the Ground Frame has satisfied himself that no vehicles have been left on the running line, the key must be withdrawn from the Ground Frame lock and replaced in the key instrument. The Guard or Shunter must then notify the Signalman by telephone that the key has been restored.

#### VALE OF RHEIDOL BRANCH

During the periods when a passenger service is in operation the following instructions apply:—

1. **Method of Working.** A train staff and a metal ticket, coloured red, are provided and the Signalman or the Foreman at Aberystwyth are the only persons authorised to receive or deliver the train staff or ticket. A public telephone is provided in Devil's Bridge booking office, a key to which is attached to the train staff and ticket. (The telephone number of Aberystwyth signal box is Aberystwyth 2661).

The train staff, or the ticket indicating that the staff will follow on a second train, must be carried by the Driver of each train. A train must not leave either end with the ticket unless the Driver has seen the staff at that end of the line, except as provided in clause 2.

Trains to Devil's Bridge. The Guard of the train must advise the Signalman at Aberystwyth, by telephone, when his train has arrived at Devil's Bridge complete with tail lamp. In addition, the Guard of a train which has conveyed the ticket must advise the Signalman that shunting has been completed and the points have been set for an unoccupied line. The points must not then be moved until the train conveying the staff has arrived at Devil's Bridge.

Trains from Devil's Bridge. When a train is ready to depart, the Guard must obtain permission from the Signalman at Aberystwyth. If the Signalman informs the Guard that the line is clear only to the home signal at Aberystwyth, the Guard must advise the Driver accordingly. When there are two trains at Devil's Bridge, the Guard of the first train to depart must be satisfied that the Driver of the other train is in possession of the staff. The last train from Devil's Bridge each day must depart from the up loop thus enabling the ground frame levers to be padlocked in the frame, by means of the key attached to the staff, before the train departs.

2. **Disabled Train.** If a train carrying the staff becomes disabled, necessitating a second train or breakdown van train entering the section to give assistance, the Fireman must take the staff to the end at which assistance can be obtained, inform the Signalman at Aberystwyth of the circumstances and assure him that he has the staff. The Fireman must hand the staff to the Driver of the assisting train and conduct him to the disabled train.

If a train carrying the ticket becomes disabled, the Fireman must, except as shown herein, return with the ticket to the point from which the train departed and act as shown in the preceding paragraph. If, however, the train is proceding to Aberystwyth and it is more expedient to obtain assistance from that point, the Guard must arrange for the provisions of Rule 183 (g) to be carried out. A Wrong Line Order must be issued by the Driver and taken by the Fireman together with the ticket to Aberystwyth to allow the assisting train to come from there. In this case, it will not be necessary for the Driver of the assisting train to be in possession of the staff.

The Driver of the disabled train must not allow it to be moved until the Fireman has returned and the assisting train has arrived with the staff or ticket.

The disabled train must be protected in every case in accordance with the Rules applicable to trains stopped by accident, failure, obstruction or other exceptional causes, the Fireman doing this on his way for assistance and the Guard in the opposite direction.

When the services of a Guard are not available, the Fireman must protect the train in accordance with Rule 179 when going for assistance, but before doing so must protect the train in the opposite direction by placing on the rail 3 detonators 10 yards apart, at least 300 yards from the train.

When the services of a Fireman are not available the Guard must carry out the duties laid down for the Fireman.

3. **Train Staff Lost.** If the staff is lost, the person in charge at Aberystwyth will arrange for a Pilotman to be appointed to accompany each train until the staff is found or a replacement provided. The Pilotman must take possession of the ticket.

Coupling and uncoupling of vehicles. No attempt must be made to couple or uncouple vehicles unless they are stationary, and if they are standing on a curve the work must be carried out from the outside of the curve.

Locomotives passing one another at Devil's Bridge. The clearance between the down and up loops is limited and a Driver proceeding into either loop must satisfy himself that there is sufficient clearance if the other loop is occupied.

Locomotives taking water. Locomotives must take water at Aberffrwd or Devil's Bridge on the up journey.

Motor Trolley System of Maintenance. A motor-driven trolley and trailer are provided, and public telephones are available in the booking office at Devil's Bridge and in the motor trolley garage at Nantyronen to enable the Ganger to communicate with the Signalman at Aberystwyth.

Before booking off duty each day, the Ganger must arrange any possession he requires with the Signalman at Aberystwyth. If it is necessary to contact the Ganger after he has booked off duty, due to unforeseen circumstances affecting a possession he has been granted, the Person in charge at Aberystwyth station must send a message to the Ganger's home. If Aberystwyth box is open during the time a possession has been granted, the Signalman must place three detonators, 10 yards apart, and a red flag on the single line opposite the home signal.

The Ganger will normally be allowed possession of the line from the time of booking on duty until 15 minutes before the first train of the day is due to leave Aberystwyth. The Ganger, must arrange for the line to be cleared at least 15 minutes before the first train is due to leave and advise the Signalman when this has been done. Until this advice is received, the Signalman must not remove the detonators and flag from the line, nor allow the train to depart. If it is not possible for the Ganger to telephone the Signalman that the line is clear, he must proceed to Aberystwyth on the motor trolley and after removing the trolley from the line, inform him verbally.

Further short periods of possession may be arranged during the day by agreement with the Signalman at Aberystwyth, and the Ganger must be told the exact times between which the possessions may take place. At the agreed time the Signalman must place three detonators and a red flag on the line as described above and if there is a train at Devil's Bridge arrange for the Guard of that train to do likewise. The detonators and flag/s must not be removed nor must a train be allowed to leave either end of the line until the Ganger has informed the Signalman that the line is clear.

All messages between the Ganger and the Signalman respecting the possessions must be recorded in the Train Register by the Signalman at Aberystwyth.

It will not be necessary for Handsignalmen to be sent out in accordance with Rules 215 and 217 unless an emergency arises and there is no time, or it is not possible to communicate with the Signalman at Aberystwyth to arrange a possession.

The trolley must carry a set of hand signals, not less than 12 detonators and a fire extinguisher. It must exhibit a red lamp at the front and rear, but if the trailer is attached the rear lamp must be fixed to the rear of the trailer. The lamps must be lighted during darkness, fog or falling snow.

In no circumstances must the trailer be propelled. If the trolley is required to haul the trailer up a steep gradient when it is loaded, the Ganger must arrange for a man to ride on the trailer to apply the brake if necessary.

The motor trolley must observe all speed restrictions laid down for the line. When passing over a public level crossing it must not exceed 5 m.p.h. and the horn must be sounded frequently. The motor trolley must be kept in gear when running down long or steep gradients and when running out of gear it must be kept under complete control.

When the trolley is standing at a run-off it must be secured by a chain and padlock.

## LEATON

Down Refuge Siding. The hand points from the Refuge Siding to the warehouse road at the North and South ends of the yard are kept locked for the Refuge Siding, except when shunting is in progress.

The keys are kept by the Signalman and when shunting is finished, he must obtain the keys from the man in charge of the work, and obtain an assurance from him that the road is properly set for the Refuge Siding and the points locked.

#### WHITTINGTON

Shell Mex & B.P. Depot. A one-lever ground frame works the trailing connection in the Down Main Line serving this siding. The ground frame lever is released by Annett's Key which is kept in a Key Release Instrument in a cupboard at the ground frame.

A telephone communicates with the Whittington Signalman.

The Key Release Instrument is operated by the Guard in accordance with the instructions on page 312 of this Appendix.

In addition to freight trains calling to attach or detach a freight train may also be shunted into the siding and shut in for other trains to pass.

A 2-rails' length track circuit is provided immediately in advance of the siding connection in the Main Line.

Attaching or detaching vehicles. When a freight train is to attach or detach vehicles at the siding and not be shut in, the rear portion having been left to the rear of the points, the front portion must be drawn just clear of the trailing end of the points so that it is standing on the 2-rails' length track circuit

The Guard must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission and the track circuit has been occupied for one minute, the Annett's Key must be withdrawn by the Guard and the points set for the movement.

Under these circumstances the key must not be replaced in the instrument until the train is ready to leave.

The Guard must not rejoin his train or allow it to proceed until he has been informed on the telephone by the Signalman that the Key Control Instrument has been restored to normal, and he has assured the Signalman that no vehicle has been left foul of the running line.

Shutting a Freight Train in for other trains to pass. The Freight train must be drawn just clear of the trailing end of the points so that the rear of the train is standing on the 2-rails' length track circuit.

The Guard must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission and the track circuit has been occupied for one minute, the Annett's Key must be withdrawn by the Guard and the points set for the movement.

As soon as the Freight train has been shunted clear of the Main Line and the points restored to normal, the Annett's Key must be replaced in the Key Release Instrument by the Guard who must advise the Signalman accordingly and enquire at what time the train will be required to proceed.

Freight train leaving the siding. The Guard must telephone the Signalman for permission for the train to leave at the time previously agreed. If permission can be granted the Annett's Key must be withdrawn and the Signalman advised that the Key has been released.

The train must be brought to a stand on the Main Line after which the points must be restored to normal and the Annett's Key replaced in the Key Release Instrument. The Guard must telephone the Signalman that the key has been restored and the train is about to leave.

Handlamps. The use of oil hand lamps is strictly forbidden on the sidings inside the firm's gateway, and Battery Electric Handlamps must be used.

#### BERSHAM COLLIERY

Drivers and Guards must see that the gates to the Colliery sidings are open before commencing to shunt and the Signalman must see that they are closed when work is completed.

A Down train must stop at the signal box and the Guard must confer with the Signalman regarding the work to be performed.

The Colliery Yardman will meet trains at the Gate, and the Guards must not commence to detach until they receive his permission.

Locomotives working in the Colliery sidings must not pass the end of the screens at the Ruabon end. The sidings are on a curve and wagons should not be pushed against the stop block.

Wagons must be propelled above the screens with great care when passing over the curve, or through the crossing.

Guards of trains detaching or attaching in the neighbourhood of the screens, and where sighting is bad owing to curves, must shunt under the direction of the N.C.B. staff.

When a train sets back into the sidings from the Up Main Line and the locomotive has to stand inside clear of the points, the Guard must ensure that Colliery shunting is suspended while the locomotive is standing foul of the Colliery sidings.

Wagons placed in No. 4 Empties Siding (furthest from the running line) must be kept sufficiently clear of the points for the N.C.B. locomotive to pass freely to and from the Empty Storage Sidings.

Wagons which cannot be accommodated within the converging point of the adjoining siding leading to the screens must be placed on one of the outwards roads.

Brake Vans must be placed on No. 2 Siding.

Movement of N.C.B. Locomotive. A reply plunger on a post near the gate into the Colliery siding gives communication between the N.C.B. Shunter and the Bersham Signalman.

When the Colliery locomotive requires to go outside the gate for shunting purposes, the Shunter must ring one beat on the bell before allowing the locomotive to pass the gate and if no Down Passenger train is approaching, the Signalman will reply by one beat on the bell, which authorises the Colliery locomotive to pass the gate.

If the locomotive is in the siding when a Down Passenger train is approaching, the Signalman will ring 2 beats on the bell, and the Shunter must immediately cease shunting and acknowledge the ring by giving two beats. The Signalman must satisfy himself that the shunting has ceased before clearing his signals.

## WREXHAM NORTH

Up Refuge Siding. When trains are stabled in the Up refuge siding at Wrexham North a space must be left between the wagons opposite the fog hut for the Up Main Home signal.

Crossing leading to Rogers & Jackson's Gateway. Before commencing to shunt on the back road between the Goods warehouse and Messrs. Rogers & Jackson's premises, the Person in Charge must see that the gate to the premises is closed and that there is a man in attendance to prevent persons or vehicles passing over the crossing or round the corner of the warehouse while wagons are being moved. Under no circumstances must work commence until the Person in Charge has received a signal from the man protecting the crossing that everything is clear.

A man is appointed to attend to the crossing from 09.00 to 10.00, from 12.35 to 13.15 and from 16.45 to 17.50 hours or the time at which the shunting operations cease, and the movement of wagons over the back road past the gate must, as far as practicable, be confined to these hours.

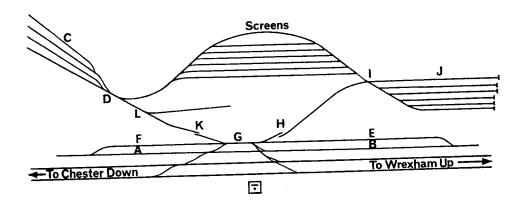
If it is absolutely necessary to make a shunt on the back road and past the gate after the man who attends to the crossing is withdrawn, the Person in Charge must hang a red flag during daylight, or a red hurricane lamp during the hours of darkness, on Messrs. Rogers & Jackson's side of the gate and also erect a tripod (with a red hurricane lamp after dark) in the roadway between the goods shed and the back road. Shunting movements must not foul the gateway until this has been done.

After completion of shunting the tripod must be folded up and placed against the goods shed walls. The two red hurricane lamps must be kept trimmed and ready for use.

The lamp at the corner of the Goods warehouse must always be lighted when shunting is being performed during the hours of darkness.

Occupation Crossing, Crispin Lane, to Rogers & Jackson's Premises. The way across the siding at the side of the warehouse and the Down relief line must not be entirely blocked with wagons, but a space must be left opposite the gateway so that employees can pass to and from Messrs. Rogers & Jackson's premises.

#### UNITED COLLIERY SIDINGS



The method of working at the Colliery will be as follows:

Down Trains will run direct into siding "A" or "F" and set back into siding "B" or "E". The locomotive will then run round the train and propel the empties to the sidings "C".

It will then pick up the loaded Down Line wagons from the sidings "J".

Up trains will run direct into siding "B" or "E" and set back into siding "A" or "F". The empties will be taken by the train locomotive to the Sidings "C" and the loaded wagons conveyed from sidings "I"

The Colliery locomotive will place the Up Line wagons separate from the Down Line wagons in sidings "J".

The loaded Up Line wagons must be secured at the point marked "H", while the locomotive is detached and run ahead, and then be gravitated on to the train standing in sidings "A" or "F".

Points "L" will be bolted and padlocked for the Stores Siding and Points "I" bolted and padlocked for the line leading to the screens and the keys will be kept at the Signal Box.

The line "G" to "D" is on a rising gradient of 1 in 40 and great care must be exercised in the movement of wagons between these points, and to see that the public footpath which crosses it is clear.

During the time the B.R. Shunter is on duty he will be responsible for padlocking the points at "I" and for seeing that the road on which he is travelling is clear. The N.C.B. engine must not place wagons in the sidings at the same time as the B.R. locomotive is setting back for the loaded wagons.

Before taking empties into the sidings "C" he must ascertain that no conflicting movement is being made by the N.C.B. Shunter, inform him that he is about to place empties in the sidings, and also advise him when he has completed the positioning of empties.

Wagons must not be left in siding "A" or "B", nor between the point "I" and the catch point "H", nor between "D" and the catchpoint "K", nor may wagons be usually left in sidings "F" or "E".

Empty wagons will be placed in sidings 1, 2 or 3, at "C", the left-hand siding being for the Colliery's internal use.

If it is necessary to send a train of traffic to United Colliery, or for one train to leave wagons to be picked up by another, the wagons may stand on siding "F" or "E" but both "F" and "E" must not be occupied at the same time for this purpose, and the traffic must be cleared as quickly as possible. The Signalman must place a collar on the lever of the signal controlling the entrance to siding "F" or "E" as the case may be.

The standard incline instructions must be carried out with all trains leaving the Colliery and the Guard will commence to apply brakes immediately the locomotive has reached the points leading to the Down Main Line.

The stop signal at the Junction to the South End sidings must be worked by the Shunter or Guard of trains which pick up traffic from the South sidings. Before a locomotive goes into the South Sidings, this signal must be placed at danger and after the locomotive has returned with the loads from the South Sidings and the last wagon is clear of the junction, the signal must be cleared.

The N.C.B. locomotive must not pass this signal when at "Danger".

A catch point is fixed at the stop signal leading from the Colliery to the loaded sidings, "J", worked by the same lever as the stop signal.

The catch point is provided with a cotter pin and lock, the key being held by the B.R. Shunter, and when he places the signal at "Danger" to enable him to work in the sidings, he must lock the points to prevent any conflicting movement during the time the locomotive is working in the sidings.

The Signalman at United Colliery will advise the Colliery Machine House by telephone (Extension 34) of trains calling to put off empties in Sidings "C".

#### ROSSETT

Single-Line Working between Rossett and Wrexham. When it is necessary to introduce single line working over the Up or Down Line between Rossett and Wrexham or intermediate boxes Up loose-coupled freight trains must be assisted in rear, with the assisting locomotive coupled to the train.

Down Trains Detaching Traffic. Thirty wagons and brake van can stand between the level crossing gates and the crossover road and traffic for detaching should be formed within this number from the brake.

#### **OSWESTRY**

Freight Trains—Oswestry to Gobowen. Enginemen working trains of 35—40 wagons from Oswestry to Gobowen should be prepared to stop at Gobowen South Distant signal in order to get a sight of the Home signal, and the train should then be worked cautiously towards the signal box.

When trains are brought to a stand on the main line at Gobowen, the Guard should release the brake with care so that the full weight of the train will not fall too sharply upon the locomotive.

Working between North and South Signal Boxes. Freight Trains may run over the Down and Up Main Lines (in the right direction) and Middle Line between the South and North Boxes without a Brake Van in rear as shown in Table H.1, but before any shunting takes place on the Main Lines the person in charge must inform the North Box Signalman what is to be done.

When it is necessary to shunt at the North Box outside the Up Home Signal on either Up Main or Middle Line the South Box Signalman must be advised and he must set the points for the Cattle Pen Siding.

When running round vehicles locomotives should, whenever possible, pass along the Running Lines in the proper direction.

No shunting is permitted outside the South box Up Inner Home Signal unless there is a locomotive at the Llynclys end of the vehicles.

#### **PORTHYWAEN**

Working of the Goods, Lime and Quarry Sidings. The Ground Frame at Porthywaen is unlocked by a key on the train staff.

The line at the facing points is on a gradient of 1 in 264 falling towards Llynclys Junction.

The key must be kept in the custody of the Checker, who must meet all trains calling at the sidings and is responsible for working the Ground Frame in accordance with the Standard Instructions.

Before the locomotive is detached from an Up Train the wagons must be secured by the Van Brake being tightly applied, and if necessary by sprags in accordance with Rule 151.

Down Trains must be drawn into the siding clear of the Main Line, and in no circumstances may the locomotive be detached from the train whilst on the Main Line.

Before a Down Train is set back from the Siding on to the Main Line the Guard must apply sufficient hand brakes on the vehicles next to the Brake Van and ride in the Brake Van to control the movement from the siding to the Main Line and prevent it running back towards Llynclys Junction.

Porthywaen Station Level Crossing, 1m. 6½c. The normal position of the level crossing gates is across the railway and the gates must be kept closed except when required to be opened for the passage of trains. Lamps are fixed on the level crossing gates shewing a red light after dark towards approaching trains. Road lamps are also provided on each side of the crossing and must be lighted when trains are run after dark.

Other Public Level Crossings are equipped with Cattle Guards, and Speed Boards are fixed alongside the railway 300 yards on each side of the crossing. Trains must not exceed 10 m.p.h. from each speed Board to the crossing and Drivers must be prepared to come to a stand before fouling the crossing.

Nantmawr Junction Ground Frame. Trains may be gravitated with brakevan, in which the guard must ride, leading towards the stop block.

Llanddu Siding. This Siding is connected with the running line at both ends, the points being worked from Ground Levers and secured by clips and padlocks, the keys of which are attached to the Train Staff.

The Line is on a gradient of 1 in 92, falling towards Nantmawr Junction Ground Frame.

The Guard will be responsible for leaving the points set for the Main Line, and secured by clip and padlock.

#### **NANTMAWR**

Lime Kiln Sidings. When shunting in these sidings, care must be exercised when the locomotive is passing over the sharp curve under the Lime Kilns.

Before allowing a locomotive to pass under the stone loading chute the Guard must satisfy himself that the movable tip of the Loading Chute is secured in the raised position.

## **CROES NEWYDD**

East Box. All freight trains from the Brymbo line must stop before fouling the South Fork.

West Box. When it is necessary to remove wagons standing on the Down Loop beyond the hand points leading to Wagon Repairs Siding a locomotive must be utilised. Wagons standing in the Loop on the Wrexham side of West Box may be gravitated into the Yard.

Machine Sidings. When a train from Brymbo is to run into one of the Machine Sidings without the brake van, and is approaching the Home Signal, the Signalman must advise the Shunter. The Shunter or other competent person must proceed to the Home Signal and advise the Signalman on the telephone at the signal that the locomotive and wagons are ready to enter the Machine Sidings. The brake van must be detached at the Home Signal, and the Shunter must accompany the locomotive and wagons into the Siding and assist in bringing them to a stand. After the locomotive and wagons have run clear into the Siding, and the points are in the normal position, the Signalman must clear the Up Home Signal and the Guard will gravitate the brake van to the West Box Starting Signal.

If the wagons are run into the Machine Sidings without the locomotive great care must be exercised in braking them, the rails being well sanded if necessary.

When gravitating wagons into the Sidings, the Guard or Shunter must always pin brakes down on the rear wagons as well as on the front. The brakes nearest the front of the train must be released first, and other brakes along the train regulated until the wagons move slowly. Sufficient brakes must remain pinned down to stop the wagons if necessary.

Trains proceeding down the Machine Sidings must stop before reaching the crossover road leading from No. 2 to No. 1 Siding, and locomotives must not exceed four miles per hour.

After lowering wagons from No. 2 to No. 1 Siding, the Shunter must set the crossover for the straight road, and see that the hand points at the Brymbo end of the Machine Sidings are properly set for the siding upon which a train is to enter.

When a locomotive is shunting in No. 1 or No. 2 Machine Sidings or any wagons are lowered by gravitation, no train must be allowed to enter these Sidings from the Up Main Line at the Brymbo end until the locomotive has returned to the Up Sidings, or gravitation of wagons has ceased. The Shunter must advise the Signalman when the locomotive is clear beyond signals Nos. 22 and 31, and all movements have ceased.

Signal No. 31 must not be cleared for a train or locomotive to proceed towards the Machine Sidings without the permission of the Shunter in charge, and when such permission is given, the Shunter or Person in Charge must not move any wagons in the Sidings until such train or locomotive has completed its work or been shunted clear of the Machine Sidings and the Signalman has been informed.

The Signalman must also satisfy himself that no movement is made to foul the connection to or from the Machine Sidings until all shunting movements or gravitation of wagons on the Machine Sidings have ceased.

The Guard or Shunter must always carry a shunting horn, to warn persons on the line. Locomotives are prohibited from passing over the weighbridge in No. 2 Machine Siding.

## **BROUGHTON CROSSING**

**Public Footpath.** Care must be exercised in shunting, and wagons placed in the sidings must be clear of the footpath which crosses the running lines and sidings at the Brymbo end of the sidings.

Working of outwards traffic from Brymbo Steel Works via Fishponds and Broughton Forge Ground Frame. After attaching the outwards traffic in the Sidings at Fishponds the trip will be propelled to Brymbo G.C. Sidings. The brakevan, in which the Guard or Shunter must ride, must be leading and adequate wagon brakes must be pinned down at the front end. When the movement has passed on to the incline from Fishponds the points at the top must be reset for movements from the Steel Works to Fishponds.

The maximum number of wagons which can be conveyed from Fishponds to Broughton Forge is equal to 22 in length, being limited by the two sidings at Brymbo G.C. which are 220 ft. and 310 ft. When more wagons than equal to 14 in length are propelled from Fishponds the number in excess and brakevan must be detached in No. 1 Siding and the locomotive with the remaining wagons will proceed to No. 2 Siding, and after the hand points have been reversed for Broughton Forge the two parts will be rejoined. Adequate brakes must be applied at the front of the movement which is drawn from Brymbo G.C. Sidings to Broughton Forge.

All trains by this route must be brought to a stand before entering the sidings at Broughton Forge and the Guard must satisfy himself that there is no conflicting movement.

The falling gradient from Fishponds to the G.C. Sidings is 1 in 34 and the gradient from there to Broughton Forge is also 1 in 34. Guards must ensure that adequate brakes are applied to control the train down the two inclines.

Broughton Forge Ground Frame. A one-lever Ground Frame at Broughton Forge works the trailing connection in the Up Main Line serving the Sidings. The Ground Frame lever is released by Annett's Key which is kept in a Key Release Instrument in a cupboard at the Ground Frame and a telephone communicates with the Broughton Crossing Signalman.

The Key Release Instrument is operated by the Guard in accordance with the instructions on page 312 of this Appendix.

Freight Train from Fishponds leaving Broughton Siding. The Guard must telephone the Signalman for permission for the train to leave the Siding. If permission can be granted the Annett's Key must be withdrawn and the Signalman advised that the Key has been released.

The Guard must not permit the train to draw on to the Main Line until he has been advised by the Signalman that the Block Instrument is in the "Train-on-Line" position.

The train must be brought to a stand on the Main Line, after which the points must be restored to normal and the Annett's Key replaced in the Key Release Instrument. The Guard must telephone the Signalman that the key has been restored and the train is about to leave.

Up Trains Attaching or Detaching Vehicles. The Guard must telephone the Signalman for permission to use the ground frame. If the Signalman is in a position to grant permission the Annett's Key must be withdrawn by the Guard and the points set for the movement.

Under these circumstances the key must not be replaced in the instrument until the train is ready to leave.

The Guard must not rejoin his train or allow it to proceed until he has been informed on the telephone by the Signalman that the Key Control Instrument has been restored to normal and he has assured the Signalman that no vehicle has been left foul of the running line.

Down trains requiring to work in the sidings must do so through the trailing connection in the Down Main Line worked from the box.

#### **BRYMBO MIDDLE**

A telephone is provided on the Up stop signal from Vron Branch. When a train arrives at the stop signal, the Guard must telephone the Signalman what traffic the train has on, and what work has to be done.

Warehouse Siding. When vehicles are brought off the Vron Branch to be placed in the warehouse siding, the Guard must follow the rear wagons over the points from the Down main line to the Vron Branch, and remain with and secure them there until the points are set for the warehouse siding.

When taking vehicles from the warehouse siding to the Vron Branch the Guard must follow them from the warehouse siding over the points from the Down main to the Vron Branch, and remain with and secure them until the points are set for the Vron Branch line.

The Signalman must not set the points leading to the warehouse siding in their normal position until the wagons have passed over the points leading to the Vron Branch and the Guard has given him a signal to do so after securing the vehicles.

Working between Brymbo Middle and Vron Junction. When propelling trains from Middle Box to Vron Junction, the Guard must carry a shunting horn (obtained from the Middle Box, and returned there after use), to warn anyone seen walking along the line. He must also sound the horn when approaching and passing over the Steel Works' Crossings and foot crossing near Vron Junction. When the locomotive is leading the Driver must sound the horn whilst passing from one end of the steel works to the other.

The Vron Junction Shunter must attend to the ground frames at the Steel Works and follow the train to Vron Junction after putting the ground frames right for the Steel Works' locomotive to cross the B.R. line. Before the train leaves Vron Junction the Shunter must go in front, put the points right and clear the Ground Frame signal for the train, and lock up both places after the last train. Whilst the Vron Junction Shunter is at the Steel Works the Vron Junction Ground Frame signal must be kept at Danger.

Before a locomotive or trip leaves Vron Junction for Brymbo Middle the Shunter or assistant Guard must advise the Signalman at Brymbo Middle that the train is about to leave and the Signalman must make an entry in his Train Register.

Before a second train is allowed to proceed to Vron Junction, the Signalman must be satisfied that the preceding train has returned from Vron Junction. If the preceding train is assisted from Brymbo Middle the Signalman must be satisfied that both locomotives have arrived at Brymbo Middle.

All trains working from Vron Junction to Middle Box must stop before reaching the signal on the Vron Branch, worked from the Signal Box.

Trains from Vron Junction for Croes Newydd must be formed with the brakevan next to the locomotive when leaving Vron Junction, and the Guard must ride in this van, except when a second brakevan is attached in rear of the wagons. When the whole of the train has been drawn clear of the points leading to the Vron Branch, the Guard must secure the train before the locomotive is detached to run round, and the Signalman must keep the points set for the Vron Branch until the locomotive has returned from West Box and is ready to cross over on to the train.

When a train from Vron Junction has arrived at Middle Box Branch Stop signal, if the locomotive cannot run round through the facing points at West Box, it may be detached and shunted clear and another locomotive draw the train towards the West Box clear of the facing points leading to the Vron Branch.

If the locomotive which draws the train forward goes on to the single line at West Box, it must return over the right line to Middle Box. If, however, after drawing the train forward it stops on the double line, clear of the catch points, it may return following the train on the Down line, in accordance with Rules 97 and 98.

Trains not exceeding 6 wagons with brake van leading may be gravitated towards West Box after the locomotive has been detached and shunted clear at Middle Box Branch Stop signal. The Guard must ride in the brake van and the shunter must stand near Middle Box to pin down brakes on the rear wagons. The points must not be reversed for the locomotive to rejoin until the wagons have come to a stand and been secured.

When trains from Brymbo to Minera back up the Vron Branch to help them to get a start up the incline to Coed Poeth, the Guard's Van must not, under any circumstances, be backed beyond the Steel Works' Crossing Stop Signal near the Mount Bridge.

Trains from Minera going to Vron Junction must take up the Guard's brake van in rear. If the load is too heavy the surplus wagons must be put off in the Middle Box Siding, and the locomotive and van return for them after disposing of the first portion at Vron Junction.

If another locomotive is available, it can be utilized to assist, attached in rear from Middle Box to Vron Junction.

Vron Junction. Trains must always approach Vron Junction with great caution.

The Vron Junction points must be kept padlocked for the siding leading towards the Steel Works' offices, except when unlocked for trains from or to Brymbo Middle to pass through. The Shunter at Vron Junction is responsible for doing this.

A signal about 65 yards from the junction controls trains towards Vron Junction.

Before unlocking the points, and clearing the signal the Shunter must satisfy himself that no train is approaching Vron Junction from the direction of Vron Sidings or the Steel Works' offices and must place the signal to Danger as soon as the train has passed it.

A stop signal 114 yards from the junction, for the guidance of the Steel Works' locomotives, is worked by the Shunter in charge of Vron Junction.

When the Shunter leaves this place, he must remove the Annett's key from lever No. 1 and place it in the Shunter's cabin, which must be locked, to prevent the signal being interfered with during his absence.

Before leaving duty at night, the Shunter must clear the Stop signal 114 yards from Vron Junction to allow the Steel Works' locomotives to use the Vron Sidings to move wagons as necessary and for marshalling purposes.

Steel Works Siding, Crossing the Line between Middle Crossing and Vron Junction on the Level. A down stop signal is fixed on the Up side of the line on the Brymbo side of the Steel Works Crossings, and no train must leave Brymbo Middle in the direction of Vron Junction until this signal is cleared.

An Up stop signal is fixed on the Down side of the line 90 yards on the Vron side of Steel Works' Crossing, and no train must pass it in the direction of Brymbo Middle until it is cleared.

The Steel Works Company's locomotive and wagons may pass over the level crossing from the Iron Works to the Steel Works and back under the protection of these signals.

The two lines from the Steel Works to the foundry yard are protected on each side by fixed signals worked from a ground frame in charge of the Vron Junction Shunter.

## BRYMBO WEST AND MINERA

Trains from Minera must approach West Box at such a speed as to be able to stop 176 yards on the Minera side of West Box Up Home signal.

The normal position of the gates at Caello, Smelt, Pentre Saeson, Gegin, Coed Poeth, Vicarage, Cae Glas and Berwig level crossings is across the railway. The keys for the gates are kept in Croes Newydd West box with spare keys kept in Brymbo West box.

The Ganger holds duplicate keys for the padlocks on the crossing gates at Coed Poeth, Vicarage, Cae Glas and Berwig to enable the Permanent Way staff to pass when required.

A notice board on the Brymbo side of the entrance to the sidings at Minera indicates the termination of the staff section and also the point beyond which the Firm's locomotive must not proceed.

Trains for Minera must stop at this board until the Guard has ascertained that the line is clear, that the Firm's locomotive is at a stand and he has otherwise complied with Rule 112.

#### WREXHAM (CENTRAL)

Working of single line from Cadbury's Siding. Drivers of trains arriving at Wrexham Central must stop at the board fixed outside the single line at the end of the platform, immediately telephone the Signalman and act in accordance with his instructions.

Hightown Siding. This siding is connected with the running line facing from the direction of Marchwiel, worked from a ground frame unlocked by a key on the train staff. The line is on a gradient of 1 in 80 falling towards Marchwiel and the greatest care must be exercised by the Guard in shunting at the siding. The siding will be shunted by Down trips which must not exceed 30 ordinary wagons and brake van. When leaving, trains may be made up to standard load. On arrival at the siding, the brake van must be secured on the running line clear of the siding connection; the remainder of the train should remain attached to the locomotive whilst shunting operations are performed. Outwards wagons from the siding may be placed on the running line, but must be coupled up to the brake van and secured by hand brakes tightly pinned down, and sprags used when necessary to keep the vehicles stationary before further shunting takes place.

Abenbury Siding. This siding is connected with the running line facing from the direction of Marchwiel, worked from a ground frame unlocked by a key on the train staff. The line is on a gradient of 1 in 109 falling towards Marchwiel. The siding will be shunted by down trains, and has a notice board at the point beyond which locomotives must not go.

Maelor Gas Works Siding. This siding is connected with the running line facing from the direction of Marchwiel, worked from a ground frame unlocked by a key on the train staff.

Marchwiel. The loop is worked by ground frames at both ends, unlocked by a key on the train staff; the entrance to the yard sidings is worked from the ground frame at the Wrexham end. Care must be exercised when running round via the loop that both ground frames have been operated.

Messrs. Cadbury Bros. Siding. This siding is connected with the running line facing from the direction of Wrexham, worked from a ground frame unlocked by a key on the train staff. The line is on a gradient of 1 in 86 falling towards the stop block.

The portion of the siding nearest to the main line is on a gradient of 1 in 63 falling towards the running line, and the remainder of the siding is level. Attention is drawn to Rule 115 (b) and the Guard must exercise great care in securing each vehicle placed in the siding, use being made of hand scotches and sprags.

#### SALTNEY DEE BRANCH

Chester Street Level Crossing. The Shunter must padlock the crossing gates and bolt the wicket gates each time a locomotive or train has to pass over the crossing in either direction. The key is kept in Dee Junction box.

## COLWICH TO MACCLESFIELD AND BRANCHES

#### STOKE-ON-TRENT

Stoke Yard—North End. Rule 108 will apply to movements from the Goods Terminal to Stoke Yard North End. In the case of propelling movements where it is necessary that the signal should be cleared before the movement commences, arrangements must be made by the Person in Charge at the Goods Terminal with the Person in Charge at Stoke North Yard before the Driver is authorised to proceed.

Wagon Repairs Ltd. sidings. Drivers of trains on the down through siding working at Wagon Repairs Ltd. sidings are authorised to return in the Sideway direction when work has been completed at the sidings.

#### LONGPORT

Wolstanton Colliery. Trains proceeding to the colliery up arrival line must stop at the "Stop and await instructions" board. The guard must telephone to the colliery weigh office to ascertain which empty wagon siding is clear and having obtained authority to proceed must set the points for the siding concerned and instruct the driver to draw forward to the next "Stop and await" instructions board. When the train has been drawn into the siding clear of the up arrival line the Signalman at Longport Junction box must be advised by telephone.

A loud sounding electric bell, on the side of Longport Junction box warns staff that a train or locomotive is approaching on the down main line.

## KIDSGROVE CENTRAL

Klaxon horn. A Klaxon horn, adjacent to the up main line at the entrance to Harecastle Tunnel and operated by a plunger on a post near the catchpoints enables the Guard of a train requiring to set back along the up main line, or from the up main line to the down main line, to communicate with the Driver.

CodeIndication to Driver1 Long—Draw forward, train not clear of points.2 Long—Set back.

## HANLEY BRANCH

Trains going on to the single goods line at Etruria Junction must stop at the Notice Board near the outlet signal, and the Driver must telephone the Signalman at Stoke-on-Trent for permission before withdrawing the Train staff from the instrument.

The Guard or Person in charge must obtain permission from the Signalman at Stoke-on-Trent by telephone, before any train is allowed to proceed towards Stoke-on-Trent.

A locomotive may assist in rear of a train between Etruria Junction and Waterloo Road in accordance with Table J. Clause 1 of the Regulations for "One Train Working" is amended accordingly.

When a train is assisted in rear, the Driver must obtain the Train Staff and hand it to his Secondman to convey to the Driver of the assisting locomotive. Before the assisting locomotive returns towards Stoke the permission of the Signalman at Stoke-on-Trent must be obtained by telephone. The assisting locomotive may return towards Stoke without the Driver being in possession of the Train staff.

The normal position of the points leading into the Petrol Depot at Waterloo Road is for the straight line and the trap points for the throw off and they are padlocked for these positions. The key must be carried by the Shunter travelling with the train from Etruria. The train must stop short of these points and must not pass over them until authorised by the Shunter.

After work has been completed the points must be padlocked in the normal position.

#### WORKING BETWEEN IPSTONES AND CALDON QUARRY

No train may proceed on to the single line between these points unless the Driver is in possession of a token, or has been shown the token which has been delivered to the Driver of the locomotive to which his engine is attached, except as provided in Electric Token Block Regulation 14B, 14C and 25

Pouches are provided in which the token is placed before being handed to the Driver.

Section Obstructed by Accident or by Disabled Train.—Examination of Line.—Train, or Portion of Train left on Single Line.—Working of Trains to and from Point of Obstruction.—Token Damaged or Lost.—Failure of Token Apparatus.—The instructions in Electric Token Block Regulations 14, 14A, 14B, 14C, 23 and 25 will apply. The Person working the instrument at Caldon Quarry must be regarded as the Signalman, and the forms for Working Single Lines by Pilotman during failure of token apparatus must be used.

When it is necessary to ascertain if the line is clear a locomotive must not enter the section unless a token has been obtained from the token instrument and is in the possession of the Driver. The circumstances must be explained to the Driver, and he must be instructed to proceed cautiously through the section, prepared to stop short of any obstruction. Where practicable, the locomotive must be accompanied by a competent Person. After sunset or during fog or falling snow, it must always be so accompanied.

The Person in Charge of the token station at which the locomotive enters the section must, in these circumstances, obtain a token, which must not be placed in the instrument at either end of the section until the Person in Charge or Driver has reported that the line is safe for the passage of trains.

#### **OAKAMOOR**

British Industrial Sand Company's Sidings. Guards must arrange with the firm's staff responsible for internal rail movements for such movements to be stopped whilst the B.R. train is entering and working in the sidings.

## CREWE TO BIRKENHEAD AND BRANCHES

### CREWE

## ELECTRIC TRACTION DEPOT

Trains Conveying B.R. Staff to and from the Electric Traction Depot. Trains requiring to enter the E.T.D. Sidings via Steel Works box must not set back from the down main line into the sidings until permission has been obtained from the E.T.D. Shunter, who will ensure that the appropriate siding points have been properly set and secured. Trains requiring to leave the E.T.D. via Steel Works box for the Crewe direction must not set back from No. 1 siding to the down main line until the permission of the E.T.D. Shunter has been obtained and the signal reading from the siding has been cleared. If the E.T.D. Shunter is not available, the Signalman at Steel Works box must instruct the Guard of the train to carry out these duties.

When trains require to leave the E.T.D. via the East End (Crewe North Junction), the E.T.D. Shunter, after ensuring that the facing hand points have been properly set and secured, must advise the Signalman at Crewe North Junction box that the train is ready to depart. The speed of trains within the E.T.D. must not exceed 10 m.p.h.

The E.T.D. Shunter when making arrangements for the arrival and departure of trains will be responsible for instructing the Drivers of any locomotives in the E.T.D. Sidings not to move towards the fouling point and, when necessary, for preventing any movement approaching along the Gas Works line.

No. 4 Siding. 1500 volt D.C. Overhead Line Equipment. No. 4 Siding is fitted with overhead line equipment extending from a point level with the West end of the Electrification Stores building to the siding buffer stop. The equipment is energised at 1500 volts D.C. and must be regarded as being "ALIVE" at all times.

The siding is used for testing electric locomotives of the 1500 volt D.C. type after repair. When they have been shunted into the siding and the shunting locomotive has been removed it will be the responsibility of the E.T.D. Shunter to secure the hand points in accordance with the instructions on Page 54 of the General Appendix to prevent vehicles being shunted into the siding. Whilst the locomotives are being tested vehicles must not be allowed to stand upon the short length of insulated track at the entrance to the siding, indicated by the warning board.

In an emergency the electricity supply to the overhead line equipment can be switched off immediately by operating either of the two emergency push buttons on the wall of the Stores building. The person using the emergency push buttons must report immediately to Crewe Electric Control Room stating:—

- (a) his name, grade and department.
- (b) the nature of the emergency.

A telephone for this purpose is located near overhead structure No. D.C. 1.

#### **CHESTER**

No. 3 box. When the last vehicle of an up train arriving on the up main or up platform lines does not pass the box, the Guard must press one of the plungers described below, to indicate to the Signalman that the train has arrived complete with tail lamp. The Signalman will acknowledge by one ring.

Up main line......In cupboard on wall near second pillar from Holyhead end between up main and up platform lines.

Trains of coaching stock and light locomotive entering down platform and "down and up" platform lines at No. 2 box, the up platform line at No. 3 box and the "down and up" platform line at No. 3A box. During fog or falling snow, Drivers of trains entering these platform lines when they are already occupied must stop at the entrance to the platform, where they will be advised to what point the line is clear, unless the person appointed for the purpose has previously joined the locomotive to pilot the Driver to the rear of the standing train.

**Drivers of locomotives detached from trains** reversing at Chester on the "down and up" platform line must not move in the same direction as the train has been withdrawn until instructed to do so by the Person in Charge.

All trains for beyond Chester from the Crewe, Manchester and Liverpool lines requiring relief must stop at the passenger station or middle yard and not at No. 1 box.

Up freight trains terminating. Guards of these trains must not leave their trains at Chester until they are taken over by the Shunters unless they are turned on to No. 1 siding.

#### **DARESBURY**

Down trains which run direct into the down refuge siding must be backed out again on to the up main line and run to the down main line via the crossover road.

## HOOTON

Locomotives running round trains at North Junction. During fog or falling snow, locomotives requiring to cross from the down fast to the up fast line at North Junction to run round their trains must run forward on the down fast line to North Junction box, so that the Signalman may satisfy himself that the locomotive is clear of the crossover road between the up and down fast lines.

#### PORT SUNLIGHT

Guards of freight trains must remain in their vans when backing into the sidings until the train stops in the siding, and then apply their hand brake and pin down sufficient brakes to hold the train before detaching the locomotive.

#### **BIRKENHEAD DOCKS**

Canning Street South. Drivers of all trains on the Canning Street side of Brook Street box must proceed with caution and be prepared to stop short of any obstruction.

Trains may be worked over the wrong lines between Brook Street and Canning Street South.

The Crossing Keeper is responsible only for the protection of road traffic and Drivers of trains over the Dock Board lines are responsible for keeping clear of conflicting movements and must proceed with caution, prepared to stop short of any obstruction.

Between Cavendish Wharf and Canning Street North over Dock Board lines. To avoid Vittoria Street Level Crossing being fouled by trains standing at Canning Street North up home signal, trains between the above points must not exceed 39 wagons, locomotive and brakevan.

Working of the Down Line between Canning Street North and Cathcart Street as an Up and Down Line. Up Trains or locomotives may travel over the down line between Cathcart Street Crossing and the crossover road at Canning Street North when the up line is blocked.

The Shunter will arrange with the Signalman before instructing the Driver to proceed.

The Driver must not exceed 5 miles per hour whilst on the wrong line, and must not pass over the level crossing at Canning Street North until he receives a hand signal from the Signalman. If this signal has not been received before the locomotive has been brought to a stand, it must stop short of the level crossing gates to allow them to be opened if required.

Morpeth Goods Yard. All inward trains must stop on the Dock Board lines clear of the points leading to Morpeth Yard, and must not enter the Yard without permission from the Person in Charge.

## REGULATIONS FOR WORKING OVER MERSEY DOCKS AND HARBOUR BOARD LINES, BIRKENHEAD

The speed of locomotives or vehicles must not exceed 8 m.p.h.

Enginemen must keep a sharp look-out when propelling vehicles.

All trains, light locomotives or vehicles must exhibit a white light in front and a red light in rear between sunset and sunrise or during fog or falling snow.

Vehicles or locomotives must not stand foul of any bridge, level crossing or approach thereto, except when absolutely necessary for safety.

Trains arriving at Birkenhead going to the various depots must be worked with the locomotive in front until they reach the depot, when it may be placed at the rear to dispose of the train, which work will be classified as shunting operations.

During shunting operations, the Shunter must be in a position to see that all is clear, to give effective warning to pedestrians and others, and to give signals to the Driver.

Wagons may be propelled on the Dock Board Estate from point to point, in which case the Shunter must ride in a runner or other wagon in front of the wagons to give effect to the instructions in the preceding paragraph. This will not apply where wagons are shunted from the main line into a siding, nor when disposing of trains at depots, as in each of these instances the Shunters will be on the ground.

Each Shunter must carry a whistle or shunting horn and the following general codes must be used for the guidance of Enginemen:—

Move forwardOne long blast.Move backTwo long blasts.StopThree long blasts.

Ease couplings...... Four long blasts (given thus—two pause two).

Every locomotive and wagon passing over the Board's railway shall, at the places and between the points specified below, be preceded at a distance of not less than 30 yards and not more than 50 yards, by a Railman, who in the daytime shall exhibit a red flag and at night shall exhibit a red light and who shall give warning of the approach of the locomotive or wagon to approaching vehicles or pedestrians.

Places and points referred to:-

This regulation shall not apply to shunting and marshalling operations at the places and between the points specified, but when such operations are in progress, a Railman, as aforesaid, shall, during the whole time of such operations, be stationed at the places specified below, and shall be provided with a red flag and a green flag by day, and with a red light and a green light by night, who shall give warning of the shunting or marshalling operations to approaching vehicles or pedestrians.

Places referred to:—

Shunters and Drivers are hereby warned that they are not to draw or propel wagons over or between the points mentioned unless they have previously received a signal authorising them to do so from either the Watchman or the Person specially appointed to perform this duty.

## LIVERPOOL CENTRAL AND WEST KIRBY WIRRAL ELECTRIFIED LINES

General description. The down and up lines between the following points, including certain crossover roads and sidings, are equipped with a conductor rail and running rail return for the operation of electric trains:—

Liverpool Central Low Level, Rock Ferry, West Kirby and New Brighton, and Bidston Dee Junction and Seacombe Junction.

#### BIRKENHEAD NORTH

Wallasey Bridge Road Level Crossing. A telephone in the hut at this crossing communicates with Bidston East Junction Signalman (or the Signalman at Birkenhead North No. 2 box when open) whose permission must be obtained for a movement to be made over the crossing towards North No. 2 box.

The key for the hut is kept at Bidston East Junction box, and must be obtained by Trainmen or Shunters before proceeding to the M.D. and H.B. Estate.

The normal position of the gates is across the railway and trains must stop clear to enable the Secondman or Shunter to open the gates. The Guard or Shunter, or Secondman of a light locomotive, must close the gates after the passage of the train.

Carriage shed up sidings. Special instructions for working in these sidings, and over the single line used as an up and down loop between North Nos. 1 and 2 boxes, are exhibited in a frame on a telegraph pole at the carriage shop.

#### SEACOMBE JUNCTION

Bidston Dock Exchange Sidings. There are weighbridges at the Dock end of sidings Nos. 2 and 3 of the Inwards group and a train must not enter either of these sidings until the Guard has ascertained, by telephone, from the Person in charge of the Weighbridges, that the siding on to which the train is to proceed is clear.

These sidings should be used only when sidings Nos. 1, 4 and 5 are already occupied.

#### ELLESMERE PORT

No. 1 box. Drivers of down trains not conveying passengers which are stopped at the down main home signal must immediately telephone the Signalman.

#### **HELSBY**

West Cheshire Junction. If a train is stopped at the outer home signal from Mouldsworth the Driver must immediately telephone the signalman.

#### **PENYFFORDD**

Shunting in Exchange Sidings. Before going into the sidings Drivers must give two blasts on the horn, and Guards and Shunters must satisfy themselves that the lines are clear before commencing to shunt.

Tunnel Portland Cement Company's Siding. The siding connects with the down main line, 1,000 yards North of the box, and is worked by a two-lever ground frame electrically controlled from the box. Telephones are provided at the ground frame and the down main starting signal.

Not more than 12 wagons with a brakevan may be left on the running line whilst shunting at the siding.

## **HAWARDEN**

If an up freight train is shunted to the down line, the Guard must apply sufficient wagon brakes at the rear of the train to ensure it being brought to a stand after it has passed through the crossover road. After the train has come to a stand on the down line, the brakes must be taken off in readiness for it to go forward.

## **DEE MARSH JUNCTION**

Rule 147—Telephones. All trains travelling in the Chester—Bidston direction must stop at the home 2 signal, or in the case of short trains with the brake opposite the telephone post, and the Guard must at once advise the Signalman by the telephone 250 yards in the rear of the signal that the train has arrived complete with tail lamp. In the case of light locomotives the Secondman must advise the Signalman.

Guards of all trains travelling in the Bidston—Chester direction which are stopped at the home 3 signals must at once advise the Signalman by the telephone 300 yards in rear of the signal that the train has arrived complete with tail lamp. In the case of light locomotives the Secondman must advise the Signalman.

Guards of freight trains travelling in the Bidston—Wrexham direction which are stopped at the home 3 signal must at once advise the Signalman by the telephone 300 yards in rear of the signal that the train has arrived complete with tail lamp.

Release of leading locomotive of double-headed trains. Immediately double-headed trains from the direction of Chester to Bidston are stopped at the home 3 signal, the Secondman of the leading locomotive must communicate with the Signalman using the telephone immediately opposite this signal to obtain instructions. If the leading locomotive has to be detached, he must inform the Driver of the second locomotive, and the second locomotive must not move forward until the signal has been replaced to Danger after the departure of the first, and again cleared.

#### SHOTWICK SIDINGS

An amber light enables Shunters to signal to Drivers shunting on sidings Nos. 21, 22 and 23 by means of the code laid down in Rule 117. The light is worked by a plunger on the post carrying the yard telephone, near the points into these sidings.

## CHESTER TO HOLYHEAD AND BRANCHES MOLD JUNCTION

The Dee Oil Company's Crossing is situated 328 yards on the Chester side of No. 1 box, and if the down fast or down slow line signals are at Danger Drivers must stop their trains clear of the crossing.

Curve line, No. 3 box to West End. Trains must not work over the curve until authorised by the Signalman at No. 3 box or the Person in Charge.

#### MOLD JUNCTION AND SANDYCROFT

The up fast and up slow line emergency colour light signals, adjacent to Hawarden Aerodrome runway, will not normally display lights, but if the line is obstructed or damaged by aircraft these stop and distant signals, which are operated from Mold Junction No. 4 box, will be illuminated, displaying Danger and Caution aspects respectively.

Drivers must then bring their trains to a stand at the emergency stop signal and advise the Signalman at Mold Junction No. 4 box by the telephone at the signal. It will not be necessary to carry out Rule 55 but the Guard must protect the train in accordance with Rule 179 (a). Drivers must not proceed until the signal lights have been extinguished and the permission of the Signalman has been obtained by telephone.

If the line has to be examined to ascertain if the permanent way is obstructed or damaged, and no other competent person is quickly available, the Signalman may request the Driver of a train stopped at the signal to instruct his Secondman to examine the line on foot and report to the Signalman by telephone.

If the signals fail, Drivers of up trains will be advised by the Signalman at the next box open in rear and instructed to approach them at Caution, prepared to stop if a hand signal is given.

The telephones at the emergency signals should, whenever practicable, be tested by the Lengthman when examining his length, and the result recorded by the Signalman in his Train Register. If the Lengthman finds a telephone out of order he must advise the nearest Signalman as soon as possible.

The aspects of the emergency colour light signals are repeated in Mold Junction No. 1 box, and when No. 4 box is closed similar action must be taken with the Signalman at No. 1.

## CONNAH'S QUAY

Dentith's Siding. When work is completed at Dentith's Siding ground frame and the train is ready to leave, the Guard must inform the Signalman at Rockcliffe Hall box, by telephone, how many wagons have been attached and detached.

#### LLYSFAEN

Trains for the sidings on the Rhyl side of the box must be shunted inside immediately on arrival, and all shunting operations performed inside the sidings.

**Raynes' Sidings.** Down trains for these sidings must stop with the brakevan clear of the connection to the down lie-by siding. Up trains may leave not more than 60 wagons with brakevan in rear on the up main line.

#### **COLWYN BAY**

Goods yard. Not more than 20 wagons may be attached to the locomotive for shunting purposes, when proceeding from the yard sidings up the incline.

Guards must not do any detaching or shunting from the incline to the goods yard, unless a Shunter is present, and both men must apply wagon brakes as necessary in case of emergency.

#### LLANDUDNO JUNCTION

A loaded diesel multiple unit train may be allowed to enter the up slow platform line when that line is already occupied by a loaded diesel multiple unit train to enable them to be coupled together. During fog or falling snow the Handsignalman referred to in Instruction 4 clause (d) on Page 41 of the General Appendix will be stationed at the platform end to meet the second train and conduct it to the point where it must come to a stand.

Drivers must advise the Signalman, using the telephone at the exit from the Carriage Sidings, when they are ready to depart and state their destination.

#### RHOSNEIGR AND VALLEY

The up and down line emergency colour light signals adjacent to Valley Aerodrome runways will not normally display lights, but if the line is obstructed or damaged by aircraft these stop and distant signals, which are operated from the Aerodrome Control Tower, will be illuminated, displaying Danger and Caution aspects respectively.

Drivers must then bring their trains to a stand at the emergency stop signal and advise the Signalman at Valley box by the telephone at the signal. It will not be necessary to carry out Rule 55 but the Guard must protect the train in accordance with Rule 179 (a). Drivers must not proceed until the signal lights have been extinguished and the permission of the Signalman has been obtained by telephone.

If the line has to be examined to ascertain if the permanent way is obstructed or damaged, and no other competent person is quickly available, the signalman may request the Driver of a train stopped at the signal to instruct his Secondman to examine the line on foot and report to the Signalman by

If the signals fail, Drivers of trains will be advised by the Signalman at the next box open in rear and instructed to approach them at Caution, prepared to stop if a hand signal is given.

The telephones at the emergency signals should, whenever practicable, be tested by the Lengthman when examining his length, and the result recorded by the Signalman in his Train Register. If the Lengthman finds a telephone out of order he must advise the nearest Signalman as soon as possible.

## **HOLYHEAD**

Special marker boards comprising a red light circled by red and white bands are provided. Whenever a train or vehicles occupy a platform and it is intended to allow a further train into that platform, the Inspector in Charge must arrange for a marker board to be positioned on the platform, opposite the tail lamp of the first train or vehicles, in a position where it can easily be seen by the Driver of the second train.

Drivers entering a platform under "call-on" conditions must keep a sharp lookout for the marker board as well as the tail lamp on the vehicles ahead.

#### HOPE AND PENYFFORDD

Mold and Tryddyn Level Crossing. Drivers must bring their trains to a stand at the "Stop and Await Instructions" board and wait until instructions are received from the Shunter or Person in Charge that it is safe to proceed.

Hand Points. Hand points exist in the single line and Drivers must ensure that these are correctly fitting for the passage of their train before passing over the points.

#### DYSERTH BRANCH

Bryn Rhosyn Level Crossing. The normal position of the gates is across the railway. A Porter from Prestatyn will open the gates before a train leaves Prestatyn for Dyserth, and a train must not leave until the Driver has ascertained that the signal for Bryn Rhosyn level crossing has been cleared.

Trains from Dyserth must stop well clear of the gates for them to be unlocked and opened by the Guard. When the train has passed over the crossing the Guard must close the gates across the railway and relock them. The Guard will obtain the key from the Prestatyn signalman and return it to him after use.

BETWEEN LLANRWST AND BLAENAU FFESTINIOG
Working of Single Line. The Single line between Llanrwst & Trefriw token station and the connection with the single goods line to Trawsfynydd C.E.G.B. Sidings at Blaenau Ffestiniog No. 3 ground frame is worked in accordance with the Electric Token Block System with a "No signalman" type staff instrument at Blaenau Ffestiniog. No train may proceed on to the single line unless the Driver is in possession of a staff or has seen one in the possession of the Driver of a locomotive to which his train is attached, except as provided in clauses 18, 21 and 24 of the instructions on pages 23 to 27 of the General Appendix headed "Single Lines Worked by Electric Token-Instructions to

The Driver of a train which does not require to be drawn clear of the single line into a siding at Blaenau Ffestiniog or on to the Trawsfynydd line must return from that point without the staff being passed through the instrument at Blaenau Ffestiniog.

When a train has to be drawn clear of the single line, to enable a second train to follow from Llanrwst & Trefriw to Blaenau Ffestiniog, the first train must be drawn into a siding or on to the Trawsfynydd line before the staff is placed in the instrument at Blaenau Ffestiniog.

In all cases, when a train arrives at Blaenau Ffestiniog, the Guard must proceed to the "No Signalman" staff instrument and act in accordance with the instructions exhibited.

If a Down D.M.U. train is overpowered in the section between Llanrwst and Blaenau Ffestiniog the Driver is authorised to return to Llanrwst provided he is in possession of a staff. He must drive from the leading end and stop at Llanrwst Distant Signal. The Guard must then walk in front of the train to the Home Signal.

Where possible, the Signalman at Llanrwst should be advised of the occurrence by telephone from Pont-y-Pant or Betws-y-Coed.

#### BETWEEN BLAENAU FFESTINIOG AND TRAWSFYNYDD C.E.G.B. SIDING

Drivers of trains requiring to work over this line must obtain the train staff from the Signalman at Llanrwst & Trefriw token station and must give it up to him on their return.

Cwmbowydd Level Crossing. The normal position of the gates at this crossing is across the railway. Trains from Blaenau Ffestiniog must stop well clear of the gates, and trains from Trawsfynydd must stop at the stop board at the south end of the underbridge south of the crossing. The gates must be unlocked with the key on the Staff and opened by the Guard, and after the train has passed over the crossing he must close the gates across the railway and relock them.

Fronlas Occupation Crossing. Trains from Blaenau Ffestiniog must stop at the stop board, 50 yards from the gates and the Guard must ascertain the crossing is not in use and the gates are closed before the train passes over the crossing.

#### **AMLWCH**

Octel Sidings. Traffic for the Octel Company must normally be placed in Nos. 1 and 2 sidings, and when entering and working in these sidings care must be taken to avoid confliction with a trip from the Octel Works which may be working there.

## LONDON ST. PANCRAS TO TRENT AND BRANCHES

#### ST. PANCRAS

Noise of Locomotives. To minimise noise in the station the following instructions will apply:—

- (1) Locomotives working in with loaded trains. Unless instructions to the contrary are issued by the Person in Charge, locomotives working loaded trains into the station must be detached as soon as the train has stopped, after which the engine must be shut down.
- (2) Locomotives working in with E.C.S. trains (During steam heating period). Locomotives working E.C.S. into the station will remain coupled to the train for steam heating and the engine may be allowed to run for this purpose. The Driver will be advised by the Station Staff when steam heating may cease and the locomotive is to be uncoupled from the train. The engine must then be shut down as soon as possible if time permits.
- (3) Locomotives working in with E.C.S. trains (Outside steam heating period). Locomotives working E.C.S. into the station must be detached as soon as the train has stopped, after which the engine must be shut down.

If a locomotive develops a fault which prevents the engine being shut down the Driver must advise the Person in Charge of the platform immediately upon arrival so that arrangements may be made to shunt the locomotive if necessary.

The engines of locomotives must not be restarted until:—

- (a) required to follow an outward loaded train—one minute before the booked departure time of the train, unless otherwise instructed by the Station Staff.
- (b) required to follow an outward E.C.S. train—when the Driver is advised by the Person in Charge of the platform that the E.C.S. are almost ready and will be "rung out" in one minute.

Indicators on Nos. 5 and 7 Platform Lines. Electrically illuminated stencil type indicators on platforms No. 5 and 7, 220 yards and 200 yards respectively from the buffer stops, indicate to Station Staff that the home 1 (platform starting) signal has been cleared for the train to depart.

Working of Light Locomotives from Platform Lines. Unless the Driver is instructed to the contrary by the Person in Charge, locomotives which have worked trains or E.C.S. into the station must, when the vehicles are departing, follow at a safe distance as far as the home 1 (platform starting) signal (except No. 5 platform) but must not pass the signal until it has been placed to danger and cleared again. In the case of No. 5 platform, the locomotive must follow at a safe distance as far as the position light shunting signal reading along No. 5 platform or to siding 8.

If for any reason the locomotive does not immediately follow the vehicles out of a platform line, it must remain at the buffer stop and the Signalman must be advised of the circumstances by the Station Staff. The locomotive must not then move until the permission of the Signalman has been obtained.

Light Locomotives working into the Station. Drivers of light locomotives detained at the Up Fast home 2 and Up Goods home signals must immediately telephone the Signalman, giving particulars of their next working.

Cambridge Street Fuelling Depot. When a locomotive is ready to leave the fuelling depot the Secondman must inform the Signalman at Dock Junction what train it is booked to work, using the telephone near the outlet signals.

#### ST. PANCRAS GOODS DEPOT

Locomotives entering the Goods Shed. A locomotive may proceed its own length in the goods shed on any line to allow the points to be closed, and on "Waring's" road, as far as necessary to deal with four wagons in the coal stock road.

Shunting inside the shed must be performed from that side of the wagons where there are no columns supporting the upper stories of the shed.

Coupling and uncoupling of wagons in the spaces between the roads where there are supporting columns is strictly prohibited.

#### SOMERS TOWN GOODS DEPOT

A loud-sounding electric bell alongside the departure line warns Shunters and others when a train is about to enter the Depot on that line, and will continue to ring until the movement has come to a stand.

Six-wheeled vehicles must not pass through the slip between the arrival and departure lines or enter Somers Town New Depot.

# ST. PAUL'S ROAD GOODS JUNCTION

Shunting on Down Goods Line in Camden Road Tunnel. A white marker light about 230 yards from the St. Pancras end of the tunnel must not be passed by Drivers of shunting movements proceeding along the down goods line under the authority of the shunt ahead signal. A mechanical gong, 50 yards in rear of the light, indicates to Drivers their position in the tunnel.

The down goods line starting signal for St. Paul's Road Goods Junction box will be cleared for shunting movements when the line is clear to Carlton Road Junction down goods line home signal, and Drivers of shunting movements proceeding under the authority of this starting signal may pass the white marker light in the tunnel when necessary.

#### KENTISH TOWN

A loud-sounding electric bell at the North end of Kentish Town Road Overbridge warns men at work on the line when a train is about to set back from Kentish Town Station or any point South.

The bell will commence to ring when any one of the set back signals on the up slow line is cleared and will cease when the signal is replaced to Danger.

### CARLTON ROAD JUNCTION

Warning of Trains. Drivers of trains from the up goods line to the up slow line or up branch line accepted under Absolute Block Regulation 5 will not be verbally instructed as to the state of the line ahead, but will be stopped at the home signal, and a green hand-signal, held steadily, will be exhibited by the Signalman when the train is passing the box, and this hand-signal must be acknowledged on the horn.

Carlton Road Junction Sidings. The hand points leading to the Tartan Arrow Depot or Engineer's Sidings must be left normally set for the Engineer's Sidings until it is necessary for a movement to be made to the Tartan Arrow Depot.

Before a train or locomotive is allowed to enter the sidings, the Guard (Secondman in the case of a light locomotive) or Person in Charge of the sidings must ensure that all hand points are in the correct position for the movement, and telephone the Signalman to clear the signals.

A Klaxon horn alongside the down goods line indicates to Drivers of trains (other than a light locomotive or locomotive with one or two brakevans) standing on the down goods line that the points have been set and the signal cleared to set back into the sidings.

When this horn is operated by the Signalman, Drivers are authorised to commence setting back without first obtaining a hand signal from the Guard or Person in Charge as laid down in Rule 108.

When a train, or light locomotive, is ready to depart from the sidings, the Guard or Secondman, or Person in Charge must telephone the Signalman and inform him the class and destination of the train.

Tartan Arrow Depot. Access to these sidings is off the up and down goods lines, through points controlled by Carlton Road Junction signal box. Points within the depot are hand operated. The reception line must be left clear after close of work each day. Before any movement is made into or out of the Depot, the Shunter must advise the Person in charge.

Berthing of Inwards Tartan Arrow Trains. On arrival on the reception line, trains must draw down and stop at the white marker light at the South end. The Driver must fully apply the air brakes on the train and the Shunter must then uncouple the locomotive from the train without delay.

Meanwhile, the Guard must disconnect the brake pipes between the last Freightliner vehicle and the adjacent van, place the pipe of the latter on the "stop" and uncouple the vehicles. He must then apply hand brakes on at least two of the Freightliner vehicles in accordance with Air Brake Instruction 12 (a), on page 4 of the General Appendix.

After being uncoupled, the locomotive will run round the train, and when the Shunter has coupled it to the rear vehicle, the Driver and Guard must carry out the simple brake test in accordance with Air Brake Instruction 4 (a).

When the brake test has been successfully completed and provided the necessary fixed signal is clear, the Driver must draw the rear of the train on to the down goods line clear of the sidings. The Shunter must then set the points for the Freight Handling Shed road and hand signal the Driver to berth the covered vehicles in that road. This propelling movement must be made expeditiously but Drivers must not exceed 10 m.p.h.

After the vehicles have reached the final berthing position, the Driver must fully apply the air brakes and the Shunter must then immediately uncouple the locomotive from the vehicles whilst the Guard applies the hand brake on the B.G.

The locomotive must then return to the reception road. The Shunter will couple it to the Freightliner vehicles and the Driver and Guard must again carry out the simple brake test after the Guard has released the hand brakes.

When the brake test has been successfully completed, the Driver must draw the Freightliner vehicles towards the exit and thence on to the down goods line, provided the necessary fixed signal is clear. The Shunter will then set the points for one of the crane roads and hand signal the Driver to berth the Freightliner vehicles on that road. This propelling movement must be made expeditiously, but Drivers must not exceed 10 m.p.h.

After the vehicles have reached the final berthing position, the Driver must fully apply the air brakes and the Shunter must then immediately uncouple the locomotive from the vehicles whilst the Guard applies hand brakes on at least half of the vehicles.

The Driver must then draw clear of the crane road and await instructions.

Despatch of Tartan Arrow Trains. The train locomotive will arrive on the reception line.

Not less than 20 minutes before the booked departure time, the Shunter must establish that loading has been completed and inform the Guard, who must obtain an assurance from the C. & W. Examiner that a "Complete Brake Test" has been carried out with the static equipment, and then, without delay, check and take off all the hand brakes on the train and carry out the provisions of Rule 131 (i).

The Shunter must set the points for the Freight Handling Shed Road and signal the locomotive on to the covered stock on that line, and couple the locomotive to the vehicles. When this has been done, the Driver must apply the independent air brake to his locomotive and then release the air brakes on the covered stock. Together with the C. & W. Examiner who will be at the rear of the vehicles, the Driver must carry out the simple brake test in accordance with Air Brake Instruction 4 (A). When the C. & W. Examiner is satisfied the brake test has been satisfactorily completed he must signal to the Driver accordingly.

The shunter must then inform the Signalman that the train is ready to back up, and when the route has been set and the signals cleared, the train will draw forward on to the down goods line. The Shunter must set the points for the crane road and handsignal the Driver to propel the vehicles on to the Freightliner vehicles standing on the crane road. This move must be made expeditiously but Drivers must not exceed 10 m.p.h.

When the covered stock is brought to a stand on the Freightliner vehicles, the Guard must couple up the two portions. The Driver must then apply the independent air brake to his locomotive and release the air brakes on the train. Together with the C. & W. Examiner who will be at the rear of the train, the Driver must again carry out the simple brake test. When the C. & W. Examiner is satisfied the brake test has been satisfactorily completed he must signal the Driver accordingly. This signal must also be observed by the Guard.

Two minutes before departure time, the Shunter must advise the Signalman of the imminent departure of the train.

### FINCHLEY ROAD AND SILKSTREAM JUNCTION

Side lights on freight trains. Freight trains (Classes 7 to 9) travelling over the down and up local lines between Finchley Road and Silkstream Junction must exhibit side lights in accordance with Rule 121 (b).

# **CRICKLEWOOD**

Side lights on freight trains. Freight trains on the down reception line from Cricklewood Junction to Brent Empty Wagon Sidings ground frame must exhibit side lights in accordance with Rule 121 (b) until the train has been drawn clear at Brent Empty Wagon Sidings.

Carriage Cleaning Plant. Drivers of trains entering the Carriage Sidings on either No. 1 or No. 2 Arrival Line must stop at the "Stop and Await Instructions" board at the converging point of these two lines, until authorised to proceed by the Shunting Staff.

Trains entering the sidings on No. 2 Arrival Line will pass through the Pre-Spray Unit, about 20 yards before reaching the "Stop and Await Instructions" board, and great care must be taken by Trainmen when working past this equipment.

When trains are authorised to proceed past the "Stop and Await Instructions" board from No. 2 Arrival Line, the Pre-Spray Unit will operate until the whole of the train has passed clear of the Arrival Line, but because of the position of the equipment, the locomotive (or the first coach of a D.M.U. train) will not be sprayed.

As the solution sprayed from this unit is harmful if taken internally, Staff should avoid handling the exterior of vehicles which have been sprayed until they have passed through the carriage washing machine.

Drivers of trains authorised to proceed from No. 1 and No. 2 Arrival Lines towards the Carriage Washing Machine must be prepared to act as follows:—

Locomotive Hauled Trains. Locomotives must not be allowed to pass through the Washing Machine unless the water sprays are turned off and the revolving brushes stationary. When the machine is shut down the train must stop immediately the locomotive has passed through it. After permission has been given by the Shunting Staff, the Washing Machine must be started and a signal given to the Driver by the machine operator to pull the train slowly through.

Diesel Multiple Unit Trains. D.M.U. trains must be brought to a stand before entering the Washing Machine. After permission has been given by the Shunting Staff for a train to pass the "Stop and Await Instructions" board (in advance of the washing plant), the Washing Machine must be started and a signal given to the Driver by the Machine Operator to move the train slowly through.

If a train is stopped whilst passing through the Washing Machine, by a sudden loss of brake power, indicating that a disc has been turned, the Driver must not move forward until he has received a hand signal from the Machine Operator.

Before a Driver commences to draw a train through the Pre-Spray Unit or the Washing Machine, or to restart the train after it has been stopped whilst passing through the machines, he must sound the horn to indicate to the Machine Operator that the train is about to move forward.

The speed of trains passing through the Pre-Spray Unit and the Washing Machine must not exceed 3 m.p.h. and while a train is passing through this equipment, the Driver must be prepared to receive a hand signal from the Machine Operator if the train is required to stop.

It is essential that all windows and ventilators on trains should be closed before passing through the cleaning plant, and this must be done before trains are despatched to Cricklewood.

Shunting Movements over Level Crossings. The instructions on page 69 of the General Appendix and page 295 of this Appendix do not apply to the internal crossing over the two shunting sidings and the two diesel fuelling sidings in Cricklewood Diesel Depot.

#### **BRENT JUNCTION**

Staff Sleeper Crossings. Drivers of trains must sound the horn, particularly during darkness, fog or falling snow, when approaching the staff sleeper crossing between the running lines and sidings near Brent Junction Nos. 1 and 2 boxes.

# ST. ALBANS (CITY)

South Box. Drivers of trains on the down fast and down slow lines accepted under Absolute Block Regulation 5 will not be verbally instructed as to the state of the line ahead, but will be stopped at the home signal. A green hand signal, held steadily, will be exhibited by the Signalman when the train is passing the box, and this hand signal must be acknowledged on the horn.

#### LUTON

Trains entering No. 3 Platform Line when occupied. A terminating train, other than a freight train, may be allowed to enter Nos. 3 platform line when that line is already occupied by a train other than a freight.

During fog or falling snow the Driver of the second train must not enter the station until his train has stopped at the entrance to the platform and he has been informed to what point the line is clear.

Trains entering No. 3 Platform Line when Line is clear only to Home Signal for Luton North Box. When No. 3 platform line is clear only to the home signal for Luton North box, trains will be stopped at the down slow to No. 3 platform line home signal for Luton South box before the signal is cleared. A green hand signal will not be exhibited.

# **SUNDON**

British Portland Cement Manufacturers. All outwards traffic must be placed by the firm in the two sidings South of the works, and traffic for the works must be placed by B.R. locomotives on either of these two sidings as required. No shunting must be performed at the works to place wagons in position for loading or unloading, or to sort wagons that are ready to be despatched.

Locomotives may set back from the up slow line as far as the second set of safety points to attach any wagons standing there to be attached, but must not pass this point.

A brakevan must be left with brake applied on the up slow line on the Harlington side of the points leading from the Cement Sidings before any vehicles are drawn out of the sidings. The vehicles must be set back and coupled to the brakevan before any further backward movement is made.

Trains must not be shunted at these sidings to allow other trains to pass.

Inn's Siding. Trainmen using this siding must operate the locked point lever in connection with the runaway catch points before entering, and after leaving the siding. The key for the padlock is kept in the signal box.

# HOUGHTON CONQUEST

Overhead electric traction wires are provided on the London Brick Company's line leading into the sidings at this place.

# FINEDON ROAD

Before a movement is put on the inward loco. road for outward departure, permission must be obtained from the Signalman at Finedon Road box.

### FINEDON STATION

When up trains have to work at the connection at the Wellingborough end of the sidings, the rear portion must be left on the up goods line whilst the locomotive is in the sidings.

# KETTERING

Guard's Tail Lamp Telephones. If a train is brought to a stand at the up fast or slow line inner home signals, the Guard must immediately advise the Signalman that the train is complete with tail lamp, using the telephones at the Leicester end of the fast and slow line platforms.

Train on down fast line requiring fresh Locomotive. A train on the down fast line requiring a fresh locomotive in emergency must stop at the inner home signal and not proceed into the platform.

Stabling of Locomotives. Before any locomotive moves towards Station box from the two short sidings at the South end of the station, the permission of the signalman must be obtained on the telephone near the buffer stops of these sidings.

#### LITTLE BOWDEN JUNCTION

Referring to Rule 44B, clause (b); the calling-on signal provided below the up main to up goods home signal may be cleared before trains are brought to a stand at it, and in such circumstances Drivers must draw forward cautiously as laid down in Rule 44B, clause (a).

#### LEICESTER (LONDON ROAD)

Leicester (London Road) is signalled as a terminal station and Drivers of trains approaching must understand that the signal or signals cleared simply give them permission to run into the station, and not through it, and they must be prepared to stop at any point circumstances render necessary, unless the line is clear and the signals are cleared giving them permission to leave the station at the other end.

Drivers of trains entering the station either under the authority of a calling-on signal at the signal box controlling the entrance to the station or after receiving a warning by hand signal at that box, must be prepared to stop clear of any obstruction in the station, although the signal worked from Station East or West boxes may have been cleared for their train before they have come to a stand.

North Box. Movements from the Breakdown Van siding or Locomotive sidings via the emergency connection to the up siding line, or from the up siding line to these sidings may not commence until the permission of the Signalman has been obtained. When the movement is completed the Person in Charge must inform the Signalman.

Rule 55 Exemption. It is not necessary for Rule 55 to be carried out for locomotives standing on the down passenger line at the set-back signal ahead of the home 2 signal for North box.

Working over Up Main Line. Drivers of trains entering the up main line from the down main line or from the up siding at North box to proceed along No. 3 or No. 4 platform line will not be warned when the platform line concerned is not clear throughout, and must be prepared to stop short of any obstruction.

#### **HUMBERSTONE ROAD**

Messrs. Richard's Siding. Except in clear weather during daylight, vehicles must not be allowed to stand unattached to a locomotive on this siding, South of the gate leading to Messrs. Richard's Works.

Down Freight Trains. Trainmen of down freight trains stopping to attach or detach must leave the rear part of the train clear of the crossover road at Humberstone Road Junction.

#### LOUGHBOROUGH

Traffic for Brush Electrical Engineering Co. Wagons conveyed on up trains may be placed in the New Sidings at the North end of the works, provided a B.R. Shunter supervises the operation, and the traffic is marshalled in rear of a sufficient number of wagons (equal to 8 in length) to avoid the locomotive passing the firm's gate.

A B.R. shunter is on duty from 08 30 to 16 30, Monday to Friday. When no B.R. shunter is on duty, trains conveying traffic for the Brush Electrical Engineering Co. must detach it in the Station sidings.

# RATCLIFFE JUNCTION

Ratcliffe Power Station. Signals must not be passed at danger except on the verbal authority of the C.E.G.B. Pilotman, who will wear a red armlet.

Dust Circle. During loading operations the Guard must remain at the Dust Bunker. If the level crossing on the outgoing side of the Bunker has to be cleared in emergency, he must obtain an assurance from the Bunker Supervisor that all chutes and loading staff are clear of the wagons, and go forward as quickly as possible to instruct the Driver to haul the complete train clear of the level crossing.

# KING'S CROSS TUNNEL

Lamps showing white lights indicating the position of signals are fixed to the wall of the tunnel, one on the up side, 50 yards on the Kentish Town side of King's Cross (L.T.) signal OJ.2, and one on the down side, 50 yards on the King's Cross side of King's Cross (L.T.) signal OJ.9.

An electric horn near signal OJ.2 sounds when the leading pair of wheels is 32 yards from the signal, whether it is in the "Danger" or "Clear" position.

An electric bell near signal OJ.9 sounds when the leading pair of wheels is 12 yards from the signal, whether it is in the "Danger" or "Clear" position.

#### MORTIMER STREET JUNCTION

Guards of trains stopped on the up line from Carlton Road Junction must advise the Signalman that the train has arrived complete with tail lamp immediately the last vehicle has passed the outer home signal.

### BETWEEN ACTON CANAL WHARF AND WILLESDEN

If the interlocking signalling apparatus fails, a Pilotman will be appointed who must accompany each train over the section of line. Alternatively, the line must be worked as an up line only during the time the failure exists.

#### LUTON (BUTE STREET)

Laportes Siding. Traffic to or from the siding must be conveyed only by Up freight trains or by pilot trips from Luton. When worked by pilot trip the whole of the wagons with the brakevan attached must be placed in the siding through the connection at the West end. The locomotive must then be detached and taken on the running line to the East end of the siding to attach outwards wagons. Shunting must not be done at the West end nor must any vehicles be left on the running line between the two connections except when the siding is being shunted with the locomotive at the East end. In this case, the brakevan must first be put on the Single line with the brake fully applied, and all other wagons must be attached to it with sufficient brakes pinned down to prevent them moving. A trip from Luton must not convey more wagons than can be accommodated in the siding at the time. Sufficient brakes must be pinned down on wagons left in the siding to prevent their moving foul of the catch points at the East end.

#### **DUNSTABLE**

Portland Cement Co's Siding. The Crossing Keeper at Chaul End must be advised by telephone before a train returns towards Luton.

#### WOBURN SANDS

Footpath leading out of lower end road. This footpath crossing is 200 yards on the Bedford side of the station. Guards of up freight trains which stop at the station must, if necessary, divide the train, leaving the rear portion between the footpath crossing and the level crossing gates, and the front portion ahead of the level crossing gates.

#### RIDGMONT

Marston Valley Brick Co's siding. This siding may be served only by down trains terminating there, which must be drawn into the reception line complete.

Under no circumstances may vehicles be attached or detached by a train standing on either the up or down line, nor may shunting take place on these lines.

The signal must not be cleared for a train to enter the sidings until the Shunter has ascertained that the gate is open. If no Shunter is on duty, the signal must not be cleared until the train has been brought to a stand, when the Driver may draw forward for the Secondman to open the gate.

#### **MILLBROOK**

Marston Crossing. If a train or portion of train stops in section between Ridgmont and Millbrook owing to locomotive failure or other cause, the telephone at Marston Crossing must be used to advise the Signalman at Millbrook of the emergency, if this is the quickest means.

Forder's Sidings—London Brick Co's Car Kiln Siding. A gate carrying a stop lamp is provided in the Car Kiln Siding opposite the stop blocks of the shunting neck and trains requiring to enter the siding must stop at it.

The Guard or Shunter must operate the plunger on the gate to call the attention of the firm's Boilerhouseman, who will open the gate and by warning bells and illuminated signs assist in advising the firm's staff that shunting is to take place.

No movement must be made into the siding until the Guard or Shunter has carried out the provisions of Rule 112 (a).

#### BEDFORD ST. JOHN'S

Goldington C.E.G.B. Sidings. The gate at the C.E.G.B. sidings will be unlocked from 07 30 to 17 00 Mondays to Fridays; 07 30 to 12 00 Saturdays.

Guards of trains requiring to enter the sidings outside these hours must obtain the key from the Signalman at No. 2 box, and return it to him when work has been completed.

#### RUSHDEN BRANCH

The Single Goods Line between Irchester Junction and the notice board on the lefthand side of the line 80 yards before reaching the points controlled by Rushden West Ground Frame is worked under the "One Train Working" regulations.

No train may proceed on to the Single Line unless the Driver is in possession of the train staff. From the notice board to the end of the branch is worked as a siding.

The ground frames at Rushden West, Rushden East and Higham Ferrers are released by the train staff.

The wheel scotch on the Rushden side of the loading dock at Higham Ferrers must be left across the line and securely fastened when shunting is completed and the train has been drawn clear on to the line between Higham Ferrers and Rushden.

### TWYWELL IRONSTONE SIDING

Occupation Crossing. Drivers of trains must stop at the Stop Boards and not proceed until it has been ascertained that the crossing is clear and no road vehicles are about to cross the line.

Guards detaching wagons in the sidings must ensure that the public footpath crossing, on the Kettering side of the connection to the siding, is left clear.

#### CRANFORD SIDINGS EAST

Vehicles must not stand on the main line at Cranford Sidings East unless a locomotive is attached. The rear portion of a down train which has to attach or detach must be placed in the siding, and the points in the main line must remain open for the siding while the train is working there.

#### CRANSLEY AND LODDINGTON BRANCH

The single line between Kettering down sidings and Loddington is a through siding.

Only one locomotive, or two locomotives coupled together, which are then to be treated as one train, must be allowed on the through siding.

Vehicles may be propelled from Kettering towards Loddington and a brakevan must be in front of the wagons.

Before a train is allowed on the through siding the Shunter or Person in Charge must obtain permission from the person in charge at Kettering Sidings, who must hand him the labelled keys for both the Cransley and Loddington Sidings, irrespective of whether the train is proceeding as far as Loddington. When not in use the keys must be kept in the Shunter's cabin at Kettering, where a record must be maintained of the time the train proceeds to and from the branch. Any duplicate set of keys must be retained by the Area Manager.

The three sets of points leading from the through siding to the Loddington Iron Co's Sidings and the points to the Cransley Iron Ore Co's Sidings must normally be locked for the through siding and, before a train departs which has worked at these sidings, the Shunter or Person in Charge must ensure that the points are again locked for the through siding.

If a train requires assistance (or in special circumstances it is necessary to send a second locomotive on to the through siding) the Shunter or Person in Charge must proceed to Kettering and inform the person in charge of the yard, who will authorise a second locomotive to enter the Loddington through siding.

This second locomotive must be accompanied by the Shunter or person in charge of the disabled train, who must explain to the Driver where the disabled train is and in what circumstances. The Shunter or Person in Charge of the disabled train will be responsible for the safe working of the line until both locomotives have left and it is again clear.

# BETWEEN CORBY AND MANTON

Telephones for the Use of Trainmen in an Emergency. Telephones are provided on the down side at the South entrance to, and 20 yards from the North entrance to, Corby Tunnel, which communicate with signal boxes between Glendon South Junction and Manton Junction and must be used by trainmen in an emergency in accordance with the provisions of Rule 181, clause (g).

# LUFFENHAM

Pilton Sidings. The crossbar signal at the Manton end of the down sidings controls movement of the Stanton & Staveley Co's locomotive between its running line and the down sidings. It is worked by Guards and Shunters from the ground frame, and kept in the Clear position, except when required to protect B.R. engines entering or leaving the sidings.

# **ASHWELL**

Cottesmore Branch. The outlet signal is left in the Clear position when a train goes on to the branch, but may be placed to Danger to allow another train to enter the sidings from Ashwell Station, and Drivers of trains coming off the branch must be prepared accordingly.

# TRENT TO NEWARK CASTLE (E.R.) AND BRANCHES

### **BEESTON**

South Junction—Messrs. Boots' Private Sidings. Trainmen working over the connection between the up siding and Messrs. Boots' Sidings must keep a sharp lookout and be prepared to stop at the public level crossing if the gates are across the line.

#### LENTON SOUTH JUNCTION

North Wilford C.E.G.B. Sidings. Drivers requiring to work into the loaded wagon sidings via the connecting line must proceed cautiously and stop at the South end of the loaded wagon sidings.

Locomotives must not pass over the connections at the South end of the loaded wagon sidings to return via the engine line until permission has been received from the C.E.G.B. Shunter.

When propelling wagons from the up goods line to the Power Station, the brake on the leading vehicle must be pinned down and speed must not exceed 10 miles per hour.

#### **NOTTINGHAM (MIDLAND)**

Nottingham (Midland) is signalled as a terminal station and Drivers of trains approaching must understand that the signal or signals cleared simply give them permission to run into the station, and not through it, and they must be prepared to stop at any point circumstances render necessary, unless the line is clear and the signals are cleared giving them permission to leave the station at the other end.

Drivers of trains entering the station either under the authority of a calling-on signal at the signal box controlling the entrance to the Station or after receiving a warning by hand signal at that box, must be prepared to stop clear of any obstruction in the station, although the signal worked from Station "A" or "B" boxes may have been cleared for their train before they have come to a stand.

Station West Signal Box. Referring to Rule 44B, clause (b); the calling-on signals on the down main starting signals may be cleared before trains are brought to a stand at them, and in such circumstances Drivers must draw forward cautiously as laid down in Rule 44B, clause (a).

Station "A" Signal Box. During the time Station "A" box is closed, Nos. 1 and 3 platform lines and the down middle line may be used as sidings and movements past the signals at Station "A" box are permitted under the authority of the Shunter in Charge.

Station East Signal Box. Referring to Rule 44B, clause (b); the calling-on signals applying to trains on the up lines may be taken off before trains have been brought to a stand at them, and in such circumstances Drivers must draw forward cautiously as laid down in Rule 44B, clause (a).

#### ROLLESTON JUNCTION

Working of House Crossing (Nottingham side of Platforms) and Mill Crossing (Lincoln Side) on Race Days. On Race Days when road traffic is heavy, from 11 00 until  $1\frac{1}{2}$  hours after the last Afternoon Race or 16 30 until  $1\frac{1}{2}$  hours after the last Evening Race, a man with hand signals and detonators will be provided  $\frac{3}{4}$  mile from the House Crossing on the down line and another man  $\frac{3}{4}$  mile from the Mill Crossing on the up line. A detonator will be exploded by each train and a yellow hand signal exhibited to drivers. The Crossing Keepers will display a red hand signal during the time the crossing gates are open to road traffic. The following procedure will then be adopted:—

**Down line.** When the House Crossing gates have been secured across the roadway, the Crossing Keeper will exhibit a yellow hand signal and the Mill Crossing Keeper will exhibit a green hand signal when the gates are secured across the roadway.

Up line. When the Mill Crossing gates have been secured across the roadway the Crossing Keeper will exhibit a yellow hand signal, and the Crossing Keeper at the House Crossing will exhibit a green hand signal when the gates are secured across the roadway.

### CALVERTON COLLIERY BRANCH

Bestwood Park Junction. The section of line from the stop board to Bestwood Park Junction box is worked as a siding and the points leading to Forge Mill Sidings are operated from a ground frame which is controlled by Annett's Key.

When a movement to or from Forge Mill Sidings is completed, the Guard or Shunter must set the points for the Calverton Colliery direction and clip and padlock them in that position before returning the Annett's key to Bestwood Park Junction box. The clip key will be attached to the Annett's key.

**Key Token Working.** No train may proceed on to the single line between the Stop Board at Bestwood Park Junction (Forge Mill frame) and the Stop Board 50 yards before reaching Calverton Colliery Shunter's Cabin unless the Driver is in possession of a token, or he has been shown the token which has been delivered to the Driver of a locomotive to which his locomotive is attached, except as provided in Electric Token Block Regulations 14, 18 and 25.

Pouches are provided in which the token is placed before being handed to the Driver.

Section Obstructed by Accident, by Disabled Train, or by portion of train.

Working of Trains to and from Point of Obstruction.

Engine entering Section for Examination of Line.

#### Failure of Token Instrument or Token Damaged.

Electric Token Regulations 14, 15, 18, 23 and 25 apply. The Person working the instrument at Calverton Colliery must be regarded as the Signalman.

When it is necessary to ascertain if the line is clear, a locomotive must not enter the section unless a key token has been obtained from the Key Token Instrument and is in possession of the Driver. The circumstances must be explained to the Driver, and he must be instructed to proceed cautiously through the section, prepared to stop short of any obstruction. Where practicable, the locomotive must be accompanied by the Person in charge at Bestwood Park Sidings, or other competent person. After sunset and during fog or falling snow, it must always be so accompanied.

The Person in Charge of the when station at which the locomotive enters the section in these circumstances can obtain a token, which must not be placed in the instrument at either end of the section until the Person in Charge or Driver, as the case may be, has reported that the line is safe for the passage of trains.

Calverton Colliery. Drivers of trains approaching Calverton Colliery must not pass the Notice Board lettered "End of single line" or the Stop & Await Instructions" board 110 yards further on until authorised by the Guard or Shunter, who must satisfy himself that no conflicting movement is being made by N.C.B. locomotives.

Before permission is given for a movement to be made from the arrival line towards the Empty Sidings the Guard or Shunter must place the tall Siding signal controlling movements from the N.C.B. Preparation Plant Siding to Danger and satisfy himself that no conflicting movement is being made.

On completion of movements the signal must again be cleared.

#### KIRKBY IN ASHFIELD

Up Sidings. A telephone between the up main line and No. 1 arrival line, adjacent to the trap points in Nos. 1 and 2 arrival lines, communicates with the Up Sidings Inspectors' cabin. Guards of up freight trains which have entered the arrival lines and which are standing foul of the trap points must use the telephone to inform the Inspector that the train requires to be drawn forward.

Colliery Sidings. The line between Kirkby Sidings Box and the clearance point of the connection to the Empty Wagon Branch line is worked as a siding by B.R. locomotives only. Working beyond this point is controlled by Train Staff. The points to the N.C.B. Landsale Siding from the Empty Wagon Branch line normally lie for the E.W.S. and are secured in that position by padlock, the key being kept in Kirkby Sidings Box.

When the N.C.B. require to enter the Landsale Siding, the N.C.B. Shunter will obtain the Staff from the B.R. Shunter or from the signal box, together with the key for the padlock on the Landsale Siding points. The B.R. Shunter must advise the Signalman at Kirkby Sidings Box on each occasion that the Staff is handed to the N.C.B. and when it is again in his possession. Whilst the N.C.B. have possession of the Staff and padlock key no train or locomotive may enter the Colliery Branch. When the N.C.B. have had possession of the Staff, and every morning, before B.R. trips are allowed to work on the Branch, the B.R. Shunter must ascertain that the Landsale Sidings points are correctly padlocked in their normal position.

Drivers of trains must not pass the "Stop and Await Instructions" board at the entrance to the Loaded Wagon Sidings until instructed by the Guard or Shunter who must have operated the Ground Frame points after having satisfied himself that no conflicting movement will be made by N.C.B. staff.

There is a level crossing on the empty wagon branch approximately 170 yards from the ground frame at which a N.C.B. Crossing Keeper is on duty when road vehicles are using it. When the N.C.B. Crossing Keeper is on duty, the Guard or Shunter of a train requiring to pass over the level crossing must obtain his assurance that the level crossing is protected before authorising the movement from the ground frame. All movements must be made with caution, and Drivers must frequently sound the horn until the first vehicle has reached the crossing when travelling in either direction.

# MANSFIELD SOUTH JUNCTION

A locomotive must be at the Kirkby end of all trains stopping to attach or detach at the intermediate sidings between Mansfield Colliery Junction and Mansfield South Junction.

## MANSFIELD COLLIERY JUNCTION

Vehicles must not be allowed to stand upon the main line unless a locomotive is attached, and the rear portion of trains from Rufford having to attach or detach must be placed in one of the sidings.

Sills' Sand Sidings. Not more than three vehicles (excluding a brake van) may be propelled into these sidings for the purpose of reaching wagons to be attached. The movement must be brought to a stand immediately the locomotive has passed over the points into the sidings when the Guard or Shunter must go forward and satisfy himself that the wagons to be attached are effectively braked and spragged. He must then stand by the first wagon and hand-signal the Driver forward, prepared to couple up immediately contact is made, great care being exercised by all concerned.

#### SHERWOOD COLLIERY SIDINGS SOUTH

When a movement on the colliery running line from Sidings South has passed clear of that line at the North end, the Person in Charge must advise the Signalman at Sidings South box, by telephone.

# NOTTINGHAM—WEEKDAY CROSS JUNCTION

Locomotive running round its train. During fog or falling snow, when the locomotive of a train standing at Weekday Cross has to run round the train via Trent Lane Junction or Arkwright Street, the rearmost Guard after carrying out the provisions of Rule 151, must stand 100 yards in rear of the train, place a detonator on the rail, exhibit a hand danger signal, and conduct the locomotive to the rear of the train.

## **GOTHAM BRANCH**

East Leake Road Crossing. During shunting operations at the British Plaster Board siding the Guard is responsible for passing road traffic over East Leake Road crossing. The points leading into Gotham Company's sidings, are padlocked, and the keys of the points and the crossing gates, are attached to the Train Staff.

### COTGRAVE COLLIERY

The Driver of each inward train must stop at the subsidiary signal at the entrance to the Colliery Sidings. The Guard must set the points for empty siding No. 1, and clear the subsidiary signal controlled from the ground frame adjacent to the Shunter's cabin. After the locomotive has passed the signal he must replace the signal to danger and advise the Signalman at Rectory Junction when the train, complete with tail-lamp, has entered the empty sidings. On arrival in No. 1 siding the locomotive must be detached, run round via No. 2 siding and place the brakevan in the brakevan siding. It must then proceed to the loaded sidings to attach the available loaded wagons. When the train is ready to depart and the Guard has ascertained that the points are correctly set he must advise the Signalman, giving details of the number and destination of wagons attached.

#### COLWICK LOCOMOTIVE JUNCTION

Working of locomotives to and from the depot. Drivers of locomotives arriving at or leaving the depot must advise the Signalman at Locomotive Junction (or Rectory Junction box when Locomotive Junction box is closed) when they are inside clear of the up engine line or when they are ready to leave, as the case may be.

When Locomotive Junction box is closed, locomotives must proceed from Rectory Junction to the depot and vice versa by the following route:—

The engine line from Rectory Junction to Colwick Shunters' South Frame, No. 31 siding from Colwick Shunters' South Frame to Carlton Field, No. 1 down yard engine line from Carlton Field to Locomotive Junction and the up engine line from Locomotive Junction to the depot.

The Signalman at Rectory Junction will advise Drivers of locomotives proceeding to the depot that Locomotive Junction box is closed and authorise them to pass the stop board at that box and to pass at Danger the signal at Locomotive Junction box reading from No. 1 down yard. If there is no pointsman on duty at Colwick Shunters' South frame the Signalman will also instruct Drivers to pass the stop board there.

When Drivers of locomotives leaving the depot telephone Rectory Junction box that they are ready to leave, the Signalman will advise them that Locomotive Junction box is closed. Drivers must not depart until the Signalman gives permission and authorises them to pass the stop board at Carlton Field.

Whilst Locomotive Junction box is closed, Drivers must proceed to or from the shed with Caution, ensuring that all points are in the proper position before passing over them.

### **GEDLING COLLIERY**

The single line between the Arrival sidings and the Colliery Empty Wagon sidings is controlled by two Annett's Keys, which are kept by the B.R. Shunter when not in use.

One key unlocks the one-lever ground frame controlling the points and signal from the Colliery Loaded sidings to the single line, and the other unlocks the one-lever ground frame controlling the signal which authorises propelling to the Empty Wagon sidings.

The normal position of the points is from the Loaded sidings to the single line to permit N.C.B. movements when the line is not occupied by B.R. trains.

Numbered Stop boards alongside the single line between the Arrival sidings and the points from the Loaded sidings indicate to Drivers of B.R. empty wagon trains the position at which trains consisting of 45, 50 or 55 wagons in length must stop to clear the inlet points. Drivers must not pass the 55-wagon board until the points leading from the Loaded sidings have been placed in the correct position by the Guard or Shunter.

After entering the B.R. Arrival lines the locomotive must run round its train in readiness to propel the wagons to the Empty Wagon sidings.

The Guard or Shunter must walk forward to the Empty Wagon sidings on the left hand side of the running line and on his way reverse the points and signal from the Loaded sidings to allow the B.R. train to pass. He must not allow the N.C.B. locomotive to proceed towards these points after they have been reversed for the single line. When he reaches the Empty Wagon sidings, provided the line is clear, he must clear the signal to authorise the driver to commence propelling.

When the train reaches the Empty Wagon sidings the signal authorising the movement must be replaced to Danger and, when work on the single line is completed, the two Annett's Keys must be returned to the B.R. Shunter.

# **COLWICK EAST**

Colwick Estates Light Railway. Traffic is worked between the Exchange sidings and the various depots over this Single line by B.R. locomotives.

Private firms' locomotives must not enter the Single line without permission from the B.R. Shunter.

A stop board is provided approximately 300 yards west of the junction connecting the Single line with the Exchange sidings and Main line, lettered on both sides as under:—

"No locomotive or train to pass this board without permission of the Shunter."

Before a train or locomotive is allowed to pass this stop board from the Single line to the Exchange sidings the Shunter must obtain permission from the Signalman at Colwick East. If there is already a locomotive working in the Exchange sidings, the Shunter, after obtaining the permission of the Signalman, must inform the Driver of the locomotive in the Exchange sidings what is about to be done and instruct him not to move until given permission. A train or locomotive may work between the Exchange sidings and the Main line during the time another train or locomotive is in the Exchange sidings or on the Single line.

If a train or locomotive has to go from Colwick East into the Exchange sidings while one is already working in the sidings, the movement must be made in the presence of the Shunter who must have a clear understanding with the Signalman at Colwick East and the Trainmen working in the Exchange sidings.

In the absence of the Shunter, Guards must satisfy themselves that the gate in to the Exchange sidings is open and the points properly set before giving a hand signal to the Driver to enter the sidings from Colwick East.

British Sugar Corporation Sidings. The points leading from British Sugar Corporation's sidings to the Colwick Estates Light Railway are clamped and padlocked, the key being kept in the B.R. office, and during week-ends at the British Sugar Corporation's weighbridge hut. Before entering the sidings the shunter must obtain the key to release the points and when work is completed must lock the points and return the key.

# TRENT TO CHESTERFIELD (E.R.) AND BRANCHES

#### TOTON EAST JUNCTION

Trains requiring to set-back on to Down Arrival line. Trains of more than 60 wagons in length must at all times be drawn on to the Down Arrival line by a Shunting locomotive.

During fog or falling snow, all trains must be drawn on to the Down Arrival line by a Shunting locomotive.

Working of Trains without a Brakevan in rear. Trains from the up sidings to the down sidings via Toton East Junction without a brakevan in rear will not be placed on the East or West Arrival line until the Signalman at Toton East Junction has obtained the Down Hump Inspector's permission. The Arrival Line must be clear throughout.

The Down Hump Inspector must personally supervise the movement to be made and before giving permission for it to commence must advise all staff working on the Down Hump.

When the train is clear of running lines and the adjoining Reception line at Toton East Junction, it must stop and not move towards the Down Hump until a proceed aspect is exhibited on the Humping signals and the two-aspect colour light running signals.

# TOTON UP SIDINGS

**Humping.** Position light humping signals are provided, with lunar-white lights capable of displaying the following aspects:—

Horizontal	 	 Stop	 	000
Inclined	 ••	 Hump slow	 $$ $\begin{cases} O \\ O \\ O \end{cases}$	or O
Vertical	 ••	 Hump Normal	 $\cdots$	0 0 0

Except as shown below, these signals will apply only to Drivers of locomotives actually humping:—

Drivers drawing wagons back over the hump on to the run-round road, No. 6, for re-shunting, must observe the humping signals applicable to that line and come to a stand when the signals display "Stop", which will indicate that the last vehicle has passed over the hump.

Drivers drawing wagons back over the hump on to arrival lines 1 to 5 and 7 to 11 for any purpose must likewise come to a stand when the humping signals applicable to the line on to which they are proceeding display "Stop".

The position light units along the arrival lines are fitted with lunar white "wing" lights on the upper left and right-hand sides. When the "wing" light on the left-hand side of the signal is illuminated, it indicates that the humping aspect displayed applies to the line on the left-hand side of the signal as observed looking towards the hump, and similarly, when the one on the right-hand side is illuminated, it applies to the line on the right-hand side.

The first two rows of these humping signals from the Sandiacre end of the arrival lines are double-sided. The last row at the hump end are single-sided only. (The latter carry bracket arms with two-aspect colour light signals which apply only to Drivers working incoming trains.) Position light humping signals between the last row on the arrival lines and the hump do not carry "wing" lights but are displayed in sequence with those applying to the line off which a train is being humped.

#### TOTON DOWN SIDINGS

Humping. Position light humping signals are provided, with lunar-white lights capable of displaying the following aspects:—

Horizontal	 Stop	 000
Incline to 45 degrees	 Hump slow	 }0
Incline to 45 degrees  Vertical	 Hump normal	 } 8
		0

Except as shown below, these signals will apply only to Drivers of locomotives actually humping, and hump shunting may be carried out when the signals indicate "hump slow" or "hump normal" irrespective of the aspect exhibited at the two-aspect colour light running signals.

Drivers drawing wagons on to the East or West arrival lines from the low level reception lines preparatory to humping, or from the down Sorting Sidings back over the hump for re-shunting, must look back at the humping signals applicable to that arrival line, and come to a stand when the signal displays "Stop", which will indicate that the last wagon is clear of the scissors crossing on the Long Eaton side of the hump.

Drivers making movements other than humping trains must obey the aspects of the two-aspect colour light running signals.

Meadow Sidings. Drivers of trains requiring to proceed along the arrival line from Stapleford & Sandiacre towards the down empty wagon sidings must, when the arrival line signal is at Danger, communicate with the Meadow Sidings Inspector by telephone from that signal.

# STANTON GATE

Trains leaving the up sidings by the connection at the South end must not travel over the up goods line to Stanton Gate South box.

#### LANGLEY MILL

Heanor Junction Sidings. A plunger on the post of the signal from the Branch enables the Guard or Person in Charge to advise the Signalman when the train is ready to depart.

#### PYE BRIDGE

Riddings Colliery Sidings. Trains must not be shunted at these sidings to allow other trains to pass.

# **AVENUE SIDINGS**

A telephone is provided outside No. 1 up Arrival line 265 yards from the box, and the Guard of a train, or Secondman of a light locomotive, must inform the Signalman immediately the train has arrived on either No. 1, 2, or 3 arrival line clear of the connections with the Exchange Sidings line, complete with tail lamp.

# STANTON AND WEST HALLAM COLLIERY BRANCHES

Stanton Old Works Sidings. The Shunter or Guard must obtain permission from the Stanton Staveley Company's Crossing Keeper on each occasion it is necessary to foul or cross over Lows Lane level crossing at the Stanton Old Works end of the branch.

The firm provide a Crossing Keeper at Sevenoaks Crossing from 06 00 Monday to 22 00 Sunday, and outside these times Drivers must stop clear of the crossing and not proceed until handsignalled forward by the Guard or Shunter, who must stop traffic on the road until the train has passed.

The line between the "Stop and Await Instructions" board leading from the Coke Sidings to the Old Works Branch, the "Stop and Await Instructions" board on the Old Works Branch, protecting the connection from the Coke Sidings, and the "Limit of Shunt" board at the Stanton Gate North signal box end of the Old Works Branch is under the control of the Yard Foreman at Stanton Gate and a train must not be allowed to pass the "Stop and Await Instructions" Board concerned without his permission. There is a telephone to the Yard Foreman at the "Stop and Await Instructions" board.

A telephone is also provided at Lows Lane level crossing to enable the Shunter or Person in Charge, when requiring to leave the Old Works Sidings with more than 30 wagons, to obtain permission from the Yard Foreman to proceed to Stanton Gate without actually stopping at the "Stop and Await Instructions" board at the connection from the Coke Sidings.

The Person in Charge of trains to the Coke Sidings must advise the Yard Foreman at Stanton Gate when the train is clear of the Old Works branch line.

Nutbrook Level Crossing. Instruction (f) in the preamble to Table P.2 need not be applied in connection with a train calling at Stanton and Staveley Co's Siding ground frame.

The operation of the ground frame release lever will place or maintain the barriers in the lowered position and before this lever is restored to the normal position, the train must be ready to depart and straddling the crossing. The release lever must be restored to the normal position as soon as possible to enable the barriers to function automatically.

A plunger is provided at the ground frame to raise and lower the barriers between shunting movements. To raise the barriers, the plunger must be pressed and held in continuously to hold them in that position. To lower the barriers, the plunger must be released.

Quarry Hill Road. Before commencing a return movement from Quarry Hill Road to Fork Junction No. 1 ground frame via the Through Siding, the Shunter or Guard must obtain the permission of the Person in Charge at Fork Junction No. 1 ground frame by telephone.

The Guard or Shunter in charge of loaded trains to be propelled from the Shunting Neck into the Coal Reception sidings (Bottom Fulls), must ensure that sufficient wagon brakes are pinned down before the movement is made.

West Hallam Colliery Sidings. Except when movements require to be made to and from West Hallam Colliery Empty and Loaded Sidings, the points in the single line on the Stanton side of the Empty Sidings must be set and padlocked along the single line and the two-way spring points, immediately on the Stanton side of the points worked from the 1-lever Ground Frame, must be padlocked in the dead end to single line position.

Before permitting a movement to or from the Colliery Empty Sidings the Guard or Shunter must warn N.C.B. Staff working in or near wagons on the empty wagon line.

### SLEIGHTS SIDINGS EAST

Siding Connections Bolt-locked from Signal Box. When a train requires to enter these sidings the Guard or Shunter, or the Secondman of a light locomotive, must immediately pull over the lever working an indicator in or near the signal box to show that the main line is occupied and it is necessary to unbolt the points; the lever must be kept in that position to protect the train until it is ready to leave and the starting signal has been taken off for it to proceed or it has been shunted into the siding and the main line is clear, when the lever must be put back in the frame.

After a train has been shunted into the siding to allow another train to pass, or for any other purpose, the lever working the indicator box must not be again pulled over until the Signalman has unbolted the points.

The starting signal ahead of the points may be passed at Danger for shunting purposes only.

# BENTINCK COLLIERY MIDLAND EMPTY WAGON BRANCH

B.R. locomotives must not foul the connections at the Colliery end of the sidings.

The points in the branch leading to the empty wagon sidings must always be kept locked for the dead end, except when it is necessary to place empties in the sidings. Guards must obtain the key from the Signalman at Bentinck Colliery Sidings and return it after completion of work.

All vehicles from Bentinck Colliery Sidings box to the empty wagon sidings must be propelled. A brake van, in which a Guard must ride, must be in front of the vehicles, and sufficient brakes must be pinned down near to the brake van to enable the train to descend the incline in safety.

A train of air-braked wagons with the automatic brake coupled up and in use may, however, be propelled without a brakevan leading.

# NEW HUCKNALL COLLIERY BRANCH

Westhouses and Blackwell. If the signalling apparatus fails for the single goods line between Blackwell East Junction and Westhouses and Blackwell Station, the Area Manager will be responsible for the appointment of a Pilotman, who must accompany every train.

Fordbridge Lane Level Crossing.—Down trains. Before a train is allowed to leave Blackwell East Junction, the Shunter must go to the crossing and act in accordance with the instructions exhibited there. The Driver must stop on the New Hucknall side of the crossing to allow the Shunter to join the train after he has closed and secured the gates across the railway.

Up trains. The Shunter must travel on the locomotive and open the gates for the passage of the train. The Driver must then stop on the Blackwell side of the crossing to allow him to rejoin the train after he has closed and secured the gates across the railway.

"A" Winning Colliery. The single-armed signal near the Colliery buildings must exhibit a Clear signal except when required to be placed to Danger to protect B.R. trains working in the sidings.

The scotch block on the line to the coke oven sidings must be kept locked across the railway except when required to be removed for locomotives and vehicles to pass.

The scotch block on the loaded wagon sidings must be kept locked across the railway, except when required to be removed for locomotives and vehicles to pass. When not in use the key must be kept in Blackwell East Junction box.

New Hucknall Colliery. Trains must not go on to the Colliery Running line between the home signals on the single lines from Blackwell and the Tip and the notice board at the Loaded Wagon Sidings end of the Colliery single line until the Guard has ascertained that points in the Colliery running line are set for the movement and that no wagons are foul of the running line, afterwards informing the Signalman. Immediately on arrival at the home signals or notice board in question Guards must carry out this examination. For a train requiring to leave the Colliery single line the permission of the Signalman to proceed on to the Running line must be obtained before the Guard instructs the Driver to pass the notice board.

Drivers of trains on the Colliery single line towards the Empty Wagon sidings must stop at the board approximately 300 yards before reaching the notice board at the Empty Wagon sidings end of the Colliery single line, and not proceed until a green signal is exhibited in the lamp alongside the stop board. The green signal will indicate to Drivers that the line and connection beyond the notice board to the Empty Wagon sidings are clear.

A switch at the Colliery Empty Weigh Office operates this green light signal which applies only to B.R. movements, and the switch must be operated by Guards, after they have ascertained that the line and siding connections beyond the notice board at the Empty Wagon sidings end of the Colliery single line are clear.

The key to the switch is kept in New Hucknall Colliery box. Guards of trains working to the Empty Wagon sidings must obtain the key from the Signalman and return it to him after use.

Drivers must run at slow speed on the Colliery running line, the Colliery single line and the line to the Empty Wagon sidings and sound their horn frequently.

Locomotives, vans and highly loaded vehicles will not pass under the bridge near the centre of the Empty Wagon sidings, and all such vehicles must be taken to the Colliery marshalled next to the locomotive.

### SUTTON COLLIERY JUNCTION

Spring Points leading to the Sutton Branch. The points leading to the Sutton Branch must be kept padlocked for the Sutton Branch except when required to be unlocked to allow a train to pass between the up line and the dead end roads adjacent to the Sutton Branch. The key must be kept in Sutton Colliery Junction box when not in use.

Trains from Sutton Colliery Sidings to Stoneyford Lane must have at least half the wagon brakes pinned down on the wagons farthest from the locomotive.

Drivers must keep a good look-out and sound the horn when approaching the level crossing near Sutton Colliery from either direction.

# SILVERHILL COLLIERY

Before commencing a movement from the Loaded Wagon Sidings towards Teversall Station, sufficient wagon brakes must be applied to control the movement on the falling gradient.

### BETWEEN SUTTON COLLIERY JUNCTION AND PLEASLEY EAST GROUND FRAME

No train may proceed on to the single line between Sutton Colliery Junction and Pleasley East Ground Frame unless the Driver is in possession of a token, or has been shown the token which has been delivered to the Driver of a locomotive to which his locomotive is attached except as provided in Electric Token Block Regulations 14, 18 and 25.

Section Obstructed by Accident, by Disabled Train, or by portion of Train.

Locomotive entering Section for Examination of Line.

Working of Trains to and from Point of Obstruction.

Failure of Token Instrument or Token Damaged.

Electric Token Block Regulations 14, 15, 18, 23 and 25 apply. The Person working the instrument at Butcherwood Sidings or Pleasley East ground frame must be regarded as the Signalman.

When it is necessary to ascertain if the line is clear a locomotive must not enter the section unless a token has been obtained from the token instrument and is in possession of the Driver. The circumstances must be explained to the Driver, and he must be instructed to proceed cautiously, prepared to stop short of any obstruction. Where practicable, the locomotive must be accompanied by a competent person, and after sunset or during fog or falling snow it must always be so accompanied.

The Person in Charge at Sutton Colliery Junction must obtain a token, which must not be replaced in the instrument at either end of the section until the Person in Charge or Driver has reported that the line is safe for the passage of trains.

Butcherwood Sidings. A special token instrument is provided at the ground frame and in order that traffic may pass between Sutton Colliery Junction and Pleasley East ground frame whilst a train is shunting in the sidings, when the train is clear of the branch line, the Guard must place the token in the special instrument in accordance with the instructions exhibited at the ground frame.

# HOLMEWOOD COLLIERY BRANCH

The lines from Alma Junction to Pilsley Dead End, and from Holmewood Junction to Holmewood Colliery are worked as sidings.

The working line from Alma Junction to Holmewood Junction is named No. 1 Siding and the adjacent looped siding is the Loaded Siding. N.C.B. locomotives work from Holmewood Colliery into the Loaded Siding at the Holmewood Junction end.

Williamthorpe Crossing. The fixed signals protecting the crossing must be kept at Danger, and the level crossing gates locked across the railway, except when a train requires to pass. The key must be kept in the Inspector's cabin at Avenue Sidings when not in use.

Before a train passes over the crossing it must stop at the signal, and the Shunter must unlock the gates, place them across the roadway, and clear the signal. When the train has passed over the crossing the Shunter must place the signal to Danger and lock the gates across the railway.

Holmewood Junction. On arrival at the "Stop and Await Instructions" board the B.R. Shunter or Guard must advise the Colliery Weigh Office by telephone that the trip has arrived. If he is told that the N.C.B. locomotive or trip has already left for Holmewood Junction no movement must take place until it has arrived.

When the colliery trip has arrived, or if on arrival of the B.R. trip the N.C.B. locomotive is in any of the sidings, the Driver of the N.C.B. locomotive must be instructed to stand clear.

After satisfying himself that no conflicting movements are being made, the Shunter or Guard of the B.R. trip must place the signal applying to movements from the Colliery to Danger before instructing the Driver to pass the "Stop and Await Instructions" board towards the Pilsley Dead End. If the telephone has failed during darkness or foggy weather the Guard, after satisfying himself that the N.C.B. engine is not in the vicinity, must place the signal to Danger and then place three detonators 10 yards apart on the line from the Colliery, 100 yards beyond the Inwards Wagon Sidings, before instructing the Driver to pass the stop board.

The B.R. locomotive will then, after detaching the brake van on to either No. 1 Siding or the Loaded Siding, detach the wagons in the two Inwards Sidings at Holmewood Junction or if necessary propel to the Pilsley Dead End. It will then attach the wagons from the Loaded Siding, via the ground frame connection at the Alma end.

B.R. locomotives must not foul the line from the Colliery beyond the Inwards Wagon Sidings, farther than is necessary to run round, except by authority from the Colliery Weigh Office. If the telephone fails the Shunter must proceed to the Colliery Weigh Office for this authority, unless advice has been received before leaving Avenue Sidings that the N.C.B. locomotive is not at work.

The B.R. Shunter or Guard must telephone the N.C.B. Weigh Office when the train is ready to leave for Avenue Sidings, and before departing must clear the signal applying to movements from the Colliery. If, owing to failure of the telephone, detonators have been placed on the line from Holmewood Colliery as referred to above, these must be removed after movements have been completed and the B.R. locomotive is clear of the junction, before clearing the signal.

The wheel scotch at the Alma end of the Loaded siding must normally be kept padlocked across the rail.

# TRENT TO CLAY CROSS (VIA DERBY) AND BRANCHES

#### **SPONDON**

British Celanese Sidings. Trains not exceeding 15 wagons may be propelled into British Celanese Sidings, provided they are preceded on foot by a Guard to warn anyone in the vicinity of the sidings.

Trains exceeding 15 wagons may not be propelled but must be drawn in by locomotive.

Notice Boards worded "B.R. engines not to pass this board", "Whistle" and "B.R. engines to stop and uncouple" are provided at the East end of the sidings.

Guards of trains which are drawn into the sidings must uncouple the locomotive and stand on the level crossing at the East end of the sidings to stop road traffic before handsignalling the locomotive from one siding to another.

### **DERBY (MIDLAND)**

Derby (Midland) is signalled as a terminal station and Drivers of trains approaching must understand that the signal or signals cleared simply give them permission to run into the station, and not through it, and they must be prepared to stop at any point circumstances may render necessary, unless the line is clear and the signals are cleared giving them permission to leave the station at the other end.

Drivers of trains entering the station either under the authority of a calling-on signal at the signal box controlling the entrance to the Station or after receiving a warning by hand signal at that box must be prepared to stop clear of any obstruction in the station, although the signal worked from Station "A" box may have been cleared for their train before they have come to a stand.

London Road Junction and Station North Junction Boxes—Working of Calling-on Signals. Referring to Rule 44B, clause (b), the calling-on signals at these boxes applying to trains entering the Passenger Station may be cleared before the trains have been brought to a stand at them, and Drivers in such circumstances must draw forward cautiously as laid down in Rule 44B clause (a).

Propelling of Empty Coaching Stock Trains. During darkness, fog or falling snow, Drivers of coaching stock trains propelled from Station North Junction to Etches Park Sidings via the up goods line or up loco. line must stop when the locomotive reaches Engine Sidings No. 1, and then proceed as far as the line is clear at a speed not exceeding 5 m.p.h.

Between Engine Sidings No. 2 Box and the Bottom Yard. The wheel scotches across the old tender sidings must be kept locked across the railway, and the hand points in the running line to the Bottom Yard locked for the running line, except when necessary to shunt in the tender sidings. The key must be kept in Engine Sidings No. 2 box.

Trains Departing from Carriage Works—London Road Junction. If a train is detained for two minutes or more at the signal controlling the exit from the Carriage Works, the Secondman must advise the Signalman using the microphone in the Fogsignalman's hut adjacent to the West goods line.

#### WIRKSWORTH BRANCH

Key Token Working. The single line between Duffield Junction and Wirksworth is worked by token with "No Signalman" type of token instrument at Wirksworth, and no train must proceed on to the single line unless the Driver is in possession of a token, or has been shown the token which has been delivered to the Driver of a locomotive to which his locomotive is attached except as provided in Electric Token Block Regulations 14, 18 and 25.

Pouches are provided in which the token is placed before being handed to the Driver.

Section obstructed by accident, by disabled train, or by portion of train.

Locomotive entering section for examination of line.

Working of trains to and from point of obstruction.

Failure of Token Instrument or Token damaged.

Electric Token Regulations 14, 15, 18, 23 and 25 apply. The person working the instrument at Wirksworth must be regarded as the Signalman.

When it is necessary to ascertain if the line is clear a locomotive must not enter the section unless a token has been obtained from the token instrument and is in the possession of the Driver. The circumstances must be explained to the Driver, and he must be instructed to proceed cautiously through the section prepared to stop short of any obstruction. Where practicable, the locomotive must be accompanied by a competent person, and after sunset or during fog or falling snow, it must always be so accompanied.

The Person in Charge of the token station at which the locomotive enters the section can, in these circumstances, obtain a token, which must not be placed in the instrument at either end of the section until that Person in Charge or Driver has reported that the line is safe for the passage of trains.

Wirksworth Incline. When wagons for despatch from Derbyshire Stone Co's outwards siding have been attached to the train, the Guard or Shunter must attach a tail lamp to the last vehicle to indicate to the firm's employees that the train is complete. After sunset or during fog or falling snow this tail lamp must be lighted.

The hand-brakes on not less than half the vehicles must be pinned down before the signal to start is given. The Guard must walk alongside the train to Wirksworth Station and be prepared to apply further hand-brakes if necessary.

When Derbyshire Stone Co's Staff place vehicles in the outwards sidings, a sprag is secured in the wheel of the leading vehicle at the lower end and a further sprag in the third or fourth vehicle.

If vehicles are left in the siding after a train is despatched to Wirksworth Station, the Guard or Shunter must place a sprag securely in the wheel of the first and third vehicles at the lower end.

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