# REGULATIONS

FOR

# **TRAIN SIGNALLING**

ON

# **Double Lines of Railway**

**BY THE** 

**ABSOLUTE BLOCK SYSTEM** 

### Regulations for Train Signalling on Double Lines of Railway by the Absolute Block System

#### ABSOLUTE BLOCK SYSTEM.

The object of absolute block signalling is to prevent more than one train being in a block section on the same line at the same time.

The signalling of trains by the absolute block system does not in any way dispense with the use of fixed or hand-signals, or detonators, whenever and wherever such signals or detonators may be requisite to protect obstructions on the line.

## NORMAL POSITION OF FIXED SIGNALS DURING THE TIME THE SIGNAL BOXES ARE OPEN.

Except where instructions are issued to the contrary the normal indications of fixed signals must be as under :—

Stop Signals	 DANGER
Distant Signals	 CAUTION

and, except as otherwise provided in these Regulations, care must be taken to ascertain that the line is clear, and that the block and other Regulations have been complied with before any signal is lowered for a train to pass.

#### NORMAL POSITION OF BLOCK INDICATORS.

When the block instruments are not in use the line must be considered blocked, the indicators showing "Line Blocked."

#### USE OF BLOCK INSTRUMENTS, BELLS AND GONGS.

These must be used exclusively for the purposes shown in the Block Regulations, and must not, under any circumstances, be used for conversing. They must only be used by the Signalman or other person specially appointed for the duty.

The movements on the block instruments must be made carefully and the beats on the bells or gongs must be made slowly and distinctly, the pauses between the sets of beats being clearly marked.

NOTE :- Where the **Train on Line** position of the block indicator is referred to in the following Regulations the corresponding position of the block indicator on some instruments is lettered **Train entered Section**.

#### ABSOLUTE BLOCK SISTEM (DUBLE LINES)-continued

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#### BELL AND GONG SIGNALS.

See Regul- ation	Class of Train	DELLI AND CONC DIGMALS.	No. of beats	How to be given
1 3 & 4		Call Attention	1	1
		Express passenger train, or newspaper train, or breakdown van train or snow plough going to clear the line, or light engine going to assist disabled train Officers' Special train not requiring to stop in section	4	4 consecutively
	B	Ordinary passenger train, or mixed train, or breakdown van train <b>not</b> going to clear the line, or loaded rail motor train *Branch passenger train	4 4	$_{1-3}^{3-1}$
	c	milk, pigeon or perishable train compos- ed entirely of vehicles conforming to coaching stock requirements Express freight, livestock, perishable or ballast train, pipe fitted throughout,	5	131
		with the automatic brake operative on not less than half of the vehicles Empty coaching stock train (not specially	5	3-11
	}	authorised to carry "A" headcode), or empty rail motor train Express freight, livestock, perishable or	5	2-2-1
	D	<ul> <li>ballast train, partly fitted, with the automatic brake operative on not less than one third of the vehicles</li> <li>Express freight, livestock, perishable or ballast train, partly fitted, with not less</li> </ul>	5	5 consecutively
	E	than four braked vehicles connected by vacuum pipe to the engine Express freight, livestock, perishable or ballast train with a limited load of vehicles <b>not</b> fitted with continous brake	> 5	1-22
	F	Express freight, livestock, perishable or ballast train <b>not</b> fitted with continuous brake	5	32
	G	Light engine or light engines coupled Engine with not more than two brake vans Through freight or ballast train not run-	5 5	2-3 1-1-3
	H	ning under Class "C" "D," "E" or "F" headcode	. 5	1-4
	J	Mineral or empty wagon train Freight, mineral or ballast train stopping at intermediate stations	5	4-1 3 consecutively
	K	*Branch freight train Freight, ballast or Officers' Special train requiring to stop in section	3	12 223
3, 5 & 9		Trolley requiring to go into or pass through tunnel	. 5	2-1-2

\* To be used only where specially authorised by the Operating Superintendent.

#### ADJOINTED DIJOUR DIJOUR DIJOUR COURSES AND TOTAL

### BELL AND GONG SIGNALS-continued

See Regul- ation	Class of Train		No. of beats	How to be given
3 5		Train entering Section	2	2 consecutively
		blocked		3-5-5 2-2
		Engine assisting in rear of train Train out of section or obstruction re-	*	
12& 13		moved		2-1
10A		Engine arrived		2-1-3
10A		Train drawn back clear of section		3-2-3
12		Obstruction danger	6	6 consecutively
				INSIDE Home
				Signal-Trains con-
				veying passengers 4-2
13		Blocking back	62	Trains NOT con-
				veying passengers
				2-4
				OUTSIDE Home
			. 1	Signal 3-3
17		Stop and examine train	7	7 consecutively
18		Cancelling signal	8	3-5
18A		Last train signalled incorrectly described	8	5-3
			[	9 consecutively
19		Train passed without tail lamp	94	to box in advance
			l	4-5 to box in rear
20		Train divided	10	55
21 .	1	Shunt train for following train to pass		1-5-5
22		Train or vehicles running away on wrong		
		line	12	2-5-5
23		Train or vehicles running away on right		
		line		4-5-5
24		Opening of signal box	10 100	555
24		Closing of signal box		755
27		Testing block indicators, bells and gongs		16 consecutively
28		Time signal		8-5-5
29		Lampman or Fogsignalman required	19	9-5-5
			11 3/3	

#### **REGULATIONS.**

- 1.—Call Attention.—Except in the case of the Section Clear but Station or Junction Blocked signal, the Train entering Section signal, the Engine Assisting in Rear of Train signal, the Obstruction Danger signal, and except as provided in Regulation 12, Clause (f), the Call Attention signal must always be given before any other signal, and must be acknowledged immediately on receipt.
- 2.—Repetition and Acknowledgment of Signals.—Except where instructions are issued to the contrary, all signals must be acknowledged by repeating them, and no signal must be considered as understood until it has been correctly repeated to the signal box from which it was received. When the Is Line Clear signal is not acknowledged it must be given again at short intervals.

**3.**—Mode of Signalling.—"A," "B" and "C" represent three consecutive signal boxes, and the process of signalling a train is as follows :—

(a) Prior to the dispatch of a train from "A" the Signalman there, provided he has received the **Train out of Section** signal for the previous train, and the block indicator is in the normal position, must call the attention of "B," and having obtained it, must give the proper **Is Line Clear** signal. If the line be clear at "B" the Signalman there must acknowledge the signal and place the block indicator in the **Line Clear** position.

(b) The Signalman at "A" may then, if the line be clear, lower his signals for the train to leave "A."

(c) On the train leaving "A" the Signalman there must send the **Train** entering Section signal to "B," and the Signalman at "B" must acknowledge the signal and place the block indicator in the **Train on line** position.

(d) "B" must then, provided he has received the **Train out of Section** signal for the previous train, and the block indicator is in the normal position, call the attention of "C," and, having obtained it, must give the proper **Is Line Clear** signal to "C," On receiving permission from "C" for the train to approach, "B" may lower his signals for the train to proceed to "C," and as soon as the train has arrived at or passed "B" the Signalman there must call the attention of "A," and, having obtained it, give to "A" the **Train out of Section** signal, which signal must be acknowledged, and place the block indicator in the normal position.

(e) Where the sections are short the **Is Line Clear** signal must, where necessary to avoid delay to the train, be sent forward as soon as the **Is Line Clear** signal has been acknowledged and before the **Train entering Section** signal has been received from the box in rear, when this can be done in accordance with the **Regulations** under which the **Is Line Clear** signal may be forwarded.

4.—Line Clear or giving Permission for a Train to Approach.—(a) Except where instructions are issued to the contrary, the line must not be considered clear, nor must a train be allowed to approach from the signal box in rear, in accordance with Regulation 3, until the preceding train has passed at least  $\frac{1}{4}$  mile beyond the Home Signal or has been shunted clear of the running line, nor until all the necessary points within this distance have been placed in their proper position, subject to the provisions of Clause (f), for the safety of the approaching train, and the line is clear for at least  $\frac{1}{4}$  mile ahead of the Home Signal.

Where an Outer Home Signal is provided at least  $\frac{1}{4}$  mile in rear of the Inner Home Signal (or next Stop Signal) the **Is Line Clear** signal must not, except where instructions are issued to the contrary, be accepted unless the line is clear to the Inner Home Signal (or next Stop Signal).

#### ABSOLUTE BLOCK SYSTEM (DOUBLE LINES)—continued

4.—continued.

(b) Where the outermost Home Signal of a box is less than  $\frac{1}{4}$  mile from the Home Signal of the box in advance, the Signalman at the former box must not give permission for a train to approach from the box in rear until the **Train out of Section** or **Obstruction Removed** bell signal has been received from the box in advance and the block indicator has been placed in the normal position, or where Regulation 5 is authorised, until the **Train out of Section** bell signal has been received for the preceding train.

Should the block apparatus have failed between two boxes where the outermost Home Signal of a box is less than  $\frac{1}{4}$  mile from the Home Signal of the box in advance, no train must be accepted by the Signalman at the former box until it has been ascertained that the line is clear to the Home Signal of the box in advance. If this cannot be done the train must be accepted under Regulation 5 provided the line is clear as far as can be seen and all the necessary points have been placed in their proper position for the safety of the approaching train, the Signalman to whom the **Section Clear but Station or Junction Blocked** signal is sent being previously advised of the circumstances.

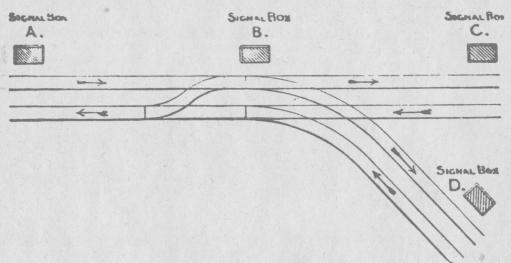
(c) After permission has been given for a train to approach in accordance with this Regulation, no obstruction of the line on which such train requires to run, or of the line for which the facing points at a junction are set, must be allowed within a distance of  $\frac{1}{4}$  mile ahead of the Home Signal or other prescribed clearing point until the train has been brought to a stand at the Home Signal or has passed into the section in advance or the **Cancelling** signal has been received.

(d) If the line be not clear or if from any other cause the Signalman be not in a position to give permission for the train to approach when the Signalman in rear forwards the **Is Line Clear** signal, that signal must not be acknowledged until the Signalman to whom the signal has been sent is prepared to accept the train.

(e) During fog or falling snow, except where instructions are issued to the contrary, if a Fogsignalman is not on duty at the Distant Signal, the **Is Line Clear** signal must not be accepted from the box in rear until the **Train out of Section** or the **Obstruction removed** signal has been received from the box in advance, and the block indicator worked from that signal box is in the normal position; nor must the **Blocking Back** signal (4-2, 2-4 or 3-3) from the box in advance be acknowledged if permission has been given for a train to approach from the box in rear in accordance with this Regulation.

Where an Outer Home Signal is provided at least  $\frac{1}{4}$  mile in rear of the Inner Home Signal (or next Stop Signal) the **Is Line Clear** signal must not be accepted during fog or falling snow when the line is clear only to the Inner Home Signal (or next Stop Signal) unless Fogsignalmen are on duty at the Distant and outermost Home Signals; if, however, a Fogsignalman is on duty at the Distant Signal only, the **Is Line Clear** signal must not be accepted unless the line is clear for  $\frac{1}{4}$  mile beyond the Inner Home Signal (or next Stop Signal).

(f) At Junctions, except as shown in the second paragraph of Clause (a) and where otherwise provided (and subject to the provisions of Clause (e)), the approach of trains which can cross or foul each other is regulated as shewn below :---



(i) When permission has been given by "B" for a train to approach from "C," no train must be allowed to leave "D" until that from "C" has been brought to a stand at the junction Home Signal or has passed 1 mile beyond the junction Home Signal applicable to a train coming from "D," or if the Home Signal at "A" is within that distance, until the line towards "A" is clear in accordance with Clause (b); nor in such a case must a train be allowed to leave "A" for "D" unless the junction facing points at "B" are set for "C" and the line towards "C" is clear in accordance with Clause (a) or (b) of this Regulation.

(ii) When permission has been given by "B" for a train to approach from "D" no train must be allowed to leave "C" until that from "D" has been brought to a stand at the junction Home Signal, or has passed 4 mile beyond the junction Home Signal applicable to a train coming from "C" or if the Home Signal at "A" is within that distance, until the line towards "A" is clear in accordance with Clause (b) of this Regulation.

(iii) When permission has been given by "B" for a train to approach from "A" for "D," no train must be allowed to leave "C" until that from "A" has been brought to a stand at the junction Home Signal or has passed clear of the junction or the junction facing points have been set for "C" and the line towards "C" is clear in accordance with Clause (a) or (b) of this Regulation.

(iv) Where an Outer Home Signal is provided at least 4 mile in rear of the Inner Home Signal (or next Stop Signal), after a train has passed the Outer Home Signal no conflicting movement must be allowed, nor must a train be accepted in accordance with Clause (a) or (b) of this Regulation from another direction in which there is no Outer Home Signal, until the first train has been brought to a stand at the Home Signal immediately protecting the junction or has passed clear of the junction.

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#### ABSOLUTE BLOCK SYSTEM (DOUBLE LINES) -- communed

#### 4 (f) (iv)—continued.

After a conflicting movement has been allowed, or a train accepted from another direction in which there is no Outer Home Signal, a train must not be allowed to pass the Outer Home Signal until the conflicting movement has passed clear of the junction, or the train which has been accepted from another direction has been either brought to a stand at the junction Home Signal or has passed clear of the junction.

(g) After a "Wrong Line" order has been issued in accordance with Rule 184, permission must not be given for a train to approach from the signal box in rear or on any converging line, unless the train returning in the wrong direction can be diverted to another unoccupied line or into a Siding, and the line can be kept clear for the train approaching in the proper direction in accordance with the conditions under which such train is to be accepted; nor must the line over which the wrong direction movement has been authorised be occupied or fouled by any other movement.

A "Wrong Line" order must not be issued in accordance with Rule 184 after permission has been given for a train to occupy the line, or approach from the signal box in rear or on any converging line, unless the train to return in the wrong direction can be diverted to another unoccupied line or into a siding, and the line can be kept clear for the train approaching in the proper direction in accordance with the conditions under which such train was accepted.

NOTE.—In the N.E. Area where an Outer Home Signal is situated only 400 yards in rear on the Inner Home Signal (or next Stop Signal) such distance must be regarded as equivalent to  $\frac{1}{4}$  mile.

#### 5.--Section Clear but Station or Junction Blocked (Warning Arrangement).

(This bell signal must only be used as provided for in Regulations 4, 8, 9 and 14. Rule 200, and where it is specially authorised by the Operating Superintendent).

(a) When the line is clear to the Home Signal only, the **Is Line Clear** Signal must not be acknowledged in accordance with Regulation 3, but the **Section Clear but Station or Junction Blocked** signal must be given, and when this signal has been acknowledged the block indicator must be placed in the **Line Clear** position. The Signalman receiving this signal must then deal with the train in accordance with Rule 41, Clause (a), and send the **Train entering Section** signal in the usual way.

(b) Except where instructions are issued to the contrary, when a train has passed the signal box before it has been accepted by the box in advance and is brought to a stand owing to the signal controlling the entrance to the section ahead being at Danger, the Driver will understand that the lowering of such signal is an indication that the section is clear to the next Home Signal, but that the station or junction ahead is blocked. When a train is drawing forward from the signal box-to the signal controlling the entrance to the section ahead and the **Section Clear but Station or Junction Blocked** signal is received, the signal must not be lowered until the train has been brought to a stand.

(c) When some time is likely to elapse before the train for which the Is Line **Clear** signal has been sent will be ready to enter the section, the **Section Clear but Station or Junction Blocked** signal must not be acknowledged, but, when the train is ready to enter the section and before it is allowed to do so, the **Is Line Clear** signal must be sent again in order to give the Signalman in advance an opportunity of accepting the train under Regulation 4, if the circumstances are so altered as to admit of this being done.

(d) Where the use of the **Section Clear but Station or Junction Blocked** signal is authorised, the **Train out of Section** bell signal must be given as soon as the train with tail lamp attached has arrived within the Home Signal provided the class of the train, or the conditions in Regulations 4, 8, 9, 14 and Rule 200, permit a following train to be accepted under this Regulation, but the block indicator must remain in the **Train on Line** position until the train has proceeded at least  $\frac{1}{4}$  mile beyond the Home Signal, or has been shunted clear of the running line, or until it is necessary to accept a following train under the Warning Arrangement in accordance with Clause (a) of this Regulation. When the line is clear and no following train is being accepted under the Warning Arrangement, one beat on the bell must be given to and acknowledged by the Signalman in the rear, after which the block indicator must be released from the **Train on Line** position.

The Signalman at the box in rear may, after receiving the bell signal 2-1, offer the **Is Line Clear** signal for a train of the class authorised although the block indicator remains in the **Train on Line** position.

6.—Engine Assisting in Rear of Train.—After the Train entering Section signal has been given, and the block indicator has been placed in the Train on Line position for a train that is assisted by an engine in the rear, the Engine Assisting in rear of Train signal must be given to the signal box in advance to indicate that an engine is assisting the train in rear. The Train out of Section signal must not be given until the assisting engine has arrived. If the train is assisted by more than one engine in rear the Engine Assisting in rear of Train signal must be given for each engine so assisting.

NOTE: — This regulation applies only at places where the use of assisting engine in rear of train is specially authorised by the Operating Superintendent, and in accordance with Regulation 7.

7.—Engines and Engines and Brake Vans Coupled Together.—When two or more light engines are coupled together, the first must be signalled as a light engine and the others, each separately, as assisting engines in accordance with Regulation 6. Where not more than two brake vans are attached to an engine or engines, the first engine and van or vans must be signalled as a light engine and the Engine Assisting in rear of Train signal given for each additional engine.

8.—Ballast, Goods, etc., Train or Officers' Special Requiring to Stop in Section.—

(a) When a ballast train has to stop in a section for permanent way purposes, the Signalman must give the prescribed **Is Line Clear** signal and the Signalman in advance must, if the line be clear to the Home Signal, give permission for the train to approach his box in accordance with Regulation 5.

(b) When a ballast train, which has been signalled as a through ballast train, requires to stop in the section for permanent way purposes, and comes to a stand at a signal box to enable the guard to inform the signalman that his train is going to stop in the section in advance, the Signalman must give the **Cancelling** signal, and when the signal has been acknowledged he must signal the train as a ballast train requiring to stop in the section.

(c) Should a ballast train requiring to stop in section arrive at a signal box before the **Train out of Section** bell signal has been received for the previous train, the Signalman must advise the Signalman at the box in advance by speaking instrument of the circumstances. The Signalman at the box in advance may, upon receiving this information, act in accordance with Regulation 5, Clause (d).

(d) A goods train calling at an intermediate siding in section and an Officers' Special requiring to stop in section must be dealt with in a similar manner. The Signalman in rear must inform the Signalman in advance the description of the train.

9.—Trolley Going into or Through Tunnels.—(a) When it is necessary for a trolley to go into or through any of the tunnels specially enumerated in the Appendix to the Working Time Table as coming within the application of this Regulation, it must be signalled by the prescribed Is Line Clear signal. The Signalman in advance must, if the line be clear to the Home Signal, give permission for the trolley to approach his box in accordance with Regulation 5. No train must be allowed to enter the section on the same line until the Train out of Section signal has been received to indicate that the trolley has cleared the section or been taken off the rails.

(b) Should the trolley require to enter the section before the **Train out of Section** bell signal has been received for the previous train, the Signalman must advise the Signalman at the box in advance by speaking instrument of the circumstances. The Signalman at the box in advance may, upon this information act in accordance with Regulation 5, Clause (d).

(c) Should the trolley, after passing into or through the tunnel, be removed from the rails before reaching the next signal box, the Ganger or man in charge must go forward and inform the Signalman that the trolley is clear of the line and the Signalman must then send the **Train out of Section** signal.

If, however, time would be saved, the Ganger or man in charge must return to the signal box in rear and inform the Signalman that the trolley is clear of the line; the Signalman must then send the **Cancelling** signal.

10.—Train out of Section.—(a) Except where instructions are issued to the contrary or as shown in Regulation 5, Clause (d), the **Train out of Section** bell signal must not be given nor must the block indicator be placed in the normal position until the train, with tail lamp attached, has passed at least  $\frac{1}{4}$  mile beyond the Home Signal (or Outer Home Signal), or has been shunted clear of the running line, or when a train has been brought to a stand ahead of a junction the facing points have been set for another line and that line is clear in accordance with Clause (a) or (b) of Regulation 4.

(b) When the last vehicle of a train does not pass the signal box before being shunted into a siding, or when a train has been brought to a stand within the Home Signal, and it is necessary to give the **Train out of Section** signal as provided in Clause (a), or the **Train out of Section** bell signal only, before the train passes the signal box, the provisions of Rule 147 must be observed.

(c) When a train at "B" has been sent to the Starting Signal for the direction of "C" or "D" (see diagram, Regulation 4) and the rear of the train is well clear of the junction, the **Train out of Section** signal may be given and the block indicator placed in the normal position if the facing points are set for another line for a following train and that line is clear in accordance with Clause (a) or (b) of Regulation 4.

**10A.**—Engine Running Round its Train.—(a) When it is necessary for an engine to run round a train between two signal boxes for the purpose of removing it from a running line at the signal box in rear or to propel it to the signal box in advance, or when a train has to be removed from a running line at the signal box in rear

#### 10 A(a).-continued.

or propelled to the signal box in advance by another engine, the train engine going forward (see Rule 154), the Signalman in rear must advise the Signalman in advance of the circumstances.

(b) When the engine which has worked the train in has been disposed of at the box in advance, and the line on which the engine arrived is again clear at that box, under the same conditions existing when the train left in section was accepted, the Signalman there must give the **Engine arrived** signal, but he must not give the **Train out of Section** signal until he has received from the Signalman in rear the **Train drawn back clear of Section** signal, or the train has been propelled to his box by the same engine, or by another engine, and the whole of the train has cleared the section.

(c) The **Train drawn back clear of Section** signal must not be given by the Signalman in rear until the train has been crossed on to another running line or shunted into a siding.

(d) When it is necessary for the train to be propelled to the box in advance, the Signalman in rear must not give authority for the propelling movement to commence until he has received the **Engine arrived** signal from the box in advance.

(e) Where, however, the train is left between the points and the signal at the signal box in rear controlling the entrance of trains into the section in advance, the preceding clauses of this Regulation will not apply, and in such cases, if the train has been signalled to the signal box in advance, the **Cancelling** signal must be sent and the signal for a light engine given.

- 11.—Train an unusually Long Time in Section.—Should an unusual time elapse between the receipt of the Train entering Section signal and the train arriving, the Signalman, unless he his satisfied that the train is approaching, must, if the weather is clear and there is no tunnel in the section, stop the first train proceeding in the opposite direction, inform the Driver of the circumstances and, after the necessary signals have been sent and acknowledged, instruct him to proceed with caution; during fog or falling snow or where there is a tunnel in the section in which the train is running, he must prevent any train in the opposite direction (except an engine as provided for in Regulation 14A) proceeding on its journey until he has ascertained that the line on which it has to run is clear.
- 12.—Obstruction Danger.—(a) Should it be necessary, in consequence of obstruction or other exceptional cause, to prevent the approach of a train from the signal box in rear, the Obstruction Danger signal must be forwarded to that box, whether the Is Line Clear signal or Train entering Section signal has been received from that box or not. The Obstruction Danger signal must also be sent to the box in rear when a Signalman becomes aware of a train approaching his box for which he has not accepted the Is Line Clear signal, or has not received the Train entering Section signal, or for which he has not received the Train or Vehicles running away on Right Line signal.

(b) The Signalman forwarding the **Obstruction Danger** signal must place the block indicator for the line or lines affected to **Train on Line**, if not already in that position, and must also place or maintain his signals at Danger to protect the obstruction.

The block indicator must be maintained in the **Train on Line** position until the obstruction has been removed, except as provided for in Regulation 14 (b) and Rule 198 (b).

(c) Should there be reason to suppose that both lines are fouled, the Signalman must send the **Obstruction Danger** signal in both directions, and where there are parallel running lines the requisite steps must be taken to stop trains approaching on any line or lines that may possibly be obstructed.

(d) The Signalman receiving the **Obstruction Danger** signal must immediately place or maintain his signals at Danger before acknowledging the signal and place 3 detonators, 10 yards apart, on the obstructed line or lines in such a position as to prevent any train entering the obstructed section without passing over the detonators, and he must not allow any train to proceed on the obstructed line or lines towards the signal box from which he received the **Obstruction Danger** signal until either he receives the **Obstruction Removed** signal and the **Is Line Clear** signal has been accepted by the Signalman in advance or it becomes necessary to allow a breakdown van train or other train to enter the section to render assistance. Such breakdown van train, or other train going to render assistance, must be signalled and dealt with in accordance with Regulation 14.

(e) Should a Signalman receiving the **Obstruction Danger** signal succeed in stopping a train for which the **Is Line Clear** signal has been accepted by the Signalman at the box in advance, he must at once advise the Signalman at that box by giving the **Cancelling** signal. This signal must be acknowledged, but the block indicator must be maintained in the **Train on Line** position until the obstruction has been removed, except as provided for in Regulation 14 (b) and Rule 198 (b).

(f) Should a Signalman receiving the **Obstruction Danger** signal not be able to stop a train for which the **Is Line Clear** signal has been accepted by the Signalman in advance he must, instead of acknowledging the **Obstruction Danger** signal, at once, and without giving the **Call Attention** signal, send the **Train or Vehicles running away on Right Line** signal. The Signalman receiving the latter signal must immediately take all possible measures to stop the approaching train and afterwards acknowledge the signal.

(g) When the obstruction has been removed and the line or lines are again clear, the **Obstruction Removed** signal must be given to the signal box in rear and the block indicator placed in the normal position. Should, however, the Signalman at the box in rear be unable to stop a train for which the **Is Line Clear** signal has been accepted, the **Obstruction Removed** signal must not be forwarded to that box until such train is clear of the section.

(h) If after the **Obstruction Danger** signal has been sent it is necessary to ascertain which line or lines are obstructed, an engine may be allowed to enter the , section for this purpose at either end in accordance with Regulation 14A, Clause (c).

12A.—Animals on Line.—(a) Should a Signalman become aware that cattle, horses, or other animals are on the line and likely to cause obstruction, he must at once inform the Signalman at the opposite end of the section affected of the circumstances, by speaking instrument, and take the necessary steps to have the line cleared. Until it has been ascertained that the line is clear, all trains before being allowed to proceed must be brought to a stand and the Drivers verbally informed of the circumstances and instructed to proceed cautiously.

(b) Should there be a tunnel in the obstructed section, the Signalman at each end of the section must verbally explain the circumstances to the Driver and the Guard, and instruct them that although the train may proceed into the section it must not enter the tunnel until they have ascertained that the tunnel is clear.

(c) When either Signalman has ascertained that the line is clear, he must advise the Signalman at the opposite end of the section, and ordinary working must be resumed. 13.—Blocking Back.—(a) When, after the **Train out of Section** signal has been given and the block indicator placed in the normal position, the line inside the Home Signal is, or is about to be, obstructed by any shunting or other movement which has to *stand* on a running line within the clearing point, or when the line within that distance is about to be obstructed, or fouled by a rail being taken out, relaying operations, or any stationary obstruction (except a trolley) being placed on the line, the **Blocking Back** signal (4-2 or 2-4) must, unless instructions are issued to the contrary, be given to the box or boxes in rear. After the **Blocking Back** signal (4-2 or 2-4) has been acknowledged the block indicator for the line affected must be placed in the **Train on Line** position.

When a train has been brought to a stand in advance of a junction, but within the authorised clearing point, and the facing points have been set for another direction, thus permitting the **Train out of Section** signal to be given, such points, must not be again reversed towards the standing train if the block indicator is in the normal position until the Signalman has protected the obstruction by giving the **Blocking Back** signal (4-2 or 2-4) to the signal box in rear.

When the Signalman at the box in rear has acknowledged the **Blocking Back** signal (4-2 or 2-4) he may in the case of trains for which Regulation 5 is authorised, offer the **Is Line Clear** signal to the box in advance before he has received from that box the **Obstruction Removed** signal, and in such circumstances the Signalman at the box in advance may give the **Obstruction Removed** signal and accept the train in accordance with Regulation 5.

The **Blocking Back** signal (4-2 or 2-4) need not be used in the following cases :---

(i) Trains approaching a Junction on a converging line;

(ii) Trains leaving an Independent line or siding to proceed at once on their journey.

(iii) Trains or shunting movements crossing over a running line without coming to a stand on it.

#### NOTES .---

(i) This Clause (a) does not apply where Outer Home Signals are provided.

(ii) The term "Clearing Point" refers to the point to which the line must be clear in advance of the Home Signal (or Outer Home Signal) in accordance with Regulation 4 before the Signalman is authorised to accept a train.

(b) When a Signalman gives the **Blocking Back** signal (4-2 or 2-4) because the line within the Home Signal is about to be obstructed as set out in Clause (a) the line must not be so obstructed until the signal has been acknowledged by the Signalman at the box in rear.

(c) When a Signalman asks permission to occupy the line outside his Home Signal (or Home Signal next in advance of an Outer Home Signal), he must give the **Blocking Back** signal (3-3) to the Signalman at the box in rear. The Signalman in rear must, before acknowledging the **Blocking Back** signal (3-3), satisfy himself that he can safely give such permission, and that he has not allowed a train to approach his signal box from the signal box in rear under Regulation 4, unless there is a distance of at least  $\frac{1}{2}$  mile between his Home Signal (or Outer Home Signal) applicable to such train and the Home Signal for the signal box from which he has received the **Blocking Back** signal or, if at a junction, he has set his facing points for another line and that line is clear according to these Regulations. After the **Blocking Back** signal (3-3) has been acknowledged the block indicator for the line intended to be occupied must be placed in the **Train on Line** position.

(d) If, when a Signalman gives the **Blocking Back** signal (3-3) for the purpose of asking permission to occupy the line, the Signalman at the box in the rear is not in a position to give such permission, he must not repeat the **Blocking Back** signal nor acknowledge it in any way, and until the signal has been acknowledged the line must not be occupied.

(c) When the obstruction has been removed and the line is again clear, the **Obstruction Removed** signal must be given to the signal box in rear and the block indicator placed in the normal position, unless in the meantime permission has been given for a train to approach from the box in rear in accordance with Regulation 5.

14.—Section Obstructed by Accident or by Disabled Train.—(a) Should a Signalman receive information from the Guard or Fireman of a disabled train standing in the section ahead or from the Signalman at the box in advance that a second train is required to enter the section to assist the disabled train, or should it be necessary for a breakdown van train to enter the section ahead which is obstructed by accident or otherwise, the assisting train or the breakdown van train, as the case may be, may, after having been brought to a stand and the Driver informed of the circumstances, be allowed to enter the section under the following arrangements :—

(i) The Signalman must inform the Signalman at the box in advance of the circumstances, give the **Train entering Section** signal to that box, and after it has been acknowledged note the circumstances in his train register book. He may then allow the second train to enter the section and must instruct the Driver to pass at Danger the signal controlling the entrance into the section ahead, as provided for in Rule 38, Clause (b). The Signalman in advance must also note the circumstances in his train register book, and must not give the **Train out of Section** signal until both trains have arrived. Should the Guard or Fireman arrive at the box in rear to obtain assistance, or should information have been received from the Signalman in advance that the Guard or Fireman is coming back for this purpose, Clauses (c) and (d) of Rule 179 must be observed. After the **Train out of Section** signal has been received and permission obtained for another train to proceed, such train must be stopped at the signal box in rear and the Driver instructed to proceed cautiously through the section.

(ii) If there is a tunnel in the obstructed section the Signalman in advance must stop each train proceeding in the opposite direction and instruct the Driver to travel through the tunnel at reduced speed.

(iii) If the train, portion of train, or vehicles are removed from the section by being drawn back to the signal box in rear under the authority of the "Wrong Line" order (Form D) referred to in Rule 184, the block indicator must be maintained in the **Train on Line** position, and when it has been ascertained that the line is again clear and the next train requires to pass over the line affected, the Signalman in rear must advise the Signalman in advance and give the **Train entering Section** signal. When this signal has been acknowledged the Signalman in the rear must inform the Driver what has occurred and instruct him to proceed cautiously. On the train with tail lamp attached clearing the section in advance the **Train out of Section** signal must be given. ADDATATE DEVER DEDIEDIE (TAAABE TEMED)-COMMUNICA

#### 14.—continued.

(b) When the line is clear to the Home Signal, but is occupied by a train or otherwise obstructed within the Home Signal, and assistance is required from the rear, the Signalman in rear must be informed of the circumstances. Should a train have stopped within the authorised clearing point and require assistance, provided it has arrived with tail lamp attached, the **Train out of Section** bell signal only must be given to enable the assisting train to be offered and accepted in accordance with Regulation 5. If the **Obstruction Danger** signal has been sent for an obstruction within the Home Signal, but in advance of the authorised clearing point, the **Obstruction Removed** signal must be given and the assisting train then accepted. If, however, the obstruction is within the authorised clearing point, the **Obstruction Removed** bell signal only must be given, but the block indicator maintained in the **Train on Line** position until the assisting train is offered ; such train may then be accepted under Regulation 5.

(c) Should it be necessary for the assisting train to continue in rear of the disabled train through any block section or sections in advance of the section obstructed, the Signalman in rear, when forwarding the **Is Line Clear** signal, for the disabled train, or if this signal has already been sent, must inform the Signalman in advance that the approaching train is being assisted in rear by a train, and the Signalman receiving this information must enter it in the train register book and must not give the **Train out of Section** signal until both trains, have arrived. After the **Train out of Section** signal has been received and permission obtained for another train to proceed, such train must be stopped at the signal box in rear, and the Driver instructed to proceed cautiously through such section or sections.

#### 14A.-Examination of Line.

(a) When it is necessary in accordance with Regulations 11, 12, 17, 19, 20, 22 and 23 to ascertain if the line or lines are clear, and a proper understanding has been arrived at between the two Signalmen by means of speaking instruments, an engine may be allowed to enter the section for the purpose on any other line in the same or opposite direction provided the **Train out of Section** signal has been received for the previous train. If the line is clear to the Home Signal only the **Train out of Section** or **Obstruction Removed** bell signal must, when necessary, be sent to the Signalman at the box in the rear to enable the engine to be signalled as shown in Clause (b), but the block indicator must be maintained in the **Train on Line** position.

In connection with Clauses (c) and (d) of this Regulation, the engine may be allowed to enter the section over any line.

The circumstances must be explained to the Driver and he must be instructed to pass at Danger the signal controlling the entrance to the section ahead as provided for in Rule 38, Clause (b), and proceed cautiously through the section, prepared to stop short of any obstruction. Where practicable the engine must be accompanied by a Station Master or other competent person; after sunset, during fog or falling snow or where a tunnel intervenes, the engine must always be so accompanied.

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#### LANDORSCARS SPECICEE NEWS AND CONTINUES

#### 14A.—continued.

(b) The Signalman at the box at which the engine enters the section must not send the **Is Line Clear** signal but must inform the Signalman in advance of the circumstances under which the engine is entering the section, and the **Train entering Section** signal must then be sent and acknowledged; the block indicator must be placed and/or maintained at **Train on Line** until the engine has arrived at the box in advance or has returned to the box in rear and the person accompanying the engine, or the Driver as the case may be, has reported which line or lines are safe for the passage of trains. Should the engine return in the wrong direction under the authority of a "Wrong Line" order (Form A, B or D) and the line be safe for the passage of trains the **Cancelling** signal must be sent.

After arrangements have been made for an engine to enter the section in accordance with this Clause, the Signalman at the box in advance may occupy the line ahead of the Home Signal.

(c) Should a Signalman receive information which in his opinion necessitates the examination of the line and no emergency signal has been sent or received he must immediately advise the Signalman at the opposite end of the section or sections affected, and no train must be allowed to proceed through such section or sections until the line has been examined and is safe for the passage of the train; an engine may, however, be allowed to enter the section or sections affected in the same or opposite direction, as laid down in clauses (a) and (b).

Should, however, the **Obstruction Danger** signal have been sent and it is necessary for an engine to enter the section at the signal box in rear in accordance with this Clause, the Signalman who sent the signal may, after coming to a proper understanding with the Signalman at that signal box and provided the next adjoining line is not occupied between the two signal boxes concerned, send the **Obstruction Removed** bell signal but the block indicator must be maintained at the **Train on Line** position. After an engine has been allowed to enter the section in accordance with these conditions, no train must be allowed to enter the section in the same or opposite direction on an adjoining line until the engine has passed through the section and it is known that the line is clear.

(d) In connection with Regulation 17, for the purpose of ascertaining if the line or lines are clear, an engine may also in accordance with the instructions haid down in Clauses (a) and (b) be allowed to enter the sections, both in rear and in advance of the signal box from which the **Stop and Examine Train** signal was sent, on the same line and in the same direction as the train concerned has proceeded, provided the **Train out of Section** signal has been received for the train. If the line is clear to the Home Signal only, the **Train out of Section** or **Obstruction Removed** bell signal must, when necessary, be sent to the Signalman at the box in rear to enable the engine to be signalled as shown in Clause (b), but the block indicator must be maintained in the **Train on Line** position.

If definite information is received that a passenger has fallen from a train and it is necessary for the line to be examined, a train composed of coaching stock or a freight train with the automatic brake effective on not less than onethird of the vehicles may be allowed to enter the section for this purpose on the same or any other line provided it is daylight, the weather is clear and that no tunnel intervenes. The train must be dealt with as laid down in the second paragraph of Clause (e) of this Regulation.

(e) In connection with Regulation 20, when it is required to ascertain if the line on which the division took place is clear after the divided train or front portion thereof has arrived, a train may be allowed to enter the section on the opposite or parallel line for this purpose provided the weather is clear, no tunnel intervenes and there are no catch points in the section through which the divided train or portion thereof has travelled, except that a train conveying passengers must only be allowed to enter the section under these conditions during daylight.

The Signalman at the box where the train enters the section must advise the Signalman in advance by speaking instrument the description of the train, which must then be signalled, accompanied and otherwise dealt with as laid down in Clauses (a) and (b) for an engine. The line ahead of the Home Signal at the box in advance must not, however, be occupied as provided in the second paragraph of Clause (b) unless authority is given for trains to approach that box from the direction concerned under normal working in accordance with Regulation 5.

#### 15.—Breakdown Van Train, and Engine Replacing or Assisting Disabled Engine.—

(a) To prevent delays, a breakdown van train when proceeding to clear the line, must be signalled as an Express Passenger train, and when necessary, preceding trains must be shunted for the breakdown van train to pass.

(b) The same course must be adopted in the case of one engine proceeding to take the place of another that has failed, or of an engine, with or without a train, when sent forward to render assistance in case of failure or accident to a train.

#### 16.-Maintenance of Absolute Block Signalling During Single Line Working.-

Should any obstruction occur necessitating single line working, absolute block signalling must be maintained wherever possible, but should it be necessary to suspend absolute block signalling the provisions of Rule 198 must be observed. When absolute block signalling is suspended the authority for the suspension is cancelled by the withdrawal of the single line working forms.

17.—Stop and Examine Train.—(a) Signalmen must be careful to notice each train as it passes to ascertain whether there is any apparent necessity for having it stopped at the next signal box for examination.

If a Signalman observes or becomes aware of anything unusual in a train during its passage, such as signals of alarm, goods falling off, a vehicle on fire, a hot axle-box, or other mishap (except a tail lamp missing, tail light out, or a train divided, for which see Regulations 19 and 20), he must send to the Signalman in advance the **Stop and Examine Train** signal. He must also exhibit his signals to stop any train approaching, or proceeding on a line used in the opposite direction except when in the case of a hot axle-box he has reason to believe that such line is not affected in advance of the Home Signal for that line.

The Signalman in advance must also, where practicable be advised of the reason for sending the **Stop and Examine Train** signal. Should any train going in the opposite direction have been stopped by the Signalman sending the **Stop and Examine Train** signal and he has reason to believe that the line ahead is not affected, the train may be allowed to proceed after the Driver has been advised of the circumstances.

#### 17(a).—continued.

The Signalman in advance must immediately exhibit his signals to stop any train coming from or going towards the signal box from which the signal was received. The train for which the signal was received, when stopped, must be carefully examined and dealt with as occasion may require. Should the Signalman who received the **Stop and Examine Train** signal be able to ascertain from the Trainmen after the examination of the train that the opposite line is not obstructed he may allow trains to proceed. Should, however, he be unable to ascertain any reason for the signal being given he must inform the Driver of the first train travelling in the opposite direction of the circumstances and instruct him to proceed cautiously to the next signal box.

Should either Signalman become aware or have reason to believe that the permanent way is fouled or damaged, he must immediately advise the Signalman at the opposite end of the section or sections affected, and no train except as laid down in Regulation 14A, Clause (d), second paragraph, must be allowed to proceed through such section or sections until the line has been examined and is safe for the passage of the train; an engine may, however, be allowed to enter the section or sections affected in the same or opposite direction in accordance with Regulation 14A.

(b) Should the **Stop and Examine Train** signal have been sent on account of a door being open on a passenger train, the Signalman sending the signal must advise the Signalman in rear and trains running in the same or opposite direction between these signal boxes need not be detained until evidence has been obtained that the line is not obstructed, but the first train in each direction must be stopped, the Drivers informed of the circumstances, and instructed to proceed cautiously to the next signal box, keeping a good look-out. If, however, information is received that a passenger has fallen from the train, the Signalman concerned must act in accordance with the last paragraph of Clause (a).

(c) The **Stop and Examine Train** signal must always be sent in any of the circumstances named even where in short sections a train may have passed into the forward section or through one or more sections.

The Signalman receiving the **Stop and Examine Train** signal must, if he cannot stop the train, immediately pass on this signal to the Signalman in advance.

- 18.—Cancelling Signal.—Should it be necessary to cancel the Is Line Clear or Train entering Section signal, the Cancelling signal must be forwarded, and the Signalman receiving the signal must, after acknowledging it, place the block indicator in the normal position, except under the circumstances named in Clause (e) of Regulation 12. The Cancelling signal must only be used when the Is Line Clear signal has been accepted, or the Train entering Section signal has been acknowledged, by the Signalman in advance and it is found that the train concerned will not proceed in the usual course.
- **18A.**—Last Train Signalled Incorrectly Described.—Should a Signalman in forwarding the Is Line Clear signal for a train, incorrectly describe a train, and wish to alter it after such signal has been acknowledged by the Signalman in advance, he must give the Last Train Signalled Incorrectly Described signal to the signal box in advance, and after this signal has been acknowledged, he must forward the correct Is Line Clear signal. The position of the block indicator must not be altered. An entry must be made in the train register book recording the fact of the train being re-described.

**19.—Train Passed Without Tail Lamp.**—(a) Signalmen must carefully watch each train as it passes, and satisfy themselves that it is complete with tail lamp attached before giving the **Train out of Section** signal.

(b) Should a train pass without a tail lamp, or the Signalman be unable to satisfy himself whether or not the tail lamp is on the train, he must immediately place or maintain his signals at Danger to stop the first train going in the opposite direction, inform the Driver what has occurred, and instruct him to proceed cautiously so as to avoid danger in the event of any portion of the train having fouled the line on which his train is running. The Signalman must also send the **Train passed without Tail Lamp** signal (9 consecutive beats) to the signal box in advance, he must not give the **Train out of Section** signal to the signal box in rear, but must send the **Train on Line**. Should he afterwards receive the **Train out of Section** signal to the signal box that the train is complete, he must give the **Train out of Section** signal to the signal box in is divided the provisions of Regulation 20 (so far as they apply) must be carried out.

(c) The Signalman in advance on receiving the **Train passed without Tail Lamp** signal must immediately place or maintain his signals at Danger to stop the approaching train, and ascertain whether or not the train is complete. If the train is complete he must so advise the Signalman in rear, unless he is in a position to give the **Train out of Section** signal. If the train is incomplete he must advise the Signalman in rear accordingly. If, where the sections are short, a Signalman receiving the **Train passed without Tail Lamp** signal (9 consecutive beats) finds that he cannot stop the train except by bringing it to s sudden stand, he must not place his signals at Danger, but, as the train is approaching, send the **Train entering Section** signal to the signal box in advance and immediately follow it with the **Train passed without Tail Lamp** signal. In these circumstances it will not be necessary for him to send the **Train passed without Tail Lamp** signal (4-5)to the signal box in rear nor stop the first train going in the opposite direction.

(d) Should a train pass without a tail lamp and there be catch points or a tunnel in rear, or during fog or falling snow, no train (except an engine, as provided for in Regulation 14A) must be allowed to enter the section in either direction until it has been ascertained that the line on which it is about to run is not obstructed.

(e) If a train passes with a tail light out when it should be burning, and the Signalman can plainly see the lamp, and is satisfied that the train is complete, he must give the **Train out of Section** signal to the signal box in rear, and the **Train passed without Tail Lamp** signal (9 consecutive beats) to the signal box in advance and where practicable also advise the Signalman in advance of the circumstances. In such a case it will not be necessary for the Signalman sending the signal to stop any train going in the opposite direction.

(f) Should a goods train pass without a tail lamp and also without side lamps the Signalman must assume that the train has become divided; he must carry out Regulation 20 and also send the **Train passed without Tail Lamp** signal (4-5) to the signal box in rear.

If the line is on a rising gradient from the box in rear and the train is not assisted by an engine in rear the Signalman must carry out Regulations 20 and 22, but it will not be necessary for him to send the **Train passed without Tail Lamp** signal to the signal box in rear.

NOTE.—This clause is not applicable to Class "C" trains.

**20.**—**Train Divided.**—(a) The **Train Divided** signal must be sent to the signal box in advance, whenever a train which has become divided is entering, or is about to enter, the section in advance in two or more portions.

(b) The Danger signal to stop any train travelling in the opposite direction and in the same direction on any parallel line must be immediately exhibited by the Signalman at the box where the division is noticed and by the Signalman receiving the **Train Divided** signal.

(c) If the divided train is assisted by an engine in rear or is running on a falling gradient, or where the line is level, or between short sections, where the stoppage of the first portion would risk a collision with the second portion, the Signalman, provided permission has been obtained from the box in advance, for the train to proceed, must not exhibit the Danger signal to stop the first portion, but must exhibit to the Driver a green hand signal waved slowly from side to side.

(i) There is a rising gradient in the section ahead sufficiently long or steep to bring the second portion to a stand, and the Signalman considers that the time which has elapsed since the previous train passed his box makes it safe to do so; or

(ii) The weather is clear, there is no tunnel in the section, no passenger train has been accepted in the opposite direction on any adjoining line, and the Signalman considers that the time which has elapsed since the previous train passed his box makes it safe to do so.

If the first portion is being allowed to enter the section ahead under either of these conditions the Signalman at the box in advance must be immediately advised of the circumstances, and the **Train entering Section** signal sent. If the second portion enters the section ahead the **Train Divided** signal must also be sent.

(e) If the divided train is running on a rising gradient, or if permission has not been obtained for it to proceed to the box in advance and condition (i) or (ii) in Clause (d) cannot be complied with, the Signalman must exhibit the Danger signal to stop the first portion of the train, but a green hand signal must not be exhibited. The first portion when stopped must be shunted into a siding as expeditiously as circumstances will permit, or otherwise dealt with as may be necessary to prevent the second portion coming into collision with it.

(f) In the circumstances described in Clauses (c), (d) and (e) the Signalman must, as soon as the first portion of the train has passed or otherwise been dealt with, place or maintain the signals at Danger and take proper measures for dealing with the second portion, placing detonators on the rail and exhibiting a red hand signal to attract the attention of the trainmen.

(g) Should a train become divided in starting and the Driver run forward with the first portion, leaving the rear portion stationary, the **Stop and Examine Train** signal must be sent to the signal box in advance, and not the **Train Divided** signal. Should the second portion of a train which has become divided in running come to a stand before entering the section in advance, the **Stop and Examine Train** signal must be sent provided the **Train Divided** signal has not already been forwarded.

#### 20 (g).—continued.

In either case the Signalman must inform the Signalman at the box in advance of the circumstances (also if necessary the Signalman at the box in the rear), and arrange for the first portion to be stopped. When assistance is required from the rear the provisions of Regulation 14 must be observed.

(h) Should any train travelling in the opposite direction or in the same direction on any parallel line have been stopped, it must not, except as provided in Regulation 14A, Clause (e), be allowed to proceed until it has been ascertained that the line on which it is about to run is not obstructed. An engine may, however, be allowed to enter the section in accordance with Regulation 14A.

Should, however, the rearmost portion of a divided train arrive within the Home Signal at the signal box in advance complete with tail lamp and accompanied by the Guard, the Signalman may, after ascertaining from the Guard that the rear portion is intact and so informing the Signalman at the signal box in rear, give the **Train out of Section** signal, in accordance with Regulation 10, but the first train requiring to travel over an adjoining line in the opposite direction must be stopped and the Driver informed of the circumstances and instructed to proceed cautiously.

The Signalman receiving the **Train out of Section** signal must, in such circumstances, stop the first train requiring to proceed over the line on which the divided train has travelled and on any adjoining parallel line, and inform the Driver of the circumstances and instruct him to proceed cautiously.

(i) If it is necessary for a train to follow the first portion of a train which has become divided, such train must not be allowed to enter the section until the Signalman at each end is satisfied that the section is clear. The Signalman in rear must then advise the Signalman in advance of the train which is about to enter the section and give the **Train entering Section** signal. When this signal has been acknowledged he must inform the Driver of what has occurred and instruct him to proceed cautiously. On the train with tail lamp attached clearing the signal box in advance, the **Train out of Section** signal must be given.

The same course must be adopted in the event of the second portion of the divided train following the first portion through the section ahead.

21.—Shunt Train for Following Train to Pass.—This signal must be used to prevent important trains being delayed by less important trains. When, before the Train out of Section signal has been received from the signal box in advance for the last train, the Signalman receives a signal from the box in rear for a more important train, the Shunt Train for following Train to Pass signal must be sent to the signal box in advance, and the Signalman there, on receiving this signal, must take the necessary measures to clear the line so as to prevent delay to the second train. He must use his discretion as to the best means of effecting the object in view, and if he is unable, from any cause, to shunt the train at his signal box, or if he thinks it is inexpedient to do so, he must allow the train to proceed and send forward the Shunt Train for following Train to Pass signal to the signal box in advance.

This signal may also be used when the Block Indicator is in the **Train on** Line position owing to the **Blocking Back** signal (4-2, 2-4 or 3-3) having been sent.

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22.—Train or Vehicles Running Away on Wrong Line.—(a) Should any train, portion of a train, or vehicle be running back in the wrong direction, or should a train be proceeding on the wrong line the Signalman must immediately place or maintain the signals at Danger, advise the Signalman at the next box towards which the train, portion of train, or vehicle may be running by giving the **Train or Vehicles** running away on Wrong Line signal, and place the block indicator for the line affected to **Train on Line** if not already in that position. He must also stop the first train going in the same direction on the right line and not allow it to proceed until it has been ascertained that the line is not obstructed, but an engine may be allowed to enter the section in accordance with Regulation 14A.

The Signalman in rear receiving this signal must immediately exhibit the Danger signal to stop any train going towards the signal box from which the signal was received, and take any other measures that may be necessary, such as turning the runaway train or vehicles across to the right line or into a siding, and stopping any train coming from the signal box from which the signal was received, if expedient under the circumstances. In the event of a runaway train or vehicles being turned across to the right line the **Train or Vehicles running away on Right Line** signal must be sent to the next signal box towards which the train or vehicles are running.

(b) Should the Signalman receiving the **Train or Vehicles ranning away on Wrong Line** signal be unable to take any such protective measures he must transmit the signal to the next signal box in rear. He must also place detonators on the rails.

(c) Should the runaway train or vehicles stop in the section and assistance be required from the box in rear, the provisions of Regulation 14 must be observed. If the train or vehicles are removed from the section other than under Regulation 14 the block indicator must be maintained in the **Train on Line** position and when the next train requires to pass over the line affected the Signalman in rear must advise the Signalman in advance and give the **Train entering Section** signal. When this signal has been acknowledged the Signalman in rear must inform the Driver of what has occurred and instruct him to proceed cautiously. On the train with tail lamp attached clearing the section in advance the **Train out of Section** signal must be given.

23.—Train or Vehicles Running Away on Right Line.—(a) Should any train, portion of a train, or vehicle, be running away in the proper direction on the right line, or have entered the section without authority, the Signalman must advise the Signalman in advance by sending the **Train or Vehicles running away on Right** Line signal. The Signalman forwarding this signal must immediately exhibit the Danger signal to stop any train going towards the signal box towards which the train or vehicle is running, and, if expedient under the circumstances, must also stop any train on the opposite line.

The Signalman receiving the signal must place or maintain the block indicator in the **Train on Line** position and immediately exhibit the Danger signal to stop any train going towards the signal box from which the signal was received. He must also place or maintain the signals at Danger against the runaway train and arrange for the line on which the train or vehicle is running to be cleared, also, if necessary, send the signal forward, place detonators on the rails, and take such other measures as may be most expedient under the circumstances. Should, however, there be a train in the section in front of the runaway train or vehicle, the train in front must, if the line is clear, be allowed to pass, after which the signals must be immediately exhibited against the runaway train. Should any train travelling in the opposite direction be stopped, it must not be allowed to proceed until satisfactory evidence has been obtained that the line on which it is about to run is not obstructed, but an engine may be allowed to enter the section in accordance with Regulation 14A.

(b) Should the **Train or Vehicles running away on Right Line** signal be received at a signal box during the time the section is unoccupied, and the train or portion of the train arrive complete with tail lamp attached, the **Train out of Section** signal must be given.

If the **Train or Vehicles running away on Right Line** signal be received during the time the section is occupied by another train the **Train out of Section** signal must not be given until both the train occupying the section and the runaway train or vehicles with tail lamp attached have passed out of the section. The next following train must be signalled in the usual way and after permission has been obtained for such train to proceed it must be stopped at the signal box in rear and the Driver instructed to proceed cautiously through the section.

Should the train or portion of train arrive without a tail lamp, the Signalman must so inform the Signalman in rear, and the block indicator must be maintained in the **Train on Line** position. When both Signalmen are satisfied that the line is clear the next train to pass over the line affected must be dealt with in accordance with Clause (c) of this Regulation.

(c) Should the runaway train or vehicles stop in the section and assistance be required from the box in rear, the provisions of Regulation 14 must be observed.

If the train or vehicles are removed from the section at the box in advance other than under Regulation 14 the block indicator must be maintained in the **Train on Line** position and when the next train requires to pass over the line affected the Signalman in rear must advise the Signalman in advance and give the **Train entering Section** signal. When this signal has been acknowledged the Signalman in rear must inform the Driver of what has occurred and instruct him to proceed cautiously. On the train clearing the signal box in advance with tail lamp attached the **Train out of Section** signal must be given.

(d) If, after the **Train or Vehicles running away on Right Line** signal has been sent, the runaway train or vehicles are stopped and removed from the section at the end from which the signal has been sent, the Signalman in advance must be advised of the fact by speaking instrument, and he will thereupon place the block indicator in its normal position provided the section is not occupied by another train. A note of the circumstance must be recorded in the train register books in both signal boxes, and the following train, after being signalled and accepted in the usual way, must be stopped and the Driver instructed to travel cautiously through the section.

#### 24—Opening and Closing of Signal Boxes.

(a) Boxes where Switches are not provided. Where switches are not provided at signal boxes which are not open continuously the Signalman opening the box must send the **Opening of Signal Box** signal (5-5-5) to the signal box on either side. The Signalman closing the box must not leave duty until the **Train out** of Section signal has been received, the block indicator placed in the normal position for the last train signalled, and the **Closing of Signal Box** signal (7-5-5) sent to the box on either side.

(b) Boxes where switches are provided—OPENING. Where switches are provided the Signalman must on switching into circuit notice the position of the block indicators and if a train is signalled place the block indicator to the rear box in the corresponding position and send the **Opening of Signal Box** signal to the signal box on either side.

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#### 24 (b).—continued.

(i) If the block indicators show **Line Blocked** the fixed signals must be placed at Danger, but when either of the block indicators shews **Line Clear** or **Train on Line** the fixed signals applicable to the line or lines concerned must not be put to Danger, except for emergency purposes, until the Signalman has seen the train pass, or the **Train out of Section** signal has been received from the signal box in advance, in which latter case the **Train out of Section** signal must be transmitted to the signal box in rear. When the **Train out of Section** bell signal is received from the box in advance, but the block indicator remains at the **Train on Line** position, the Signalman switching into circuit must transmit the **Train out of Section** bell signal to the rear box and place the block indicator to that box in the normal position.

(ii) When the **Train out of Section** bell signal has been sent before the intermediate box has switched into circuit but the block indicator remains in the **Train on Line** position, the Signalman sending the **Train out of Section** bell signal must advise the Signalman switching into circuit of the circumstances and the latter Signalman must then place the indicator to the rear box in the normal position and give one beat on the bell.

(iii) If the block indicator shews **Train on Line** for a train which is assisted by an engine in the rear the Signalman switching into circuit must at once be made aware of this by the Signalman in rear repeating to him immediately after the **Opening** signal has been acknowledged, the **Engine Assisting in Rear of Train** signal, and the **Train out of Section** signal must not be given to the box in rear by the Signalman switching into circuit until the train assisted and the assisting engine have cleared the section in accordance with Regulation 10, or until the **Train out of Section** signal has been received from the box in advance.

(iv) Where two or more intermediate signal boxes are switched out of circuit each Signalman switching in must immediately inform the Signalman on either side of him by speaking instrument to which box they are about to signal trains.

(v) Should the block indicator be shewing **Train on Line** for an obstruction for which the **Blocking Back** signal (4-2, 2-4 or 3-3) has been sent, the Signalman at the box switching into circuit must be advised by the Signalman at the box in advance immediately after the **Opening** signal has been exchanged and the former Signalman must then give the **Obstruction Removed** signal to the box in rear.

(vi) The Signalman switching into circuit must be advised of any unusual circumstances necessitating the block indicators standing in the **Train on Line** position, and if speaking communication is not available the appropriate bell signal must be repeated to him.

(c) Boxes where Switches are provided—CLOSING.—Where switches are provided the Signalman must, before switching out of circuit, take care that all the block indicators are in the normal position. He must then send the Closing of Signal Box signal to the boxes on either side; when this signal has been acknowledged he must then switch out of circuit and lower the fixed signals applicable to trains passing his signal box on the lines to which the block instruments which have just been switched out of circuit apply.

After the **Closing of Signal Box** signal has been acknowledged the **Testing** signal must be exchanged between the signal boxes on either side of the box switched out, and when this has been done the Signalman on each side of the box switched out must inform the Signalman at that box on the speaking instrument that all is in order and he must not leave duty until he has been so informed.

(d) The Signalman must, before closing the box extinguish all lights and fires in the signal box, secure the windows and doors, and dispose of the signal box key as arranged by the Station Master.

25.—Failure of Instruments, Bells or Gongs.—In the event of any failure of the block instruments, bells or gongs, so that the necessary signals cannot be forwarded and received in the ordinary way, the following instructions must be observed :—

(a) (i) Except as provided for in Clause (h) a train must not in any circumstances be allowed to pass a signal box into that section of the line where the failure exists without being previously brought to a stand, and the Driver and Rear Guard, also the Driver of an engine assisting in rear, if any, advised of the failure. The Driver or Drivers must, in addition, he instructed to proceed cautiously through the section.

(ii) The Signalman at whose box the block instruments, bell or gongs have failed must advise the Signalman at the box in advance of the failure by speaking instrument, or where speaking instruments are not available, by instructing the Driver of the first train that is being cautioned to stop at the box in advance and inform the Signalman.

(iii) When the bells or gongs only, or bells, gongs and block instruments, have failed and a speaking instrument is available, the Signalman must, unless instructions to the contrary are given, send the necessary bell signals as messages on the speaking instrument, for example :—

A Signalman forwarding signals as above described must satisfy himself that he is speaking to the Signalman who should receive the communication.

When the bells or gongs only have failed, the block instruments must be worked in conjunction with the speaking instruments.

When the block instruments only have failed, the bell or gong signals must be given in accordance with the Regulations.

A train must not be allowed to enter the section until the Is Line Clear signal has been accepted by the Signalman in advance.

(iv) When the bells or gongs have failed, and speaking instruments are not available, a train must not be allowed to follow another train until the time usually taken by the preceding train to clear the section, after allowing for the train having been stopped, has elapsed, but in no case with a less interval than three minutes. When a tunnel intervenes in a block section an interval of not less than ten minutes must be allowed between two trains, unless the Signalman can satisfy himself that the tunnel is clear.

(v) In the event of a failure as described in paragraph (iii) applying to one line only, block working must be maintained on the next adjoining line or lines, the instruments for which are in working order, but the Driver of the first train travelling on each of such adjoining line or lines must be advised of the circumstances and instructed to proceed cautiously through the section.

In cases where trains on one line have to be worked in accordance with paragraph (iv), all trains on the next adjoining line or lines must be stopped and the Driver of each train instructed to proceed cautiously. Trains on the next adjoining line need not, however, be stopped and cautioned when the failure occurs on a line not worked in accordance with the absolute block Regulations.

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25 (a).—continued.

(vi) When trains are being signalled in accordance with paragraph (iii), all signals sent on the bell, gong or speaking instrument must, unless instructions to the contrary are given, be recorded whether the ordinary block signals are usually recorded or not, and when trains are being worked in accordance with paragraph (iv) the departure time of each train must be recorded.

(b) Steps must be immediately taken to have the apparatus put intoworking order, and when the failure has been remedied and the apparatus, after being tested in accordance with Regulation 27, is again in working order, the Driver of the next train allowed to proceed through the section over the line or lines on which the failure existed must be cautioned and supplied with a notice intimating that the train carrying this notice will be the last train cautioned through the section, and he must also be instructed to stop at the next signal box and hand this notice to the Signalman. The Signalman receiving this notice must then give the **Train out of Section** signal in accordance with Regulation 10, and the ordinary method of signalling must be resumed. When the train is worked by two engines in front or is assisted by an engine or engines in rear the notice must be shewn to all Drivers on the train and carried by the rearmost Driver.

(c) When a signal box which has been switched out of circuit is being opened, the Signalman must be advised by the Signalman on either side by speaking instrument, or other means, that the block instruments, bells or gongs are out of order, or that a failure has been remedied but normal working has not been resumed. The Signalman so advised must act in accordance with Clause (a) or (b) as may be necessary. If trains are being worked in accordance with Clause (a) paragraph (iv), the Signalman on either side of an intermediate box due to open must not decrease the existing time interval between trains until he has definitely ascertained that such intermediate signal box has been opened.

(d) A signal box may be closed before the failure of the instruments, bells or gongs has been rectified, but the Station Master's permission must, when practicable, be obtained. When the box is due to be closed the following procedure must be adopted :—

(i) If the **Closing** bell signal cannot be sent but speaking instruments are available, such instruments must be used to advise the Signalman on either side that the box is about to be closed.

(ii) When the **Closing** bell signal cannot be sent and speaking communication is not available, the Signalman must send a written message to the next box open on either side of him, but the signals must not be pulled off (where switches are provided) nor the Signalman leave duty until the usual time has elapsed for the train which last passed his box to pass through the section. A passing train may be used to convey the written message. The Signalman on either side of the box due to close must on receipt of this message increase the time interval accordingly.

(iii) When the last train for the day has passed communication with the boxes on either side may be dispensed with, and if the failure has not been remedied by the time traffic is resumed the method of working as set out in Clause (a) must again be adopted. ADDULUTE DLUUR DIDIEN (DUUDNE LINED)-COMMUNICA

25.—continued.

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(c) Should the Driver of the first train that arrives at a signal box after it has been opened produce a ticket showing that the block instruments, bells or gongs have been out of order during the time the box has been closed, and that the failure has been repaired, the Driver (if the block instruments and bells, or gongs, of the section in advance are in working order) must be instructed to take the ticket forward to the next box. After the train has cleared the section the **Train out of Section** signal must be given to the box in rear in the usual way.

(f) When the block instruments, bells or gongs fail and there is a level crossing in the section, provided with block indicators, bells or gongs, but not a block post, the Signalman in rear, if telephonic communication with the crossing is available, must inform the person in charge of the crossing that the block indicators, bells or gongs, as the case may be, are not in working order.

If there is no telephonic communication with the crossing, or the telephone has failed, the Signalman must instruct the Driver of every train proceeding in the direction of the crossing during the failure to approach the level crossing cautiously, sound the engine whistle and be prepared to stop short of any obstruction at such crossing. The time interval must also be extended sufficiently to allow for the additional time likely to be occupied in carrying out this instruction.

(g) When trains are being worked in accordance with Clause (a), paragraph (iv), all trains must be brought within the protection of the Home Signal as promptly as possible, and to obviate a train standing with its rear portion outside the Home Signal, the Signalman must, if necessary, authorise the Driver to draw forward a sufficient distance to bring the rear portion within the Home Signal.

If a train requires to stand outside a Home Signal for the purpose of attaching or detaching traffie, or through any other cause, the Signalman must obtain the assistance of a Hand-signalman provided with the necessary detonators and hand signals, who must be sent out a sufficient distance from the rear of the train to afford protection. Until this Hand-signalman has been provided, a train must not be stopped outside the Home Signal to attach or detach traffie.

(h) In the event of the first portion of a divided train being required to enter the section in advance in accordance with Regulations 20, Clause (c) or (d), during a failure of the block instruments, bells, or gongs, it will not be necessary for the Driver to be advised of the failure or cautioned, as laid down in this Regulation (25), neither will it be necessary for the portion of the train to be detained until the interval of time prescribed in Clause (a), paragraph (iv), has elapsed. The provisions of the last paragraph of Clause (d) of Regulation 20 must, however, be carried out as far as practicable.

28.—Recording Time when Signals are Forwarded and Received.— (a) Except where instructions to the contrary are issued, the time at which all signals are forwarded and received must be recorded legibly with a pen in the train register book, and the Signalman on duty must place his name immediately under the last entry made by him on finishing duty.

(b) If an incorrect entry be made, a line must be drawn lightly through it. and the correction made above or below it, so that the original entry may be clearly seen.

(c) In recording the time when signals are received and forwarded, fractional parts of a minute less than half-a-minute must not be counted, and the half-minute and fractional parts of more than half-a-minute must be reckoned as a minute, thus: $-15\frac{1}{4}$  minutes must be entered as 15 minutes, and  $15\frac{1}{2}$  minutes as 16 minutes.

#### ABSOLUTE BLUCK SYSTEM (DUBLE LINES)-continuea.

#### 26.—continued.

(d) It is only necessary to record the hour figure in connection with the first entry in each column for that particular hour, and at the top of the columns on each page, the minutes only being shown in the case of the other entries, for example :---

" Is Line Clear	"	' Is Line Clear "
sent		accepted
10.30		10.30
50		50
11.24		11.24

- 27.—Testing Block Indicators, Bells and Gongs.—This signal must be used to ascertain whether the indicators, bells, and gongs, are in perfect order, and only when no train has been signalled. Where the bell or gong instrument is separate the Signalman at the box in advance after acknowledging the bell or gong signal must test the block instrument by moving the indicator to each position in proper sequence a few times, and the Signalman in rear must acknowledge each movement by one beat on the bell or gong.
- 28.—Time Signal.—Signalmen receiving this signal on the speaking instruments (see Rule 33) must communicate the information to the signal boxes which do\_ not receive it on the speaking instruments, by giving the **Time** signal on the bell, and Signalmen must regulate their clocks accordingly, and record in the train register book the extent to which the clock is fast, or slow, if altered.
- **29.—Lampman or Fogsignalman Required.**—At boxes where a Lampman or Fogsignalman cannot be communicated with by the Signalman on duty and there are no speaking instruments on which to send the communication, the Lampman or Fogsignalman required signal must be given to the box where the man required can be communicated with. The Signalman receiving such signal must at once inform the Station Master in order that the necessary assistance may be given.
- 30.-Testing Controlled or Slotted Signals.-(Not applicable to L.N.E.R.).
- **31.—Parallel Lines.**—With reference to Regulations 11, 12, 12A, 14, 17, 19, 20, 22 and 23, where there are parallel running lines, the necessary steps must be taken to stop or caution the trains running on any lines that may possibly be obstructed by what has occurred.
- **32.**—Mixed Trains.—Trains conveying passengers and goods must be signalled and dealt with as passenger trains.

FOR SPECIAL INSTRUCTIONS SEE FOLLOWING PAGES

E. W. ROSTERN,

Operating Superintendent.

(Eastern and North Eastern Operating Areas)

MARYLEBONE STATION, (Reprinted October, 1950)

(Reprint of Regulations dated 1st July, 1934, including amendments).