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BRAYBROOK, W. 19.

QUESTIONS

ON

Fixed, Hand and Detonating Signals

SERIES No. 1
(Amended 1937)

**For Use of Probationers and Others Studying the
First Principles of Train Signalling.**

Further Questions in respect of Fixed Hand and Detonating Signals will be found in the Series for Employes Studying for Fog-signalling Guards, Shunters and Signalling Systems.

DEFINITIONS.

Where the term Regulation is used, it refers to the Regulations contained in pages 6 to 222 of the Book of Rules and Regulations.

Where the term Rule of Appendix is used, it refers to the Rules in the Appendices numbered 1 to 9, pages 223 to 445, Book of Rules and Regulations.

Where the term "General Appendix" is used it refers to the "General Appendix to the Book of Rules and Regulations and the Working Time-table and amendments thereto."

For general terms see Regulation 1.

 FIXED SIGNALS.

How many types of Fixed Signals are in use ?

Regulation 45.

How are the indications displayed on Semaphore Signals by day and during darkness or Foggy Weather ?

See clause (b), Regulation 45.

How are the indications displayed on Light Signals by day and night ?

See clause (c), Regulation 45.

How are the indications displayed on Disc Signals by day and night ?

Clause (a), Regulation 50, as amended on pages 8 and 9, General Appendix.

How are Fixed Signals classified ?

See clause (a), Regulation 46.

What is the normal position of all Signals except Automatic and Repeating ?

See clause (b), Regulation 46 ; clause (b), Rule 3, Appendix II. ; clause (b) of Rule 1, Appendix IV., VI. and VII.

What is a lower quadrant Signal ?

See clause (a) and (b), Regulation 47.

On which side of the post is a Semaphore arm exhibited ?

See clause (b), Regulation 47.

What indications may be displayed on two-position Signals ?

See clause (a), Regulation 47.

How are the indications displayed—(a) by day ; (b) by night ; or during Foggy Weather ?

See clause (c), Regulation 47.

Describe a two-position Automatic Signal ?

See clause (d), Regulation 47.

Where two or more arms are fixed on the same post, how do they apply ?

See clause (a), Regulation 48.

Are there exceptions to this Rule ?

See footnote to clause (a) and clauses (b) and (c) of Regulation 48, also clause (b), Regulation 49.

Describe a Calling-on Signal ?

Clause (b), Regulation 48.

Where is a Calling-on Signal placed ?

Clause (b), Regulation 48.

To what Line does it apply ?

Clause (b), Regulation 48.

What Lights are shown at night or in dark places—(a) In normal position ; (b) at proceed ?

Clause (b), Regulation 48.

Could a " Proceed " indication be accepted on both the Home and Calling-on Signal ?

See clause (b), Regulation 48.

What does a Calling-on Signal at the " Proceed " position indicate ?

See clause (a), Regulation 64.

If a train is to be brought on by a Calling-on Signal, when should the Signal be placed at proceed ?

See clause (b), Regulation 64.

Are there exceptions where the Signalman need not wait till the train has been stopped ?

See pages 153–154, General Appendix.

What is a Co-acting Signal, where placed, and for what purpose ?

See clause (c), Regulation 48.

If there are more than one Signal on a post with which Signal does the Co-acting Signal work ?

See clause (c), Regulation 48.

Could a Signal be accepted while the Co-acting arms or Lights show conflicting Signals ?

See clause (c), Regulation 48.

Could Lights be used instead of Semaphore arms on two-position Signals for daylight indications ?

See clause (c), Regulation 45.

Is there any difference in the arm of a Distant compared with other two-position Semaphore Signals ?

See clause (a), Regulation 49.

If a Distant Signal is placed on the same post as a Home Starting or Advanced Starting Signal, where is it placed in relation to other Signal ?

See clause (b), Regulation 49.

To what Signal-box would the Distant apply ?

See clause (b), Regulation 49.

What does a Distant Signal at Danger imply, and how should a Driver work his train ?

See clause (d), Regulation 49, Regulation 63 ; clause (b), Regulation 67 ; also page 7, General Appendix.

Describe a Disc Signal, and its indications by day and night ?

Clause (a), Regulation 50, as amended on pages 8 and 9, General Appendix.

Where more than one Disc Signal on a post, how read them, and if fixed on same post as a Semaphore Signal, are they to be read separately from Semaphore Signal ?

See Regulation 50, as amended on page 9, General Appendix.

Does a Disc Signal at " Proceed " indicate Line is clear ahead of Signal ?

See clause (b), Regulation 73 ; and clause (b), Regulation 206.

What are Disc Signals used for ?

See clause (a), Regulation 69.

What precautions should be taken if a Disc Signal be used for an Arrival Train ?

See page 154, General Appendix.

Could Lights be used for Disc Signal Indications by day? If so, how would you know?

Specified in Book of Signals and printed Diagram.

Where a Disc Signal applies to more than one Siding, and more than one engine is in the Sidings, when should a Driver move towards the Disc Signal?

See clause (c), Regulation 69, and Regulation 180.

Describe a two-position Dwarf Signal?

See clause (a), Regulation 51.

How are the indications displayed by day or night?

See clause (b), Regulation 51.

What are they used for?

See clause (a), Regulation 69.

Are they to be observed in the same manner as Disc Signals?

See clauses (b) and (c), Regulation 69.

Can Disc or two-position Dwarf Signals be passed at the Stop position?

See clause (a), Regulation 69; Regulation 95 and 254.

What is an Upper quadrant Semaphore Signal?

See clause (b), Regulation 52.

What is the difference between three-position and two-position Signals?

See clause (a), Regulation 52.

How many Lights do three-position Signals display at night, in dark places, or where Light Signals are used instead of Semaphore arms by day?

See clause (a), Regulation 53.

What is the lower light for, and what is it called?

See clause (b) Regulation 53.

Is the lower light a Fixed Light?

See clause (b) of Regulation 53.

What colour is the Marker Light in Signals other than Repeating, and in Repeating?

See clause (b), Regulation 53.

How are three-position Home Signals distinguished by day or night?

See clause (a), Regulation 54.

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How are three-position Automatic Signals distinguished day or night?

See clause (b), Regulation 54.

What does a three-position Signal at the Warning position indicate in regard to the state of the track ahead?

See Regulation 59.

Describe a Repeating Signal, where it is placed, and what indications may be displayed on it?

See Regulation 57.

Describe a three-position Dwarf Signal and its indications?

See Regulation 58.

What is a three-position Dwarf Signal used for?

See clause (a), Regulation 69.

Describe the three-position Signal used at junctions, or places having Crossover Roads, or Siding points, and which may be closed during portions of the day or night?

See Regulation 55; and pages 136-139, General Appendix.

How should Signal be treated by a Driver—(a) If no "A" showing when at Stop? (b) If the letter "A" is showing?

See Regulation 55; clause (b) of Regulation 60 and Regulation 74; and page 123, General Appendix.

Where it is not necessary to reduce the speed of trains below normal, how many arms are provided on three position Signals?

See Regulation 56; clause (b) and (d) of Regulation 53.

At places where it is necessary to reduce the speed of trains below normal, how many arms are provided?

See clause (d), Regulation 53.

Where it may be necessary to reduce speed below medium, what is used, and where fixed?

See clause (d), Regulation 53.

Describe the " Stop " Signal," also the " Warning " and " Clear " indication for Normal Speed (a) by day ; (b) by night, or places where Light Signals only are used ?

See Regulation 56.

Describe the " Warning " and " Clear " Medium Speed indication (a) by day ; (b) by night, or places where Light Signals only are used ?

See Regulation 56.

Describe the indications which may be exhibited on the Low Speed Light ?

See Regulation 56.

What speeds do the following indications allow :—
(a) " Clear Normal " ; (b) " Normal Warning " ; (c) " Clear Medium " ; (d) " Medium Warning " ; (e) " Clear Low " ; (f) " Low Caution " ?

See Regulation 59.

When should the " Low Speed " Signal be displayed ?
Clause (d), Regulation 59.

Describe the " Reduce to Medium Speed " Signal ?
See Regulation 56.

What does it indicate, and how would Driver act ?
See clause (c), Regulation 59.

What does a Repeating Signal at " Warning " indicate to a Driver ?

See clause (f) of Regulation 59.

Where three-position Signals have two arms is the bottom Light in the same relative position to the top Light as in the case of a Light Signal or Signal with one arm ?

See clause (b), Regulations 54 and 56.

How would a Driver act on finding an Automatic Signal at Stop ?

See Regulations 74 and 254, page 123, General Appendix.

How are Automatic Signals operated ?

See clause (a), Regulation 65.

What is a Train Stop for, and in what position when Signal with which it works is at Stop ?

See Regulation 68.

Where are Home Signals fixed, and can they be passed when at the " Stop " position ?

See Regulation 60, 95, 109 and 254.

When would the " Proceed " Signal be exhibited at the Home for an approaching train if it were necessary to keep the Starting Signal at " Stop " until the train passed the Home Signal ?

See Regulation 61.

Would it be correct signalling for Home to be at " Proceed " and Distant kept at Danger and train approaching Distant Signal ?

See Regulation 63, and clause (b) of Regulation 67.

When should a Home Signal be again placed to " Stop " after being placed at " Proceed " for a train to pass ?

See Regulation 81.

What are Starting or Advanced Starting Signals provided for ?

See clause (a), Regulation 66.

Can they be passed at Danger ?

See Regulations 66, 95 and 254.

Where there are no Starting Signals provided, what controls the entrance of trains into the section ahead ?

See Regulation 62, and No. 7 ; clause (b) of Regulation 70.

Should the Starting Signal be passed at Stop for Station work where there is an Advanced Starting Signal ?

See clause (a), Regulation 67.

When should the Starting or Advanced Starting Signal be placed at the Stop position after being placed at proceed for a train to pass ?

Clause (b), Regulation 67.

Describe a Point Indicator, and its use ?

Clause (d), Regulation 69 ; pages 130-132, General Appendix.

Where a Point Indicator only is provided and the indication displayed shows that the points are in the correct position for the direction a train or engine requires to proceed, would that be sufficient for Driver to proceed, or should any other Signal be received ?

See clause (d), Regulation 69.

How are Signals out of use distinguished ?

Clauses (a) and (b) of Regulation 91.

Are these Signals lit ?

Clauses (a) and (b), Regulation 91.

What are conflicting or imperfect Signals, and how should they be treated ?

See Regulation 96.

How would you distinguish by the colour of Semaphore arms which is the front ?

See pages 122-123, General Appendix.

When should Semaphore Signals be lit and extinguished ?

See Regulation 87 ; pages 160-164, General Appendix.

How are Signal Lamps lit, cleaned and trimmed ?

See pages 160-164, General Appendix.

HAND SIGNALS.

What are Hand Signals ?

See clause (a), Regulation 70 and Regulation 71.

Describe the Danger Hand Signals ?

Clause (a), Regulation 70 ; clause (a), Regulation 71.

Should a Hand Signal be accepted where the proper Fixed Signal can be given ?

Clause (a), Regulation 70.

What care should be exercised when giving a hand Signal ?

Clause (a), Regulation 70.

Describe how a White Light is given for the following movements :—(1) Move forward in shunting. (2) Move back in shunting. (3) Hit Up Signal. (4) For employe in charge of a platform to indicate to Guard that all is right for train to proceed ?

Clause (b) of Regulation 70, and (d) of Regulation 194 ; also page 200, General Appendix.

Describe the same Signals given by hand during daylight ?

Clause (c) and (d), Regulation 71.

What light would be used at night in shunting if a Slow movement were required?

Clause (b), Regulation 70.

Describe the Caution Signal made by Hand in the absence of flags, and the Caution Signal given in such a case for a Slow movement in shunting?

Clauses (b) and (d) of Regulation 71.

Describe the Hand Signal to indicate to Driver that train is divided and running in two parts?

Sub-clause 20 of clause (b), Regulations 70 and 248.

Describe the Hand Signals used during daylight for shunting movements as follows:—(1) To Hit Up.
(2) To uncouple?

See sub-clauses 5 and 6 of clause (d), Regulation 71.

Should Hand Lamps or Flags be held in the hand or fixed on the ground?

See clause (a), Regulation 72.

Should Hand Lamps and Flags be kept clean and ready for use?

See clause (b), Regulation 72.

Describe a Hand Signal Lamp. To which side do you turn lamp for green light and for red?

If the Red glass became broken, how would you give the "Danger Stop" Signal?

See clause (a), Regulation 70.

How would you indicate to a Signaller that vehicles were clear of interlocked points at night?

See sub-clause 18 of clause (b), Regulation 70 and Regulation 82.

DETONATING SIGNALS.

What are detonators, and what are they used for?

Clause (a), Regulation 97, and current Fog-signalling Circular.

Who should have a supply of detonators?

Clause (b), Regulation 97.

Are detonators to be used when necessary by day as well as by night?

Clause (b), Regulation 97.

How are they placed on the rail, and, after fixing, where would the employe using them stand in relation to the Signal or obstruction for which he is signalling?

See clause (c), Regulation 97.

Would it be necessary to exhibit a Hand Signal in addition to putting down the detonators?

Clause (c), Regulation 97.

What must a Driver do when he explodes a detonator?

Clauses (a) and (b), Regulation 98.

If the Driver receives a green Hand Signal waved slowly from side to side after exploding the detonator, what would that mean?

Clause (a), Regulation 98.

What would a Driver do when a detonator is exploded in Foggy Weather?

Clause (b), Regulation 98.

When a detonator is used to repeat a Fixed Signal, what would you indicate to a Driver?

See clause (c), Regulation 98.

If a Driver, after the explosion of a detonator, could see the Fixed Signal at "Proceed," should he still be prepared for and obey any Hand Signal exhibited?

Clause (c), Regulation 98; clause (b), Regulation 171.

Should a Driver in some instances be verbally warned before being allowed to proceed?

See clauses (c), (d), (e) and (g), Regulation 103, 274, and current Fog-signalling Circular.

How must detonators be handled, and why?

Clause (a), Regulation 99.

Should detonators in stock be tested?

Clause (b), Regulation 99.

How should they be issued for use?

Clause (c), Regulation 99.

Should a detonator fail to explode, or explode with only a faint report, what should be done?

Clause (d), Regulation 99.