

cannot be taken 'off' again until it is safe to do so and the corresponding adequate distance beyond such signals is kept clear:

Provided further that when the area of work is controlled by Automatic signals, the railway servant in charge of the work shall post a competent railway servant at an adequate distance in rear of the site of the work to stop and warn any train approaching the affected area.

- (2) No work involving removal of any rail from the track shall be undertaken without traffic block, except as provided in sub- rule (3) below.
- (3) In emergent cases, the Engineering official not below the rank of PWI – Grade III, undertaking such operations shall first bring the train to a stop and advise the Loco Pilot of the train about the need to stop the train through a written memo. The Engineering official shall simultaneously arrange to send a message to the Station Master for the need to block the track and obtain written confirmation of the same. In such emergent cases work may be commenced only after bringing the train to a stop and the Loco Pilot has been advised.

15.09. Showing of signals.—

- (1) Whenever due to lines being under repair or due to any other obstruction it is necessary to indicate to the Loco Pilot that he has to stop or proceed at a restricted speed, the following signals shall be shown and, where prescribed, detonators used, if on a double line in the direction from which trains approach, and if on a single line in each direction —

- (a) *When the train is required to stop and the restriction is likely to last only for a day or less —*

A banner flag shall be exhibited at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge and three detonators shall be placed, 10 metres apart, at a distance of 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the place of obstruction. In addition, Stop hand signal shall be shown at a distance of 30 metres from the place of obstruction, at the banner flag and at a distance of 45 metres from the three detonators. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.

- (b) *When the train is required to stop and the restriction is likely to last for more than a day —*

A stop indicator shall be exhibited at a distance of 30 metres from the place of obstruction and a caution indicator at 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the place of the obstruction. In addition, termination indicators shall be provided at the place where a Loco Pilot may resume normal speed.

(c) *When the train is not required to stop and the restriction is likely to last only for a day or less —*

Proceed with caution hand signals shall be exhibited at a distance of 30 metres and again at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by special instructions, where required. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.

(d) *When the train is not required to stop and the restriction is likely to last for more than a day —*

A speed indicator shall be exhibited at a distance of 30 metres from the place of obstruction and again a caution indicator at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by Special Instructions, where required. In addition, 'Termination' indicators shall be provided at the place where a Loco Pilot may resume normal speed.

(2) In case the place of obstruction is within station limits —

(a) the provision of sub-rule (1) may be dispensed with if the affected line has been isolated by setting and securing of points or by securing at 'on' the necessary manually controlled Stop signal or signals, and

(b) approach signals shall not be taken 'off ' for a train unless the train has been brought to a stop at the first Stop signal, except in cases where the Loco Pilot has been issued with a Caution Order at a station in rear, informing him of the obstruction and the details thereof.

(3) If the place of work is situated in Automatic Signalling Territory, and if the distance between the place of obstruction and the Automatic signal controlling the entry of train in the signalling section concerned is less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and provided the Automatic signal has been secured at 'on'—

(a) the banner flag and three detonators referred to in clause (a) of sub-rule (1) may be provided at 90 and 180 metres respectively; and

(b) the caution indicator referred to in clause (b) of sub-rule (1) may be dispensed with.

(4) The shapes and sizes of the indicators referred to in clauses (b) and (d) of sub-rule (1) may be prescribed by special instructions.

S.R.15.09.1. Placing of Engineering fixed signals where special precautions are necessary:

SR 15.09.1.1. The Engineering indicators shall be provided both by day and night, to indicate the place where a stop or a reduction of speed is temporarily required in terms of Rule.15.09 (1) (b) and (d).

SR 15.09.1.2. There are four types of Engineering speed restriction indicators viz., Caution, Speed, Stop and Termination, the description of which are given below:—

SR 15.09.1.2.1. Caution Indicator:—

This board indicates that the line ahead is under repairs necessitating speed restriction with the Loco Pilot to be prepared for either a Speed Indicator or Stop Indicator ahead. This shall consist of a horizontal board 1.371 metres, wide by 0.381 metre deep fish tailed at one end as shown in diagram 'A'. The Caution Indicator shall be situated not less than 1200 metres for B. G. and 800 metres for M. G. from the point, where speed is to be restricted or where stoppage is required.

This indicator shall be provided both for permanent and temporary restrictions. When used for permanent restrictions, no lights need be displayed. When used for temporary restriction, it shall display at night two horizontal yellow lights towards approaching trains.

SR 15.09.1.2.2. Speed Indicator:—

This shall consist of a yellow equilateral triangular board with 0.914 metre sides, painted yellow and bearing 0.305 metre high black figures giving the speed at which a train is to proceed past the indicator as shown in diagram 'B'. The speed indicator shall be provided for both permanent and temporary restrictions, the indicator for temporary restriction shall be illuminated by night by fixing a lamp in front of it, the indicator for permanent speed restrictions will not be illuminated.

- Note : (i) The Caution and Speed Indicator boards shown in diagrams 'A' and 'B' along with the legend "Goods Trains Only" on metal plates fixed below the Caution Indicator and the Speed Indicator shall be provided where speed restrictions exist due to continuous falling gradients. The legend shall be in black letters on yellow background.
- (ii) On the MG the maximum permissible speed of all goods trains on the continuous falling gradients of 1 in 200 and steeper existing for a stretch of 2 kilometres and over shall not exceed 30 KMPH.
- (iii) While reckoning the continuous falling gradient, short intervening stretches of level or easier gradients of half a kilometre or less shall be ignored and the entire length shall be reckoned as continuous falling stretch.
- (iv) The particulars of the sections where such continuous falling gradients exist shall be notified in the WTT.

SR 15.09.1.2.3. Stop Indicator:—

This shall consist of a horizontal board 1.371 metre wide by 0.381 metre deep and painted with red and white vertical stripes as shown in diagram 'C'. The indicator will display two red lights by night in a horizontal line. This indicator will be used when trains are required to stop.

SR 15.09.1.2.4. Termination Indicator:—

There are two Termination Indicators namely Termination Indicators for passenger trains and Termination Indicators for goods trains. These shall consist of one meter diameter disc; painted yellow and bearing 250 mm high 40 mm thick letter 'T/P' and 'T/G' in black as shown in diagrams 'D' & 'E'. The Termination Indicator bearing letters T/P shall be located at a distance equal to the length of the longest passenger train operating on the section. The Termination Indicator bearing letters T/G shall be located at a distance equal to the length of the longest goods train operating on the section. These shall indicate the point from which the normal speed may be resumed.

Note: In the case of speed restrictions imposed on account of inadequate sighting distance available for first Stop signal, the Termination Indicator shall be placed at a point from where the signal can be sighted.

SR 15.09.1.2.5. Loop line clearance Board: Loop line clearance Board with legend “T/Loop” to be provided at stations at a distance of 720 meters after the loop line cross over point, as shown in diagram ‘F’

SR 15.09.1.3. In areas controlled by Automatic or Semi-Automatic signalling, prior notice shall be given to the CSTE to enable him to arrange to alter the control of the signals governing the section where Engineering Speed Indicators have to be provided

SR 15.09.1.4. Fortnightly advice of Engineering Speed restrictions and Caution Orders shall be issued by the DRM to all concerned.

SR 15.09.1.5. Reflective type indicator for temporary speed restriction need not be lit.

SR 15.09.2.1. Before commencing any work in terms of Rule.15.09 (1) (a) outside station limits, the PWI or any other authorized railway servant shall notify the Station Master at each end of the block section and obtain their acknowledgements. The Station Master shall issue Caution Orders to Loco Pilots in accordance with Rule. 4.09 and subsidiary rules there under.

SR 15.09.2.2. The Engineering official in charge of the work shall protect the line as follows.–

SR 15.09.2.2.1. Post a Flagman with hand signals at a point not less than 30 metres in rear of the work spot.

SR 15.09.2.2.2. Fix a banner flag across the line at a point not less than 600 metres on BG and 400 metres on MG in rear of the work spot and post a Flagman with hand signals to take his stand in rear of the banner flag, at a place from which he can obtain a clear view of an approaching train.

SR 15.09.2.2.3. Post a Flagman with hand signals and detonators at a point not less than 1200 metres on BG and 800 metres on MG in rear of the work spot. This Flagman shall place 3 detonators on the line about 10 metres apart and take his stand at a distance of not less than 45 metres in rear of the rearmost detonator, from where he can obtain a clear view of an approaching train and show Stop hand signal.

Note : (i) On the single line, the line shall be protected in both directions and on the double line, in the direction from which trains will approach.

(ii) At places where there are curves or falling gradients and at times of poor visibility, the distances laid down in SR 15.09.2.2.2 and SR 15.09.2.2.3 above may be suitably increased, wherever necessary, in order that the Stop hand signal and banner flag may be visible to the Loco Pilot of an approaching train from an adequate distance of not less than 400 metres or in order to avoid a girder bridge or any other obstruction which may prevent the fixing of the banner flag, the intermediate Flagman, as and when necessary, shall be posted to relay the hand signals.

SR 15.09.2.3.1. The Loco Pilot of an approaching train shall come to a dead stand on seeing the Stop hand signal shown by the Flagman farthest from the obstruction, vide SR 15.09.2.2.3 above. Only after the train has come to a stand, the Flagman shall remove the detonators and allow the train to proceed by showing ‘proceed with caution’ hand signal.

SR 15.09.2.3.2. The Loco Pilot shall, thereafter, restart and ‘proceed with caution’ and be prepared to stop his train short of the banner flag fixed in accordance with SR 15.09.2.2.2 above. If it is necessary to stop the approaching train short of the banner flag, the Flagman shall show a Stop hand signal to the train.

Note:— After the train has passed, the Flagman farthest from the obstruction shall place three detonators again on the line and continue to show a Stop signal, until recalled.

SR 15.09.2.3.3. The Flagman nearest the obstruction at the 30 metres point shall, if it is necessary to stop the approaching train, show a Stop hand signal to the train. He shall, on receiving orders from the Engineering official in charge of the work to allow the train to pass

over the obstruction at reduced speed, show 'proceed with caution' hand signal and intimate the intermediate Flagman at the 600 or 400 metres point who shall thereafter, remove the banner flag. The train shall then be hand signalled forward by both the Flagmen showing 'proceed with caution' hand signal.

Note:— After the train has passed, the intermediate Flagman shall fix the banner flag again across the line and be prepared to show a Stop hand signal and stop approaching trains, until recalled.

SR 15.09.2.4. If, in an emergency, it becomes necessary to carry out the work at night, the provisions of SR 15.09.2.1 to SR 15.09.2.3 above shall be complied with, except that red lights shall be exhibited, in the direction from which trains will approach, instead of the flags and banner flags used during day.

SR 15.09.3. Procedure for passing trains in block section for work requiring, 'stop dead' speed restriction— For works requiring 'stop dead' speed restriction, Caution, Stop and Termination Indicators shall be fixed as indicted in Rule. 15.09 (1) (b). The Loco Pilot of a train shall, on approaching the Caution Indicator, reduce the speed as necessary and bring his train to a dead stop in rear of the Stop Indicator. The Engineering Watchman posted at the Stop Indicator shall, after the train has actually come to a dead stop, hand over his restriction book Form ER 7 to the Loco Pilot. The Loco Pilot shall fill in the date, train number and time in the respective columns, affix his signature in full in the column provided for this purpose and return the book to the Watchman. The Watchman shall, after satisfying himself that the columns have been filled in, exhibit a 'proceed with caution' hand signal to the Loco Pilot. The Loco Pilot shall then restart and proceed cautiously at a speed not exceeding 8 KMPH and continue at this speed until the train has cleared the restricted length, after which he may resume normal speed in accordance with para 5 below.

SR 15.09.4.1. In the case of works inside station limits, special instructions shall be issued by the DRM in regard to the use of the indicators in conjunction with the station fixed signals, detailing the position of the indicators. In such cases, the work shall not be commenced until the special instructions are issued to all concerned and their acknowledgements obtained.

SR 15.09.4.2. In case of works within station limits, when a train is required to stop and the restriction is likely to last only for a day or less, banner flags and detonators shall also be placed on the line in accordance with Rule. 15.09. (1) (a), wherever necessary preceding the point of obstruction. All trains proceeding towards the obstruction shall be brought to a stand at the FSS or banner flag. The banner flag and detonators may then be removed, signals taken 'off' and the train then hand signalled past the obstruction as necessary. This shall be done only under the personal instructions of the Engineering official in-charge. After the train has passed complete, the banner flag and detonators shall be placed.

SR 15.09.5. Responsibility of Loco Pilot and Guard.

SR 15.09.5.1. The Loco Pilot of a train shall, on approaching the Caution Indicator, reduce speed as necessary and while actually passing over the speed restricted length, take care to see that his train is under proper control, that the speed restriction is strictly observed and avoid the use of brakes as far as possible. In the case of a goods train, the Loco Pilot shall resume normal speed only after his engine has passed the Termination Indicator having the legend 'T/G'. In the case of a passenger train, the Loco Pilot shall resume normal speed only after his engine has passed the Termination Indicator having the legend 'T/P'. In the case of passenger train shorter than the longest passenger train operating on the section, the Loco Pilot shall resume normal speed only after getting the 'All right' signal from the Guard and acknowledging it by giving a short whistle. In the case of the light engine, single unit rail car or rail motor coach or electric train, the Loco Pilot shall resume normal speed after clearing the speed restricted length.

SR 15.09.5.2. The Guard of a train shall be on the look-out for signals and be prepared to help the Loco Pilot to keep the train under proper control while passing over a speed

restricted length. The Guard shall exhibit the 'all-right' signal to the Loco Pilot after the last vehicle has cleared the restricted length.

SR 15.09.6. When a major work, such as, relaying or regirding is in progress, a speed restriction of 50 KMPH shall be observed on the adjoining lines in the Zone of obstruction, if necessary. The prescribed Engineering Indicators shall also be provided.

The following Diagrams 'A', 'B', 'C' 'D' 'E' and "F" show the prescribed standard types of indicators:

Diagram 'A'
Caution Indicator

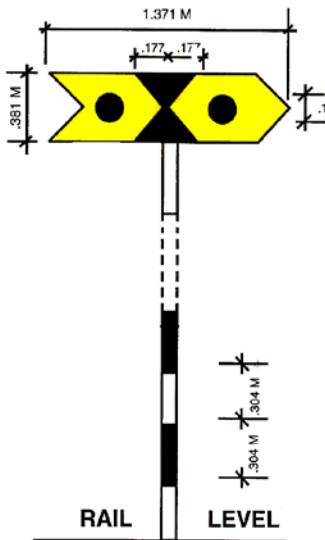


Diagram 'B'
Speed Indicator

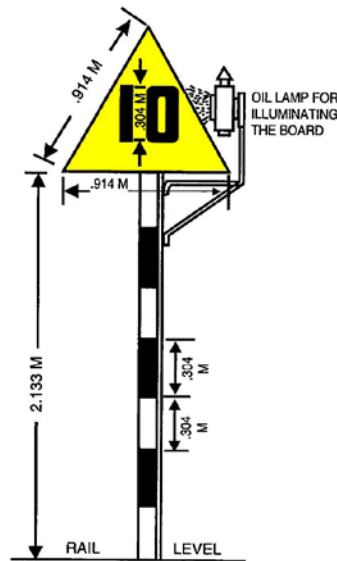


Diagram 'C'
Stop Indicator

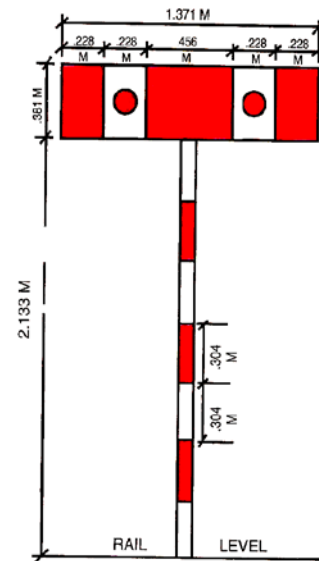


Diagram 'D'
Termination Indicator
(for Goods Trains)

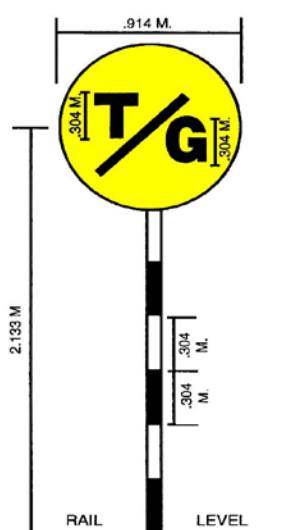


Diagram 'E'
Termination Indicator
(for Coaching Trains)

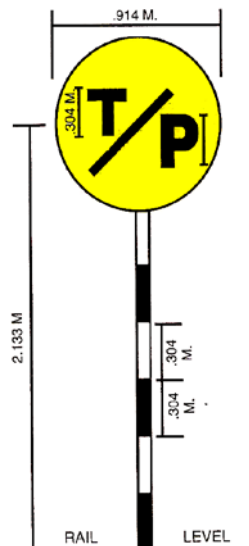
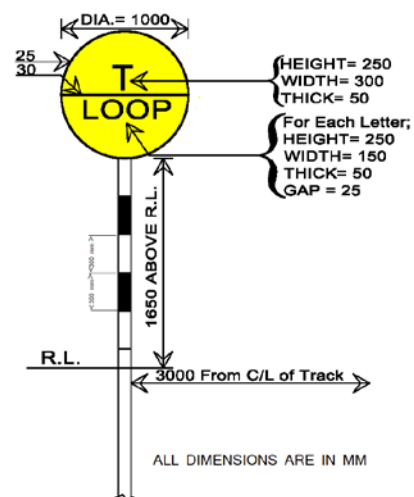


Diagram 'F'
Termination Indicator
(for Loop Lines)



SR 15.09.7.1 Multi speed restriction (i.e. existence of two or more than two speed restrictions in continuation): When work of deep screening or sleeper renewal is in progress, there is a situation of having two or more than two speed restrictions in continuation. In such a situation, placement of speed indicators for following speed restriction shall be as under:

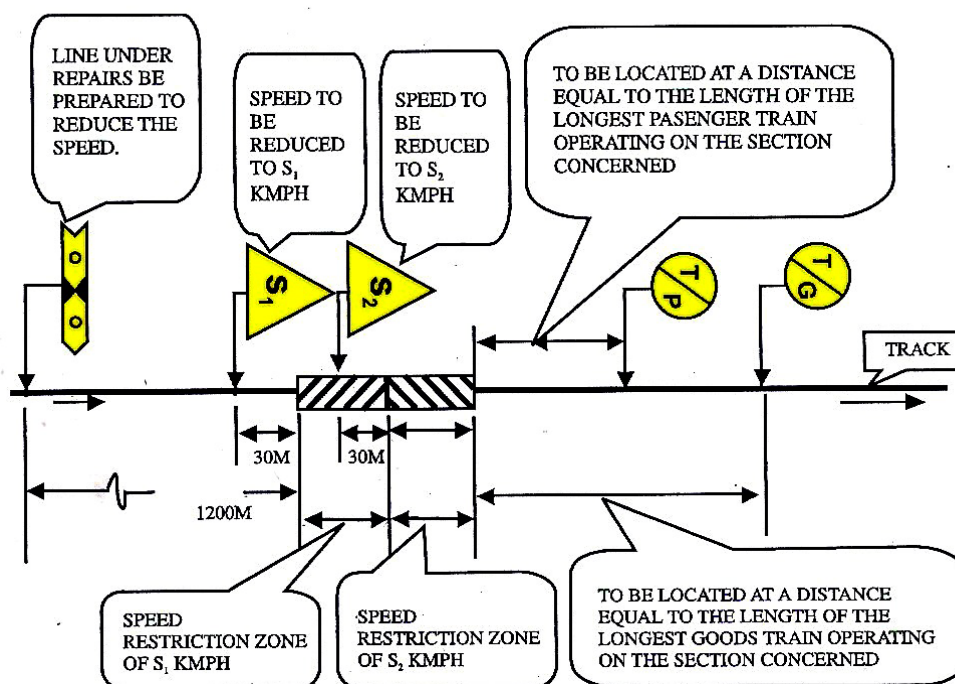
In case of following speed restrictions being more restrictive, a minimum of two hundred metres of track should be under earlier speed restriction zone. If not, then only one speed

indicator board should be provided considering that the previous speed restriction is at par with the following speed restriction which is more restrictive.

In case of following speed restrictions being less restrictive, corresponding speed indicator board for following speed restriction shall be placed at a distance equal to the length of the longest goods train operating on the section after termination point of previous speed restriction zone.

POSITION OF ENGINEERING INDICATORS IN CASE OF MULTI SPEED RESTRICTIONS

CASE-I: $S_2 < S_1$



NOTE : MIN LENGTH OF SPEED RESTRICTION ZONE OF S_1 KMPH SHOULD BE 200M. OTHERWISE SPEED INDICATOR BOARD S_2 SHALL BE PROVIDED AT THE PLACE OF S_1 .

CASE-II: $S_2 > S_1$

