

MARSHALLING

Marshalling

Marshalling is attaching of vehicles on a train in a predetermined manner to ensure train safety, provide operational expediency and to maximize customers convenience.

Marshalling of Mail/Express/Passenger Trains:

The general principles kept in view while marshalling are

I. Position of upper class coaches, ladies compartment, dining car, in respect of easy accessibility Normally the dining cars or the catering compartments, air-conditioned and upper class coaches, shall be marshalled in the middle of the train or as near to it as possible and ladies compartment will be near Guard's SLR.

Non-passenger carrying stock shall preferably be marshalled next to the engine or in the rear of the train, defining the area for stacking, loading and unloading of parcels packages and mails on platforms.

1.The Marshalling of SLRs and Anti-Telescopic/Steel- bodied Coaches on Passenger Carrying Trains:

(a) Marshalling of Mail and Express trains:

(i) In case of SLRs which have passenger portion on one side, luggage-cum-brake portion on the other, the SLR should be marshalled in such a way that the luggage and brake portion is trailing outermost or next to engine.

(ii) In case of new design of SLRs with Passenger portion in the middle, these can be positioned in either way.

(iii) Two anti-telescopic or steel-bodied coaches should be marshalled inside the antitelescopic or steel-bodied SLRs at both ends.

(iv) After providing anti-telescopic or steel bodied SLRs for Mail/Express trains, all the available anti-telescopic or steel-bodied SLRs should be used on main line passenger trains and after meeting this requirement, the rest should be used on Branch Line Passenger trains. Anti-telescopic or steel-bodied SLRs for passenger trains should be marshalled in the same way as in the case of Mail/Express trains.

(b) Marhsalling of Short Service trains:

The Railway Board has permitted marshalling of three coaches in front and rear of the SLR on short trains, provided they have working brakes and subject to two end coaches at either side are anti-telescopic.

(c) Non-Passenger Coaches:

VPs LRs, WLRRMs and other coaching vehicles, which do not carry passengers may be marshalled as operationally convenient. Inspection carriage, whether anti-telescopic/steel-bodied or not and occupied or being worked empty may be marshalled as operationally convenient.

(d) Reserved Bogies and Saloons Occupied by VIP:

Reserved bogies occupied by passengers and Inspection Carriages/ Saloons occupied by VIPs should be treated as a passenger coach and marshalled accordingly.

If they are anti-telescopic or steel-bodied they can be marshalled anywhere as operationally convenient. If they are wooden-bodied, they should be marshalled inside the required number of anti-telescopic/ steel-bodied coaches.

(e) Sectional/Through Service Coaches:

- (i) Sectional/Through service coaches, if they are anti- telescopic or steel-bodied, may be marshalled as operationally convenient.

(f) POH/Sick coaches returning to Shops:

In the case of POH/sick coaches, which are returned to shops for major repairs and are attached to passenger trains, such coaches should be properly locked and windows secured, so as to prevent entry of any passenger into these coaches. In that case, it is not necessary to attach these coaches according to safety marshalling instructions and can be attached next to the train engine or rearmost as convenient. If for any reason, it is not possible to lock up these coaches, such coaches should be treated like other passenger coaches in the train formation and should, therefore, be marshalled inside the required number of anti-telescopic/steel bodied coaches.

Block Rake Composition:

For block rake composition and marshalling order, 'Normal composition and marshalling order and rake link of passenger trains' are issued by COM from time to time.

Mixed Trains:

Classifying a passenger carrying train as a mixed train needs authorization by COM. On such a train, coaching and goods stock shall normally, remain in one block (except where a deviation is permitted) and their marshalling will also be laid down by the COM.

Normally goods stock should be attached next to engine and coaching stock inside the rear brake van.

Attaching of Vehicles outside the Rear Brake van :

Vehicles outside the rear Brakevan can be attached in accordance with the provision of the following SRs:

- Attaching of vehicles in rear of Brakevan in fully vacuum train
- Attaching of power plant bogies
- Attaching of damaged vehicles

Marshalling Chart for Passenger/Mixed/Goods Trains:

S.No	Type of Stock	Marshalling order
1	Empty coaching stock, covered motor trucks etc.	As operationally convenient but preferably marshalled as outermost vehicle at either end
2	Motor car etc. loaded in open wagons covered with wagon sheets	In the rear of the Train either as a last vehicle or inside the rear brake van
3	Banking Engine	(a) On ascending gradients in rear of train. (b) On descending grades in front. (c)Both gradients in quick succession, if any, then in front .

ATTACHMENT OF DEAD LOCOMOTIVES

(Railway Board's letter: 1. No. 99/Safety(A&R)/19/10 dated 10.12.2001 and
2. No.2000/M(L)/466/803 dated 1/9th March 2004)

I Conditions for attachment of dead locomotive:-

- i) Certificate for 'Fit to run' is issued by Section Engineer/Loco Inspector/Power Controller for Passenger/Goods train.
- ii) Maximum permissible speed of the train shall not be less than maximum permissible speed of the dead locomotive
- iii) Arrangements have been made to ensure that brakes can be applied on dead locomotives in synchronization with working locomotives
- iv) Running of double/triple headed is permissible on the section over which the dead locomotive is to be hauled.
- v) When a dead electric locomotive has to be moved on a non-electrified section, special check shall be made regarding its infringement to the schedule of maximum moving dimensions. In the case of any infringement, the dead locomotive shall be treated as an ODC.
- vi] As a final check, the coupled locos should be run for about 500 meters and the Loco Pilot shall check for any abnormal rise in the temperature of the wheels of the dead locomotive and shall also check it at subsequent stops during the journey.
- vii) In addition to freight/passenger trains, a dead locomotive can also be attached to Mail/Express trains including Superfast trains but excluding Rajdhani and Shatabdi if the locomotive brakes including proportionate brakes are operational and maximum permissible speed of the locomotive is not less than the booked speed of the train in which it is being attached. Locos with inoperative brakes can be attached subject to the brake power of the train being within the permissible limits. Locomotive with defects in under-gear equipment can be attached only in freight trains.

II. Attaching/hauling of dead locomotives by Mail/Express/Super fast/Passenger trains: -

- i) Only one dead locomotive (diesel/electric) can be attached.
- ii) Brake power of the train should be 100% excluding dead locomotive
- iii) As far as possible, brake should work on dead locomotive. However, if it is not possible, then in the case of air-braked train, brake pipe and feed pipe of working locomotive shall be connected to brake pipe and feed pipe of trailing stock and dead locomotive will work as piped vehicle.

In the case of vacuum braked train, vacuum pipe of locomotive shall be connected with vacuum train pipe of trailing stock and the dead locomotive shall be treated as a piped vehicle. If the locomotive is fitted with pure air braked system and vacuum pipe is not provided on locomotive then it should be attached with air braked trains only.

III. Attaching/Hauling of dead locomotives by goods trains:

Movement of maximum three locomotives (2 working+1 dead) with load is permissible subject to observations of all restrictions on operation of double/triple headed working locomotives in the section provided that brakes in dead locomotives are operational. The above instructions should be strictly followed and it is, therefore, advised that these guidelines be supplemented in the respective Subsidiary Rules also.

IV. Escorting of dead Locomotives:-

Escorting of locomotives (diesel as well as electric) attached to freight and passenger carrying trains is not necessary if the brakes including proportionate are fully operational and the dead locomotive is attached next to the train engine. The dead locomotive will continue to be escorted if attached in the rear of brake van or has defect in under gear equipment.

Medical Relief Van:

Can be run without brake van .

Attaching of Travelling Cranes:

(1) No travelling crane shall be attached to a train until it has been certified by a duly authorised person that it is in proper running order, and with a dummy truck for the jib, if necessary.

(2) When a crane is to work on any line provided with electric traction or any line adjacent to it, the procedure and precautions as laid down under special instructions shall also be followed.