Section B

MARSHALLING AND COMPOSITION OF FREIGHT TRAINS

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B MARSHALLING AND COMPOSITION OF FREIGHT TRAINS

B1 Braking Requirements

Note

The instructions in this manual are based on:-
• all vehicles being air-braked
• special instructions being provided for the operation of any vacuum-braked vehicles.

1.1 Vehicles with Operative Automatic Brakes

Vehicles which have operative automatic brakes or through pipes may be intermixed, subject to:-
• the requirements set out in Sections 1.2 to 1.5
• the brake force requirements in table E1.

1.2 Maximum Number of Piped Vehicles

Not more than three through-piped vehicles may be formed together in a group, unless they are part of one or more multiple-unit sets. When it is necessary to move multiple-units in this way, the train operator will issue special instructions.

1.3 Automatic Brake on the Last Vehicle

The automatic brake must be operational on the last vehicle of every freight train, except as permitted in Section 1.6.

1.4 Brake Force Requirements for Vehicles at the Rear of the Train

If there are piped-only vehicles immediately ahead of the last vehicle on the train, then the brake force required on the last vehicle must be not less than the brake force required in Table E1 for the weight of the fitted vehicle and any piped-only wagons immediately ahead of it.
1.5 **Vehicles with Isolated Air-Brake Distributors**

Vehicles with two or more air-brake distributors one of which is isolated, must be regarded as having defective brakes and treated as through-piped vehicles except as shown in Section 1.6.

1.6 **‘Cartic-4’ Vehicles**

A ‘Cartic-4’ vehicle (wagon types, PJA and PJB) has four elements. If one distributor on any element of the ‘Cartic-4’ vehicles has to be isolated, then it may continue to be regarded as a vehicle with a fully operative automatic brake. However, if more than one distributor has to be isolated then the vehicle must be treated as a through-piped vehicle.

1.7 **Required Brake Force no longer Available**

If during a journey the required brake force is no longer available, either the weight of the train or its maximum speed must be reduced to that permitted with the brake force available as shown in table E1.
B2 Marshalling of Freight Trains

2.1 Runner Vehicles

Runner vehicles must be used when loads overhang the ends of vehicles. They must have a tare weight not less than 10.5 tonnes.

2.2 Marshalling of Metal Products and Dangerous Goods

Open or flat-bed wagons conveying metal products such as rails, angles, girders and pipes, which in exceptional circumstances could puncture an adjacent vehicle, together with any associated runner wagons, must not be marshalled next to tank wagons or tank containers containing dangerous goods, whether loaded or discharged.

Note

Marshalling requirements for freight trains carrying dangerous goods are shown in GO/RT3053 Working Manual for Rail Staff - Handling and Carriage of Dangerous Goods.
Conveyance of Coaching Stock Vehicles in Freight Trains

3.1 Passenger Vehicles
Passenger-carrying coaching stock and multiple-unit vehicles must only be conveyed in freight trains providing a form RT3973EXL has been provided to show any route restrictions or conditions of travel that apply.

3.2 Non-Passenger Coaching Stock
Non-passenger carrying coaching stock and converted coaching stock vehicles can be conveyed as part of a freight train without special authority subject to:
- any gauge restrictions that may apply
- any ‘Warning’ messages generated on a train document.

3.3 Marshalling of Coaching Stock in Freight Trains
Train operators will issue special instructions to indicate where coaching stock vehicles are to be marshalled in a freight train.

3.4 Couplings
Screw couplings must always be used between coaching stock vehicles and freight vehicles. Where two or more buck-eye fitted vehicles are marshalled together, the intermediate buck-eye couplings must be used.
B4 Traffic Covered by International Regulations

All wagons used for the conveyance of traffic between Great Britain and the Continent via the Channel Tunnel, in either direction, must carry the sign shown below.

Some wagons carry an 'anchor' sign to indicate they were permitted to operate between Great Britain and the Continent by train ferry. If a wagon has that marking only, it must not be forwarded via the Channel Tunnel.