

Data to be Displayed on Rail Vehicles

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Synopsis

This document mandates the **data** that shall be displayed on **rail vehicles** that is essential for safety and safe interworking.

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Part A

Issue Record

This document will be updated when necessary by distribution of a complete replacement.

Issue	Date	Comments
One	December 2000	Original Document superseding the requirements of GM/TT0404

Technical Content

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Responsibilities

Railway Group Standards are mandatory on all members of the Railway Group * and apply to all relevant activities that fall into the scope of each individual's Railway Safety Case. If any of those activities are performed by a contractor, the contractor's obligation in respect of Railway Group Standards is determined by the terms of the contract between the respective parties. Where a contractor is a duty holder of a Railway Safety Case then Railway Group Standards apply directly to the activities described in the Safety Case.

* The Railway Group comprises Railtrack and the duty holders of the Railway Safety Cases accepted by Railtrack.

Compliance

Except as detailed below, the requirements mandated in this document are to be complied with by all **vehicles** at the date of signature of the Design Scrutiny certificate after December 2000.

The requirements mandated in this document do not apply retrospectively to any existing **vehicles** with Engineering Acceptance.

The requirements mandated in this document shall be applied during any modifications to the vehicle which affect areas of the vehicle within the scope of this document.

Any Railway Group member deviating from the requirements set out in this document shall ensure that the situation is regularised in accordance with the requirements of [GA/RT6001](#), GA/RT6004, or GA/RT6006.

Health and Safety Responsibilities

In issuing this document, Railtrack PLC makes no warranties, express or implied, that compliance with all or any documents published by the Safety & Standards Directorate is sufficient on its own to ensure safe systems of work or operation. Each user is reminded of its own responsibilities to ensure health and safety at work and its individual duties under health and safety legislation.

Supply

Controlled and uncontrolled copies of this document may be obtained from the Industry Safety Liaison Dept, Safety and Standards Directorate, Railtrack PLC, Evergreen House, 160 Euston Road, London, NW1 2DX.

Data to be Displayed on Rail Vehicles

Part B

1 Purpose

The purpose of this document is to mandate the minimum **data** to be displayed on **rail vehicles** so that **data** that is essential for safe operation of that vehicle is immediately available to the people involved in that operation.

2 Scope

The overall scope of Railway Group Standards is as specified in Appendix A of [GA/RT6001](#).

This document contains requirements applicable to the duty holder of the following category of Railway Safety Case:

- Train Operator

Specifically the contents of this document apply to all **rail vehicles** registered for operation on Railtrack controlled infrastructure, except those registered with Union International des Chemins de Fer (UIC) for international operation to and from the United Kingdom, which will comply with RIV and RIC regulations.

3 Definitions

Data

Items of operational importance that are required to enable railway operational, interworking and safety decisions to be made by someone who is operating or directing the vehicle.

Rail vehicle

Any vehicle registered in the Rolling Stock Library.

Total Operations Processing System

Total Operations Processing System (TOPS) - the national computer **data** system for management of train operations.

Union International des Chemins de Fer

Union International des Chemins de Fer (UIC) - International Union of Railways, the body responsible for co-ordination of requirements for **rail vehicles** in international traffic.

Unit rake

Rail vehicles coupled together semi-permanently in a manner that prevents their being uncoupled by normal operational processes.

4 Introduction

4.1 Purpose of Data

Safe railway operations require train crew and other personnel to have access to basic **data** that enables them to arrange train movements such that:

- train speed is limited by the maximum speed permitted for the slowest vehicle in the train;
- train loads and braking performance are matched to route and signalling characteristics.

Certain other activities require access to **data** directly from the **vehicles** concerned, for example:

- vehicle service weight is needed by a recovery supervisor at a derailment;
- loading staff need to know the maximum weight they may load on to a wagon.

These lists are not exhaustive.

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5 Data

5.1 Sources of Data

Where practicable, data for operational purposes on rail vehicles shall be extracted from operational computer systems such as TOPS which is linked to a central database (see GM/RT2453). To cater for when such systems are not available, certain minimum data shall be displayed on the vehicle.

5.2 Minimum Data to be Displayed

Each vehicle shall have displayed the minimum data as listed in Appendix A.

5.3 Data Visibility

The location for each item of data is given in Appendix A. When deciding the position and character size and style of each item of data, it is important that consideration shall be given to the people most likely to use the data (eg, where they will stand or sit when the data is needed and the distance and lighting conditions in which the data is to be viewed). Vehicle numbers shall be of sufficient size so that they are readily legible from a distance of 10m.

Data shall be displayed in a colour to provide adequate contrast with the background colour. Where sufficient contrast cannot be attained with the background colour, the data shall be displayed on a panel designed to produce adequate contrast.

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Appendix A

Data for Display on Rail Vehicles

Data	Types of Rail Vehicles	Position	Remarks
Vehicle number	All		Detail contained in GM/RT2210
Set number	Multiple units		Detail contained in GM/RT2210
Maximum speed (mile/h)	Vehicles with driving cabs	In cabs	
	All other vehicles except wagons	Outside on vehicle end	Only end vehicles of unit rakes
Tare weight (tonnes)	Coaching stock	Outside/ends	
	Wagons	Outside/sides	
Service weight (tonnes)	All except coaching stock, multiple units and wagons	Outside on vehicle end	Not on cab ends
Non passenger carrying capacity (tonnes)	Wagons, on-track plant, stowage compartments of coaching stock and stowage compartments of multiple units	Outside/sides	
Lifting and jacking points	All	At the appropriate points	
ETH index	Locomotives; Hauled coaching stock (Where ETH fitted or through wired)	Outside/sides Outside/ends	Not applicable to HST
Driving cab identification	Vehicles with more than one cab	In cabs	1 or 2; A or B
Brake force (tonnes)	Locomotives on-track machines and wagons	Outside/sides	Not applicable to HST or steam locomotives
No 1 or A wheel position	All	Outside/sides	

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Data	Types of Rail Vehicles	Position	Remarks
Dangerous goods	Wagons	As specified in GO/RM3053 and GM/RT2101	
Car kind	Wagons/parcels vans	Outside/sides	
Door identification	All passenger-carrying vehicles	Inside, adjacent to door	
Engine isolation/stop	All powered rail vehicles	outside	Required only when accessible from outside
Fuel cut off valve	All powered rail vehicles		Required only when accessible from outside
Reservoir isolating cock	Wagons and coaches	Solebar	
Distributor isolating cock	Wagons and coaches	Solebar	
Black or white five pointed star	Wagons and coaches	Solebar	Indicates position of brake release cord
Solid white or black triangle downwards	Wagons	Solebar or wagon side	Wagons fitted with two vacuum brake cylinders which must be released before the manual change over lever can be used to adjust the brake
Solid white or black "kite" pointing downwards	Wagons	Solebar or wagon side	Manually operated brake change-over lever not requiring brake cylinders to be released before being used to adjust the brake

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References

- GA/RT6001** Railway Group Standards Change Procedures
- GM/RT2101** Requirements for the Design, Construction, Test and Use of the Tanks of Rail Tank Wagons
- GM/RT2210** Identification of Rail Vehicles
- GM/RT2453** Registration of Rail Vehicles and Mandatory Data Requirements
- GO/RM3053** Working Manual for Rail Staff - Handling and Carriage of Dangerous Goods (Pink Pages)
- RIC** Regolamento Internazionale Carrozze - Regulations governing the reciprocal use of carriages and luggage vans in international traffic
- RIV** Regolamento Internazionale Veicoli - Regulations governing the reciprocal use of wagons in international traffic

The Catalogue of Railway Group Standards and the Railway Group Standards CD-ROM give the current issue number and status of documents published by the Safety & Standards Directorate.