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Rail Industry Standard for Recording of Rolling Stock Data

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Rail Industry Standard

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Issue record

Issue	Date	Comments
One	02 March 2013	This document is based on, and supersedes the ATOC Code of Practice, ACOP/EC/01002: Approved Code of Practice – Maintenance Systems Shared Data and T&RS Systems Management Group Code of Practice, SMG 012: Code of Practice defining Traction and Rolling Stock Shared Data at the request of T&RS Systems Management Group

Superseded or replaced documents

This Rail Industry Standard does not supersede or replace any other Railway Group documents.

Supply

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Rail Industry Standard for Recording of Rolling Stock Data

Contents

Section	Description	Page
Part 1	Introduction	4
1.1	Purpose of this document	4
1.2	Application of this document	5
1.3	Health and safety responsibilities	5
1.4	The structure of this document	5
1.5	Copyright	5
1.6	Approval and authorisation of this document	5
Part 2	Requirements for Setting up a Rolling Stock System for Sharing Data	6
2.1	Reporting	6
2.2	Rolling stock system coding	6
Part 3	Requirements for Recording Data	7
3.1	Component tracking records	7
3.2	Maintenance event records	8
3.3	Component modification records	8
3.4	On-train defect records	9
Appendices		
Appendix A	Requirements for Fields for Rolling Stock Data already mandated by GM/RT2453	10
Appendix B	Requirements for Fields for Shared Rolling Stock Data	16
Definitions		21
Acronyms		22
References		23

Rail Industry Standard for Recording of Rolling Stock Data

Part 1 Introduction

1.1 Purpose of this document

- 1.1.1 This document provides a standard on rolling stock shared data, for the rail industry to use if they so choose.
- 1.1.2 This document combines and supersedes two existing documents:
 - a) Association of Train Operating Companies (ATOC) Code of Practice, ACOP/EC/01002 Approved Code of Practice - Maintenance Systems Shared Data.
 - b) Traction and Rolling Stock Systems Management Group (T&RS SMG) Code of Practice, SMG 012 Code of Practice defining Traction and Rolling Stock Shared Data.
- 1.1.3 This document sets out both the minimum mandated and non-mandated rolling stock data that should be accessible to the rail industry members, irrespective of which information technology (IT) system is in use. Where shared data is mandated this document makes reference to the origin of the data.
- 1.1.4 This document sets out the requirements for recording:
 - a) Components relevant to safety and other identified components that will be tracked.
 - b) Maintenance events.
- 1.1.5 This document also provides guidelines for:
 - a) The identification and use of maintenance system data in line with Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS).
 - b) Compliance with Professor Uff's recommendations 22, 23, 28 and 29 outlined in the Southall Rail Accident Inquiry Report.
 - c) Accurate and timely updates of data.
- 1.1.6 This document sets out requirements for recording of rolling stock data that is accessible between two or more parties within the GB rail industry which could, therefore, be incorporated in a central data repository and the coding systems to be used.
- 1.1.7 There is some rolling stock data that is mandatory to be recorded, as set out in GM/RT2453 and shown in Appendix A, and some data that, while not mandated, is beneficial to record for safety or operational reasons and is shown in Appendix B. Also data shown in Appendix A and Appendix B is beneficial to be shared.
- 1.1.8 The principle of this document is that if rolling stock data was more freely shared then it is possible to combine the data with other sources of data and transform it into information that would not be attainable from a single source. This resulting information, provided in a timely manner, would contribute to significant industry benefits in the following areas:
 - a) Safeguarding the rail industry in the event of incidents and defects, enabling root causes and trends to be accurately determined and identified.
 - b) Improving the performance of rolling stock by analysing detailed monitoring and management data from one fleet of vehicles against another.
 - c) Delivering local and national service efficiencies, and performance improvements resulting from better informed decision making.
 - d) Increased reliability of systems, including improved equipment design.

Rail Industry Standard for Recording of Rolling Stock Data

1.2 Application of this document

- 1.2.1 A member of RSSB may choose to adopt all or part of this document through company procedures or contract conditions. Where this is the case the member of RSSB will specify the nature and extent of application.
- 1.2.2 Specific compliance requirements and dates have therefore not been specified since these will be the subject of the internal procedures or contract conditions of the companies which choose to adopt this standard.

1.3 Health and safety responsibilities

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1.4 The structure of this document

- 1.4.1 This document is set out as a series of requirements, in some cases followed by relevant guidance. The guidance is indicated by prefixing the paragraph number with the letter 'G'.

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1.6 Approval and authorisation of this document

- 1.6.1 The content of this document was agreed by Rolling Stock Systems Management Group on 31 July 2012.
- 1.6.2 The content of this document was approved by Rolling Stock Standards Committee on 28 October 2012.
- 1.6.3 This document was authorised by RSSB on 04 December 2012.

Rail Industry Standard for Recording of Rolling Stock Data

Part 2 Requirements for Setting up a Rolling Stock System for Sharing Data

2.1 Reporting

2.1.1 Rolling stock data set out in Appendix A and Appendix B shall be recorded in a format that facilitates the transmission to and receipt from other rail industry members.

2.1.2 Rolling stock shared data shall be input to Rail Vehicle Records System (RAVERS).

G 2.1.2.1 Appendix A sets out the rolling stock shared data fields already mandated by GM/RT2453, with the current location and file name where this is stored on RAVERS or the Rolling Stock Library (RSL).

G 2.1.2.2 Appendix B sets out the additional rolling stock data considered necessary to contribute to the achievement of the outcomes set out in 1.1.8 together with current location and file name.

G 2.1.2.3 Sharing rolling stock data contributes to safety and interoperability benefits. The rolling stock data set out in Appendix A and Appendix B should be included in a central data repository in an agreed format so that it can be made immediately available to all rail industry members.

2.2 Rolling stock system coding

2.2.1 Common coding systems shall be used to exchange rolling stock shared data. The following shall be used:

- a) Traction and rolling stock system codes as set out in Technical Standard MP/TT0028.
 - b) Defect codes (these interface with rail operating systems, for example the Total Operations Processing System (TOPS)).
 - c) Reason for failure codes.
 - d) Non-destructive testing (NDT) codes indicating the type of NDT undertaken (for example ultrasonic axle testing (UAT) and magnetic particle inspection (MPI)).
 - e) Component specific type codes.
 - f) Component generic type codes (based on MP/TT0028).
 - g) Depot allocation codes (DEPALL).
 - h) Assembly status (F/R/M).
 - i) Ownership cycle (V/F).
 - j) Wheel type (M/T).
 - k) NDT operator codes (set up by RAVERS helpdesk).
-

G 2.2.1.1 Common coding systems should be used to enable the transfer of data without errors and to assist in the analysis of that data.

G 2.2.1.2 There are a number of common coding systems that are in existence. The systems set out in 2.2.1 a) to 2.2.1 k) are well recognised within the GB rail industry. The coding system described in 2.2.1 a) (the Technical Standard MP/TT0028) describes codes used for description of T&RS. These codes are kept current and shown on the Parts and Drawing System (PADS) computer system.

Rail Industry Standard for Recording of Rolling Stock Data

Part 3 Requirements for Recording Data

3.1 Component tracking records

- 3.1.1 The component location and status shall be recorded and made accessible between railway undertakings, entities in charge of maintenance, rolling stock leasing companies, maintainers and overhaulers.
- 3.1.2 For the purposes of traceability, the following component types shall also be identified by a serial number:
- a) Air conditioning module.
 - b) Bogie system.
 - c) Brake actuator and controller (including driver / machine interface).
 - d) Cooler group.
 - e) Electrical machines:
 - i) Main generator / alternator.
 - ii) Auxiliary generator / alternator.
 - iii) Train heating / supply generator / alternator.
 - iv) Traction motor.
 - v) Blower motor.
 - vi) Radiator fan.
 - f) Engine.
 - g) Engine raft.
 - h) Final drive.
 - i) Gearbox / transmission.
 - j) Main compressor.
 - k) Power transformer / converter.
 - l) Pantograph.
 - m) Train communication and protection systems.
 - n) Tripcock / shoe gear.
 - o) Wheelsets and component parts.

G 3.1.2.1 Identification of wheelsets (including axles and bearings) is set out in GM/RT2466. Identification of train communication systems and train protection systems (including data recorders) are set out in GE/RT8106.

G 3.1.2.2 The process of tracking safety critical and other identified components allows railway undertakings, entities in charge of maintenance, rolling stock leasing companies, maintainers and overhaulers to have complete component traceability within their own business and with other related businesses.