



Rail vehicle identification and markings

Notice to users

This RISSB product has been developed using input from rail experts from across the rail industry and represents good practice for the industry. The reliance upon or manner of use of this RISSB product is the sole responsibility of the user who is to assess whether it meets their organisation's operational environment and risk profile.

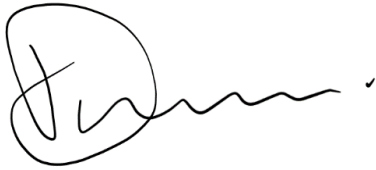
Development of this Standard was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

ARCH Artifex, Aurizon, RTBU, ARTC, Dakar Risk, Downer, Yarra Trams, Pacific National, Transport for NSW, Queensland Rail.

The Rolling stock Standing Committee verified that RISSB's accredited process was followed in developing the product, before the RISSB Board approved the document for publication.

RISSB wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership of the Development Group through to individuals providing comments on a draft of the Standard during the open review.

I commend this Standard to the Australasian rail industry as it represents industry good practice and has been developed through a rigorous process.



Damien White
Chief Executive Officer
Rail Industry Safety and Standards Board

Keeping RISSB products up-to-date

Products developed by RISSB are living documents that reflect progress in science, technology and systems. To maintain their currency, RISSB products are periodically reviewed, and new editions published when required. Between editions, amendments may be issued. Products developed by RISSB could also be withdrawn.

It is important that readers assure themselves that the RISSB product they are using is current, including any amendments that have been issued since the product was published. Information about RISSB products, including amendments, can be found by visiting www.rissb.com.au.

RISSB welcomes suggestions for improvements and asks readers to notify us immediately of any apparent inaccuracies or ambiguities. Members are encouraged to use the change request feature of the RISSB website at: <http://www.rissb.com.au/products/>. Otherwise, please contact us via email at info@rissb.com.au or write to Rail Industry Safety and Standards Board, PO Box 518 Spring Hill Qld 4004, Australia.

AS 7503:2023

Rail vehicle identification and markings

Document details

First published as: 2014

ISBN: 978 1 76139 451 5

Document history

Publication Version	Effective Date	Reason for and Extent of Change(s)
2023	15 December 2023	Revised edition of AS 7503.6 Train Identification and Integrity Part 6: Whole of Train

Approval

Name	Date
Rail Industry Safety and Standards Board	29 November 2023

Copyright

© RISSB

All rights are reserved. No part of this work can be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of RISSB, unless otherwise permitted under the Copyright Act 1968.

Preface

This Standard was prepared by the Rail vehicle identification and markings Development Group, overseen by the RISSB Rolling stock Standing Committee.

Objective

The objective of this Standard is to maintain consistency in the identification of rolling stock, including the location and programming of Automatic Equipment Identification (AEI) tags on Australian rail networks. This Standard includes other requirements on tag size and location etc. for consistency of access and visibility.

This Standard supersedes AS 7503.1, AS 7503.2, AS 7503.3, and AS 7503.4

AS 7503.6 has been superseded by AS 7451.

Compliance

There are four types of provisions contained within Australian Standards developed by RISSB:

- (a) Requirements.
- (b) Recommendations.
- (c) Permissions.
- (d) Constraints.

Requirements – it is mandatory to follow all requirements to claim full compliance with the Standard. Requirements are identified within the text by the term ‘shall’.

Recommendations – do not mention or exclude other possibilities but do offer the one that is preferred. Recommendations are identified within the text by the term ‘should’.

Recommendations recognize that there could be limitations to the universal application of the control, i.e. the identified control is not able to be applied or other controls are more appropriate or better.

Permissions – conveys consent by providing an allowable option. Permissions are identified within the text by the term ‘may’.

Constraints – provided by an external source such as legislation. Constraints are identified within the text by the term ‘must’.

For compliance purposes, where a recommended control is not applied as written in the Standard it could be incumbent on the adopter of the Standard to demonstrate their actual method of controlling the risk as part of their WHS or Rail Safety National Law obligations. Similarly, it could also be incumbent on an adopter of the Standard to demonstrate their method of controlling the risk to contracting entities or interfacing organisations where the risk may be shared.

RISSB Standards address known hazards within the railway industry. Hazards, and clauses within this Standard that address those hazards, are listed in Appendix F.

Appendices in RISSB Standards may be designated either “normative” or “informative”. A “normative” appendix is an integral part of a Standard and compliance with it is a requirement, whereas an “informative” appendix is only for information and guidance.

Commentary

Commentary *C Preface*

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by 'C' preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

AS 7503 PREVIEW ONLY

Table of Contents

Section 1	Scope and general	7
1.1	Scope	7
1.2	Normative references	7
1.3	Defined terms and abbreviations.....	8
Section 2	Locomotive identifiers and markings	10
2.1	Body identifiers	10
2.2	Bogie identifiers	10
2.3	Manufacturers plates.....	11
2.4	Wheelsets and traction motor components.....	11
Section 3	Freight rolling stock identifiers and markings	11
3.1	Body identifiers	11
3.2	Data panels.....	11
3.3	Tank freight vehicle identifiers.....	12
3.4	Bogie identifiers	13
3.5	Manufacturers plates.....	13
3.6	Wheelset components	13
Section 4	Passenger (locomotive hauled) rolling stock identifiers and markings	14
4.1	Body identifiers	14
4.2	Bogie identifiers	14
4.3	Manufacturers plates.....	15
4.4	Wheelset components	15
Section 5	Multiple unit passenger rolling stock identifiers and markings	16
5.1	Body identifiers	16
5.2	Bogie identifiers	16
5.3	Manufacturers plates.....	17
5.4	Wheelsets and traction motor components.....	17
Section 6	Light rail vehicle and tram identifiers and markings	18
6.1	Body identifiers	18
6.2	Bogie identifiers	18
6.3	Manufacturers plates.....	18
6.4	Wheelsets and traction motor components.....	18
Section 7	Infrastructure maintenance rolling stock identifiers and markings	20
7.1	Rail bound track vehicles.....	20
7.2	Road rail vehicles.....	20
7.3	Trailers.....	21
7.4	Other infrastructure maintenance plant.....	22
Section 8	Vehicle identification systems	24
8.1	General.....	24
8.2	AEI tag installation.....	24

8.3	AEI tag programming.....	25
8.4	AEI tag maintenance and reuse	26
Section 9	Operational signage	27
9.1	General.....	27
9.2	External braking equipment identification	27
9.3	Freight vehicle signage – braking systems	28
9.4	Alternative energy source identification labels	29
Appendix A	Freight vehicle classification and numbering.....	31
A.1	Introduction	31
A.2	Freight Vehicle Classification	31
A.2.1	General.....	31
A.3	Freight vehicle number	34
A.4	Freight vehicle check letter	35
Appendix B	Check letter calculation (Normative)	36
Appendix C	Locomotive classification and numbering (Normative).....	37
Appendix D	AEI tag coding (Normative).....	38
D.1	Freight, passenger, and infrastructure maintenance vehicles.....	38
D.2	Locomotives	39
Appendix E	AEI tag placement diagrams (Normative).....	42
Appendix F	Hazard register (Informative)	46
Appendix G	Bibliography (Informative)	47

AS 7503 PREVIEW ONLY

Section 1 Scope and general

1.1 Scope

This Standard describes requirements for the identification and markings on new and modified rolling stock including:

- (a) locomotives;
- (b) freight rolling stock;
- (c) passenger (locomotive hauled) rolling stock;
- (d) multiple unit passenger rolling stock;
- (e) light rail vehicles; and
- (f) infrastructure maintenance rolling stock.

This Standard may be applied to existing rolling stock.

This Standard provides specifics regarding:

- (g) vehicle identifiers;
- (h) displays of the identifier;
- (i) the fitment of a manufacturer's nameplates;
- (j) AEI tags;
- (k) identification of equipment;
- (l) operational signage; and
- (m) alternative energy source location.

This Standard does not cover operation of rolling stock in regard to network safeworking rules and route standards.

This Standard is not intended to be used for heritage rolling stock operating on a railway solely under the control of the rolling stock operator (RSO) of that heritage rolling stock, or on a railway under the control of another RSO solely operating heritage rolling stock.

This Standard is not intended to be used by cane railway networks, however can be used where applicable.

1.2 Normative references

The following documents are referred to in the text in such a way that *some* or all of their content constitutes requirements of this document:

- AS 1319 Safety signs for the occupational environment
- AS 1428.1 Design for access and mobility
- AS 1906.1 Retroreflective materials and devices for road traffic control purposes – Retroreflective sheeting
- AS 7502 Road rail vehicles
- AS 7508 Track forces and stresses
- AS 7509 Rolling stock – Dynamic behaviour
- AS 7510.2 Braking systems Part 2: Hauled rolling stock
- AS 7514 Wheels
- AS 7515 Axles