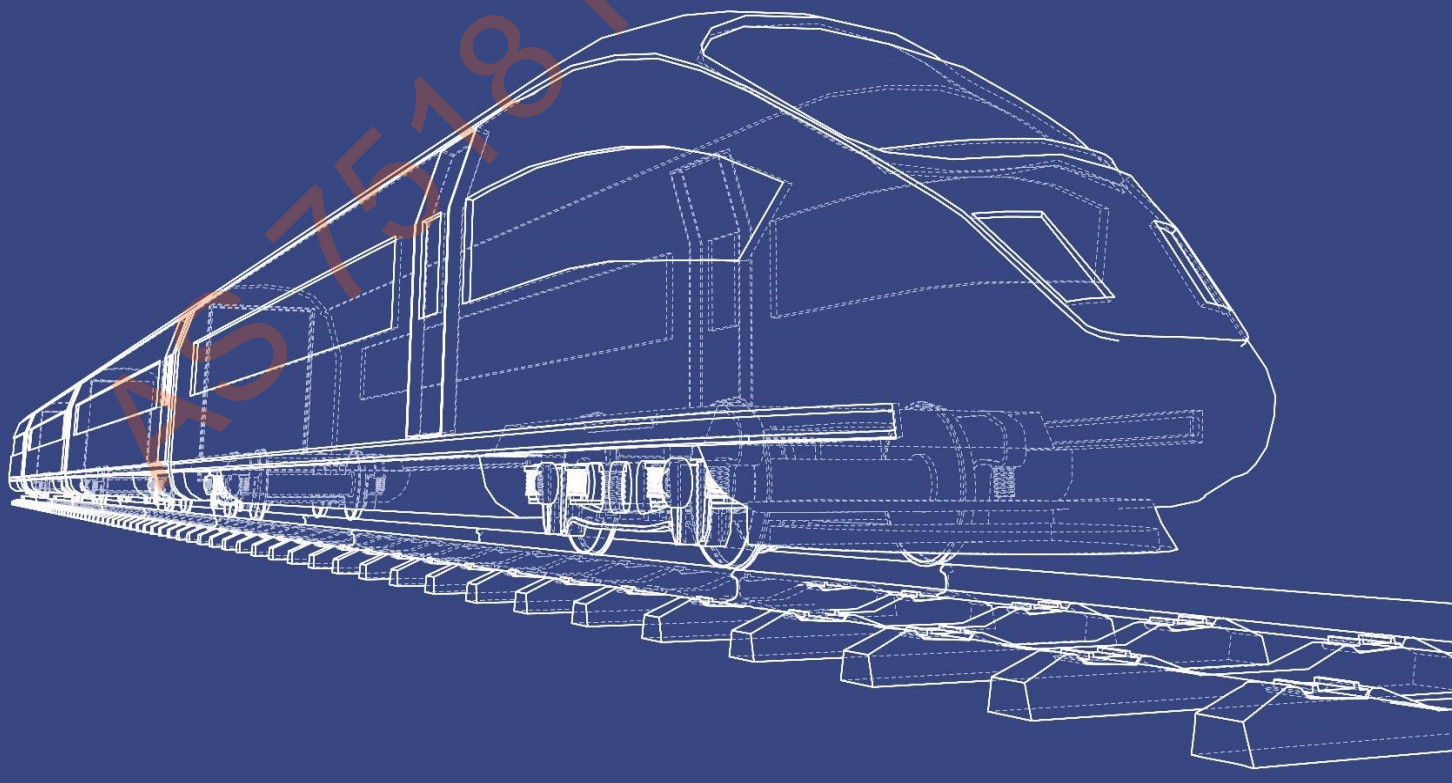
AS 7518:2023

Australian STANDARD®

Rolling stock suspension

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Rolling Stock Standard



This Australian Standard® AS 7518 Rolling stock suspension was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organizations:

ARTC, Aurizon, KiwiRail, Pacific National, PTA of WA, Sigra, Sydney Trains, Queensland Rail

The Standard was approved by the Development Group and the Rolling Stock Standing Committee on June 2023. On June 21, 2023, the RISSB Board approved the Standard for release.

This standard was issued for public consultation and was independently reviewed before being approved.

Development of the Standard was undertaken in accordance with RISSB's accredited process. As part of the approval process, the Standing Committee verified that proper process was followed in developing the Standard.

RISSB wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership in 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.

Damian White
CEO
Rail Industry Safety and Standards Board

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 Australian Standards developed by RISSB could also be withdrawn.

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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.

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Document details

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Document history

Publication Version	Effective Date	Reason for and Extent of Change(s)
2023	21/06/2023	Review (supersedes AS 7518:2018)
2018	26/11/2018	Aged review (supersedes AS 7518:2010)
2010	21/03/2010	First publication

Approval

Name	Date
Rail Industry Safety and Standards Board	21/06/2023

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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7518 Rolling stock suspension Membership of this Development Group consisted of representatives from the organizations listed on the inside cover of this document. This Standard supersedes AS 7518:2018.

Objective

This Standard provides the requirements, recommendations, and guidance for rolling stock suspension and the requalification of springs and dampers. The requirements aim to reduce the risk of hazards due to inadequate design or maintenance of suspension components.

Compliance

There are four types of provisions contained within Australian Standard® brand standards developed by RISSB:

1. Requirements.
2. Recommendations.
3. Permissions.
4. 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 organizations 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 A.

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 it does not form part of the requirements and recommendations of this Standard.

Contents

Appendix Contents

1 Scope and general

1.1 Scope

This Standard applies to:

(a) new and modified locomotives;

(b) freight cars;

(c) passenger rolling stock; and

(d) infrastructure maintenance rolling stock.

This Standard is not specifically intended to cover the following, but items from this Standard may be applied to such systems as deemed appropriate by the relevant railway infrastructure manager (RIM):

(e) rolling stock with an operational speed above 160 km/h;

(f) infrastructure maintenance rolling stock that travels at 25 km/h or less;

(g) road rail vehicles (RRVs) used in infrastructure maintenance;

(h) tourist/heritage rolling stock;

(i) rolling stock used on the following networks:

i. light rail;

ii. cane railway; and

iii. monorail.

This Standard does not cover the operation of rolling stock, network safe working rules and route requirements.

1.2 Normative references

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

- AS 7507 Rolling stock outlines
- AS 7508 Track forces and stresses
- AS 7509 Dynamic behaviour
- AS 1210 Pressure vessels
- AS 2971 Serially produced pressure vessels
- AAR Manual of Standards and Recommended Practices - Section D - Truck and Truck Details

NOTE: Documents for informative purposes are listed in a Bibliography at the back of the Standard.