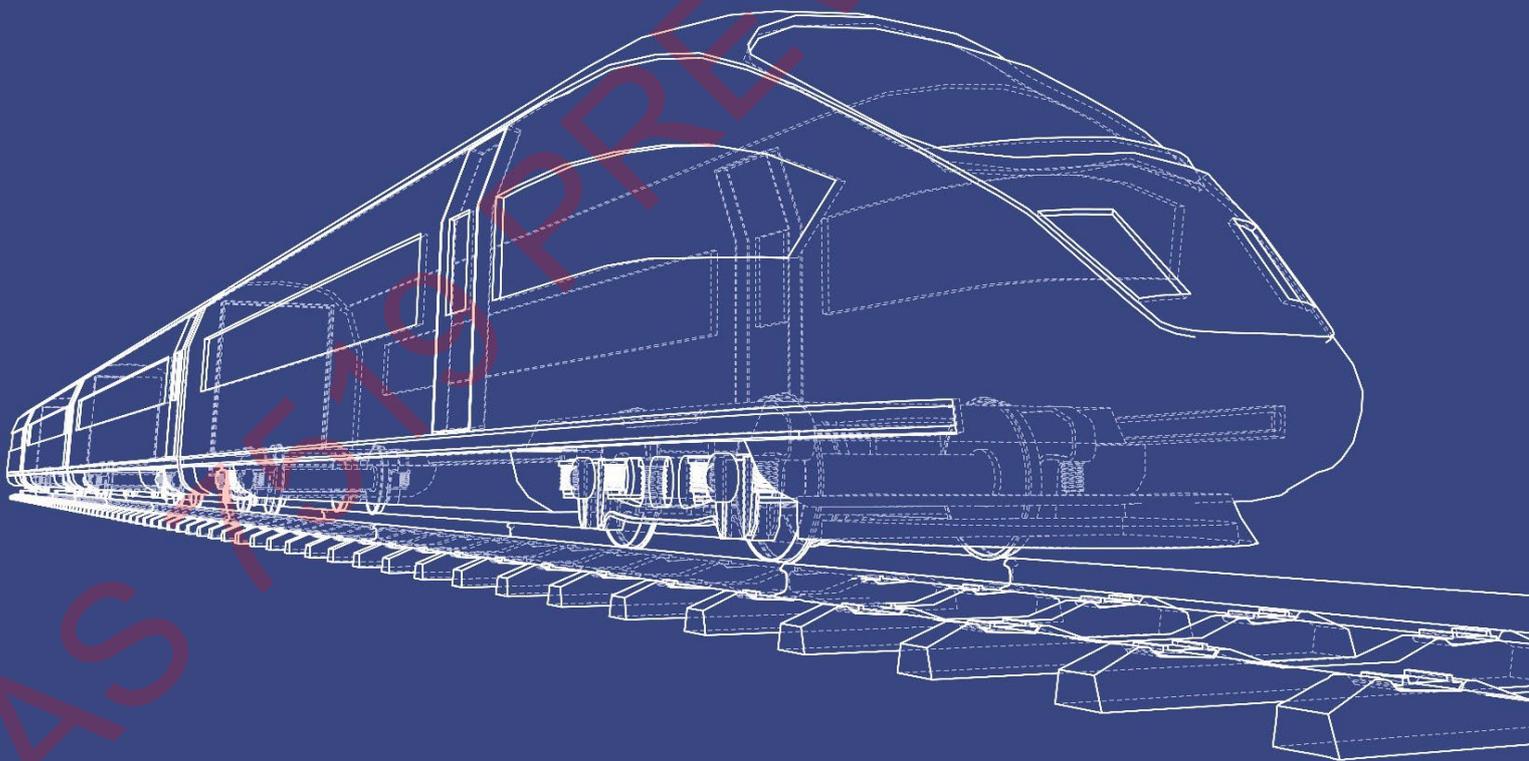




Bogie structural requirements

RiSSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD



This Australian Standard® AS 7519 Bogie structural requirements was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

John Holland	Department of Transport (Vic)	Central Queensland University
Amsted Rail	Rail Industry Supplies	Pacific National
Queensland Rail	TfNSW	ARTC

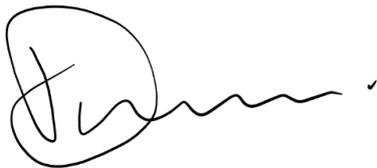
The Standard was approved by the Development Group and the Rolling Stock Standing Committee in May, 2022. On May 23, 2022, the RISSB Board approved the Standard for release.

On April 23, 2024 the RISSB Board approved the Amended Standard AS 7519:2022 / Amdt 1:2024 for release. This standard was issued for public consultation and was independently validated 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 of the Development Group through to individuals providing comment 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

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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7519 Bogie structural requirements.

Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document

Objective

This document describes requirements for the structural strength of bogie structures and attached equipment.

The main purpose of the requirements is:

- (a) to maintain the structural integrity of bogie structures and attached equipment under normal operation; and
- (b) to minimize risks to passengers, personnel, train crew and members of the general public in the event of collisions or derailments.

The content of this Standard is intended to assist with the compliance assessment process detailed in AS 7501.

This Standard wholly supersedes:

1. AS 7519.1:2008 Railway Rolling Stock - Bogie Structural Requirements Part 1 - Locomotive Rolling Stock
2. AS 7519.2:2008 Railway Rolling Stock - Bogie Structural Requirements Part 2 - Freight Rolling Stock
3. AS 7519.3:2008 Railway Rolling Stock - Bogie Structural Requirements Part 3 - Passenger Rolling Stock
4. AS 7519.4:2008 Railway Rolling Stock - Bogie Structural Requirements Part 4 - Infrastructure Maintenance Rolling Stock

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 recognise 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 B.

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

Contents

1.1	Scope	6
1.2	Normative references.....	6
1.3	Terms, definitions, and abbreviations.....	7
2	Locomotive rolling stock	8
2.1	Interfaces.....	8
2.2	Design load cases.....	9
2.3	Analysis	13
2.4	Testing.....	14
2.5	In-service loading.....	15
2.6	Maintenance	16
2.7	In-service defects.....	16
2.8	Action following derailments and collisions	17
3	Freight rolling stock	17
3.1	Interfaces.....	17
3.2	Design load cases.....	18
3.3	Analysis	22
3.4	Testing.....	23
3.5	In-service loading.....	24
3.6	Maintenance	25
3.7	In-service defects.....	25
4	Passenger rolling stock.....	26
4.1	Interfaces.....	26
4.2	Design load cases.....	28
4.3	Analysis	31
4.4	Testing.....	32
4.5	In-service loading.....	34
4.6	Maintenance	34
4.7	In-service defects.....	34
4.8	Action following derailments and collisions	35
5	Infrastructure rolling stock.....	35
5.1	Interfaces.....	35
5.2	Design load cases.....	36
5.3	Analysis	40
5.4	Testing.....	42
5.5	In-service loading.....	44
5.6	Maintenance	44
5.7	In-service defects.....	44
5.8	Action following a derailment or collision.....	45
5.9	Rail wheel guidance equipment on road-rail vehicles.....	45

Appendix contents

Appendix A	General information regarding AAR Bogies (normative).....	47
Appendix B	Australian Railway Risk Model (informative)	48
Appendix C	Bibliography (informative)	49

AS 7519 PREVIEW ONLY

1 Scope and general

1.1 Scope

This document applies to bogies for the following:

- (a) Locomotive rolling stock - Section 2.
- (b) Freight rolling stock – Section 3.
- (c) Passenger rolling stock - Section 4.
- (d) Infrastructure maintenance rolling stock – Section 5.

The document covers the design, construction, and maintenance of rolling stock.

Operation of rolling stock is not specifically covered.

This Standard is not specifically intended to cover rolling stock used on light rail, cane railway, and monorail networks, but items from this Standard may be applied to such systems as deemed appropriate by the relevant railway infrastructure manager (RIM).

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 7507 Rolling stock outlines.
- AS 7509 Dynamic behaviour.
- AAR Manual of Standards and Recommended Practices: – Section S M-202 and M-203.
- EN 13749:2021 Railway applications - Wheelsets and bogies - Method of specifying the structural requirements of bogie frames.