

AS 7517:2022



## Wheelsets

**RiSSB**  
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Rolling Stock Standard



This Australian Standard® AS 7517 Wheelsets was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Kiwi rail	Pacific National	Deloitte AMS
Sydney Trains	CQU	Bradken
Public Transport Authority of WA.	Metrotrains	ETI

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.

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.



**Deb Spring**  
Chief Executive Officer  
Rail Industry Safety and Standards Board

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## Notice to users

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## AS 7517:2022

## Wheelsets

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Name	Date
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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7517 Wheelsets. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document

This AS 7517:2022 Wheelset Standard wholly supersedes AS 7517:2014 Wheelsets.

## Objective

The objective of this Standard is to reduce the risk of derailment due to incorrect wheelset assembly.

## Compliance

There are four types of provisions contained within Australian 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 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 does not form part of the Standard*

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## 1 Scope and general

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### 1.1 Scope

This Standard applies to new and existing rolling stock.

This Standard covers the assembly, maintenance, reassembly, overhaul, and interface requirements of rolling stock. It also covers the wheelsets components checks following a derailment.

Operation of rolling stock and wheelsets with independent wheels are not covered.

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

This Standard applies to wheelsets for operating speeds up to and including 200 km/h.

### 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 7505 Railway rolling stock – Signalling detection
- AS 7514 Railway rolling stock – Wheel
- AS 7515 Railway rolling stock – Axles
- AS 7516 Railway rolling stock – Axle bearings

### 1.3 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

#### 1.3.1

##### **axial run-out**

amount by which a rotating component is out of parallel with the axis of rotation.

#### 1.3.2

##### **radial run-out**

amount by which a rotating component is running off the ideal centre of rotation.

#### 1.3.3

##### **wheel shop**

wheel shop is where wheelsets are maintained, assembled or re-profiled.

General rail industry terms and definitions are maintained in the RISSB Glossary:

<https://www.rissb.com.au/products/glossary/>