AS 1085.19:2023

Australian STANDARD®

Railway track material: Part 19: Resilient fastening assemblies

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Infrastructure Standard

This Australian Standard® AS 1085.19 Railway track material: Part 19: Resilient fastening assemblies was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

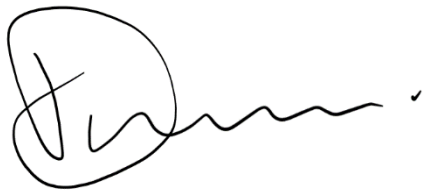
Cold Forge	Department of Transport, Victoria	IRT – Monash University
Liberty Primary Steel	Pandrol	Queensland Rail
RTBU	TfNSW	Vossloh Cogifer Australia

The Standard was approved by the Development Group and the Infrastructure Standing Committee on February, 2023. On February 13, 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 of the Development Group through to individuals providing comments on a draft of the Standard during the open review.



Damien White
Chief Executive Officer
Rail Industry Safety and Standards Board

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Notice to users

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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 1085.19 Railway track material: Part 19: Resilient fastening assemblies. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document.

Objective

The objective of this Standard is to provide manufacturers and purchasers with performance requirements for resilient fastening assemblies for use with steel rails, sleepers, and other support structures in railway tracks.

It has been produced in order to clarify the separation of requirements for fasteners from those for sleepers.

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.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Notes to the text contain information and guidance and are not considered to be an integral part of the Standard.

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

Contents

Appendix Contents

1 Scope and general

1.1 Purpose

The purpose of this Standard is to set out the performance parameters for ensuring that the resilient fastening assemblies are safe and fit for purpose.

It provides manufacturers and purchasers with performance requirements, test methods and in-field monitoring methods for ensuring a fit for purpose resilient fastening assembly.

This Standard clarifies the separation of requirements for fastening assemblies from those for individual fastening components (clips, insulators, rail pads, spacers, shoulders and pins, and base plates), sleepers and other support structures. There are more requirements for fastening components than covered in this standard, and these should be sought from standards specific to that component, e.g. rail base plates.

1.2 Scope

This Standard specifies performance requirements and test methods for resilient fastening assemblies for use in conjunction with steel rails and sleepers or other support structures for railway tracks for insulated and non-insulated applications.

NOTES:

1. Purchasing and usage guidelines are given in Appendix A, including information to be supplied by purchasers and suppliers, typical fastening evaluation data sheets, and a method for evaluation in track. Also included is a set of typical test loads for various track situations.
2. Guidance on demonstrating compliance with this Standard is given in Appendix B.

1.3 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 1085.3 Railway track material Part 3: Sleeper plates.
- AS 1085.13 Railway track material Part 13: Spring spikes.
- AS 1085.14 Railway track material Part 14: Concrete sleepers.
- AS 1085.17 Railway track material Part 17: Steel sleepers.
- AS 1085.18 Railway track material Part 18: Screw spikes.
- AS 1085.22 Railway track material Part 22: Alternative material sleepers.
- AS 1199 Sampling procedures and tables for inspection by attributes.
- AS 1399 Guide to AS 1199 – Sampling procedures and tables for inspection by attributes.
- AS 1444 Wrought alloy steels – Standard, hardenability (H) series and hardened and tempered to designated mechanical properties.
- AS 1447 Hot-rolled spring steel.
- AS 1683.23 Methods for test rubber Part 23: Rubber – vulcanized – determination of resistance to liquids.