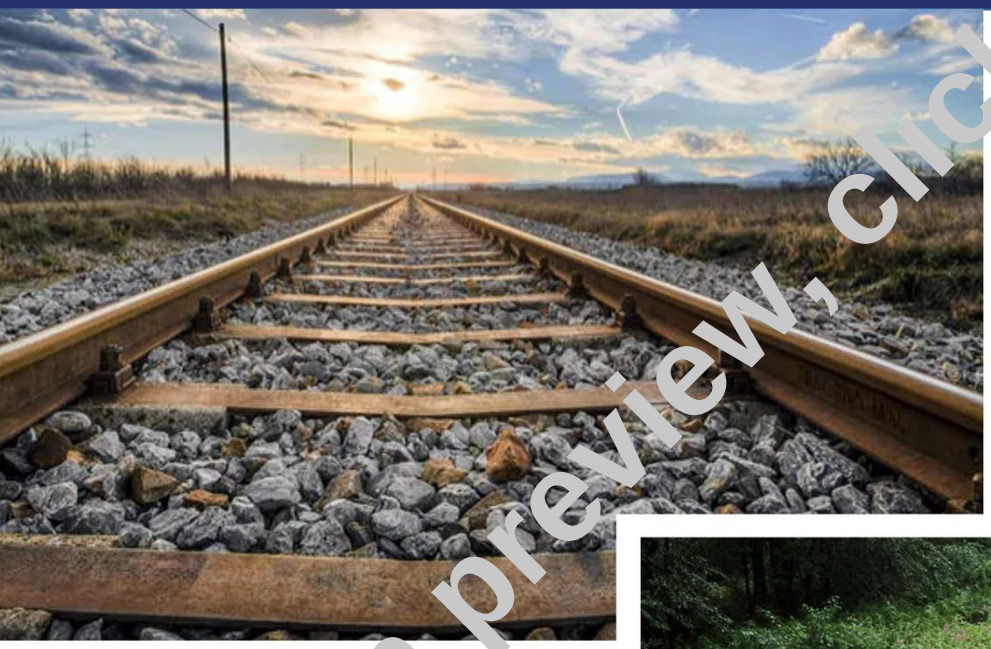
AS 7639:2022

Australian STANDARD®

Track structure and support

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Infrastructure Standard



This Australian Standard® AS 7639 Track structure and support was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

ARTC	Aurizon	DOT Victoria
KiwiRail	Level Crossing Removal Project, Victoria	Metro Trains Melbourne
IRT Monash University	PTA WA	Queensland Rail
ROCLA	Transport for NSW	Yarra Trams

The Standard was approved by the Development Group and the Infrastructure Standing Committee in January, 2022. On February 09, 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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Document details

First published as: AS 7639:2021 Track structure and support

ISBN 978-1-76113-637-5

Document history

Publication Version	Effective Date	Reason for and Extent of Change(s)
2022	February 09, 2022	New edition 2022
2013	June 05, 2013	Superseded (Aged review)

Approval

Name	Date
Rail Industry Safety and Standards Board	9/02/2022

Copyright

This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7639 Track structure and support. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document

This Standard supersedes the previous version of AS 7639 in whole.

Objective

The objective of this Standard is to outline requirements that encourage rail organisations to adopt a whole-of-life approach to the management of track structure. This approach includes the requirements in relation to track structure in terms of design, supply, construction, and maintenance of track for a range of operational track gauges used in Australia.

It is an overarching document that establishes a roadmap to a suite of other AS standards containing details of various lifecycle stages of track components.

This Standard complements the requirements for designing and manufacturing of Track structure components given in AS 1085 Railway track materials, suite of standards. This standard is also part of the AS 7600 series for rail infrastructure.

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

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Introduction

Purpose

The purpose of this Standard is to set out the requirements for ensuring that the track structure is safe and fit for purpose.

1 Scope and general

1.1 Scope

This Standard specifies functional, performance and design requirements for the track structure, and includes some 'whole of life' aspects of inspection, monitoring and maintenance requirements.

This Standard covers the track structure including fastening system, sleepers, ballast, and any interaction with underlying structures. Information relevant to rail, sub-ballast, structural fill, and earth works are provided for context. The details can be located in the following documents.

- AS 1085.1 Railway Track Material – Steel Rails
- AS 7640 Railway Infrastructure – Rail Management
- AS 7638 Railway Infrastructure – Railway Earthworks.

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 1085.1 Railway Track Material – Steel Rails
- AS 1085.3 Railway Track Material – Sleeper Plates
- AS 1085.8 Railway Track Material – Dog Spikes
- AS 1085.10 Railway Track Material – Rail Anchors
- AS 1085.12 Railway Track Material – Insulated Joint Assemblies
- AS 1085.13 Railway Track Material – Spring Fastening Spikes for Sleeper Plates
- AS 1085.14 Railway Track Material – Pre-stressed Concrete Sleepers
- AS 1085.17 Railway Permanent Way Material – Steel Sleepers
- AS 1085.19 Railway Track Material – Resilient Fastening Assemblies
- AS 1085.22 Railway Track Materials: Alternative material sleepers
- AS 2758.7 Aggregates and Rock for Engineering Purposes, Part 7: Railway Ballast
- AS 7630 Railway Infrastructure – Track Classification
- AS 7638 Railway Infrastructure – Railway Earthworks
- AS 7640 Railway Infrastructure – Rail Management
- AS 7643 Railway Infrastructure – Track Stability

NOTE: Documents for informative purposes are listed in a Bibliography in Appendix B.