AS 7642:2022

Australian STANDARD®

Turnouts and other special trackwork

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Infrastructure Standard

This Australian Standard® AS 7642 Turnouts and other special trackwork was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Arc Infrastructure	ARTC	Aurizon
Cold Forge	Martinus Rail	RTBU
Sydney Trains	TfNSW	Voestalpine Railway Systems
Vossloh Australia		

The Standard was approved by the Development Group and the Infrastructure Standing Committee in February 2022. On March 07, 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
Exec. Chair / CEO
Rail Industry Safety and Standards Board

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Notice to users

This RISSB product has been developed using input from rail experts from across the rail industry and represents good practice for the industry. The reliance upon or manner of use of this RISSB product is the sole responsibility of the user who is to assess whether it meets their organisation's operational environment and risk profile.

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Approval

Name	Date
Rail Industry Safety and Standards Board	23/03/2022

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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7642 Turnouts and other special trackwork. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document

AS 7642:2022 Turnouts and other special trackwork supersedes AS 7642:2013 Turnouts and other special trackwork.

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 turnouts and other special trackwork. This approach includes design, supply, construction, maintenance, decommissioning and disposal of turnouts and other special trackwork in order to promote a consistent treatment, across a range of operational track gauges used in Australia.

This standard covers the stages of installation, commissioning, maintenance, disposal and decommissioning of turnouts and other special trackwork, while design and manufacture stages are provided in AS 1085.21: Railway track material Part 21: Turnouts, switches, and crossings.

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 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 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

Contents

Appendix Contents

1 Scope and general

1.1 Purpose

The objective of this Standard is to provide the Australian rail industry with a set of mandatory and recommended requirements for the:

(a) general management,
(b) installation,
(c) commissioning,
(d) maintenance,
(e) disposal, and
(f) decommissioning

of turnouts and other special trackwork, in order to promote a consistent treatment.

The requirements for design and manufacture are provided in AS 1085.2.

1.2 Scope

This Standard provides the minimum requirements for the life cycle management of turnouts and other special trackwork. The elements of turnouts and other special trackwork components addressed in this Standard include:

(a) turnouts;
(b) crossings;
(c) catch points;
(d) switch rails and switch blades;
(e) stockrails;
(f) checkrails;
(g) closure or lead rails;
(h) turnout rails;
(i) flange bearing ramps;
(j) rail baseplates, fasteners and rail joints;
(k) special or transition bearers/sleepers/ in-bearers;
(l) manually operated point lever equipment.

The following components are excluded from this Standard:

(a) Sleepers not part of turnouts and other special trackwork.
(b) Track structure and formation support.
(c) Ballast.
(d) Bearers, plates, fasteners and rail joints, other than those forming components of turnouts and other special trackwork.
(e) Track geometry and alignment, other than the specific requirements for turnouts and other special trackwork.