Australian STANDARD®

Railway infrastructure: Clearances

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Infrastructure Standard

This Australian Standard® AS 7633 Railway infrastructure: Clearances was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Arc Infrastructure	ARTC	Department of Transport (Victoria)
Metro Trains Melbourne	Queensland Rail	Transport for NSW

The Standard was approved by the Development Group and the Infrastructure Standing Committee in June, 2020. On June 23, 2020 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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2012	20 January 2012	AS 7633:2012 Railway infrastructure: Clearances (Superseded)

Approval

Name	Date
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This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7633 Railway infrastructure: Clearances. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document

This Standard has been reviewed and supersedes the previous version AS 7633:2011 in whole.

Objective

The objective of this Standard is to manage the risks to safety arising from the interface between rail infrastructure and rolling stock during railway operations. It achieves this by setting out the minimum clearance standards for safe operation between:

(a) rolling stock (including loads) and trackside structures and equipment; and

(b) rolling stock (including loads) on adjacent tracks.

This Standard uses key inputs from AS 7507.

Compliance

There are two types of control contained within Australian Standards developed by RISSB:

1. Requirements.
2. Recommendations.

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.

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.

Controls in RISSB standards address known railway hazards are addressed in Appendix E.

Contents

Appendix Contents

1 Scope and general

1.1 Scope

This Standard establishes general principles for railway infrastructure managers to manage clearances throughout the asset lifecycle, specifies a system for calculating appropriate clearances, and provides recommended dimensions.

This Standard excludes:

(a) temporary structures such as formwork and scaffolding covered by special operating conditions;

(b) vegetation control;

(c) expendable rolling stock items covered in AS 7507; and

(d) tram tracks, cane railways, and monorail networks.

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.

NOTE: Documents for informative purposes are listed in Appendix F.

1.3 Terms and definitions

For the purposes of this document, the terms and definitions given in RISSB Glossary: https://www.rissb.com.au/products/glossary/, and the following apply:

(a) ***combined kinematic envelope***
greatest permissible kinematic envelope based on the summation of all rolling stock operating on a route

(b) ***contingency margin***
the gap between the kinematic envelope and a contingency outline, or between kinematic envelopes on adjacent tracks

(c) ***contingency outline***
a two-dimensional shape that consists of the kinematic envelope plus the contingency margin

(d) ***kinematic envelope***
the envelope generated by the kinematic outline, centre and end throw, and taking into account rolling stock and track tolerances

NOTE: the kinematic envelope changes in dimensions as it moves along the track due to track geometry.

(e) ***kinematic outline***
a two-dimensional shape that consists of the static outline, plus the maximum permitted allowance for vertical bounce upwards, plus lateral translation and body roll in response to a steady-state cant deficiency force at maximum permitted cant deficiency (or the maximum installed cant), and dynamic movements in response to track irregularity