

AS 7508:2017



Track Forces and Stresses



Rolling Stock Standard



This Australian Standard® AS 7508 Track Forces and Stresses was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Aurizon

Queensland Rail

UGL

Asset Standards Authority

Progress Rail

Arc Infrastructure

The Standard was approved by the Development Group and the Rolling Stock Standing Committee in October, 2017. On November 20, 2017 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.



Paul Daly

Chief Executive Officer

Rail Industry Safety and Standards Board

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Document details

First published as: AS 7508.1, AS 7508.2, AS 7508.3, AS 7508.4

ISBN 978-1-76035-954-6

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PO Box 4271, Kingston ACT 2604, Australia

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Document control

Document identification

Designation / Title
AS 7508:2017 Track Forces and Stresses

Document history

Publication Version	Effective Date	Reason for and Extent of Change(s)
AS 7508:2009 Series	January 22, 2009	First publication
AS 7508:2017	November 20, 2017	Aged review, 4 part series combined.

Approval

Name	Date
Rail Industry Safety and Standards Board	20/11/2017

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1 Introduction

1.1 Purpose

This document describes requirements to limit the forces and contact stresses exerted on the track by rolling stock.

The main purpose of the requirements is to reduce the likelihood of accelerated degradation of the infrastructure and reduce the risk of derailment.

1.2 Scope

This document applies to the following types of new and modified rolling stock, or existing rolling stock previously captive to a particular operation which is to be operated in a new area:

- (a) Locomotive rolling stock.
- (b) Freight rolling stock.
- (c) Passenger rolling stock.
- (d) Infrastructure maintenance rolling stock.

The document covers the design, construction and maintenance of rolling stock.

Operation of rolling stock is not covered.

Rolling stock used on light rail, cane railway and/or monorail networks are not covered.

1.3 Compliance

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

- (a) Mandatory requirements.
- (b) Recommended requirements.

Each of these types of control address hazards that are deemed to require controls on the basis of existing Australian and international Codes of Practice and Standards.

A **mandatory** requirement is a requirement that the Standard provides as the only way of treating the hazard.

Mandatory requirements are identified within the text by the term 'shall'.

A **recommended** requirement is one where the Standard recognises that there are limitations to the universal application of the requirement and that there may be circumstances where the control cannot be applied or that other controls may be appropriate or satisfactory, subject to agreement with the Rail Infrastructure Manager (RIM), Rolling Stock Operator (RSO), and/or Rail Safety Regulator.

Recommended clauses are mandatory unless the RIM or RSO can demonstrate a better method of controlling the risk.

Recommended requirements are to be considered when compliance with the Standard is being assessed.

Recommended requirements are identified within the text by the term 'should'.

Hazards addressed by this Standard are included in an appendix. Refer to the RISSB website for the latest Hazard Register Guideline: www.rissb.com.au.

Refer to AS 7501 for details on the compliance assessment process.