AS 2550.4:2025

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Cranes, hoists and winches — Safe use

Part 4: Tower cranes including self-erecting tower cranes



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AS 2550.4:2025

This Australian Standard® was prepared by ME-005, Cranes. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 30 November 2025.

This Standard was published on 19 December 2025.

The following are represented on Committee ME-005:

Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Institute for Non-Destructive Testing
Bureau of Steel Manufacturers of Australia
Elevating Work Platform Association of Australia
Engineers Australia
National Heavy Vehicle Regulator
NSW Department of Primary Industries and Regional Development
Office of Industrial Relations, QLD
SafeWork NSW Agency
The Crane Industry Council of Australia
Transport for NSW
Victorian WorkCover Authority (WorkSafe Victoria)
WorkSafe Division — Department of Local Government, Industry Regulation and Safety (LGIRS), WA

This Standard was issued for comment as DR AS 2550.4:2025

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ISBN: 978 1 76175 540 8

Australian Standard®

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Part 4: Tower cranes including self-erecting tower cranes

Originated as AS 2550-1982.
Revised and redesignated as AS 2550.4-1994.
Second edition 2004.
AS 2550.4:2004 and AS 2550.20:2005 revised, amalgamated and redesignated as AS 2550.4:2025.

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How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This document was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-005, Cranes, to supersede AS 2550.4:2004, *Cranes—Safe use, Part 4: Tower cranes* and AS 2550.20:2005, *Cranes—Safe use, Part 20: Self-erecting tower cranes*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to provide tower crane including self-erecting tower crane users, suppliers and regulators with uniform requirements and guidance for the safe use of tower cranes, including self-erecting tower cranes.

The major changes in this edition are as follows:

(a) The amalgamation of the Tower Crane and the Self-Erecting Tower Crane Safe Use Standards.

(b) Expansion of the requirements and guidance for maintenance, inspection and repair.

(c) An increase in guidance for out-of-service conditions.

The Commonwealth, State and Territory governments may choose to incorporate this Australian Standard into their occupational health and safety law. The exact manner of incorporation will determine whether the whole document is incorporated or whether specific sections or provisions of the Australian Standard are incorporated. The manner of incorporation will determine which of the Standard's requirements ("shall" statements) have been made a legal requirement in a jurisdiction. As a general principle, where an Australian Standard is incorporated by a regulation, the legal status of the Standard's requirements and recommendations is made clear by the incorporation provisions of the regulation. Thus, the requirements ("shall" statements) in an Australian Standard are not mandatory for legal purposes unless incorporated specifically by an Act or regulation. Readers will need to refer to their jurisdiction's law to determine which parts of the Australian Standard (if any) have been incorporated and the manner of incorporation.

Jurisdictions may also choose to incorporate this Australian Standard (either in whole or in part) in an Approved Code of Practice made under OH&S law. The purpose of the Approved Codes of Practice is to provide practical guidance to persons on how to comply with their obligations under the enabling OH&S Act or regulations made under the Act. Incorporation of this document in an Approved Code of Practice has the effect of making the document a part of the Code; that is, part of the guidance on how to comply with the provisions of the Act or regulation to which the Code is giving practical guidance. The provisions in a Code, however, are not mandatory. That is, a person may choose to comply with the relevant provisions of the Act or regulation in some other way, provided that the alternative method used fulfils the requirements of the Act or regulations.

Readers will need to refer to their jurisdiction's Approved Codes of Practice to determine which parts of this Australian Standard (if any) have been incorporated into Codes of Practice and the manner of incorporation.

A list of all parts in the AS 2550 series can be found in the Standards Australia online catalogue.

The terms "normative" and "informative" are used in Standards to define the application of the appendices to which they apply. A "normative" appendix is an integral part of a Standard, whereas an "informative" appendix is only for information and guidance.

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Australian Standard®

Cranes, hoists and winches — Safe use

Part 4: Tower cranes including self-erecting tower cranes

1 Scope

1.1 Scope

This document specifies requirements for the safe use of tower cranes and self-erecting tower cranes.

Power-driven mobile cranes fitted with tower attachments are not within the scope of this document (refer to AS 2550.5).

Offshore cranes are not within the scope of this document.

This document may be relevant to the safe use of derrick and jib cranes.

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 1418.1, *Cranes, hoists and winches, Part 1: General requirements*

AS 1418.4, *Cranes, hoists and winches, Part 4: Tower cranes*

AS 1891.3, *Personal equipment for work at height, Part 3: Manufacturing requirements for fall-arrest devices*

AS 2549, *Cranes, hoists and winches — Glossary of terms*

AS 2550.1, *Cranes, hoists and winches — Safe use, Part 1: General requirements*

AS/NZS 1891.1, *Personal equipment for work at height, Part 1: Manufacturing requirements for full body combination and lower body harnesses*

AS/NZS 1891.2, *Industrial fall-arrest systems and devices, Part 2: Horizontal lifeline and rail systems*

AS/NZS 1891.4, *Industrial fall-arrest systems and devices, Part 4: Selection, use and maintenance*

AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*

AS/NZS ISO/IEC 17020, *Conformity assessment—Requirements for the operation of various types of bodies performing inspection*

1.3 Terms and definitions

For the purposes of this document, the terms and definitions given in AS 1418.4, AS 2549 and AS 2550.1 and the following apply.

NOTE ISO and IEC maintain terminological databases for use in standardization at the following addresses:

(a) IEC Electropedia: available at https://www.electropedia.org/.

(b) ISO Online browsing platform: available at https://www.iso.org/obp.

1.3.1
climbing
alteration of height of the crane

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1.3.2
competent person
person who has acquired, through training, qualification, experience or a combination of these, the knowledge and skill enabling that person to correctly perform the required task

1.3.3
self-erecting tower crane
tower crane —

(a) whose erection and dismantling processes are an inherent part of the crane's function; and

(b) that has a tower element and a boom or jib element that ordinarily remain fully assembled and part of the crane during transport to and from site

Note 1 to entry: Examples of self-erecting tower cranes are given in Appendix C.

1.3.4
shall
indicates that a statement is mandatory

Note 1 to entry: See Preface.

1.3.5
should
indicates a recommendation

1.3.6
tower crane
slewing boom crane with the jib or boom located at the top of a vertical tower

Note 1 to entry: This definition supersedes the definition in AS 2549.

Note 2 to entry: The use of the term "jib" is equally applicable to "boom" and vice versa.

Note 3 to entry: Typical examples of tower cranes are given in AS 1418.4.

1.3.7
weathervane
feature of a crane where the wind is able to slew the crane when out of service so that the boom provides the least resistance to the wind

1.4 Instructions

Instructions shall be prepared and maintained and made available to competent persons to enable the safe use of the crane. Instructions should include the manufacturer's instructions, recommendations and specifications. If any of these instructions, recommendations and specifications are not available from the manufacturer, or if those provided are deemed inappropriate due to safety, legislative or similar concerns, new instructions shall be drawn up by a competent person. Instructions shall include all of the requirements and recommendations given in this document.

1.5 Personnel

All operations required to be carried out in accordance with this document shall be carried out by competent persons.

NOTE 1 The certificates of competency required to carry out some of these tasks are listed in AS 2550.1.

NOTE 2 A certificate of competency is an indication that a person may have the ability to carry out certain tasks. Additional training and supervision may be required to ensure that they are appropriately competent to carry out a specific task.

NOTE 3 Particular consideration should be given to a person's ability to work at heights.

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