

AS 5240.1:2021



STANDARDS
Australia



Cranes — Access guards and restraints

Part 1: General (ISO 11660-1:2008, MOD)

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AS 5240.1:2021

This Australian Standard® was prepared by ME-005, Cranes. It was approved on behalf of the Council of Standards Australia on 19 January 2021.

This Standard was published on 29 January 2021.

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- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Institute for Non-Destructive Testing
- Better Regulation Division (Fair Trading, Safework NSW, Testsafe)
- Bureau of Steel Manufacturers of Australia
- Crane Industry Council of Australia
- Department of Regional NSW
- Elevating Work Platform Association of Australia
- Engineers Australia
- National Heavy Vehicle Regulator
- Office of Industrial Relations, Qld
- Transport for NSW
- WorkSafe Division — Department of Mines, Industry Regulation and Safety (DMIRS) WA
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This Standard was issued in draft form for comment as DR AS 5240.1:2019.

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Part 1: General (ISO 11660-1:2008, MOD)

First published as AS 5240.1:2021.

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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-005, Cranes.

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

The objective of this Standard is to establish the general requirements for access to control stations and other areas of cranes during normal operations, maintenance, inspection, erection, dismantling and emergency.

This Standard also deals with guards and restraints in general, concerning the protection of persons on or near the crane with regard to moving parts, falling objects or live parts.

This Standard is an adoption with national modifications and has been reproduced from ISO 11660-1:2008, *Cranes — Access guards and restraints — Part 1: General*. The modifications are additional requirements and are set out in [Appendix ZZ](#), which has been added at the end of the source text.

[Appendix ZZ](#) lists the variations to ISO 11660-1:2008, for the application of this Standard in Australia.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text “this part of ISO 11660” should read “this Australian Standard”.
- (b) A full point substitutes for a comma when referring to a technical marker.

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

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11660-1 was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 7, *Tower cranes*.

This second edition cancels and replaces the first edition (ISO 11660-1:1999), which has been technically revised.

ISO 11660 consists of the following parts, under the general title *Cranes -- Access, guards and restraints*:

- *Part 1: General*
- *Part 2: Mobile cranes*
- *Part 3: Tower cranes*
- *Part 5: Bridge and gantry cranes*

Australian Standard®

Cranes — Access guards and restraints

Part 1: General (ISO 11660-1:2008, MOD)

1 Scope

This part of ISO 11660 establishes the general requirements for access to control stations and other areas of cranes as defined in ISO 4306-1, during normal operations, maintenance, inspection, erection, dismantling and emergency. It also deals with guards and restraints in general, concerning the protection of persons on or near the crane with regard to moving parts, falling objects or live parts.

The particular requirements relating to access, guards and restraints for the various types of cranes and lifting appliances are given in ISO 11660-2, ISO 11660-3 and ISO 11660-5.

In some cases, the particular requirements may not comply with the general requirements. Different dimensions can be permitted provided an equivalent degree of protection is achieved.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4306-1, *Cranes — Vocabulary — Part 1: General*

IEC 60204-32, *Safety of machinery — Electrical equipment of machines — Part 32: Requirements for hoisting machines*

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4306-1 and the following apply.

3.1.1

rung ladder

means of access consisting of side-rails and rungs which accommodate both feet, used where the angle of inclination to the horizontal of inclination exceeds 75°

3.1.2

stepped ladder

means of access consisting of side-rails and steps which accommodate both feet, used where the angle of inclination to the horizontal exceeds 60°

3.1.3

stair

means of access used where the angle of inclination to the horizontal does not exceed 50°

3.1.4

ramp

plane inclined at an angle of 20° or less from the horizontal, without steps

3.1.5

walkway

part of an access system, with essentially horizontal flooring, that permits walking or crawling between locations on a crane