

AS 5240.3:2024



STANDARDS
Australia



Cranes — Access, guards and restraints

Part 3: Bridge and gantry cranes (ISO 11660-5:2001, MOD)



AS 5240.3:2024

This Australian Standard ® was prepared by ME-005, Cranes. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 12 August 2024.

This Standard was published on 30 August 2024.

The following are represented on Committee ME-005:

- 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
- Victorian WorkCover Authority (WorkSafe Victoria)
- WorkSafe Division — Department of Mines, Industry Regulation and Safety (DMIRS) WA

This Standard was issued in draft form for comment as DR AS 5240.3:2023.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

ISBN 978 1 76139 790 5

Cranes — Access, guards and restraints

Part 3: Bridge and gantry cranes (ISO 11660-5:2001, MOD)

First published as AS 5240.3:2024.

COPYRIGHT

© ISO 2024 — All rights reserved
© Standards Australia Limited 2024

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

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 document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to establish the particular requirements relating to the access, guards and restraints for bridge and gantry cranes as defined in ISO 4306-1 and to give criteria for the selection of the appropriate equipment under the various conditions of use expected of the crane.

This document is an adoption with national modifications, and has been reproduced from, ISO 11660-5:2001, *Cranes — Access, guards and restraints — Part 5: Bridge and gantry cranes*. 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 modifications to ISO 11660-5:2001 for the application of this document in Australia.

As this document has been reproduced from an International document, the following apply:

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

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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.

Contents

Preface	ii
Foreword	iv
1 Scope	1
2 Normative references	1
3 Access	1
3.1 General	1
3.2 Bridge cranes in buildings or on elevated runways	1
3.2.1 Access to crane-access landing	1
3.2.2 Access landing	2
3.2.3 Alternative access over the crane	4
3.3 Access to gantry cranes	7
3.4 Access to trolley	7
4 Access for crane maintenance	7
4.1 General	7
4.2 Mobile access equipment	7
4.3 Use of partial platforms	7
5 Headroom	8
5.1 Roof clearances	8
5.2 Driver clearance	8
5.3 Maintenance personnel clearance	8
6 Emergency egress	8
7 Guarding	9
7.1 Electrical guarding	9
7.2 Mechanical guarding	9
Bibliography	10
Appendix ZZ (normative) Modifications to ISO 11660-5:2001 for Australia	11

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 3.

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 part of ISO 11660 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 11660-5 was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 9, *Bridge and gantry cranes*.

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 4: Jib cranes*
- *Part 5: Bridge and gantry cranes*

Australian Standard®

Cranes — Access, guards and restraints

Part 3: Bridge and gantry cranes (ISO 11660-5:2001, MOD)

1 Scope

This part of ISO 11660 establishes the particular requirements relating to the access, guards and restraints for bridge and gantry cranes as defined in ISO 4306-1 and gives criteria for the selection of the appropriate equipment under the various conditions of use expected of the crane.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11660. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11660 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 11660-1:1999, *Cranes — Access, guards and restraints — Part 1: General*.

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

3 Access

3.1 General

This clause deals with the operational access to bridge and gantry cranes mounted on elevated or ground runways, and with the requirements for access for the regular and emergency maintenance and repair of such cranes.

3.2 Bridge cranes in buildings or on elevated runways

3.2.1 Access to crane-access landing

Bridge and gantry cranes which are intended to have a permanent driver in the control cabs shall permit access from a permanent landing which has been fastened to the crane supporting structure.

The recommended means of access given in [Table 1](#) shall be in accordance with the forms and dimensions given in Table 4 of ISO 11660-1:1999.

Table 1 — Recommended means of access

Height of crane access above floor level m	Recommended means of access
1 to 15	Stairs Inclined ladders Vertical ladders
15 to 25	Stairs
> 25	Powered access Stairs

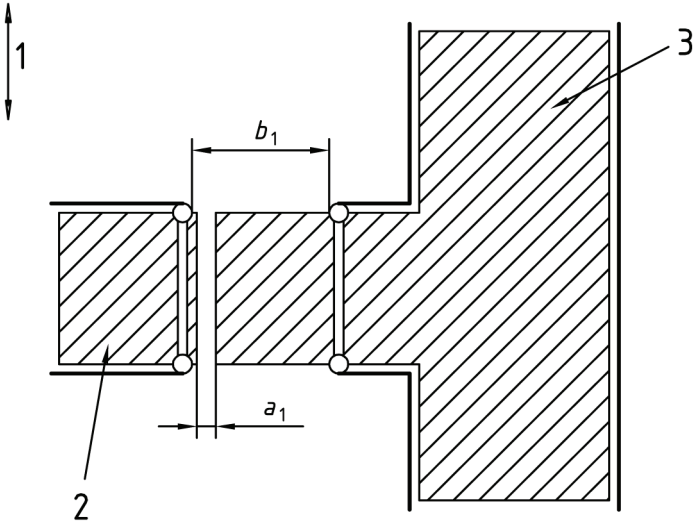
3.2.2 Access landing

The normal access to the crane shall permit access or egress from an access landing. Access openings shall be protected by suitable self-closing means such as

- inward-opening doors or gates;
- sliding gates, vertical or horizontal;
- vertically pivoted rails.

The access landing and the corresponding crane landing shall be within 10 mm of a common level or have a step of height between 180 mm and 250 mm.

Clearances in access landing shall be in accordance with [Figure 1](#). If these clearances are not satisfied, other means shall be provided to address the shearing, crushing and falling hazards, e.g. interlocks.



a) Shearing condition ^a