Australian Standard®

Fixed platforms, walkways, stairways and ladders — Design, construction and installation

This Australian Standard was prepared by Committee SF/13, Platforms, Gangways, Stairways and Ladders. It was approved on behalf of the Council of Standards Australia on 9 September 1992 and published on 16 November 1992.

The following interests are represented on Committee SF/13:

Aluminium Development Council

Bureau of Steel Manufacturers of Australia

Confederation of Australian Industry

Department of Employment, Vocational Education, Training and Industrial Relations, Old

Department of Labour and Industry, Tas.

Master Builders Construction and Housing Association of Australia

Pacific Power

Public Works Department, N.S.W.

Royal Australian Institute of Architects

Water Board, Sydney-Illawarra-Blue Mountains

WorkCover Authority of New South Wales

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This Standard was issued in draft form for comment as DR 90065.

This is a free 6 page sample. Access the full version online.

Australian Standard®

Fixed platforms, walkways, stairways and ladders — Design, construction and installation

First published as AS CA10-1938. Second edition 1963. Third edition 1966. Fourth edition 1971. Revised and redesignated AS 1657-1974. Second edition 1985. Third edition 1992. AS 1657—1992

PREFACE

This Standard was prepared by the Standards Australia Committee on Platforms, Gangways, Stairways and Ladders, to supersede AS 1657-1985.

Changes to the Standard include —

- (a) reducing the minimum wall thickness of steel piping which may be used;
- (b) incorporating a minimum tensile yield stress requirement for aluminium alloys;
- (c) deleting references to specific aluminium alloys and tempers;
- (d) updating the dimensions of steel sections other than piping, to reflect current manufacturing practices; and
- (e) provision of test methods to determine the integrity of guardrail systems, and the strength of the connection between guardrail posts and the supporting structure.

© Copyright - STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

This is a free 6 page sample. Access the full version online.

CONTENTS

	Pag
SECTION 1 SCOPE AND	GENERAL
1.2 APPLICATION .1.3 REFERENCED DO	OCUMENTS
SECTION 2 STRUCTURA	L DESIGN, MATERIALS AND WELDING
2.2 MATERIALS	
SECTION 3 PLATFORM WITH LAND	S, CONTINUOUS WALKWAYS, AND STEPS DINGS
3.2 PROTECTION AT 3.3 DESIGN	IREMENTS T SIDES, ENDS, EDGES, AND OPENINGS
SECTION 4 STAIRWAYS	
4.2 FLIGHTS	GLE OF SLOPE 1
SECTION 5 FIXED LADD	ERS
 5.2 ACCESS THROUGH 5.3 LADDER LANDING 5.4 GUARDRAILING 5.5 STEP LADDERS 5.6 RUNG LADDERS 	
APPENDICES	
	ONENT DIMENSIONS AND SPACINGS FOR
	ARDRAIL POSTS 2
C TESTING OF GIL	ARDRAILS 2

AS 1657—1992 4

STANDARDS AUSTRALIA

Australian Standard

Fixed platforms, walkways, stairways, and ladders — Design, construction and installation

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out requirements for the design, construction, and installation of fixed platforms, walkways, stairways, and ladders which are intended to provide means of safe access to and safe working at places normally used by operating, inspection, maintenance, and servicing personnel.

The Standard does not apply to situations where special provision is made in appropriate building or other regulations, e.g. means of escape from fire. Requirements for portable ladders are not included in this Standard.

- **1.2 APPLICATION** The design, construction, and installation of a platform, walkway, stairway, or ladder shall comply with the appropriate requirements of Section 2 and the specific requirements for the type of structure, as follows:
- (a) Platforms and walkways: Section 3.
- (b) Stairways: Section 4.
- (c) Fixed ladders: Section 5.

The application of the relevant Sections and the limits of slope are illustrated in Figure 1.1.

Where it is not reasonably practicable to meet the full requirements of this Standard, advice should be sought from the regulatory authority.

NOTES

- Some structures and vehicles will be unable to comply with all the requirements of this Standard. Special structures include radio masts, towers, portable on farm light-weight silos, and the like. Vehicles include road tankers, waste disposal trucks, and the like.
- 2 Structures and vehicles which are unable to comply with all the requirements of this Standard should comply with the relevant design Codes for loading.
- 1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 1170 SAA Loading Code
- 1170.1 Part 1: Dead and live loads and load combinations
- 1170.2 Part 2: Wind loads
- Electroplated coatings Nickel and chromium
- 1538 SAA Cold-formed Steel Structures Code
- 1554 SAA Structural Steel Welding Code
- 1554.1 Part 1: Welding of steel structures
- Preservative treatment for sawn timber, veneer and plywood
- Hot-dipped galvanized coatings on ferrous articles
- 1664 SAA Aluminium Structures Code
- 1665 SAA Aluminium Welding Code
- 1720 SAA Timber Structures Code
- 1720.1 Part 1: Design methods
- 1734 Aluminium and aluminium alloys Flat sheet, coiled sheet and plate
- 1782 Flooring milled from Australian-grown conifers (softwoods) (excluding radiata pine and cypress pine)
- 1789 Electroplated coatings Zinc on iron or steel
- 1790 Electroplated coatings Cadmium on iron or steel
- 1810 Flooring milled from cypress pine
- 1866 Aluminium and aluminium alloys Extruded rod, bar, solid and hollow shapes
- 1892 Portable ladders
- 1892.2 Part 2: Timber
- 2105 Inorganic zinc silicate paint



The remainder of this document is available for purchase online at

www.saiglobal.com/shop



















