

AS 1418.15—1994

Australian Standard<sup>®</sup>

---

**Cranes (including hoists and  
winches)**

**Part 15: Concrete placing  
equipment**

---

This Australian Standard was prepared by Committee ME/5, Cranes. It was approved on behalf of the Council of Standards Australia on 6 May 1994 and published on 20 June 1994.

---

The following interests are represented on Committee ME/5:

A.C.T. Occupational Health and Safety Office  
Association of Consulting Engineers, Australia  
Australian Chamber of Manufactures  
Australian Institute of Building  
Bureau of Steel Manufacturers of Australia  
Construction and Mining Equipment Association of Australia  
Crane Industry Council of Australia  
Department of Defence (Commonwealth)  
Department of Employment, Vocational Education, Training and Industrial Relations, Qld  
Department of Labour, S.A.  
Department of Occupational Health, Safety and Welfare, W.A.  
Electricity Supply Association of Australia  
Institution of Engineers, Australia  
Lift Manufacturers Association of Australia  
Maritime Services Board of New South Wales  
Metal Trades Industry Association of Australia  
Occupational Health and Safety Authority, Vic.  
Port of Melbourne Authority  
Public Works Department, N.S.W.  
Railways of Australia Committee  
Tasmania—Development and Resources  
Telecom Australia  
University of New South Wales  
Water Board, Sydney—Illawarra—Blue Mountains  
WorkCover Authority, N.S.W.  
Work Health Authority, N.T.

---

**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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.*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 93091.*

AS 1418.15—1994

Australian Standard<sup>®</sup>

---

**Cranes (including hoists and winches)**

**Part 15: Concrete placing equipment**

---

First published as AS 1418.15—1994.

Incorporating:  
Amdt 1 — 1995

PUBLISHED BY STANDARDS AUSTRALIA  
(STANDARDS ASSOCIATION OF AUSTRALIA)  
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 8973 6

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/5 on Cranes. It covers specific requirements for concrete placing equipment and is intended for use in conjunction with AS 1418.1, *Cranes (including hoists and winches)*, Part 1: *General requirements*. Under the terms of the Active Cooperation Agreement, this Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce this document as an Australian Standard.

In the preparation of this Standard, cognizance has been taken of comparable current Standards in Germany.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

### © 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.

## CONTENTS

	<i>Page</i>
<b>SECTION 1 SCOPE AND GENERAL</b>	
1.1 SCOPE .....	5
1.2 APPLICATION .....	5
1.3 REFERENCED DOCUMENTS .....	5
1.4 DEFINITIONS .....	6
<b>SECTION 2 CLASSIFICATION, RATING AND WORKING ZONES</b>	
2.1 CLASSIFICATION OF CONCRETE PLACING EQUIPMENT .....	8
2.2 RATING .....	8
2.3 WORKING ZONES AND CONFIGURATIONS .....	8
<b>SECTION 3 CONCRETE PLACING EQUIPMENT LOADS</b>	
3.1 GENERAL .....	9
3.2 DEAD WEIGHTS .....	9
3.3 OPERATING LOADS .....	9
3.4 SLEWING AND LUFFING FORCES .....	9
3.5 SIDE FORCES .....	9
3.6 WIND LOADS .....	9
3.7 SNOW LOADS .....	9
3.8 LOAD COMBINATIONS .....	9
<b>SECTION 4 DESIGN—GENERAL</b>	
4.1 BASIS OF DESIGN .....	10
4.2 SEPARATE SUPPORT STRUCTURE .....	10
4.3 CARRIER .....	10
4.4 BOOM .....	11
4.5 OUTRIGGERS AND STABILIZERS .....	11
4.6 COUNTERWEIGHTS .....	11
4.7 HYDRAULIC CIRCUIT ACCUMULATORS .....	11
<b>SECTION 5 STABILITY</b>	
5.1 GENERAL .....	12
5.2 REQUIREMENTS .....	12
5.3 LOADS .....	12
5.4 STABILITY CALCULATIONS .....	12
5.5 BACKWARD STABILITY .....	12
<b>SECTION 6 CONCRETE PLACING BOOM MOTIONS</b> .....	12
<b>SECTION 7 OPERATIONAL DESIGN</b>	
7.1 CONTROL AND INDICATORS FOR CONCRETE PLACING EQUIPMENT .....	13
7.2 EXHAUST-GAS SYSTEM .....	13
7.3 NOISE DESIGN CRITERIA .....	13

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-