

Sup.
Under revision see DR 87154

Incorporating Amendment No 1

AS 1418, Part 7—1977

UDC 621.873

REPLACED BY

AS 1418.7-1988

Australian Standard 1418, Part 7—1977

SAA CRANE CODE

**Part 7—BUILDERS HOISTS
AND EQUIPMENT**



STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter

d



THE FOLLOWING GOVERNMENT DEPARTMENTS AND SCIENTIFIC and industrial organizations are officially represented on the committee entrusted with the preparation of this standard:

Aluminium Development Council
Associated Chambers of Manufactures of Australia
Association of Consulting Engineers Australia
Australian Institute of Building
Bureau of Steel Manufacturers of Australia
Construction Equipment Manufacturers of Australia
Crane Hoist and Lifting Appliance Manufacturers Association
Department of Construction
Department of Defence
Department of Productivity
Department of Public Works
Departments of Labour and Industry
Electricity Supply Association of Australia
Maritime Services Board
Melbourne Harbor Trust Commissioners
Metal Trades Industry Association of Australia
Metropolitan Water Sewerage and Drainage Board
Railways of Australia Committee
Telecom Australia

This standard, prepared by Committee ME/5, Cranes, was approved by the Mechanical Standards Board on behalf of the Council of the Standards Association of Australia on 7 December 1976, and was published on 1 June 1977.

In order to keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

This standard was issued in draft form for public review as DR 75067.

AUSTRALIAN STANDARD

RULES FOR
CRANES
(including Hoists and Winches)

known as the
SAA CRANE CODE

Part 7
BUILDERS HOISTS AND
EQUIPMENT

AS 1418, Part 7—1977

First published	1977
Amended	July 1982
Reprinted incorporating amendment	1983

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR STREET, NTH SYDNEY, N.S.W.

ISBN 0 7262 1177 X



PREFACE

This standard was prepared by the Association's Committee on Cranes, as a part of AS 1418, SAA Crane Code.

It covers specific requirements for builders hoists and is intended for use in conjunction with Part 1, General Requirements. However, requirements specified in this Part 7 take precedence over corresponding requirements in Part 1.

Appendices provide recommendations concerning information to be supplied with enquiry, order, tender and request for hire, information regarding application for statutory approval for design, installa-

tion and use of builders hoists and guidance on inspection prior to initial operation and after testing to ensure that the hoist complies physically with this standard prior to use.

There is no separate index to this Part 7, a comprehensive index to the whole standard being provided in Part 1.

Part 7 currently covers concrete skip hoists, materials hoists and men and materials hoists. Additional sections will be added to cover formwork hoists and other types of equipment.

CONTENTS

	<i>Page</i>		<i>Page</i>
SECTION 1. SCOPE AND GENERAL		3.2 Classification of Hoist	11
1.1 Scope	3	3.3 Load Rating	11
1.2 Definitions	3	3.4 Loads	11
1.3 Design	3	3.5 Load Combinations	11
SECTION 2. MATERIALS HOISTS AND CON- CRETE SKIP HOISTS		3.6 Design and Construction	11
2.1 Scope and Application	5	3.7 Installation	15
2.2 Classification of Hoist	5	3.8 Marking	16
2.3 Load Rating	5	3.9 Testing	16
2.4 Loads	5	3.10 Inspection and Servicing	16
2.5 Load Combinations	5	3.11 Operation and Use	16
2.6 Design and Construction	5	3.12 Communications	17
2.7 Installation	8	3.13 Emergency Operation and Access	17
2.8 Marking	8		
2.9 Testing	9	APPENDICES	
2.10 Inspection and Servicing	9	A Information to be Supplied With Enquiry, Order, Tender or Request For Hire	18
2.11 Operation and Use	9	B Statutory Approval	20
SECTION 3. MEN AND MATERIALS HOISTS		C Commissioning Inspection	22
3.1 Scope and Application	11		

© Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1977

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.

STANDARDS ASSOCIATION OF AUSTRALIA

**Australian Standard Rules
for
CRANES (including Hoists and Winches)**

PART 7—BUILDERS HOISTS AND EQUIPMENT

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard (hereinafter referred to as 'this Part' or 'this Part of the Code') sets out requirements for hoists essentially for use in the building industry. It does not apply to derrick, jib, portal or tower cranes (these types are covered by Part 4), mobile cranes (this type is covered by Part 5), mining hoists and equipment (these types are covered by Part 8) and chimney hoists.

It is complementary to Part 1, General Requirements, but the requirements given in this Part take precedence over corresponding requirements in Part 1.

1.2 DEFINITIONS. For the purpose of this standard, the definitions given in AS 2549 apply.

1.3 DESIGN.

1.3.1 Basis of Design. The structural and mechanical design including assessment of loading, material selection and limitations of stress, deflection and fatigue loading shall be carried out in accordance with Part 1 of the Code and take into consideration the loads and load combinations specified in the appropriate Section of this Part of the Code.

1.3.2 Deflection. Deflections under all conditions of loading shall be limited to magnitudes which eliminate—

- (a) excessive lateral movement (spread) of bucket, car or platform guides;
- (b) excessive stress fluctuations in hoist structure connections;
- (c) undesirable misalignment of or interference between parts of the hoist; and
- (d) undesirable cyclic vibration and related movements.

1.3.3 Bracing. Bracing, connecting all main-chord members of the hoist structure to the structure or building the hoist serves, shall be provided where necessary to ensure that the hoist complies with the stability, strength and deflection requirements of the Code.

1.3.4 Driving Mechanisms. All driving mechanisms other than those for concrete hoists shall be of the positive-drive type (see Rule 1.2.3.5).

The driving mechanism shall incorporate an approved (see Part 1, Rule 2.2) brake to safely control the vertical movement of the load and to bring it to rest. Where the mechanism is of the positive-drive type, the brake shall apply automatically when the power source to the driving mechanism is de-energized.

Where failure of a coupling would render the brake ineffective, the brake shall be located on the load side of the coupling.

Where a non-positive-drive mechanism is used to drive a concrete skip hoist, the throw of the control lever shall be not greater than 500 mm.

1.3.5 Driving-machine Isolation. Means shall be provided to isolate each driving machine to prevent operation by unauthorized personnel.

1.3.6 Guard Railing. Guard railing shall comply with AS 1657.* Infills shall have size of opening, along each side where the openings are parallelogram-shaped, not greater than 50 mm.

*AS 1657, SAA Code for Fixed Platforms, Walkways, Stairways and Ladders.