

~~STILL CURRENT~~

Under Revision. See DR 91157 (for Pt 1)
" " " DR 91158 (for Pt 2)
" (in part) see DR 91163

AS 2550—1982
UDC 621.873.004

~~Superseded by AS 2550.1-1993 (in part)~~
~~Superseded by AS 2550.5-1993 (in part)~~

WITHDRAWN: 1 AUG 1994

Australian Standard ^{SUPERSEDED BY:} 2550—1982

AS 2550.1-1993
AS 2550.4-1994
AS 2550.5-1993

CRANES MOBILE, TOWER AND DERRICK— SELECTION AND OPERATION



STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter



This Australian standard was prepared by Committee ME/5, Cranes. It was approved on behalf of the Council of the Standards Association of Australia on 7 May 1982 and published on 19 July 1982.

The following interests were represented on the committee responsible for the preparation of this standard:

Aluminium Development Council
Association of Consulting Engineers, Australia
Australian Institute of Building
Bureau of Steel Manufacturers of Australia
Confederation of Australian Industry
Construction Equipment Importers and Manufacturers of Australia
Department of Construction
Department of Defence
Department of Industrial Affairs and Employment, South Australia
Department of Industrial Relations, N.S.W.
Department of Labour and Industry, Tasmania
Department of Labour and Industry, Victoria
Department of Labour and Industry, Western Australia
Department of Labour Relations, Queensland
Department of Mines and Energy, Northern Territory
Department of Productivity
Department of Public Works, N.S.W.
Department of the Capital Territory
Electricity Supply Association of Australia
Institute of Materials Handling
Maritime Services Board, N.S.W.
Metal Trades Industry Association of Australia
Metropolitan Water Sewerage and Drainage Board, N.S.W.
Mobile Crane Hirers Association of Victoria
Port of Melbourne Authority
Railways of Australia Committee
Telecom Australia

To keep abreast of progress in industry, Australian standards are subject to continuous 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 their standards are up-to-date. Full details of all SAA publications will be found in the Annual List of Australian Standards; these details are supplemented by listings in the SAA monthly journal 'The Australian Standard'. Information on the Annual List and 'The Australian Standard' may be obtained from any sales office of the Association, where details are also available of the current status of individual standards. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

This standard was issued in draft form for comment as DR 81226.

AUSTRALIAN STANDARD

CRANES
MOBILE, TOWER AND DERRICK—
SELECTION AND OPERATION

AS 2550—1982

First published1982

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

ISBN 0 7262 2571 1



16 JUL 1982

PREFACE

This standard was prepared by the Association's Committee on Cranes as part of the general revision and metrication of AS CB2—1960, SAA Crane and Hoist Code, which has been largely superseded by the various Parts of AS 1418, SAA Crane Code. This present standard incorporates Sections 22 and 23 of AS 1418, Part 1—1977 and material from BS:CP3010, Safe Use of Cranes (Mobile Cranes, Tower Cranes and Derrick Cranes). Acknowledgement is made of the assistance obtained from CP3010.

Preparation of this standard was prompted by the fact that cranes were being employed in an ever-widening variety of job applications and environmental conditions, together with the introduction of novel designs of cranes offering technical sophistication, increased capacities and new extremes of operating range.

The aims of the standard are therefore—

- (a) to describe the principal characteristics and applications of the various forms of cranes of the types most commonly used;
- (b) to draw attention to some of the more common hazards and potential dangers which may be encountered in their use; and
- (c) to specify general precautions to be taken and operational procedures to be followed.

A list of statutory authorities is given in Appendix D.

© Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1982

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.

CONTENTS

	<i>Page</i>
SECTION 1. SCOPE AND GENERAL	
1.1 Scope.....	4
1.2 Referenced Documents	4
1.3 Definitions.....	4
1.4 Selection	4
1.5 Operation	4
SECTION 2. GENERAL REQUIREMENTS	
2.1 Scope of Section.....	5
2.2 Selection of Cranes	5
2.3 Crane.....	5
2.4 Crane Drivers, Crane Chasers, Dogmen and Spotters	5
2.5 Siting of Cranes	5
2.6 Erection and Dismantling	8
2.7 Precautions for Cranes	8
2.8 Load Rating	9
2.9 Operation and Control	9
2.10 Ropes	15
2.11 Hooks and Hook Blocks	16
2.12 Maintenance, Inspection and Repair	16
2.13 Fire Extinguisher	16
SECTION 3. MOBILE CRANES	
3.1 Scope of Section.....	17
3.2 Types.....	17
3.3 Selection	17
3.4 Siting.....	17
3.5 Erection, Dismantling and Transportation	17
3.6 Precautions	22
3.7 Load Rating	22
3.8 Operation and Control	23
SECTION 4. TOWER CRANES	
4.1 Scope of Section.....	29
4.2 Types.....	29
4.3 Crane Driver, Crane Chaser, Dogman and Spotter	34
4.4 Selection	34
4.5 Siting.....	34
4.6 Erection and Dismantling	34
4.7 Precautions	37
4.8 Load Rating	37
4.9 Operation and Control	38
SECTION 5. DERRICK CRANES	
5.1 Scope of Section.....	39
5.2 Types.....	39
5.3 Selection	39
5.4 Siting.....	43
5.5 Erection and Dismantling	44
5.6 Precautions	45
5.7 Load Rating	45
5.8 Operation and Control	46
APPENDICES	
A Standards Relevant to Cranes	47
B Maintenance Work Procedures	49
C Outrigger Safe Bearing Capacity on Soils	50
D Statutory Authorities	51

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

CRANES—MOBILE, TOWER AND DERRICK—SELECTION AND OPERATION

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out guidelines for the selection and operation of mobile, tower and derrick cranes. It covers selection, erection, siting and operation, and dismantling and maintenance procedures, and requirements for crane drivers, crane chasers, dogmen and spotters, as applicable.

1.2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

- AS 1418 SAA Crane Code
Part 1—General Requirements
Part 5—Mobile Cranes
- AS 1752 Fibre Rope (Eight-strand Plaited Polypropylene)
- AS 2076 Wire Rope Grips
- AS 2549 Cranes—Glossary of Terms

In addition, Appendix A provides a list of other standards which are relevant to cranes.

1.3 DEFINITIONS. For the purpose of this standard, terms shall have the meanings given in AS 2549.

1.4 SELECTION. The selection of the crane shall be in accordance with the procedure set out in Clause 2.2.

1.5 OPERATION. The operation of the crane shall comply with Section 2 and with the appropriate requirements for the selected crane as specified in the following Sections:

- (a) Section 3—Mobile Cranes.
- (b) Section 4—Tower Cranes.
- (c) Section 5—Derrick Cranes.