

AS 2759—1985

Australian Standard<sup>®</sup>

---

**STEEL WIRE ROPE—  
APPLICATION GUIDE**

---

This Australian standard was prepared by Committee ME/25, Lifting Tackle. It was approved on behalf of the Standards Association of Australia on 4 October 1984 and published on 10 May 1985.

---

The following interests are represented on Committee ME/25:

Association of Australian Forging Industries  
Australian Chamber of Commerce  
Confederation of Australian Industry  
Department of Defence  
Department of Defence Support  
Department of Employment and Industrial Affairs, Qld  
Department of Industrial Affairs, W.A.  
Department of Industrial Relations, N.S.W.  
Department of Labour, S.A.  
Department of Labour and Industry, Tas.  
Department of Mines and Energy, N.T.  
Department of Science and Technology  
Department of Territories and Local Government  
Department of Transport  
Electricity Supply Association of Australia  
Metal Trades Industry Association of Australia  
Ministry of Employment and Training, Vic.  
Railways of Australia Committee

---

**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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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 79061 and DR 79062.*

AS 2759—1985

Australian Standard<sup>®</sup>

---

**STEEL WIRE ROPE—  
APPLICATION GUIDE**

---

First published (as AS MB1) . . . . .	1968
AS 2759 first published . . . . .	1985

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

ISBN 0 7262 3698 9

## PREFACE

This standard was prepared by the Association's Committee on Lifting Tackle. It supersedes AS MB1-1968, SAA Steel Wire Rope Manual.

This standard includes the following changes from AS MB1-1968:

- (a) Major changes of an editorial nature have been made in accordance with current SAA editorial policy.
- (b) Dimensions are metricated.
- (c) Correct methods of recoiling a rope are illustrated.
- (d) Resin socketing is introduced.
- (e) The specifications for metallised sockets have been replaced by references to suitable standards.
- (f) The specifications for socketing metal have been simplified and made less specific.
- (g) Le Blanc splicing is referred to.
- (h) The description in the figures covering long splicing has been simplified.
- (j) The specification for thimbles has been deleted because suitable standards for thimbles now exist.
- (k) Additional illustrations of damaged ropes are included.

A series of standards for components which are used in lifting systems are as follows:

- AS 1138 Thimbles for Use with Wire Rope or Fibre (Natural or Synthetic) Rope
- AS 1353 Synthetic-webbing Flat Slings
- AS 1380 Fibre-rope Slings (of Natural or Synthetic Rope)
- AS 1426 Steel Wire Ropes for Winding and Haulage Purposes in Mines
- AS 1438 Wire-coil Flat Slings
- AS 1504 Fibre Rope—Three-strand, Hawser Laid
- AS 1656 Steel Wire Ropes (Other Than for Mining Purposes)
- AS 1666 Wire-rope Slings
- AS 1752 Fibre Rope—Eight-strand Plaited
- AS 2076 Wire Rope Grips
- AS 2089 Sheave Blocks (Including Ships' Cargo Blocks) of Maximum Lift 60 t
- AS 2317 Collared Eyebolts
- AS 2318 Swivels
- AS 2319 Rigging Screws and Turnbuckles
- AS 2321 Short-link Chain for Lifting Purposes (Non-calibrated)
- AS 2740 Wedge-type Sockets
- AS 2741 Shackles
- AS B291 Lifting Rings and Links

## © 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>
SECTION 1. SCOPE AND GENERAL	
1.1 Scope . . . . .	5
1.2 Application . . . . .	5
1.3 Referenced Documents . . . . .	5
1.4 Definitions . . . . .	5
SECTION 2. SELECTION	
2.1 General . . . . .	6
2.2 Physical Properties . . . . .	6
2.3 Temperature . . . . .	6
2.4 Working Load . . . . .	6
2.5 Construction . . . . .	7
2.6 Method of Measuring Diameter of Wire Ropes . . . . .	8
SECTION 3. STORAGE AND HANDLING	
3.1 Storage . . . . .	9
3.2 Uncoiling and Handling . . . . .	9
SECTION 4. CUTTING AND FITTING	
4.1 Rope End Preparation . . . . .	10
4.2 Whipping . . . . .	10
4.3 Initial Operation . . . . .	10
SECTION 5. ROPE FITTINGS AND THEIR EFFICIENCIES	
5.1 Choice of Fittings and End Attachments . . . . .	13
5.2 Types of Fittings . . . . .	13
SECTION 6. SOCKETING	
6.1 Sockets . . . . .	16
6.2 Resin Socketing . . . . .	16
6.3 Metal Socketing . . . . .	16
SECTION 7. SPLICING	
7.1 Splicing Tools . . . . .	19
7.2 Tucking Lengths for Eye Splices . . . . .	19
7.3 Number of Tucks for Eye Splices . . . . .	20
7.4 Preparation of Rope for Splicing an Eye . . . . .	20
7.5 Tucking Method . . . . .	22
7.6 Tucking Sequence for Five-tuck Eye Splices . . . . .	23
7.7 Non-rotating Rope Eye Splices . . . . .	28
7.8 Long Splicing . . . . .	31
SECTION 8. DIMENSIONS OF SHEAVES, DRUMS AND ANCHORAGES	
8.1 Grooves for Sheaves and Drums . . . . .	39
8.2 Diameter of Sheaves and Drums . . . . .	39
8.3 Diameter of Dead Eyes or End Anchorages . . . . .	39
8.4 Radial Bearing Pressures . . . . .	39
SECTION 9. ROPES USED ON DRUMS	
9.1 Arrangement of Rope on Drums . . . . .	41
9.2 Rope Anchorages . . . . .	41
9.3 Fleet Angles . . . . .	42
9.4 Drum Capacity . . . . .	42

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](#)
-