

Australian Standard™

**Railway track material**

**Part 4: Fishbolts and nuts**

Currently in preview, click buy full version

This Australian Standard was prepared by Committee CE-002, Railway Track Materials. It was approved on behalf of the Council of Standards Australia on 14 June 2002 and published on 1 August 2002.

---

The following are represented on Committee CE-002:

Australasian Railway Association  
Australian Chamber of Commerce and Industry  
Australian Industry Group  
Bureau of Steel Manufacturers of Australia  
Rail Track Association of Australia

---

#### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

---

Australian Standard™

**Railway track material**

**Part 4: Fishbolts and nuts**

Formulated as part of AS E1a—1926T.  
Previous edition AS 1085.4—1999.  
Fifth edition 2002.

**COPYRIGHT**

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4616 0

## PREFACE

This Standard was prepared by the Standards Australia Committee CE-002, Railway Track Materials, to supersede AS 1085.4—1999, *Railway permanent way material, Part 4: Fishbolts and nuts*.

The objective of this Standard is to provide manufacturers and purchasers with manufacturing and performance requirements for oval-necked fishbolts and nuts for use with fishplates and spring washers in railway track in accordance with the AS 1085 series of Standards.

Changes to the previous edition are as follows:

- (a) Change of title of the AS 1085 series (previously *Railway permanent way material*).
- (b) The referenced documents list has been revised.
- (c) The most recent version of the informative Appendix 'Means of demonstrating compliance with this Standard' has been included.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

## CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 PURPOSE AND CONTEXT OF USE .....	4
3 REFERENCED DOCUMENTS .....	4
4 FISHBOLTS .....	5
5 NUTS.....	8
6 SUPPLY.....	8
7 MARKING.....	8
8 ROUNDING OF NUMBERS.....	8

## APPENDICES

A MEANS OF DEMONSTRATING COMPLIANCE WITH THIS STANDARD .....	9
B INFORMATION TO BE SUPPLIED BY THE PURCHASER .....	11

## STANDARDS AUSTRALIA

**Australian Standard**  
**Railway track material**

**Part 4: Fishbolts and nuts**

**1 SCOPE**

This Standard specifies requirements for steel heat-treated oval-necked fishbolts and nuts for use in conjunction with steel rails manufactured in accordance with AS 1085.1 and fishplates manufactured in accordance with AS 1085.2.

**NOTES:**

- 1 See Appendix A for means of demonstrating compliance with this Standard.
- 2 See Appendix B for information to be supplied at time of order.

**2 PURPOSE AND CONTEXT OF USE****2.1 Function**

Fishbolts and nuts are intended for use with fishplates to connect together lengths of rail that are laid in railway tracks.

**NOTE:** The effectiveness of the connection relies on the bolts remaining tight and holding the fishplates firmly against the rails. The assembly ensures that the running surfaces of the rails remain properly aligned with an allowance for a small gap between the rail ends. Fishplated joints are designed to allow a degree of longitudinal expansion and contraction of the rail.

**2.2 Action**

Fishbolts and nuts are tightened so that the fishplates are held firmly against the rails. The assembly is subjected to forces due to thermal expansion and contraction of the rail, passage of rolling stock at speed (including vibration effects) and maintenance operations.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

AS	
1085	Railway track material
1085.1	Part 1: Steel rails
1085.2	Part 2: Fishplates
1085.7	Part 7: Spring washers
1199	Sampling procedures and tables for inspection by attributes
1175	Metric screw threads for fasteners
1391	Methods for tensile testing of metals
1399	Guide to AS 1199—Sampling procedures and tables for inspection by attributes
1442	Carbon steels and carbon-manganese steels—Hot-rolled bars and semi-finished products
2706	Numerical values—Rounding and interpretation of limiting values

AS