

Australian Standard™

**Railway permanent way material**

**Part 3: Sleeper plates**

This Australian Standard was prepared by Committee CE/2, Railway Permanent Way Materials. It was approved on behalf of the Council of Standards Australia on 3 December 1999 and published on 14 August 2000.

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The following interests are represented on Committee CE/2:

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

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**Part 3: Sleeper plates**

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## PREFACE

This Standard was prepared by the Standards Australia Committee CE/2, Railway Permanent Way Materials, as a revision and amalgamation of AS 1085.3—1979: *Railway permanent way material, Part 3: Sleeper plates*, AS 1085.9—1986: *Railway permanent way material, Part 9: Rolled steel clip fastening sleeper plates*, and AS 1085.16—1995: *Railway permanent way material, Part 16: Cast sleeper plates*.

The objective of this Standard is to provide manufacturers and purchasers with materials, dimensions and performance requirements for rolled or cast sleeper plates of clip fastening and double shoulder type intended for use with timber sleepers in railway track.

In combining the three Standards, the general requirements for sleeper plates irrespective of their method of manufacture have been set out.

This Standard covers cast iron sleeper plates and alloyed carbon steel sleeper plates within the limits for chemical composition. In the area of unalloyed carbon steel baseplates it is based on ISO 6305/2—1983, *Railway components—Technical delivery requirements—Part 2: Unalloyed carbon steel baseplates* but differs from it as follows:

- (a) This Standard contains no requirements covering working gauges, acceptance conditions or statistical quality level criteria for product.
- (b) Materials for rolling are specified by chemical analysis.
- (c) Tolerances are specified for more dimensions and are in some cases different.
- (d) A bend test has been included
- (e) Marking includes more detail.

An Appendix includes full development profiles and section properties for sleeper plates.

The standard now requires that the datum side of rolled steel sleeper plates be clearly marked and the chemical composition has been brought in line with other recently published steel standards.

This Standard does not preclude the adoption, by agreement between the purchaser and the manufacturer, of requirements other than those specified herein. The drawings in the Appendices show typical hole positions only; alternative arrangements may be negotiated with respect to hole configurations, dimensions and tolerances.

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.

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STANDARDS AUSTRALIA

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**Australian Standard**

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**Part 3: Sleeper plates**

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## 1 SCOPE

This Standard applies to double shoulder and clip fastening sleeper plates manufactured from rolled steel or from spheroidal graphite cast iron (cast sleeper plates) for use in conjunction with steel rails rolled in accordance with AS 1085.1 and AS 1085.11.

### NOTES:

- 1 The sleeper plates may also be used for rail sizes not currently covered in AS 1085.1 and AS 1085.11.
- 2 See Appendix A for a list of the information to be supplied by the purchaser when enquiring about or ordering sleeper plates to this Standard.
- 3 See Appendix B for means of demonstrating compliance with this Standard.
- 4 Manufacturers making a statement of compliance with this Standard on product, packaging or promotional material related to that product are advised to ensure that such compliance is capable of being verified.

## 2 PURPOSE AND CONTEXT OF USE

### 2.1 Function

Sleeper plates are intended to act as part of a restraining assembly to hold steel rails to timber sleepers in railway track. Sleeper plates usually have two vertical surfaces (shoulders) that bear against the edges of the rail foot, holes to allow for securing the plate to the sleeper using spikes, screws or bolts and means for securing the rail in place on the plate using a clip or dog spike.

### 2.2 Action

Sleeper plates transfer loads from the rail to the sleeper both laterally and horizontally. Loads arise from thermal effects, passage of rolling stock at speed and maintenance. The shoulders ensure that the rail remains square to the sleeper in the horizontal plane.

## 3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

### AS

1085	Railway permanent way material
1085.1	Part 1: Steel rails
1085.11	Part 11: Head-hardened rails
1100	Technical drawing
1100.101	Part 101: General Principles
1199	Sampling procedures and tables for inspection by attributes
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