Australian Standard®

Railway permanent way material

Part 13: Spring fastening spikes for 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 31 October 1997 and published on 5 January 1998.

The following interests are represented on Committee CE/2:

Australasian Railway Association

Australian Chamber of Manufactures

Bureau of Steel Manufacturers of Australia

Cement and Concrete Association of Australia

Rail Track Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee CE/2, Railway Permanent Way Materials, to supersede AS 1085.13—1990.

The objective of this Standard is to provide manufacturers and purchasers with requirements for spring fastening spikes for use in railway permanent way.

Changes incorporated in this edition are mostly minor and include the following:

(a) For materials, manganese is allowed in the range 0.8 to 1.1%.

(b) The method of heat treatment is no longer specified.

(c) The testing requirement before tempering has been removed.

(d) An appendix providing information on means for demonstrating compliance with this Standard has been added.

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

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STANDARDS AUSTRALIA

Australian Standard

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Part 13: Spring fastening spikes for sleeper plates

1 SCOPE This Standard specifies requirements for steel spring fastening spikes (hereinafter referred to as 'spikes') for use with sleeper plates manufactured in accordance with AS 1085.3, AS 1085.9 and AS 1085.16 on timber sleepers.

NOTES:

1 Appendix A contains information that should be provided by the purchaser at the time of enquiry or order.

2 Failure of these spikes in tracks can remain hidden for some time as the spike can break below the level of the sleeper plate.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1171 Methods for magnetic particle testing of ferromagnetic products and components

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

1815 Metallic materials—Rockwell hardness test

2003 Carbon and low alloy steel—Measurement of decarburization

AS/NZS

ISO 9000 Quality management and quality assurance standards

ISO 9000.1 Part 1: Guidelines for selection and use

ISO 9004 Quality management and quality system elements

ISO 9004.1 Part 1: Guidelines

SAA

HB18 Guidelines for third-party certification and accreditation

HB18.28 Guide 28—General rules for a model third-party certification system for products

3 PURPOSE AND CONTEXT OF USE

3.1 Function Spring fastening spikes are used to secure sleeper plates to timber sleepers in railway permanent way.

NOTE: Spring fastening spikes are driven through holes in the sleeper plate into the timber sleeper. As the spike penetrates the timber the points of the spike separate and anchor the spike into the sleeper.

3.2 Action The spike resists withdrawal and shear forces and is subject to fatigue and corrosion.