

Australian Standard™

Railway track material

Part 7: Spring washers

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

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Part 7: Spring washers

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PREFACE

This Standard was prepared by the Standards Australia Committee CE-002, Railway Track Materials, to supersede AS 1085.7—1994, *Railway permanent way material, Part 7: Spring washers*.

The objective of this Standard is to provide manufacturers and users of spring washers with performance requirements for spring washers for use in railway track.

The context and purpose of use describes the performance that the requirements and tests of the Standard are intended to verify.

Major alterations to the previous edition are as follows:

- (a) Change of title of the AS 1085 series (previously *Railway permanent way material*).
- (b) Performance-based format adopted (function and action of washers described).
- (c) A new spring washer type (Type 2) has been included to cover the shaped single, double and triple coil spring washers used with screw spikes.
- (d) Steel specified by reference to one Standard.
- (e) Test requirements for Type 1 washers increased.
- (f) Washers are no longer required to be quenched and tempered.

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.

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STANDARDS AUSTRALIA

**Australian Standard
Railway track material****Part 7: Spring washers**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out the requirements for spring washers for use in railway track.

Type 1 single coil spring washers (see Section 2) are used with fishbolts and nuts (see AS 1085.4). Type 2 single, double and triple coil spring washers (see Section 3) are used with screw spikes (see AS 1085.18).

NOTES:

- 1 Guidelines for purchasing and use are given in Appendix A.
- 2 Guidance on means of demonstrating compliance with this Standard is given in Appendix B.
- 3 Double- and triple-turn spring washers are sometimes referred to as 'helical'; however, they are not helical in shape.

1.2 CONTEXT AND PURPOSE OF USE**1.2.1 Function**

Spring washers provide force against the nut of a bolt or head of a screw spike in order to maintain tension and prevent loosening. They are also used to provide consistent force against materials held in place by the bolt or screw spike.

1.2.2 Action

Spring washers are compressed in order to induce tension in the bolt or screw with which they are used. Spring washers are subjected to compression, fatigue and corrosion.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1085	Railway track materials
1085.4	Part 4: Fishbolts and nuts
1085.18	Part 18: Screw spikes and threaded inserts
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 semifinished products
1815	Metallic materials—Rockwell hardness test
1815.1	Part 1: Test method scales
1815.2	Part 2: Verification and calibration of testing machines (scales A, B, C, D, E, F, G, H, K, N, T)