

Australian Standard[®]

**Carbon steels and carbon-manganese
steels—Hot rolled bars and semi-
finished products**

STANDARDS
Australia



This Australian Standard® was prepared by Committee MT-001, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 20 April 2007. This Standard was published on 20 September 2007.

The following are represented on Committee MT-001:

- Australasian Railways Association
 - Australian Building Codes Board
 - Australian Foundry Institute
 - Australian Industry Group
 - Bureau of Steel Manufacturers of Australia
 - Materials Australia
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This Standard was issued in draft form for comment as DR C 60.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1442—2007

Carbon steels and carbon-manganese steels—Hot rolled bars and semi-finished products

RECONFIRMATION NOTICE

Technical Committee MT-001 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 04 June 2017.

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Australian Steel Association
Australian Steel Institute
Bureau of Steel Manufacturers of Australia
Employers and Manufacturers Association
Materials Australia
New Zealand Heavy Engineering Research Association
Society of Automotive Engineers- Australasia

NOTES

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Australian Standard[®]

**Carbon steels and carbon-manganese
steels—Hot rolled bars and semi-
finished products**

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards/Standards New Zealand Committee MT-001, Iron and Steel to supersede AS 1442—1992, *Carbon steels and carbon-manganese steels—Hot rolled bars and semi-finished products*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of the Standard is to specify the general technical delivery requirements for carbon steels and carbon-manganese steels in the hot rolled or semi-finished condition, including the requirements for sampling and testing.

The objective of this revision is to update the referenced documents and to apply current style.

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.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

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STANDARDS AUSTRALIA

Australian Standard

Carbon steels and carbon-manganese steels—Hot rolled bars and semi-finished products**1 SCOPE**

This Standard specifies requirements for carbon steels and carbon-manganese steel rods, bars, blooms, billets and slabs, delivered in the as-rolled or normalized condition, for forging and for general engineering purposes. It specifies chemical composition requirements for all grades, and tensile strength requirements for grades required to meet mechanical properties. The Standard permits the addition of boron and micro-alloying elements for the achievement of special properties.

The Standard also specifies requirements for the maximum depth of surface imperfections and gives recommended machining allowances for bars of various sizes.

NOTES:

- 1 Advice and recommendations on information to be supplied by the purchaser at the time of enquiry or order are contained in Appendix A.
- 2 For guidance on a means for demonstrating compliance to the standard refer to Appendix B.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
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| 1199 | Sampling procedures for inspection by attributes |
| 1199.0 | Part 0: Introduction to the ISO 2359 attribute sampling system |
| 1199.1 | Part 1: Sampling scheme indexed by acceptance of quality limit (AQL) for lot-by-lot inspection |
| 1391 | Metallic materials—Tensile testing at ambient temperatures |
| 1733 | Methods for determination of grain size in metals |
| 2338 | Preferred dimensions of wrought metal products |
| 2706 | Numerical values—Rounding and interpretation of limiting values |

AS/NZS

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| 1050 | Methods for the analysis of iron and steel |
| 1050.1 | Part 1: Sampling iron and steel for chemical analysis |

AS/NZS ISO

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| 9001 | Quality management system—Requirements |
| 9004 | Quality management system—Guidelines for performance improvements |
| HB 18.28 | Conformity assessment—Guidance on a third-party certification system for products |

ISO

- | | |
|--------|---------------------------------------|
| 2566 | Steel—Conversion of elongation values |
| 2566-1 | Part 1: Carbon and low alloy steels |