

AS/NZS 1559:1997

Australian/New Zealand Standard[®]

**Hot-dip galvanized steel bolts and
associated nuts and washers for
tower construction**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME/29, Fasteners. It was approved on behalf of the Council of Standards Australia on 14 March 1997 and on behalf of the Council of Standards New Zealand on 5 March 1997. It was published on 5 June 1997.

The following interests are represented on Committee ME/29:

Australian Chamber of Commerce and Industry
Bureau of Steel Manufacturers of Australia
Electricity Supply Association of Australia
Federal Chamber of Automotive Industries
Metal Building Products Manufacturers Association
Metal Trades Industry Association of Australia
New Zealand Joinery Manufacturers Federation
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/29, Fasteners, to supersede AS 1559—1986, *Fasteners—Bolts, nuts and washers for tower construction*.

The objective of this Standard is to provide designers and manufacturers involved in tower construction with specifications for bolts, nuts and washers suitable for use in tower construction.

There are no ISO Standards for bolts for tower construction and IFI 541:1982, *Metric hex transmission tower bolts* has been used for guidance in the preparation of this Standard.

Bolts for tower construction have shorter thread lengths than specified in ISO 888:1976, *Bolts, screws and studs—Nominal lengths, and thread lengths for general purpose bolts* to ensure that in a connection the shear planes will occur through the unthreaded shank. Other features are in accordance with the following ISO Standards:

ISO

- | | |
|--------|---|
| 272 | Fasteners—Hexagon products— Widths across flats |
| 885 | General purpose bolts and screws—Metric series—Radii under the head |
| 4759 | Tolerances for fasteners |
| 4759.1 | Part 1: Bolts, screws and nuts with thread diameters ≥ 1.6 and ≤ 150 mm and product grades A, B and C |

The mechanical properties specified for tower bolts include appropriate shear strength and impact strength requirements suitable for the application.

The nuts specified for use with tower bolts are style 1 in accordance with AS/NZS 1112, *ISO metric hexagon nuts, including thin nuts, slotted nuts and castle nuts* and the washers are in accordance with ISO 887:1983, *Plain washers for metric bolts, screws and nuts—General plan* with a nominal thickness for all sizes.

This edition of the Standard does not include the requirements for weather-resistant steel bolts and some dimensions have been modified. An increased range of step bolts and mechanical properties for low temperature application have been included.

The optional diameter/length code marking has been replaced with an optional length marking.

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

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