

AS/NZS 1554.4:2010

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Australian/New Zealand Standard™

## Structural steel welding

### Part 4: Welding of high strength quenched and tempered steels



#### **AS/NZS 1554.4:2010**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WD-003, Welding of Structures. It was approved on behalf of the Council of Standards Australia on 9 December 2009 and on behalf of the Council of Standards New Zealand on 27 January 2010.

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Austroads  
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Electricity Supply Association of Australia  
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### **Part 4: Welding of high strength quenched and tempered steels**

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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WD-003, Welding of Structures, to supersede AS/NZS 1554.4:2004.

The objective of this Standard is to provide rules for the welding of a wide range of steel constructions, using high strength quenched and tempered steel parent material.

The objective of this edition is to update the Standard and bring it in line with the latest edition of AS/NZS 1554.1, *Structural steel welding, Part 1: Welding of steel structures*.

This edition incorporates the following major changes to the 2004 edition:

(a) *Amendments to the following Clauses:*

1.2, 1.7 (new title), 1.7.1 (new), 2.3.1, 3.2.5 (new paragraph), 4.1.2(d)(f)(h)(j) (new subclauses), 4.2(b), 4.6.1.1, 4.6.1.3 (new), 4.10 (new note), 4.12.2, 5.1.1 (new note), 5.1.2 (note added), 5.3.4 (note added), 5.7.1 (note added), 7.2(a) (new), 7.3 (first paragraph—new), Appendix F (new).

(b) *Amendments to the following Tables:*

4.6.1(A), 4.6.1(B), 4.6.1(C), 4.6.2, 4.7.1 (new notes, note 3 amended), 4.11(D) (new), 4.11(A) (items b, e, o, u), 4.11(C) item (d), 4.12.2(B) (new), 5.3.4, E4 (items deleted).

(c) *Amendments to the following Figure:*

3.2.5(c) (new).

The Standard requires that weld preparations, welding consumables and welding procedures be qualified before commencement of welding. Prequalified joint preparations, welding consumables and welding procedures are also given in the Standard.

The Standard, in catering for structures subject to fatigue conditions as well as statically loaded structures, provides three categories of welds with three differing levels of weld quality assurance associated with the different types of service to which the welds are subjected. The intention is that the designer should select the category suited to the severity of the service and nominate this on the drawings. Where a structure contains more than one category, this nomination of appropriate categories will ensure that appropriate levels of supervision and inspection will be applied to the relevant parts of the structure.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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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