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AS/NZS 1554.1:2014
(Incorporating Amendment Nos 1 and 2)

AS/NZS 1554.1:2014

Australian/New Zealand Standard™

Structural steel welding

Part 1: Welding of steel structures



AS/NZS 1554.1:2014

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 24 September 2014 and on behalf of the Council of Standards New Zealand on 12 September 2014.
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Australasian Corrosion Association
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
Austroads
Bureau of Steel Manufacturers of Australia
Energy Networks Association
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(Incorporating Amendment Nos 1 and 2)

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Part 1: Welding of steel structures

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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 1554.1:2011.

This Standard incorporates Amendment No. 1 (September 2015) and Amendment No. 2 (September 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide rules for the welding of a wide range of steel constructions, and while it is expected that its main use will be for statically loaded welds, it applies also to some welds subject to fatigue. Although this Standard has been specifically prepared for steel structures, it may be usefully applied to machine frames and other types of steel constructions.

This edition incorporates the following major changes to the 2011 edition:

(a) *Revision of the following Clauses:*

1.1 (new Note), 2.3.1, 2.3.3, 3.1.2.2 (new), 4.1.1 (Note 2 revised), 4.1.4, 4.2(b) and Note 1, 4.2 (d) (correction), 4.3, 4.5.5.1, 4.5.5.3, 4.6.1.1(e)(iii), 4.6.1.2 (new Note), 4.7.1, 4.7.7, 4.8, 4.12.1, 4.12.2.3, 5.2.4, 5.3.4, 5.3.5 (title), 6.2.2, 6.3.3 (Note added), 6.4.3 (Note added), 6.7 (Note 2 revised), 6.8 (new Note), 7.2(e) (new), F2.2, F4, Appendix H (new).

(b) *Revision of the following Tables:*

4.1.3, 4.6.1(A), 4.6.1(B), 4.6.1(C), 4.6.2, 4.7.1 (Notes 1, 3 and 4 revised), 4.11(A) (item deleted and Item (i) revised), 4.12.2(B) (Note 1), 5.2.4 (new), 5.3.4, 6.2.2, E4 (items renumbered, root gap revised), G1.

(c) *Revision of the following Figures:*

4.5.5.1 (Note 2 and the title revised), 4.5.5.3 (Note 2 revised), 4.5.5.4 (title revised).

This 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.

This Standard, in catering for structures subject to fatigue conditions as well as statically loaded structures, provides two categories of welds with two 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 select the category suited to the severity of the service and nominate this on the drawings. Where a structure contains both categories, 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.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 EXCLUSIONS.....	6
1.3 INNOVATION	6
1.4 NORMATIVE REFERENCES	6
1.5 DEFINITIONS AND SYMBOLS	6
1.6 WELD CATEGORIES	7
1.7 MANAGEMENT OF QUALITY.....	7
1.8 SAFETY	8
SECTION 2 MATERIALS OF CONSTRUCTION	
2.1 PARENT MATERIAL.....	9
2.2 BACKING MATERIAL	9
2.3 WELDING CONSUMABLES	9
SECTION 3 DETAILS OF WELDED CONNECTIONS	
3.1 GENERAL.....	11
3.2 BUTT WELDS	11
3.3 FILLET WELDS	12
3.4 COMPOUND WELDS	17
3.5 SEAL WELDS.....	18
3.6 PLUG WELDS	19
3.7 SLOT WELDS.....	19
3.8 COMBINING STEEL SECTIONS	19
SECTION 4 QUALIFICATION OF PROCEDURES AND PERSONNEL	
4.1 QUALIFICATION OF WELDING PROCEDURE.....	21
4.2 METHODS FOR QUALIFYING A WELDING PROCEDURE.....	23
4.3 PREQUALIFIED WELDING PROCEDURES.....	24
4.4 PORTABILITY OF QUALIFIED WELDING PROCEDURES	24
4.5 PREQUALIFIED JOINT PREPARATIONS	24
4.6 QUALIFICATION OF WELDING CONSUMABLES.....	32
4.7 QUALIFICATION OF WELDING PROCEDURE BY TESTING	40
4.8 EXTENSION OF QUALIFICATION	45
4.9 COMBINATION OF PROCESSES	45
4.10 RECORDS OF TESTS	45
4.11 REQUALIFICATION OF WELDING PROCEDURES	45
4.12 QUALIFICATION OF WELDING PERSONNEL	49

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