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Irish Standard
I.S. EN ISO 17641-2:2015

Destructive tests on welds in metallic materials - Hot cracking tests for weldments - Arc welding processes - Part 2: Self-restraint tests (ISO 17641-2:2015)

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This document is based on:	*Published:*
EN ISO 17641-2:2015	2015-11-04

This document was published under the authority of the NSAI and comes into effect on:	ICS number:
2015-11-22	25.160.40
	NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN ISO 17641-2:2015 is the adopted Irish version of the European Document EN ISO 17641-2:2015, Destructive tests on welds in metallic materials - Hot cracking tests for weldments - Arc welding processes - Part 2: Self-restraint tests (ISO 17641-2:2015)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 17641-2

November 2015

ICS 25.160.40

Supersedes EN ISO 17641-2:2005

English Version

Destructive tests on welds in metallic materials - Hot cracking tests for weldments - Arc welding processes - Part 2: Self-restraint tests (ISO 17641-2:2015)

Essais destructifs des soudures sur matériaux métalliques - Essais de fissuration à chaud des assemblages soudés - Procédés de soudage à l'arc - Partie 2: Essais sur éprouvettes auto-bridées (ISO 17641-2:2015)

Zerstörende Prüfung von Schweißverbindungen an metallischen Werkstoffen - Heißrissprüfungen für Schweißungen - Lichtbogenschweißprozesse - Teil 2: Selbstbeanspruchende Prüfungen (ISO 17641-2:2015)

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European foreword

This document (EN ISO 17641-2:2015) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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INTERNATIONAL STANDARD

ISO 17641-2

Second edition
2015-10-15

Destructive tests on welds in metallic materials — Hot cracking tests for weldments — Arc welding processes —

Part 2: Self-restraint tests

Essais destructifs des soudures sur matériaux métalliques — Essais de fissuration à chaud des assemblages soudés — Procédés de soudage à l'arc —

Partie 2: Essais sur éprouvettes auto-bridées

Reference number
ISO 17641-2:2015(E)

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

This second edition cancels and replaces the first edition (ISO 17641-2:2005), of which it constitutes a minor amendment.

ISO 17641 consists of the following parts, under the general title *Destructive tests on welds in metallic materials — Hot cracking tests for weldments — Arc welding processes*:

— *Part 1: General*

— *Part 2: Self-restraint tests*

— *Part 3: Externally loaded tests* [Technical Report]

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Destructive tests on welds in metallic materials — Hot cracking tests for weldments — Arc welding processes —

Part 2: Self-restraint tests

1 Scope

This part of ISO 17641 specifies the required specimens, the test piece dimensions, and the procedures to be followed to carry out self-restraint hot cracking tests.

The following tests are described:

— T-joint weld cracking test;

— weld metal tensile test;

— longitudinal bend test.

The tests are designed to provide information about the hot cracking sensitivity of weld metals. The tests are not suitable for the assessment of parent materials.

This part of ISO 17641 applies primarily to fully austenitic stainless steels, nickel, nickel base, and nickel copper weld metals. This part of ISO 17641 can also be used for other weld metals.

This part of ISO 17641 describes only how to carry out the tests and report the results. It does not give any acceptance criteria.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5173, *Destructive tests on welds in metallic materials — Bend tests*

ISO 5178, *Destructive tests on welds in metallic materials — Longitudinal tensile test on weld metal in fusion welded joints*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 15614-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys*

ISO 15792-1, *Welding consumables — Test methods — Part 1: Test methods for all-weld metal test specimens in steel, nickel and nickel alloys*

ISO 17641-1:2004, *Destructive tests on welds in metallic materials — Hot cracking tests for weldments — Arc welding processes — Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17641-1:2004 apply.

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