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I.S. EN ISO 17405:2014

Non-destructive testing - Ultrasonic testing - Technique of testing claddings produced by welding, rolling and explosion (ISO 17405:2014)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 17405

July 2014

ICS 19.100

English Version

Non-destructive testing - Ultrasonic testing - Technique of testing claddings produced by welding, rolling and explosion (ISO 17405:2014)

Essais non destructifs - Essais par ultrasons - Technique d'essai des placages produits par soudage, laminage et explosion (ISO 17405:2014)

Zerstörungsfreie Prüfung - Ultraschallprüfung - Techniken zur Prüfung von Plattierungen hergestellt durch Schweißen, Walzen und Sprengen (ISO 17405:2014)

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Foreword

This document (EN ISO 17405:2014) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration Technical Committee CEN/TC 138 “Non-destructive testing” the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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INTERNATIONAL STANDARD

ISO 17405

First edition
2014-07-15

Non-destructive testing — Ultrasonic testing — Technique of testing claddings produced by welding, rolling and explosion

Essais non destructifs — Essais par ultrasons — Technique d'essai des placages produits par soudage, laminage et explosion

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Foreword

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ISO 17405 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in collaboration with ISO Technical Committee TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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Non-destructive testing — Ultrasonic testing — Technique of testing claddings produced by welding, rolling and explosion

1 Scope

This International Standard specifies the techniques for manual ultrasonic testing of claddings on steel applied by welding, rolling, and explosion using single-element or dual-element probes.

The test is intended to cover detection of two-dimensional or three-dimensional discontinuities in the cladding and in the region of the interface.

This International Standard does not give acceptance criteria nor define the extent of testing.

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 2400, *Non-destructive testing — Ultrasonic testing — Specification for calibration block No. 1*

EN 1330-4, *Non-destructive testing — Terminology — Part 4: Terms used in ultrasonic testing*

EN 12668-1, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 1: Instruments*

EN 12668-2, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 2: Probes*

EN 12668-3, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 3: Combined equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1330-4 and the following apply.

3.1
test object
part to be tested

3.2
test surface
areas of the surface of the test object to which probes have to be coupled

4 Ultrasonic test system

4.1 General

The ultrasonic pulse-echo technique is used. For two-dimensional discontinuities parallel to the test surface and three-dimensional discontinuities, straight beam probes (dual-element or single-element) shall be used for testing with longitudinal waves.

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