

Non-destructive testing of steel tubes - Part 5: Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections (ISO 10893-5:2011)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10893-5:2011 sisaldab Euroopa standardi EN ISO 10893-5:2011 ingliskeelset teksti.

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Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.04.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

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English Version

Non-destructive testing of steel tubes - Part 5: Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections (ISO 10893-5:2011)

Essais non destructifs des tubes en acier - Partie 5:
Contrôle par magnétoscope des tubes en acier
ferromagnétique sans soudure et soudés pour la détection
des imperfections de surface (ISO 10893-5:2011)

Zerstörungsfreie Prüfung von Stahlrohren - Teil 5:
Magnetpulverprüfung nahtloser und geschweißter
ferromagnetischer Stahlrohre zum Nachweis von
Oberflächenunvollkommenheiten (ISO 10893-5:2011)

This European Standard was approved by CEN on 10 December 2010.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN ISO 10893-5:2011) has been prepared by Technical Committee ISO/TC 17 "Steel" in collaboration with Technical Committee ECISS/TC 110 "Steel tubes, and iron and steel fittings" the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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Endorsement notice

The text of ISO 10893-5:2011 has been approved by CEN as a EN ISO 10893-5:2011 without any modification.

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Non-destructive testing of steel tubes —

Part 5:

Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections

1 Scope

This part of ISO 10893 specifies requirements for magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections on the tube body and the end/bevel face at the ends.

For the tube body, it specifies requirements for the detection of surface imperfections on all or part of the outside surface of tubes. However, by agreement between the purchaser and manufacturer, it can be applicable to the inside surface over a limited length from the ends of tubes, dependent on the tube diameter.

In addition, this part of ISO 10893 can be used, as appropriate, to locate the position of external surface imperfections detected by another non-destructive testing method (e.g. ultrasonic) prior to dressing of the tube surface, and to ensure complete removal of the imperfection after dressing is complete.

For the end/bevel face at the ends of plain-end and beveled-end tubes, this part of ISO 10893 specifies requirements for the detection of laminar imperfections which can interfere with subsequent fabrication and inspection operations (e.g. welding and ultrasonic inspection of the welds).

This part of ISO 10893 is applicable to the detection of imperfections, other than laminar imperfections, on the end/bevel face. In this case, magnetization is applied in the direction essentially perpendicular to the orientation of the particular imperfections being detected.

It can also be applicable to the testing of hollow sections.

2 Normative references

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

ISO 9712, *Non-destructive testing — Qualification and certification of personnel*

ISO 9934-1, *Non-destructive testing — Magnetic particle testing — Part 1: General principles*

ISO 9934-2, *Non-destructive testing — Magnetic particle testing — Part 2: Detection media*

ISO 9934-3, *Non-destructive testing — Magnetic particle testing — Part 3: Equipment*

ISO 10893-8, *Non-destructive testing of steel tubes — Part 8: Automated ultrasonic testing of seamless and welded steel tubes for the detection of laminar imperfections*

ISO 11484, *Steel products — Employer's qualification system for non-destructive testing (NDT) personnel*