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IRISH STANDARD

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National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

**NON-DESTRUCTIVE TESTING OF STEEL
FORGINGS - PART 3: ULTRASONIC TESTING
OF FERRITIC OR MARTENSITIC STEEL
FORGINGS**

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English version

Non-destructive testing of steel forgings

Part 3: Ultrasonic testing of ferritic or martensitic steel forgings

Essais non destructifs des pièces forgées en acier - Partie 3: Contrôle par ultrasons des pièces forgées en aciers ferritiques et martensitiques

Zerstörungsfreie Prüfung von Schmiedestücken aus Stahl - Teil 3: Ultraschallprüfung von Schmiedestücken aus ferritischem oder martensitischem Stahl

This European Standard was approved by CEN on CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 28 " Steel forgings", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

The titles of the other Parts of this European Standard are:

- Part 1: Magnetic particle inspection
- Part 2: Penetrant testing
- Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Part of EN 10228 describes the techniques to be used for the manual, pulse-echo, ultrasonic testing of forgings manufactured from ferritic and martensitic steel. Mechanised scanning techniques, such as immersion testing, may be used but should be agreed between the purchaser and supplier. (see clause 4).

This Part of EN 10228 applies to four types of forgings, classified according to their shape and method of production. Types 1, 2 and 3 are essentially simple shapes. Type 4 covers complex shapes.

This Part of EN 10228 does not apply to:

- closed die forgings;
- turbine rotor and generator forgings.

Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings is the subject of Part 4 of this European Standard.

2 Normative references

This Part of EN 10228 incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Part of EN 10228 only when incorporated in by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 473	Qualification and certification of NDT personnel.
prEN 12668	Non-destructive testing - Characterization and verification of ultrasonic examination equipment. Part 1 : Instruments Part 2 : Probes Part 3 : Combined equipment
prEN 583	Ultrasonic examination Part 2 : Sensitivity and range setting. Part 5 : Characteristics and sizing of discontinuities.
prEN 12223	Ultrasonic examination - Calibration blocks
prEN 1330	Non-destructive testing - Terminology. Part 4 : Terms used in ultrasonic testing.

3 Definitions

For the purposes of this Part of EN 10228 the definitions given in prEN 1330-4 apply.



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