
**Steel castings — Ultrasonic
examination —**

Part 2:
**Steel castings for highly stressed
components**

Pièces moulées en acier — Contrôle aux ultrasons —

Partie 2: Pièces moulées en acier pour composants fortement sollicités



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 4992-2 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 11, *Steel castings*.

ISO 4992 consists of the following parts, under the general title *Steel castings — Ultrasonic examination*:

- *Part 1: Steel castings for general purposes*
- *Part 2: Steel castings for highly stressed components*

Steel castings — Ultrasonic examination —

Part 2:

Steel castings for highly stressed components

1 Scope

This part of ISO 4992 specifies the requirements for the ultrasonic examination of steel castings (with ferritic structure) for highly stressed components, and the methods for determining internal discontinuities by the pulse echo technique.

This part of ISO 4992 applies to the ultrasonic examination of steel castings which have usually received a grain-refining heat treatment and which have wall thicknesses up to and including 600 mm. For greater wall thicknesses, special agreements apply with respect to the test procedure and recording levels.

This part of ISO 4992 does not apply to austenitic steels and joint welds.

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 5577, *Non-destructive testing — Ultrasonic inspection — Vocabulary*

ISO 7963, *Non-destructive testing — Ultrasonic testing — Specification for calibration block No. 2*

EN 583-1, *Non-destructive testing — Ultrasonic examination — Part 1: General principles*

EN 583-2, *Non-destructive testing — Ultrasonic examination — Part 2: Sensitivity and range setting*

EN 583-5:2005, *Non-destructive testing — Ultrasonic examination — Part 5: Characterization and sizing of discontinuities*

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

EN 12223, *Non-destructive testing — Ultrasonic examination — Specification for calibration block No. 1*

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*