Non-destructive testing of welds — Visual testing of fusion-welded joints (ISO 17637:2003)
National foreword

This British Standard is the UK implementation of EN ISO 17637:2011. It is identical to ISO 17637:2003. It supersedes BS EN 970:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/46, Non-destructive testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments issued since publication

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Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2003)

This European Standard was approved by CEN on 13 February 2011.

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Foreword

The text of ISO 17637:2003 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 17637:2011 by Technical Committee CEN/TC 121 "Welding" 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of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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

This document supersedes EN 970:1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 17637:2003 has been approved by CEN as a EN ISO 17637:2011 without any modification.
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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.

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ISO 17637 was prepared by Technical Committee ISO/TC 44, Welding and allied processes, Subcommittee SC 5, Testing and inspection of welds.
Non-destructive testing of welds — Visual testing of fusion-welded joints

1 Scope

This International Standard covers the visual testing of fusion welds in metallic materials. It may also be applied to visual testing of the joint prior to welding.

2 Test conditions and equipment

The illuminance at the surface shall be a minimum of 350 lx. However, 500 lx is recommended.

For direct inspection, the access shall be sufficient to place the eye within 600 mm of the surface to be examined and at an angle not less than 30° (see Figure 1).

Figure 1 — Access for testing

Remote inspection using mirrors, boroscopes, fibre optic cables or cameras shall be considered when the access for testing in accordance with Figure 1 is not possible or when specified by an application standard.

An additional light source can be used to increase the contrast and relief between imperfections and the background.

Where the result of visual testing is inconclusive, the visual test should be supplemented by other non-destructive testing methods for surface inspections.

Examples of equipment used for visual testing are given in Annex A.

3 Personnel qualification

Visual testing of welds and the evaluation of results for final acceptance shall be performed by qualified and capable personnel. It is recommended that personnel be qualified in accordance with ISO 9713 or an equivalent standard at an appropriate level in the relevant industry sector.