International Standard

ISO 19828

Welding for aerospace applications — Visual inspection of welds

Soudage pour applications aérospatiales — Contrôle visuel des soudures

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Foreword

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 14, *Welding and brazing in aerospace*.

This second edition cancels and replaces the first edition (ISO 19828:2017) which has been technically revised.

The main changes are as follows:

— requirements for indirect inspection equipment added in 6.5;

— requirement for documenting type of equipment when endoscopes or borescopes are needed for visual inspection added in 6.5;

— requirements for welds with limited visual access for inspection added in 6.5;

— training and qualification requirements for inspectors using endoscopes or borescopes added in 9;

— Minimum contents of inspector certificate modified in 12.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations of TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Welding for aerospace applications — Visual inspection of welds

1 Scope

This document specifies the requirements for visual inspection of welds in metallic materials and requirements for qualification and certification of personnel for visual weld inspection.

This document is also applicable to the visual inspection of the joint prior to or between welding sequences. In this case, the contents of theoretical and practical training will need to be adapted accordingly.

This document can also be applied for brazed joints.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 18490, *Non-destructive testing — Evaluation of vision acuity of NDT personnel*

EN 4179[1)], *Aerospace series — Qualification and approval of personnel for non-destructive testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
authorization
written statement by an employer/fabricator that an individual is entitled to perform visual weld inspection within the organization

3.2
examiner/trainer
person who is designated by the *employer/fabricator* (3.3) to certify and recertify visual weld inspectors

Note 1 to entry: The examiner can be at the employer's or an external organization.

3.3
employer/fabricator
organization employing or contracting the services of one or more individuals who perform visual weld inspection, including self-employed individuals

1) Under a Memorandum of Understanding, this is identical to NAS 410[10].

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