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Mechanical joining — Form-fit blind rivets and (lock) bolt joints — Specifications and qualification of testing procedures

Assemblage mécanique — Rivets aveugles et boulons à filetage autofreinant — Spécifications et qualification des modes opératoires d'essai

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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.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*.

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Mechanical joining — Form-fit blind rivets and (lock) bolt joints — Specifications and qualification of testing procedures

1 Scope

This International Standard specifies the requirements for the testing procedures for interference-fit/form-fit blind rivet joints and lock bolt joints made of metallic and non-metallic materials.

The tests required for a particular joint depend upon the performance requirements of the component/assembly and shall be established before any testing is undertaken.

The term sheet as used in this International Standard includes extrusions, cast material, plastics, and fibre-reinforced plastics, e. g. carbon and glass fibre-reinforced plastics.

NOTE Specific service, material, or manufacturing conditions can require more comprehensive testing than specified in this International Standard. Such tests can include macro and micro sections, fatigue, and/or endurance tests.

This International Standard does not apply to civil engineering applications such as metal building and steel construction which are covered by other applicable International Standards.

2 Normative references

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

ISO 12996, *Mechanical joining — Destructive testing of joints — Specimen dimensions and test procedure for tensile shear testing of single joints*

ISO 14588, *Blind rivets — Terminology and definitions*

ISO 16237, *Mechanical joining — Destructive testing of joints — Specimen dimensions and test procedure for cross-tension testing of single joints*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14588 and the following apply.

3.1
interference-fit joint
form-fit joint
property of a joint in which the transmission of external forces, in particular shear forces, is effected by geometrical elements which prevent the movement of the components relative to one another

Note 1 to entry: This condition is frequently achieved by the fastener's outer diameter surface having complete contact with the joint's component holes.

[SOURCE: ISO 12996:2013, 3.12 modified — Figure 1 has been added.]

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