INTERNATIONAL STANDARD

ISO 8641

Second edition
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Aerospace — Self-locking nuts with maximum operating temperature greater than 425 °C — Procurement specification

Aéronautique et espace — Écrous à freinage interne dont la température maximale d'utilisation est supérieure à 425 °C — Spécification d'approvisionnement

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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 8641 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

This second edition cancels and replaces the first edition (ISO 8641:1987) which has been technically revised.

Aerospace — Self-locking nuts with maximum operating temperature greater than 425 °C — Procurement specification

1 Scope

This International Standard specifies the required characteristics for metric self-locking nuts, with MJ thread, for use in aerospace construction at a maximum temperature greater than 425 °C.

It is applicable to nuts as defined above, provided that reference is made to this International Standard in the relevant definition document.

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 691, *Assembly tools for screws and nuts — Wrench and socket openings — Tolerances for general use*

ISO 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method*

ISO 2859-1:1999, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptable quality level (AQL) for lot-by-lot inspection*

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 7403, *Aerospace — Spline drives — Wrenching configuration — Metric series*

ISO 7870-1, *Control charts — General guidelines*

ISO 7966, *Acceptance control charts*

ISO 8258, *Shewhart control charts*

ISO 8642, *Aerospace — Self-locking nuts with maximum operating temperature greater than 425 °C — Test methods*

ISO 8788, *Aerospace — Nuts, metric — Tolerances of form and position*

ISO 9199, *Aerospace — Nuts, bihexagonal, self-locking, MJ threads, classifications: 1 100 MPa (at ambient temperature)/425 °C, 1 100 MPa (at ambient temperature)/650 °C, 1 210 MPa (at ambient temperature)/425 °C, 1 210 MPa (at ambient temperature)/730 °C, 1 550 MPa (at ambient temperature)/235 °C, 1 550 MPa (at ambient temperature)/425 °C and 1 550 MPa (at ambient temperature)/600 °C — Dimensions*

ISO/TR 13425, *Guidelines for the selection of statistical methods in standardization and specification*