International Standard

ISO 6397

Aerospace — Test bolts, hexagonal head, metallic material, coated or uncoated

Aéronautique et espace — Vis d'essai, tête hexagonale, filetages MJ, matériau métallique, revêtues ou non revêtues

First edition
2024-05

Reference number
ISO 6397:2024(en)

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Published in Switzerland

Contents

Page

Foreword

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

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.

Aerospace — Test bolts, hexagonal head, metallic material, coated or uncoated

1 Scope

This document specifies the dimensions of hexagonal head bolts, with MJ threads, metallic, coated or uncoated. It is applicable to test bolts for torque and tension tests.

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

ISO 3353-1, *Aerospace — Lead and runout threads — Part 1: Rolled external threads*

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

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position*

ISO 8080, *Aerospace — Anodic treatment of titanium and titanium alloys — Sulfuric acid process*

AMS 2411, *Plating, Silver, for High Temperature Applications*

AMS 2700, *Passivation of Corrosion Resistant Steels*

AMS 4967, *Titanium Alloy, Bars, Wires, Forgings, and Rings, 6,0Al-4,0V, Annealed, Heat Treatable*

AMS 5853, *Steel, Corrosion and Heat Resistant, Bars and Wire 15Cr-25,5Ni-1,2Mo-2,1Ti-0,006B-0,30V, Consumable Electrode Melted 1 800 °F (982 °C) Solution Treated and Work-Strengthened 160 ksi (1 103 MPa) Tensile Strength*

AMS 6322, *Steel Bars, Forgings, and Rings 0,50Cr - 0,55Ni - 0,25Mo (0,38 - 0,43C) (SAE 8740)*

AMS 6325, *Steel Bars and Forgings 0,50Cr - 0,55Ni - 0,25Mo (0,38 - 0,43C) (SAE 8740). Heat Treated, 105 ksi (724 MPa) Tension Strength*

AMS 6327, *Steel Bars, Forgings 0,50Cr - 0,55Ni - 0,25Mo (0,38 - 0,43C) (SAE 8740). Heat Treated, 125 ksi (862 MPa) Tension Strength*

AMS 6382, *Steel Bars, Forgings, and Rings 0,95Cr - 0,20Mo (0,38-0,43C) (SAE 4140) (Annealed)*

AMS 6415, *Steel Bars, Forgings, and Tubing 0,80Cr - 1,8Ni - 0,25Mo (0,38 - 0,43C) (SAE 4340)*

AMS 6484, *Steel Bars, Forgings, and Tubing 0,80Cr - 1,8Ni - 0,25Mo (0,38 - 0,43C) (SAE 4340). Normalized and tempered*

AMS-QQ-P-416, *Plating, cadmium (Electrodeposited)*

ASME B1.3, *Screw Thread Gaging System for Acceptability: Inch and Metric Screw Threads*

EN 2424, *Aerospace series — Marking of aerospace products*

EN 4473, *Aerospace series — Aluminium Pigmented Coating for Fasteners — Technical Specification*

EN 6118, *Aerospace series — Pure Aluminium IVD Coating for Fasteners*

NAS 4006, *Aluminium coating*

ATA iSpec 2200, *Information Standards for Aviation Maintenance*

MIL-DTL-5541, *Chemical Conversion Coatings on Aluminum and Aluminum Alloys*

MIL-DTL-83488, *Detail Specification, Coating, Aluminum, High purity*

3 Terms and definitions

No terms and definitions are listed in this document.

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/

4 Configuration and dimensions

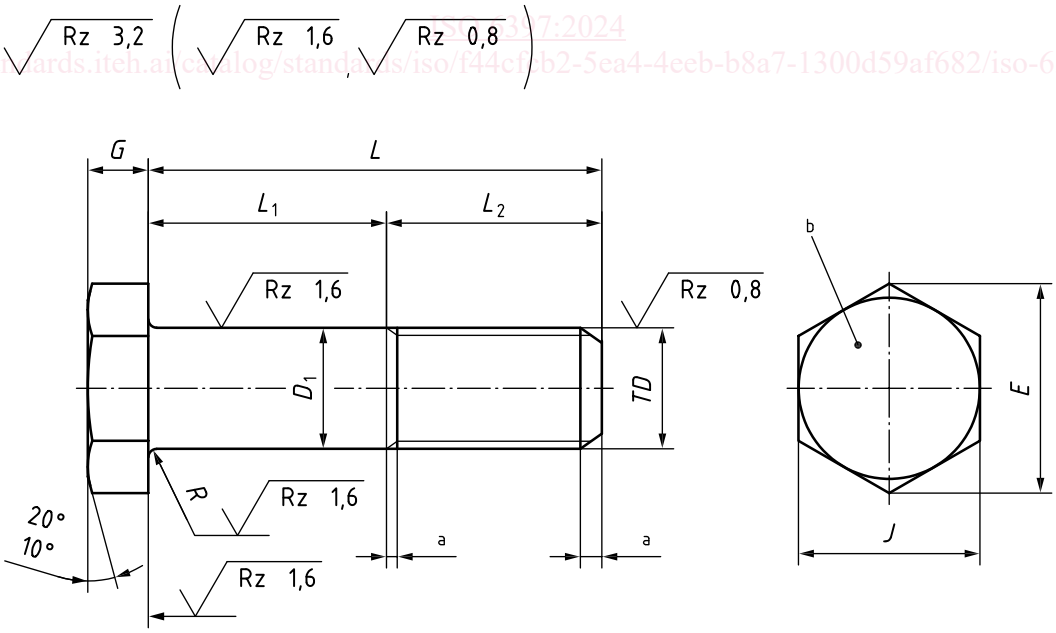
Test bolt configuration and dimensions shall be in accordance with Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres. They are applicable after any coating, but before application of any lubricant. Details of form not stated are left to the manufacturer's discretion.

Tolerances of form and position not stated in this document shall be in accordance with ISO 7913.

Surface roughness: Values in micrometres apply prior to surface treatment.

Break sharp edges with a radius between 0,1 mm and 0,4 mm.



[a] Shall conform to ISO 3353-1.

[b] Marking.

Figure 1 — Configuration