SLOVENSKI STANDARD
SIST EN 3538:2010

01-april-2010

Aeronavtika - Zakovne matice, samovarovalne, fiksne, dvostranske, skrajšana serija, z izvrtino za valjaste vijake, iz toplotnoodpornega jekla, mazane z MoS2 - Klasifikacija: 1100 MPa (pri temperaturi okolice)/315 °C

Aerospace series - Nuts, anchor, self-locking, fixed, two lug, reduced series, with counterbore, in heat resisting steel, MoS2 lubricated - Classification: 1100 MPa (at ambient temperature)/315 °C

Luft- und Raumfahrt - Annietmuttern, selbstsichernd, beiderseitiger verkürzter Flansch, mit zylindrischer Aussenkung, aus hochwarmfestem Stahl, MoS2-geschmiert - Klasse: 1100 MPa (bei Raumtemperatur)/315 °C

Série aérospatiale - Écrous à river, à freinage interne, fixes, double patte, série reduite, avec chambrage, en acier résistant à chaud, lubrifiés MoS2 - Classification: 1100 MPa (à température ambiante)/315 °C

Ta slovenski standard je istoveten z: **EN 3538:2010**

ICS:

49.030.30	Matice	Nuts

SIST EN 3538:2010 **en**

EUROPEAN STANDARD

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EN 3538

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ICS 49.030.30

English Version

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This European Standard was approved by CEN on 18 December 2009.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 3538:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.

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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.

1 Scope

This European Standard specifies the characteristics of two lug, reduced series, counterbored fixed anchor nuts, with a self-locking feature achieved by forming the upper portion out-of-round, in heat resisting steel, MoS_2 lubricated.

Classification: 1 100 MPa [1] / 315 °C [2]

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 3225, *Aerospace — Nuts, anchor, self-locking, fixed, two lug, reduced series, with counterbore, with MJ threads, classifications: 1 100 MPa (at ambient temperature)/235 °C, 1 100 MPa (at ambient temperature)/315 °C and 1 100 MPa (at ambient temperature)/425 °C — Dimensions*

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

ISO 5858, *Aerospace — Nuts, self-locking, with maximum operating temperature less than or equal to 425° C — Procurement specification*

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

EN 2398, *Aerospace series — Heat resisting steel FE-PA2601 (X6NiCrTiMoV26-15) — $R_m \geq 900$ MPa — Bars for machined bolts — $D \leq 25$ mm*

EN 2399, *Aerospace series — Heat resisting steel FE-PA2601 (X6NiCrTiMoV26-15) — $R_m \geq 900$ MPa — Bars for forged bolts — $D \leq 25$ mm*

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

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

EN 3638, *Aerospace series — Heat resisting alloy FE-PA2601 (X6NiCrTiMoV26-15) — Consumable electrode remelted — Solution and precipitation treated — Sheet, strip and plate — 0,5 mm $\leq a \leq$ 10 mm*

EN 3639, *Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Wire for forged fasteners — $D \leq 15$ mm — 900 MPa $\leq R_m \leq$ 1100 MPa* [3]

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994)*

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1) Corresponds to strength class of the associated bolt, the 100 per cent load of which it is able to withstand, when tested at ambient temperature, without breaking or cracking.

2) Maximum temperature that the nut is able to withstand, without permanent alteration to its original characteristics, after ambient temperature has been restored. The maximum temperature is conditioned by the surface treatment.

3) Published as ASD-StAN standard at the date of publication of this standard.

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

TR 3791, *Aerospace series — Materials for self-locking nuts, threaded inserts and screw thread inserts of temperature classes ≤ 425 °C* [4)]

3 Required characteristics

3.1 Configuration — Dimensions — Masses

See Figure 1 and Table 1.

Dimensions and tolerances are in conformity with ISO 3225, expressed in millimetres and apply before MoS_2 lubrication.

Form and position tolerances shall be in conformity with ISO 8788 and those specified in Table 1.

3.2 Materials

EN 2398, EN 2399, EN 3638, EN 3639 or TR 3791.

3.3 Surface treatment

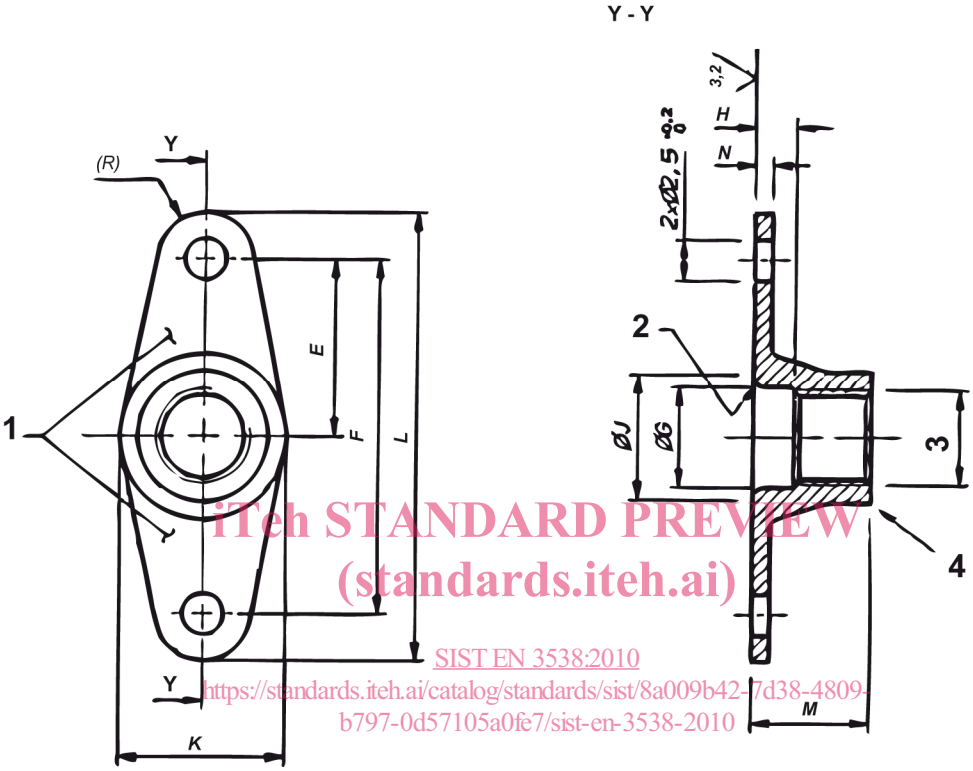
EN 2491, thickness not specified.

4) Published as ASD-StAN Technical Report at the date of publication of this standard.

6,3 [3,2] These values in micrometres apply before surface treatment. The values do not apply to threads and sheared edges the surface texture of which will be achieved by usual manufacturing methods.

Remove sharp edges 0,1 to 0,4.

Details of form not stated are at the manufacturer's option.



Key

1 Marking
2 Radius or chamfer
3 Thread
4 Form out-of-round in this area to achieve self-locking. Tooling marks are permitted in this area.

Figure 1