



SLOVENSKI STANDARD

SIST EN 4590:2006

01-september-2006

Aeronavtika – Pločevinaste varovalne vzmeti za samonaravnalne sodčkaste matice, iz korozijsko odpornega jekla, pasivirane

Aerospace series - Retainers, spring, sheet metal, for self-locking barrel nuts, in corrosion resisting steel, passivated

Luft- und Raumfahrt - Blechsicherungsfedern für selbstsichernde Tonnenmuttern, aus korrosionsbeständigem Stahl, passiviert

Série aérospatiale - Ressorts de retenue en tôle pour écrous à portées cylindrique, à freinage interne, en acier résistant à la corrosion, passivés

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Ta slovenski standard je istoveten z: EN 4590:2005

ICS:

49.030.30 Matice Nuts

SIST EN 4590:2006 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4590

December 2005

ICS 49.030.30

English Version

Aerospace series - Retainers, spring, sheet metal, for self-locking barrel nuts, in corrosion resisting steel, passivated

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This European Standard was approved by CEN on 26 October 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This European Standard (EN 4590:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 4590:2005 (E)

1 Scope

This standard specifies the characteristics of sheet metal spring retainers in corrosion resisting steel, passivated, for use with self-locking barrel nuts EN 4591.

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 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.*

ISO 12280, *Aerospace — Retainers, spring, sheet metal, for self-locking barrel nuts — Dimensions.*

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

EN 2516, *Aerospace series — Passivation of corrosion resisting steels and decontamination of nickel base alloys.*

EN 2540, *Aerospace series — Steel FE-PM3902 (X7CrNiAl17-7) — Air melted — Solution treated and precipitation hardened — Sheet and strip — $a \leq 6$ mm — $1\,240\text{ MPa} \leq R_m \leq 1\,450\text{ MPa}$.¹⁾*

EN 3638, *Aerospace series — Heat resisting alloy FE-PA2601 (X6NiCrTiMoV26-15) — Consumable electrode remelted — Solution and precipitation treated — Sheet, strip and plate — $0,5\text{ mm} \leq a \leq 10\text{ mm}$.¹⁾*

EN 4591, *Aerospace series — Nuts, barrel self-locking, floating, self-aligning, in heat resisting nickel base alloy, MoS₂ lubricated — Classification: $1\,550\text{ MPa}$ (at ambient temperature) / 315 °C .¹⁾*

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).*

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

¹⁾ Published as AECMA Prestandard at the date of publication of this standard.

3 Required characteristics

3.1 Configuration – Dimensions – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are: in conformity with ISO 12280, expressed in millimetres and apply after surface treatment.

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

3.2 Tolerances of form and position

See ISO 8788

3.3 Materials

See EN 2540 or EN 3638

3.4 Surface treatment

See EN 2516, process class appropriate to the material

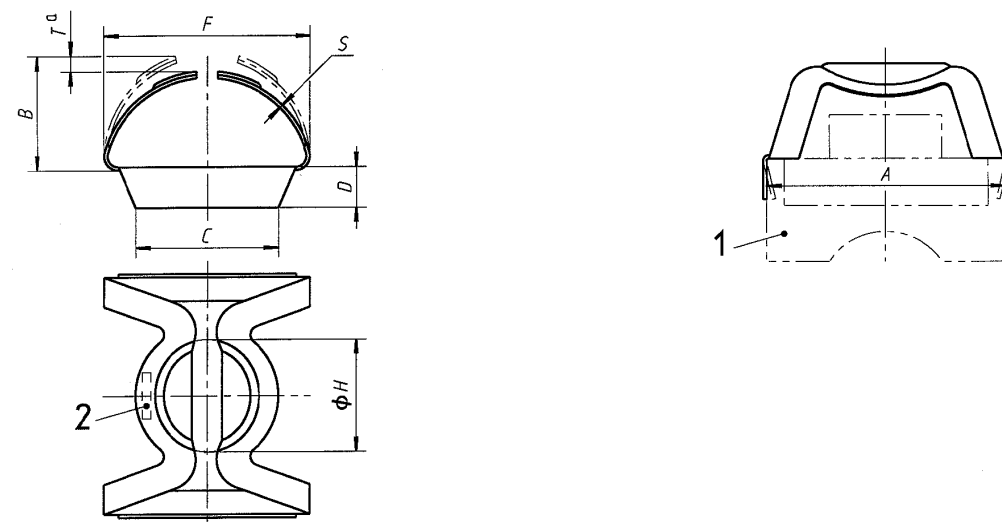
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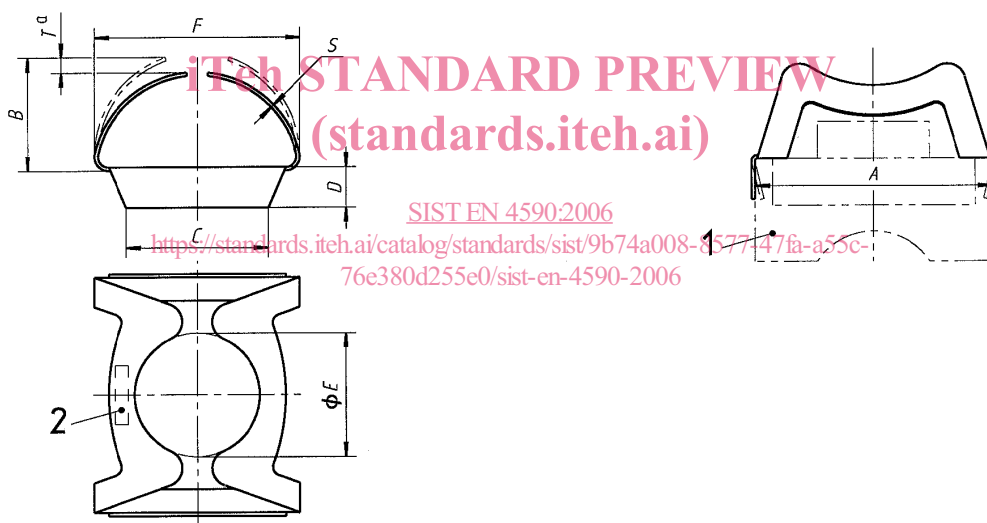
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EN 4590:2005 (E)

To burr.



Index type – Code A^b



Clearance type – Code B^{c d}

Key

- 1 Barrel nut outline, shown for reference purposes. See companion nut standard EN 4591.
- 2 Marking
- ^a Retainers shall be supplied in the open position as shown by phantom lines.
- ^b Index type retainers code "A" are used in blind areas where index feature locates in hole to prevent rotation or vertical movement.
- ^c Clearance type retainers code "B" are used where nut is accessible or where bolt hole in far side of barrel cavity is undesirable.
- ^d Code "B" type nut retainers and nut assembly shall require a push out force in accordance with tabulated values when installed in the installation hole specified in the companion barrel nut standard EN 4591.

Figure 1