SLOVENSKI STANDARD
SIST EN 2889:2009

01-marec-2009

Nadomeġļa:
SIST EN 2889:2001

Aeronavtika - Metriļ ni sorniki, normalna ġestroba glava, ġiroka toleranca, kratek navoj, iz legiranega jekla, prevleļ eni s kadmijem - Klasifikacija: 900 MPa (pri temperaturi okolice)/235 ÁC

Aerospace series - Metric bolts, normal hexagon head, coarse tolerance normal shank, short thread, in alloy steel, cadmium plated - Classification: 900 MPa (at ambient temperature)/235 °C

Luft- und Raumfahrt - Metrische Sechskantschrauben, kurzes Gewinde, aus legiertem Stahl, verkadmet - Klasse: 900 MPa (bei Raumtemperatur)/235 °C

Série aérospatiale - Vis métrique à tête hexagonale normale, fût normal à tolérance large, filetage court, en acier allié, cadmiées - Classification: 900 MPa (à température ambiante)/235 °C

Ta slovenski standard je istoveten z: **EN 2889:2006**

ICS:

49.030.20 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

SIST EN 2889:2009 **en,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 2889

July 2006

ICS 49.030.20

Supersedes EN 2889:1995

English Version

Aerospace series - Metric bolts, normal hexagon head, coarse tolerance normal shank, short thread, in alloy steel, cadmium plated - Classification: 900 MPa (at ambient temperature)/235 °C

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This European Standard was approved by CEN on 13 January 2006.

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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.

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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 2889:2006) has been prepared by the AeroSpace and Defense 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

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This document supersedes EN 2889:1995.

1 Scope

This standard specifies the characteristics of bolts, normal hexagonal head, coarse tolerance normal shank, short thread, in alloy steel, cadmium plated.

Classification: 900 MPa[1] / 235 °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 3193, *Aerospace — Bolts, normal hexagonal head, normal shank, short or medium length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions*

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 7689, *Aerospace — Bolts, with MJ threads, made with alloy steel, strength class 1 100 MPa — Procurement specification*

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

EN 2133, *Aerospace series — Cadmium plating of steels with maximum specified tensile strength ≤ 1 450 MPa, copper, copper alloys and nickel alloys*

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

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)*

TR 3775, *Aerospace series — Bolts and pins — National materials*[3]

1) Minimum tensile strength of the material at ambient temperature.

2) Maximum temperature that the bolt can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the surface treatment.

3) Published as ASD Technical Report 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 3193, expressed in millimetres and apply after surface treatment.

Details of form not stated are left to the manufacturer's discretion.

3.2 Tolerances of form and position

See ISO 7913.

3.3 Materials

TR 3775 (alloy steel, strength class 900 MPa).

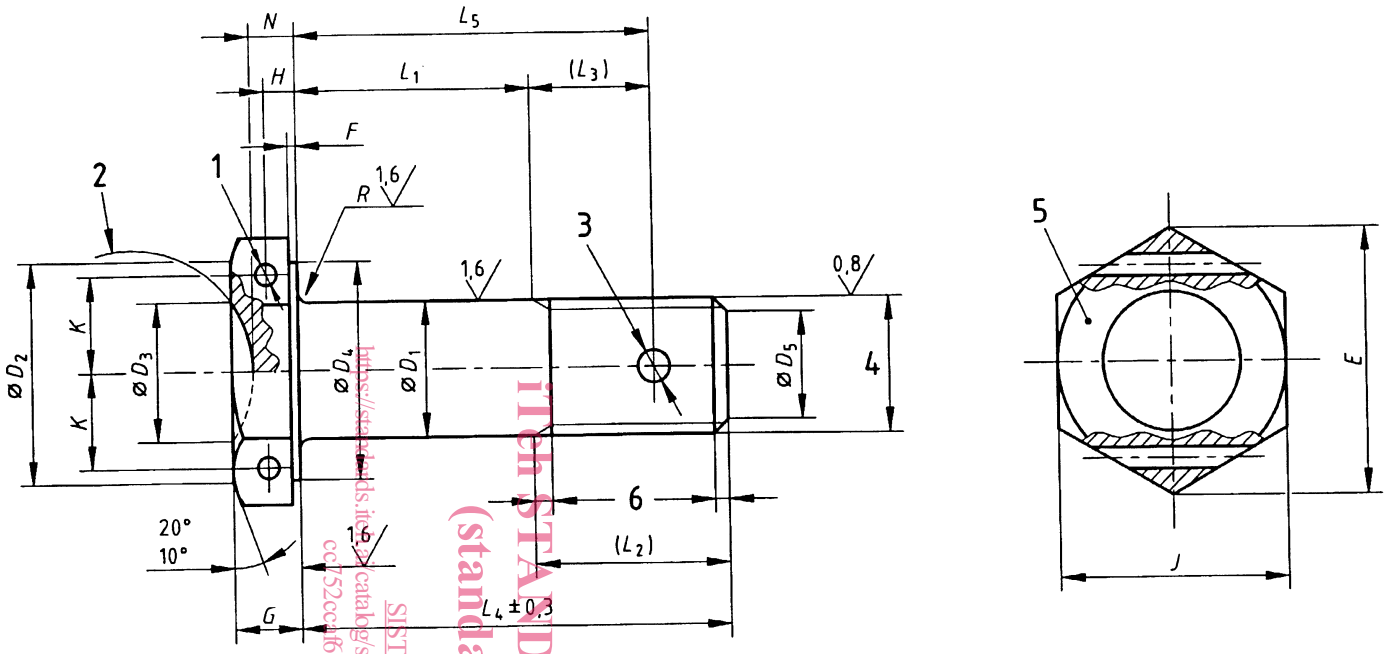
3.4 Surface treatment

EN 2133, 8 µm to 14 µm, on all surfaces which can be contacted by a 20 mm diameter ball. On all other surfaces, a continuous cadmium plating shall be present, but no value is specified.

Black colour option: code B (EN 2133, except for corrosion resistance requirement).

3,2 [1,6 0,8] Values in micrometres apply prior to surface treatment.

Break sharp edges 0,1 to 0,4.



Key
1 Two holes diameter D_6 (optional)
2 Continuous surface
3 One hole diameter D_1 (optional)
4 Thread
5 Marking
6 Conforms to ISO 3353

Figure 1

Table 1

Diameter code	Thread[a]	D_1 h12	D_2 min.	D_3 $^{0}_{-0,5}$	D_4[b] min.	D_5 nom.	D_5 Tol.	D_6 H13	D_7 H13	E min.	F max.	F min.	G $^{0}_{-0,3}$	H
030	MJ3×0,5 — 4h6h	3	5,5	—	5,4	2,3	$^{0}_{-0,5}$	—	—	6,5	0,4	0,2	2	—
040	MJ4×0,7 — 4h6h	4	6,4	—	6,4	3		—	1,1	7,6	0,5		2,5	—
050	MJ5×0,8 — 4h6h	5	7,4	5,25	7,4	3,4	± 0,5	1	1,5	8,7			3	1,35
060	MJ6×1 — 4h6h	6	9,4	6,25	9,3	4,2		1,4		10,9			3,5	1,6
070	MJ7×1 — 4h6h	7	10,3	7,25	10,2	5,2			1,9	12			4	1,85
080	MJ8×1 — 4h6h	8	12,3	8,25	12,2	6,2				14,3			4,5	2,1
100	MJ10×1,25 — 4h6h	10	16,3	10,25	16	7,9		1,6	2,4	18,9	0,6	0,3	5	2,35
120	MJ12×1,25 — 4h6h	12	18,3	12,25	18	9,8				21,1			6	2,85
140	MJ14×1,5 — 4h6h	14	21,3	14,25	21	11,5			3	24,5			7	3,35
160	MJ16×1,5 — 4h6h	16	23,3	16,25	23	13,5				26,8			8	3,85
180	MJ18×1,5 — 4h6h	18	26,3	18,25	26	15,5			3,8	30,2			9	4,35
200	MJ20×1,5 — 4h6h	20	29,3	20,25	29	17,5				33,6			10	4,85