SLOVENSKI STANDARD
SIST EN 2649:2001

01-januar-2001

Aerospace series - Screws, pan head, slotted, threaded to head, in alloy steel, cadmium plated - Classification: 900 MPa (at ambient temperature) / 235 °C

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Luft- und Raumfahrt - Flachkopfschrauben mit Schlitz, Gewinde annähernd bis Kopf, aus legiertem Stahl, verkadmet - Klasse: 900 MPa (bei Raumtemperatur) / 235 °C

Série aérospatiale - Vis a tete cylindrique fendue, filetées jusqu'a proximité de la tete, en acier allié, cadmiées - Classification: 900 MPa (a température ambiante) / 235 °C

Ta slovenski standard je istoveten z: **EN 2649:1995**

ICS:

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

SIST EN 2649:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2649

July 1995

ICS 49.040.20

Descriptors: aircraft industry, aircraft equipment, cheese head, screw, slotted head screw, alloy steel, cadmium, screw thread, specification, characteristic, dimension, mass, dimensional tolerance, surface treatment, designation, marking

English version

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This European Standard was approved by CEN on 1995-02-28. 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.

The European Standards exist 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this standard has successively 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 January 1996, and conflicting national standards shall be withdrawn at the latest by January 1996.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies the characteristics of screws, pan head, slotted, threaded to head, in alloy steel, cadmium plated.

Classification : 900 MPa [1] / 235 °C [2]

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 3353	Aerospace - Rolled threads for bolts - Lead and runout requirements
ISO 5855-2	Aerospace - MJ threads - Part 2 : Limit dimensions for bolts and nuts
ISO 7689	Aerospace - Alloy steel bolts with strength classification 1 100 MPa and MJ threads - Procurement specification
ISO 7913	Aerospace - Bolts and screws, metric - Tolerances of form and position
EN 2000	Aerospace series - Quality assurance - EN aerospace products - Approval of the quality system of manufacturers
EN 2133	Cadmium plating of steels with maximum specified tensile strength equal to or less than 1 450 MPa and copper and copper alloys - Aerospace series [3]
EN 2424	Aerospace series - Marking of aerospace products
TR 3775	Aerospace series - Bolts and pins - National materials [4]

1) Minimum tensile strength of the material at ambient temperature
2) Maximum temperature that the screw 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 AECMA Standard at the date of publication of this standard
4) Published as AECMA 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 expressed in millimetres and apply after surface treatment.

3.2 Tolerances of form and position

ISO 7913, figure 1 and table 1

3.3 Materials

TR 3775 (alloy steel, classification : 900 MPa)

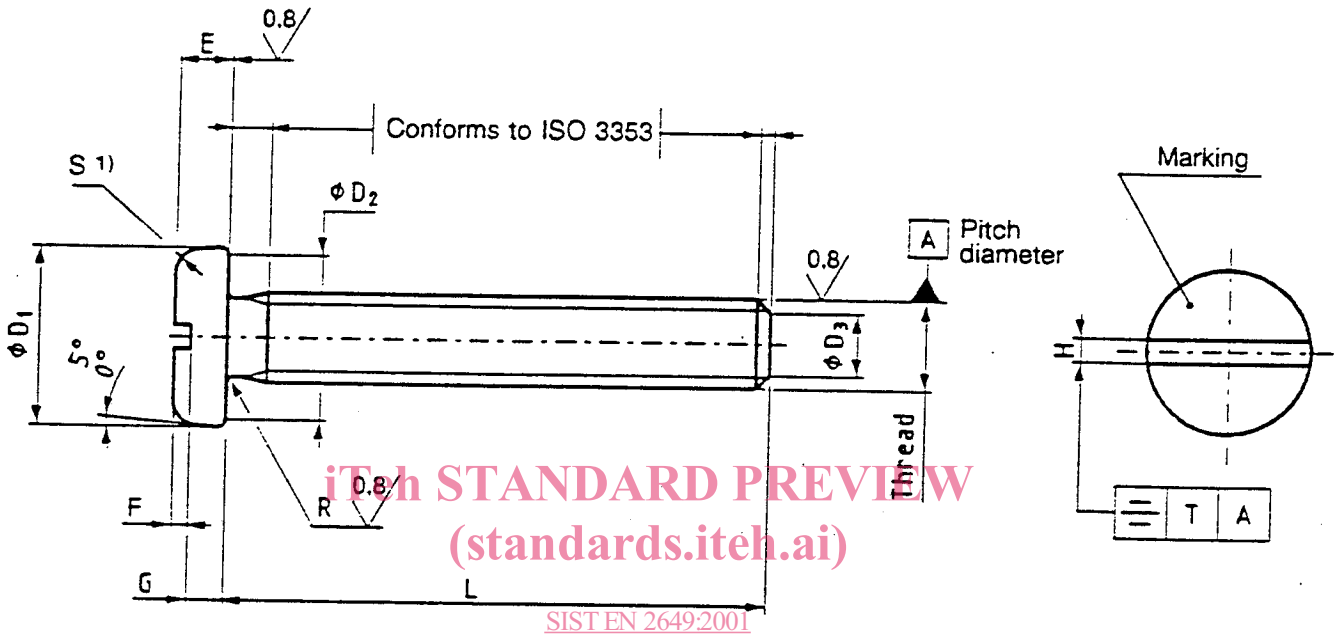
3.4 Surface treatment

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 deposit shall be present, but no value is specified.

Black colour option : code B

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

Break sharp edges 0,1 to 0,4



1) Shape optional

Figure 1

Table 1

Diameter code	Thread [1]	D_1 0 - 0,3	D_2	D_3		E		F	G	H	
			min.	nom.	Tol.	nom.	Tol.	min.	min.	nom.	Tol.
016	MJ1,6x0,35 - 4h6h	3,2	1,9	1,1	0 - 0,5	1	0 - 0,2	0,4	0,4	0,45	+ 0,15 0
020	MJ2x0,4 - 4h6h	4	2,7	1,4		1,2		0,5	0,5	0,55	
025	MJ2,5x0,45 - 4h6h	5	3,7	1,9		1,5		0,6	0,6	0,65	
030	MJ3x0,5 - 4h6h	6	4,7	2,3		1,8		0,7	0,7	0,85	
035	MJ3,5x0,6 - 4h6h	7	5,7	2,7		2,1		0,8	0,8	0,95	
040	MJ4x0,7 - 4h6h	8	6,7	3		2,4		1	1	1,05	
050	MJ5x0,8 - 4h6h	10	8,7	3,4	± 0,5	3		1,2	1,2	1,25	+ 0,25 0
060	MJ6x1 - 4h6h	12	10,7	4,2		3,6	0 - 0,3	1,5	1,5	1,65	

(concluded)

Diameter code	$L \pm 0,3$ [2] [3]		R 0 - 0,2	S		T	Mass [4]	
	Code	nom.		max.	min.		5)	6)
016	004 to 022	4 to 22	0,3	0,7	0,2	0,08	0,100	0,023
020	004 to 028	4 to 28		0,8		0,1	0,176	0,037
025	004 to 036	4 to 36		1	0,3	0,12	0,321	0,060
030	004 to 042	4 to 42		1,2		0,15	0,524	0,088
035	006 to 050	6 to 50	0,4	1,4		0,17	0,91	0,12
040	006 to 056	6 to 56		1,6	0,4	0,2	1,29	0,15
050	008 to 070	8 to 70	0,5	2	0,5	0,25	2,61	0,25
060	010 to 084	10 to 84	0,7	2,4	0,6	0,3	4,54	0,35

1) In accordance with ISO 5855-2

2) Increments :
2 for $L \leq 100$
4 for $L > 100$

3) If greater lengths are required, they shall be chosen using the above increments. The length code corresponds to the length L, completed by one or two zeros to the left, where necessary, to obtain a three digit code.

4) Approximate values (kg/1 000 pieces), calculated on the basis of 7,85 kg/dm^3, given for information purposes only

5) Value for head and first L

6) Increase for each additional 2 mm of L.