SLOVENSKI STANDARD
SIST EN 4852:2019

01-september-2019

Aeronavtika - Zunanje spiralne pogonske glave za navojne veznike - Geometrična definicija in konfiguracija

Aerospace series - External spiral drive heads for threaded fasteners - Geometrical definition and wrenching configuration

Luft- und Raumfahrt - Spiral-Außenantrieb für Schrauben - Definition der Geometrie und Gestaltung des Schlüsselangriffs

Série aérospatiale - Têtes spiral external pour vis - Définition géometrique et configuration déchirante

Ta slovenski standard je istoveten z: EN 4852:2019

ICS:

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

SIST EN 4852:2019 en,fr,de

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4852

May 2019

ICS 49.030.20

English Version

Aerospace series - External spiral drive heads for threaded fasteners - Geometrical definition and fastener head wrenching configuration

Série aérospatiale - Têtes à entraînement extérieur en spirale pour éléments de fixation filetés - Définition géométrique et configuration de serrage de la tête de fixation

Luft- und Raumfahrt - Spiral-Außenantrieb für Schrauben - Definition der Geometrie und Gestaltung des Schlüsselangriffs

This European Standard was approved by CEN on 12 November 2018.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 4852:2019 E

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European foreword

This document (EN 4852:2019) 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 November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Aerospace and Defence Standardisation (ASD-STAN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent “Spiral Drive System for Threaded Fasteners” EP1025370B1.

ASD-STAN takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ASD-STAN that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ASD-STAN. Information may be obtained from:

Phillips Screw Company
301 Edgewater Drive, Suite 320
Wakefield, MA 01880
USA

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. ASD-STAN shall not be held responsible for identifying any or all such patent rights.

1 Scope

This European standard specifies dimensions and gauging system for external MORTORQ super bolt head spiral drive system[1].

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 1101, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Required characteristics: Configuration — Dimensions — Tolerances

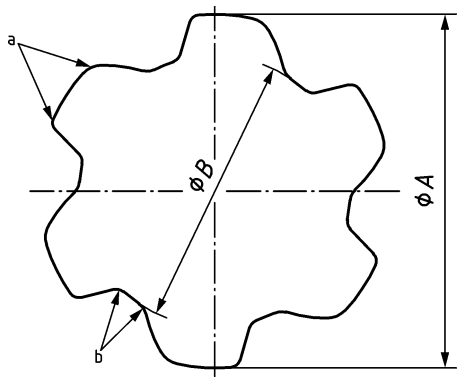
Configuration shall be in accordance with Figure 1.

Dimensions and tolerances shall conform with Figure 1 and Table 1 and are expressed in millimetres.

1 External MORTORQ® Super is the trade name of a product supplied by licensees of the Phillips Screw Company. This information is given for the convenience of users of this European Standard and does not constitute an endorsement by ASD-STAN nor CEN of the product named. Equivalent products may be used if they can be shown to lead to the same results.

4.1 Geometrical product specifications (GPS)

In accordance with ISO 1101



Key

a F Rad Ref
b E Rad Ref

Figure 1 — Fastener head (viewed from above)

Table 1 — Basic wrenching configuration dimensions

Drive code	Drive size	ØA	ØB	E Rad Ref	F Rad Ref
01	MTS-X1	2,311 2,261	1,778 1,727	0,079	0,089
02	MTS-X2	3,023 2,972	2,324 2,273	0,104	0,114
04	MTS-X4	3,734 3,658	2,873 2,797	0,13	0,142
05	MTS-X5	4,623 4,547	3,556 3,480	0,16	0,175
06	MTS-X6	5,588 5,486	4,298 4,196	0,193	0,213
07	MTS-X7	6,045 5,944	4,651 4,549	0,208	0,231
08	MTS-X8	7,341 7,239	5,646 5,545	0,251	0,279
10	MTS-X10	9,246 9,144	7,112 7,010	0,315	0,353
11	MTS-X11	9,906 9,804	7,620 7,518	0,34	0,378
12	MTS-X12	10,998 10,897	8,461 8,359	0,378	0,419

Drive code	Drive size	ØA	ØB	E Rad Ref	F Rad Ref
14	MTS-X14	12,725 12,624	9,789 9,688	0,437	0,485
16	MTS-X16	14,554 14,453	11,196 11,095	0,5	0,554
18	MTS-X18	16,459 16,307	12,662 12,510	0,566	0,627
20	MTS-X20	18,237 18,085	14,028 13,876	0,627	0,696
22	MTS-X22	20,066 19,914	15,436 15,283	0,691	0,765
24	MTS-X24	21,920 21,768	16,863 16,711	0,754	0,836
26	MTS-X26	23,673 23,520	18,209 18,057	0,815	0,902
28	MTS-X28	25,476 25,324	19,599 19,446	0,876	0,97
29	MTS-X29	25,999 25,847	20,000 19,848	0,894	0,991
30	MTS-X30	27,203 27,051	20,927 20,775	0,937	1,036
32	MTS-X32	28,981 28,829	22,294 22,141	0,998	1,105
34	MTS-X34	30,734 30,582	23,642 23,490	1,057	1,171
36	MTS-X36	32,588 32,436	25,067 24,915	1,123	1,242
38	MTS-X38	34,442 34,290	26,495 26,342	1,186	1,313
40	MTS-X40	36,144 35,992	27,803 27,650	1,245	1,377
42	MTS-X42	37,973 37,821	29,210 29,058	1,308	1,448
44	MTS-X44	39,751 39,599	30,579 30,427	1,369	1,514