BS EN 3757:2009

Aerospace series — Nuts, anchor, self-locking, floating, self-aligning, two lugs, in heat resisting steel, MoS2 lubricated — Classification: 900 MPa (at ambient temperature) / 315 °C

ICS 49.030.30

National foreword

This British Standard is the UK implementation of EN 3757:2009.

The UK participation in its preparation was entrusted to Technical Committee ACE/12, Aerospace fasteners and fastening systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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EN 3757

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English Version

Aerospace series - Nuts, anchor, self-locking, floating, self-aligning, two lugs, in heat resisting steel, MoS2 lubricated - Classification: 900 MPa (at ambient temperature) / 315 °C

Série aérospatiale - Écrous à river, à freinage interne, flottants, orientables, double patte, acier résistant à chaud, lubrifiés MoS2 - Classification : 900 MPa (à température ambiante) / 315 °C

Luft- und Raumfahrt - Annietmuttern, selbstsichernd, schwenkbar, beiderseitiger Flansch, aus hochwarmfestem Stahl, MoS2-geschmiert - Klasse: 900 MPa (bei Raumtemperatur) / 315 °C

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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 3757:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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1 Scope

This European Standard specifies the characteristics of self-locking, floating, self-aligning, two lugs anchor nuts, in heat resisting steel, MoS_2-lubricated.

Classification: 900 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.

EN 2424:2008, *Aerospace series — Marking of aerospace products*

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

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

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

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*

ISO 12273, *Aerospace — Nuts, anchor, self-locking, floating, self-aligning, two lug, with MJ threads, classifications: 900 MPa (at ambient temperature)/235 °C, 900 MPa (at ambient temperature)/315 °C and 900 MPa (at ambient temperature)/425 °C — Dimensions*

TR 3791, *Aerospace series — Materials for self-locking nuts, threaded inserts and screw thread inserts of temperature classes ≤ 425 °C* [3]

1) Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

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 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 12273, expressed in millimetres and apply before MoS_2 lubrication.

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

3.2 Tolerances of form and position

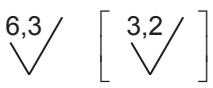
ISO 8788.

3.3 Materials

TR 3791.

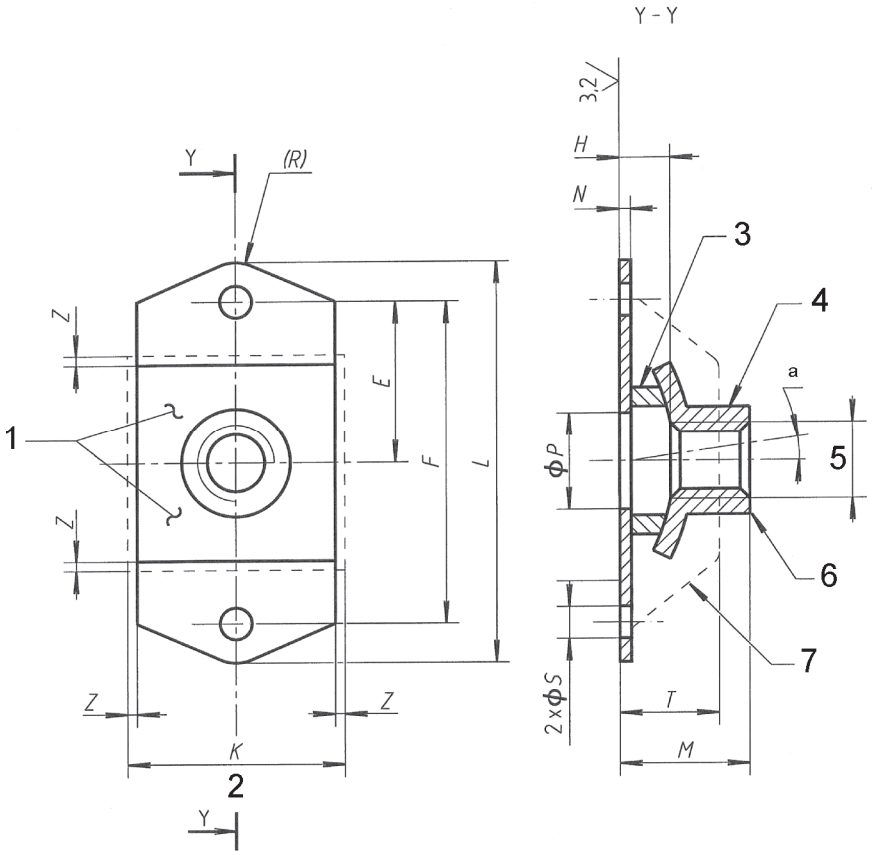
3.4 Surface treatment

EN 2491, thickness not specified, mandatory on threads, optional on other surfaces.



These values in micrometres apply before surface treatment. They do not apply to threads punched holes or sheared edges, the surface texture of which will be as achieved by usual manufacturing methods.

Remove sharp edges 0,1 to 0,4.



Key

1 Marking
2 Float inclusive
3 Convex washer
4 Threaded element
5 Thread
6 Form out-of-round in this area to achieve the self-locking torque requirements. Tooling marks are permitted in this area.
7 Cage
a 8° minimum alignment in any direction from central position

Figure 1

Table 1

Diameter code	**Thread** [a]	*E*	*F*	*H* min.	*K* max.	*L* max.	*M* max.	*N* [b] max.	*P* min.	*R* ≈	*S* + 0,2 0	*T* max.	*Z* **Radial float** min.	**Mass** [c]
050	MJ5×0,8-4H6H	8,75	17,5	3,5	15,2	23,7	8,3	0,9	6,6	3	2,5	7,2	0,7	2,6
060	MJ6×1-4H5H	12,7	25,4	4	17	31,6	10,2	1,1	7,6			7,8	0,75	5,8
080	MJ8×1-4H5H			5	20,5	32,6	11,8		11	3,5	3	8,4		9

[a] In accordance with ISO 5855-2. In the self-locking zone, the tolerances apply before forming out-of-round.

[b] Measured at the rivet hole location.

[c] Approximate values (kg/1 000 pieces), given for information purposes only.

4 Designation

EXAMPLE

Description block	**Identity block**
NUT	**EN3757–060**

Number of this standard

Diameter code (see Table 1)

NOTE If necessary the originator code I9005 shall be placed between the description block and the identity block.

5 Marking

EN 2424:2008, style N. See Figure 1.

6 Technical specification

ISO 5858, except for:

— Approval of manufacturers: see EN 9100;

— Qualification of products: see EN 9133.

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BSI Group
Headquarters 389
Chiswick High Road,
London, W4 4AL, UK
Tel +44 (0)20 8996 9001
Fax +44 (0)20 8996 7001
www.bsigroup.com/
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