INTERNATIONAL STANDARD

ISO 12273

Second edition
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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

Aéronautique et espace — Écrous à river, à freinage interne, flottants, orientables, double patte, à filetage MJ, classifications: 900 MPa (à température ambiante)/235 °C, 900 MPa (à température ambiante)/315 °C et 900 MPa (à température ambiante)/425 °C — Dimensions

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 12273 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

This second edition cancels and replaces the first edition (ISO 12273:1997), of which it constitutes a minor revision.

Introduction

The dimensions specified in this International Standard have been determined to satisfy the requirements of the procurement specification of ISO 5858.

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

1 Scope

This International Standard specifies the dimensions of floating, self-aligning, two lug anchor nuts, with MJ threads and a self-locking feature achieved by forming the upper portion out-of-round, of the following classifications:

— 900 MPa/235 °C;

— 900 MPa/315 °C;

— 900 MPa/425 °C.

NOTE 1 The first element in the classifications (900 MPa) corresponds to the minimum tensile stress that the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

NOTE 2 The second element in the classifications is the 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 material or by the surface treatment.

This International Standard is only applicable for the compilation of aerospace product standards.

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.

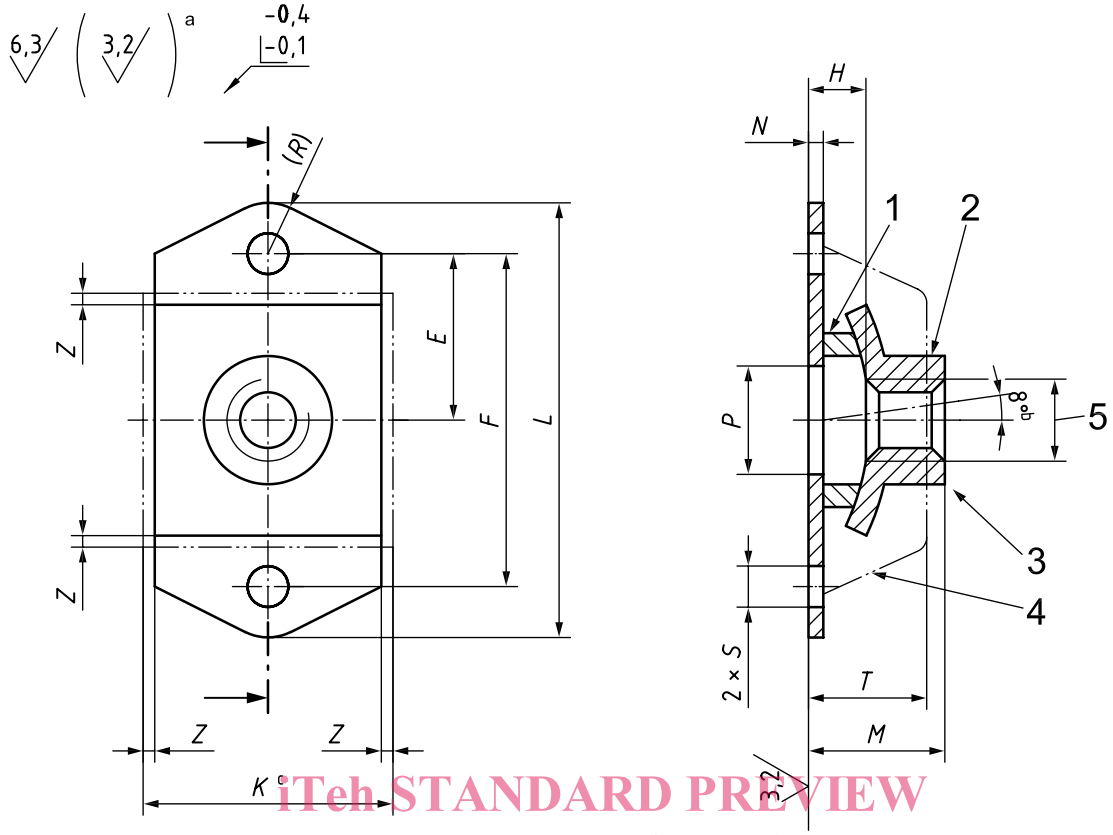
ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 8788, *Aerospace — Nuts, metric — Tolerances of form and position*

3 Configuration and dimensions

See Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres. They apply after any surface coating(s) but before the application of any lubricant.



Tolerances of form and position shall conform to those specified in ISO 8788.

Key

1 convex washer
2 threaded element
3 form out-of-round in this area to achieve the self-locking torque requirement (tooling marks permissible)
4 cage
5 thread

a These values, in micrometers, apply before any surface coating(s) is(are) applied. The values do not apply to threads and sheared edges, the surface texture of which will be as achieved by the usual manufacturing methods.

b Axial misalignment: 8° minimum in any direction from central position.

c Float inclusive.

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.	Radial floating *Z* min.
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
060	MJ6 × 1 – 4H5H	12,7	25,4	4	17	31,6	10,2		7,6			7,8	0,75
080	MJ8 × 1 – 4H5H			5	20,5	32,6	11,8	1,1	11	3,5	3	8,4	

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

b Is applicable at the rivet hole location.

Bibliography

[1] ISO 5858, *Aerospace — Nuts, self-locking, with maximum operating temperature less than or equal to 425 °C — Procurement specification*

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