AIRBUS

NUT - HEXAGONAL, SELF-LOCKING, BIHEX, SHEAR TYPE

Issue : **F**
Date : **Sep 04**
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SUMMARY

1 - SCOPE AND FIELD OF APPLICATION

This standard specifies the dimensions, tolerances, required characteristics and the masses of a self-locking hexagonal nut.

2 - REFERENCES

AMS 5640	: Steel bars, wire and forgings, corrosion resistant 18Cr-9.0Ni (SAE 30303, 30303Se, 30303Mod) free machining.
AMS 5686	: Steel rivet wire, corrosion resistant 18Cr –11.5Ni – (SAE 30305) Solution heat treated.
AMS-QQ-P-416	: Plating, cadmium (electrodeposited).

ABS1419	:	Nut - Break-off groove, calibrated for short-thread bolts, recessed on thread end.
ASTM A493	:	Standard specification for stainless and heat-resisting steel for cold heading and cold forging wire.
ASTM A582	:	Standard specification for free-machining stainless and heat-resisting steel bars, hot-rolled or cold-finished.
EN 6117	:	Specification for lubrication of bolts with cetyl alcohol.
EN 2424	:	Aerospace series - Marking of aerospace products.
AS 8879	:	Screw threads - UNJ profile inch.
QQ-S-763	:	Steel bars, wire, shapes and forgings, corrosion resistant.

3 - TERMINOLOGY

Not applicable.

4 - REQUIRED CHARACTERISTICS

4.1 - Configuration, dimensions, tolerances, mass

4.1.1 - Configuration shall be in accordance with the figure.

4.1.2 - Dimensions shall be in accordance with the figure and Table 1.

All dimensions are given after finish and before lubrication.

4.1.3 - Tolerances shall be in accordance with Table 1.

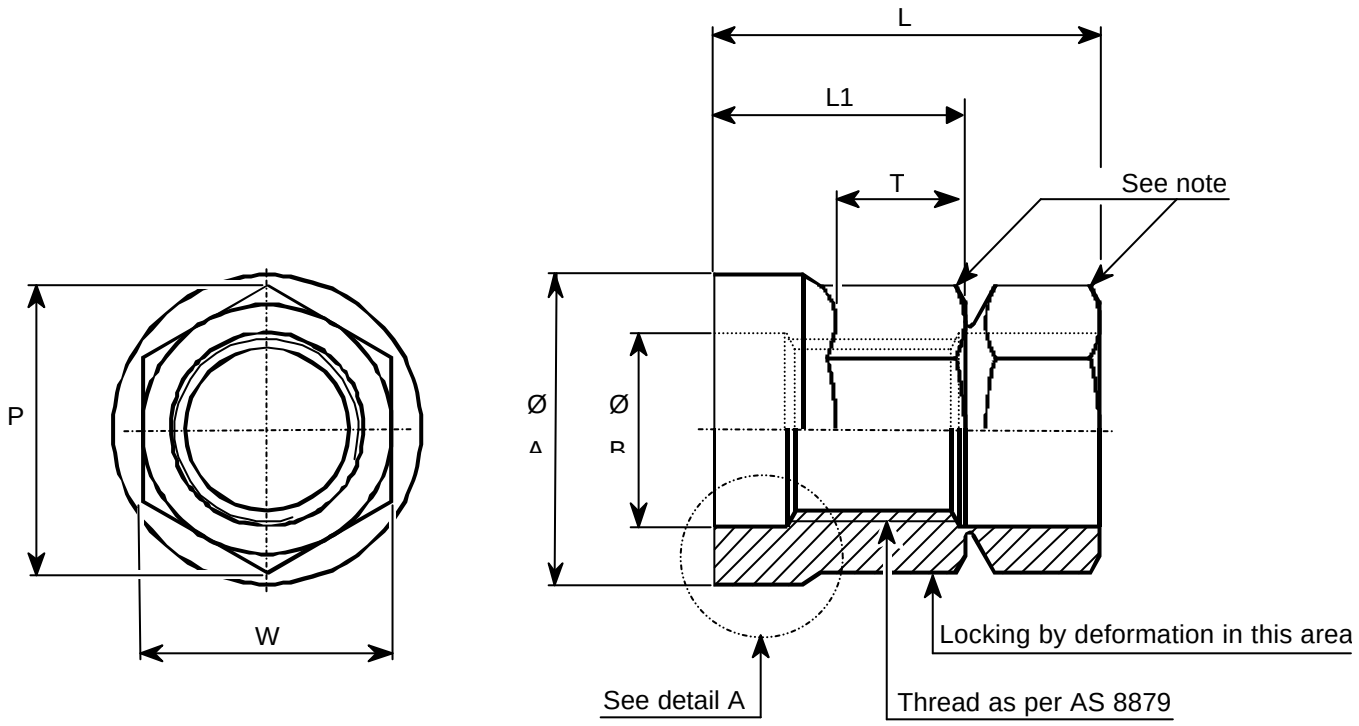
4.1.4 - Mass shall be in accordance with Table 1.

4.2 - Materials, finishes, lubrications

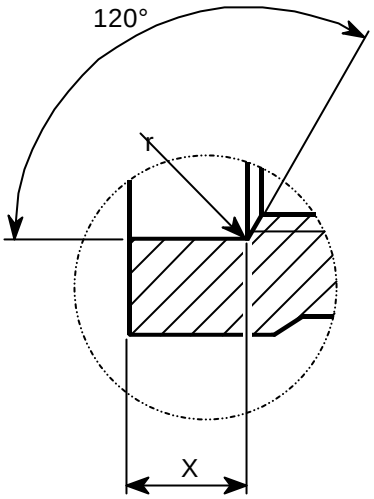
Materials, finishes and lubrications shall be in accordance with Table 2.

4.3 - General characteristics

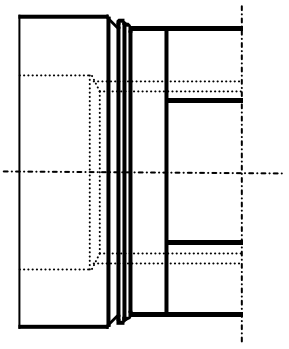
Go thread gage penetration shall be of one revolution minimum before stopping in the deformation area.



Detail A



Optional shape



NOTE : Slight machining burrs are tolerated in this zone.

Dimensions in mm.

Figure - Configuration, dimensions

Table 1 - Dimensions, tolerances, mass

ITEM CODE No.	NOMINAL Ø	THREAD as per AS 8879	Ø A	Ø B	L	L1 (Ref.)	P (Ref.)	r max.	T min.
2	3,97	.1640-32UNJC-3B	7,47 7,26	4,39 4,29	10,29 9,78	5,84	6,35	0,5	2,29
3	4,76	.1900-32UNJF-3B	9,02 8,76	5,76 5,66	10,54 10,03	6,10	7,24		2,49
3A	5,56	.2160-28UNF-3B	9,91 9,65	6,60 6,48	11,81 11,30	6,60	8,13		
4	6,35	.2500-28UNJF-3B	11,18 10,92	7,37 7,26	12,32 11,81	7,11	9,02		
5	7,94	.3125-24UNJF-3B	13,59 13,33	8,97 8,81	14,35 13,84	8,25	10,92	0,6	2,92
6	9,52	.3750-24UNJF-3B	17,35 17,09	10,57 10,41	16,13 15,62	9,27	14,55		3,30
7	11,11	.4375-20UNJF-3B	19,68 19,43	12,22 12,06	18,16 17,65	10,54	16,33	0,8	3,60
8	12,70	.5000-20UNJF-3B	22,35 22,10	13,79 13,64	19,68 19,18	11,30	20,01		4,19
9	14,29	.5625-18UNJF-3B	23,49 23,24	15,49 15,29	21,97 21,46	12,83	21,84	1,0	4,70
10	15,88	.6250-18UNJF-3B	25,40 25,15	17,07 16,86	24,13 23,62	14,22			5,08

ITEM CODE No.	NOMINAL Ø	THREAD as per AS 8879	W hex.	X min.	Min. TENSILE RESISTANCE (daN)	MASS (kg/1 000)
2	3,97	.1640-32UNJC-3B	5,59 5,41	2,54	1 024	0,998
3	4,76	.1900-32UNJF-3B	6,40 6,12		1 223	1,293
3A	5,56	.2160-28UNF-3B	7,19 6,88		1 688	1,800
4	6,35	.2500-28UNJF-3B	7,97 7,67	2,64	2 225	2,384
5	7,94	.3125-24UNJF-3B	9,60 9,27	2,69	3 693	4,176
6	9,52	.3750-24UNJF-3B	12,78 12,45	2,74	5 651	8,677
7	11,11	.4375-20UNJF-3B	14,35 13,97	2,84	8 455	11,709
8	12,70	.5000-20UNJF-3B	17,53 17,14	2,89	11 347	19,181
9	14,29	.5625-18UNJF-3B	19,13 18,69	2,99	12 905	22,093
10	15,88	.6250-18UNJF-3B			14 240	24,788

Dimensions in mm.

Table 2 - Materials, finishes, lubrications

FINISH CODE	MATERIAL	THERMAL TREATMENT	FINISH	IDENTIFICATION	LUBRICATION
-	CRES S30430 (302HQ) as per ASTM A493 type XM-7 or 305 as per QQ-S-763 and AMS 5686 or 303Se as per ASTM A582 (AMS 5640) or 302 as per QQ-S-763	-	Cadmium plating as per AMS-QQ-P-416 type II class 2	Yelow color	Cetyl alcohol as per EN 6117
P			Passivated and Dry film lub as per HS292	Grey color	

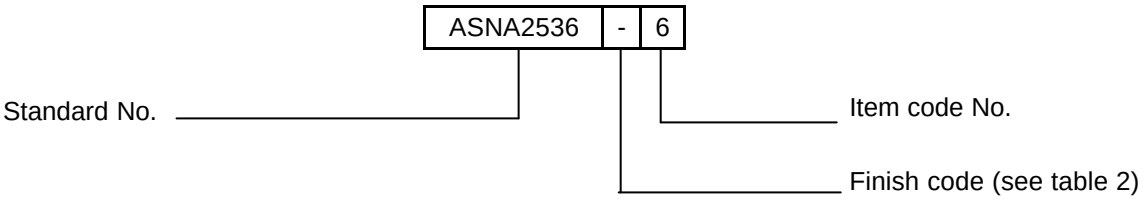
NOTE : Identification colors correspond to typical protections colors.

5 - DESIGNATION

Example of part number identification to be used on drawing schedules :

ASNA2536-6 , Nut

Example of part number construction :



6 - MARKING

Parts shall be marked as per EN 2424, category G.

Unless otherwise specified by contract, marking shall include :
- The manufacturer's name or trademark.

7 - TECHNICAL SPECIFICATION

ABS1419. “Collar break-off groove, for lightweight threaded pins”.

8 - MANUFACTURERS

Refer to the list of qualified manufacturers and products.

AMENDMENT RECORD SHEET

Issue	Modified paragraph	Modification summary	Justification
A.11.88		New standard.	Following note No. 437127/88
B.04.89		Locking by deformation area modified. General characteristics modified.	Mod. 9999
C.10.89		Masses modified.	Following manufacturer's information
D.01.91		In technical specification : A/DET 0064 changed to 0063.	Mod. 9999
E.11.02		Standard fully amended. Item code Nos 2 and 3A added. "Passivated…as per HS292" and EN 6117 added for nut in table 2. In technical specification : A/DET 0063 changed to ASNA2849.	A 380
F.09.04		Dimensions of Item code No. 2 updated.	A 380

NOTE : Modification to the last standard issue are indicated by a vertical line in the margin.