

INCH-POUND

AN818 Rev 20  
 16 February 2010  
 SUPERSEDING  
 AN818 Rev 19  
 15 June 1994

DETAIL SPECIFICATION SHEET

NUT, TUBE COUPLING, SHORT

This specification is approved for use by all Departments and Agencies  
 of the Department of Defense .

The requirements for acquiring the product described herein shall consist of this specification sheet and  
 SAE-AS4841.

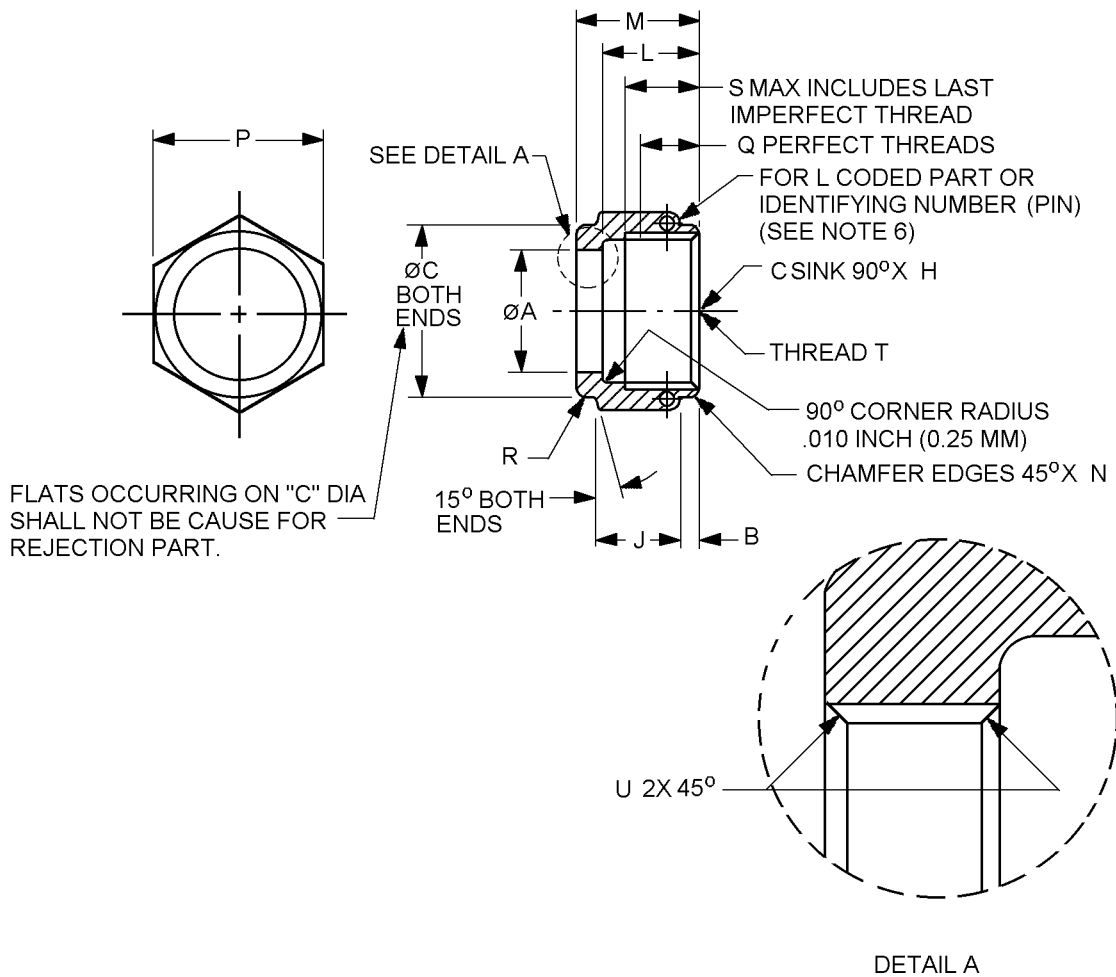


FIGURE 1. Nut, tube coupling.

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Dash number	Tube OD inches (mm)	Thread T SAE-AS8879	A dia. +.003 (0.08) -.000 inches (mm)	B inches (mm)	C dia. +.000 -.010 (0.3) inches (mm)
-2	.125 (3.18)	.3125 - 24UNJF -3B	.180 (4.57)	.109 (2.77)	.375 (9.53)
-3	.188 (4.78)	.3750 - 24UNJF -3B	.242 (6.15)	.141 (3.58)	.437 (11.10)
-4	.250 (6.35)	.4375 - 20UNJF -3B	.305 (7.75)	.125 (3.18)	.562 (14.27)
-5	.313 (7.95)	.5000 - 20UNJF -3B	.374 (9.50)	.125 (3.18)	.625 (15.88)
-6	.375 (9.53)	.5625 - 18UNJF - 3B	.440 (11.18)	.156 (3.96)	.687 (17.45)
-8	.500 (12.70)	.7500 - 16UNJF - 3B	.570 (14.48)	.156 (3.96)	.875 (22.23)
-10	.625 (15.88)	.8750 - 14UNJF - 3B	.698 (17.73)	.172 (4.37)	1.000 (25.40)
-12	.750 (19.05)	1.0625 - 12UNJ - 3B	.834 (21.18)	.125 (3.18)	1.250 (31.75)
-16	1.000 (25.40)	1.3125 - 12UNJ - 3B	1.089 (27.66)	.219 (5.56)	1.500 (38.10)
-20	1.250 (31.75)	1.6250 -12UNJ - 3B	1.347 (34.21)	.312 (7.92)	2.000 (50.80)
-24	1.500 (38.10)	1.8750 - 12UNJ - 3B	1.617 (41.07)	.359 (9.12)	2.250 (57.15)
-28	1.750 (44.45)	2.2500 - 12UNJ - 3B	1.890 (48.01)	.375 (9.53)	2.625 (66.68)
-32	2.000 (50.80)	2.500 - 12UNJ - 3B	2.167 (55.04)	.438 (11.13)	2.875 (73.03)
-40	2.500 (63.50)	3.000 - 12UNJ - 3B	2.667 (67.74)	.406 (10.31)	3.375 (85.73)
-48	3.000 (76.20)	3.500 - 12UNJ - 3B	3.180 (80.77)	.438 (11.13)	4.000 (101.60)

Dash number	H dia. +.031 (0.79) -.000 inches (mm)	J inches (mm)	L inches (mm)	M inches (mm)	N
-2	.312 (7.92)	.312 (7.92)	.460 (11.68)	.542 (13.77)	.010 (0.25)
-3	.375 (9.53)	.375 (9.53)	.506 (12.85)	.604 (15.34)	
-4	.438 (11.13)	.406 (10.31)	.532 (13.51)	.620 (15.75)	
-5	.500 (12.70)	.484 (12.39)	.579 (14.71)	.683 (17.35)	
-6	.562 (14.27)	.500 (12.70)	.603 (15.32)	.724 (18.39)	
-8	.750 (19.05)	.578 (14.68)	.723 (18.36)	.849 (21.56)	
-10	.875 (22.23)	.688 (17.48)	.817 (20.75)	.974 (24.74)	
-12	1.062 (26.97)	.750 (19.05)	.868 (22.05)	1.021 (25.93)	
-16	1.312 (33.32)	.766 (19.46)	.962 (24.43)	1.131 (28.73)	
-20	1.625 (41.28)	.766 (19.46)	1.017 (25.83)	1.224 (31.09)	
-24	1.875 (47.63)	.875 (22.23)	1.170 (29.72)	1.412 (35.86)	
-28	2.250 (57.15)	1.000 (25.40)	1.316 (33.43)	1.568 (39.83)	
-32	2.500 (63.50)	1.078 (27.38)	1.462 (37.13)	1.740 (44.20)	
-40	3.000 (76.20)	.969 (24.61)	1.328 (33.73)	1.631 (41.43)	
-48	3.500 (88.90)	1.063 (27.00)	1.452 (36.88)	1.756 (44.60)	

FIGURE 1. Nut, tube coupling - Continued.

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Dash number	P inches (mm)		Q min inches (mm)	R rad inches (mm)	S max inches (mm)	U inches (mm)
-2	.375 (9.53)	+ .003 (0.08)	.251 (6.38)	.031 (0.79)	.376 (9.55)	.005 (0.13)
-3	.438 (11.13)		.338 (8.59)	.031 (0.79)	.428 (10.87)	
-4	.563 (14.30)		.380 (9.65)	.031 (0.79)	.500 (12.70)	
-5	.625 (15.88)		.401 (10.19)	.031 (0.79)	.542 (13.77)	
-6	.688 (17.48)		.413 (10.49)	.047 (1.19)	.569 (14.45)	
-8	.875 (22.23)	- .004 (0.10)	.484 (12.29)	.047 (1.19)	.647 (16.43)	.010 (0.25)
-10	1.000 (25.40)		.542 (13.77)	.047 (1.19)	.727 (18.47)	
-12	1.250 (31.75)		.537 (13.64)	.062 (1.57)	.753 (19.13)	
-16	1.500 (38.10)			.078 (1.98)		
-20	2.000 (50.80)		±.016 (0.41)	.563 (14.30)	.094 (2.39)	
-24	2.250 (57.15)	±.020 (0.51)	.661 (16.79)	.094 (2.39)	.911 (23.14)	.015 (0.38)
-28	2.625 (66.68)		.730 (18.54)	.094 (2.39)	.930 (23.62)	
-32	2.875 (73.03)		.844 (21.44)	.109 (2.77)	1.094 (27.79)	
-40	3.375 (85.73)		.718 (18.24)	.109 (2.77)	.968 (24.59)	
-48	4.000 (101.60)		.781 (19.84)	.109 (2.77)	1.031 (26.19)	

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances: Decimals ±.005 inch (0.13 mm), angles ±5°
4. Radius or break all corners .005 +.005/- .000 inch (0.13 +0.13/-0.00 mm).
5. Remove all burrs and slivers.
6. Safety wire holes and location in accordance with SAE-AS1043.
7. For design features purposes, this standard takes precedence over documents referenced herein.

FIGURE 1. Nut, tube coupling - Continued.

## REQUIREMENTS:

Dimensions and configurations: See figure 1.

Material: See table I, alloys in accordance with SAE-AS4841.

TABLE I. Material and nut alloys.

Nut AN818		
Designator	Material	Alloy
Blank	Steel	1137 or 4130
J	CRES	304
K	CRES	316
T 1/	Titanium	64Al-4V
W	Aluminum	7075-T73

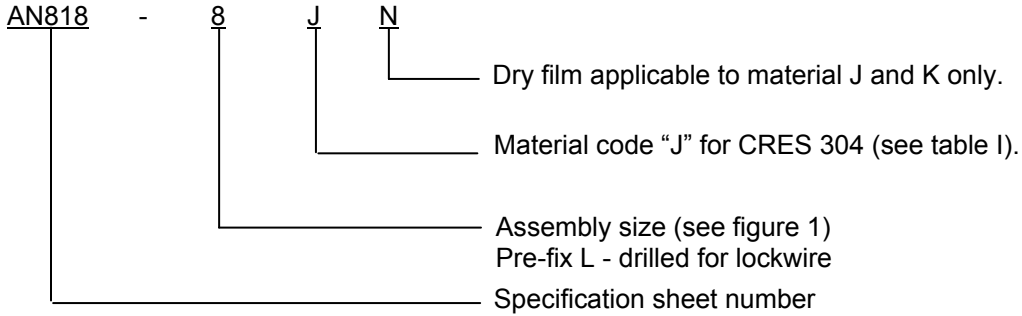
1/ Not for use with oxygen or potable water.

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Finish: In accordance with SAE-AS4841.

When specified dry film lubricant in accordance with MIL-PRF-46010 on all internal surfaces.  
Applicable only to material designators J or K. Over spray on C dimension is permitted, see figure 1.

PIN:



PIN Examples:

AN818-8W identifies a nut assembly .500 inch (tube), without lock wire holes, aluminum (7075-T73).

AN818-L8K identifies a nut assembly .500 inch (tube), drilled for lockwire, CRES (316).

AN818-L8JN identifies a nut assembly .500 inch (tube), with lock wire holes, CRES (304), coated internally with solid film lubricant (J and K materials only).

Supersession data: Aluminum alloys 2014 and 2024 "D" designator have been replaced by aluminum alloy 7075. Use the "W" designator.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to SAE-AS4841, this document references the following:

MIL-PRF-46010  
SAE-AS1043  
SAE-AS8879

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CONCLUDING MATERIAL

Custodians:

Navy - AS  
Air Force - 99  
DLA - CC

Preparing activity:

DLA - CC

(Project 4730-2009-076)

Review activities:

Army - AV, CR4  
Air Force - 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.