FEDERAL SUPPLY CLASS
4730

RATIONALE

CADMIUM NOTICE NOTE ADDED, NADCAP QML NOTE UPDATED, CANCELLED REFERENCE DOCUMENTS REPLACED WITH ACTIVE DOCUMENTS, 2024 ALUMINUM ALLOY MATERIAL MADE INACTIVE FOR NEW DESIGN, AND DIMENSION ACROSS WRENCH PADS DIRECTLY SPECIFIED ON DRAWING.

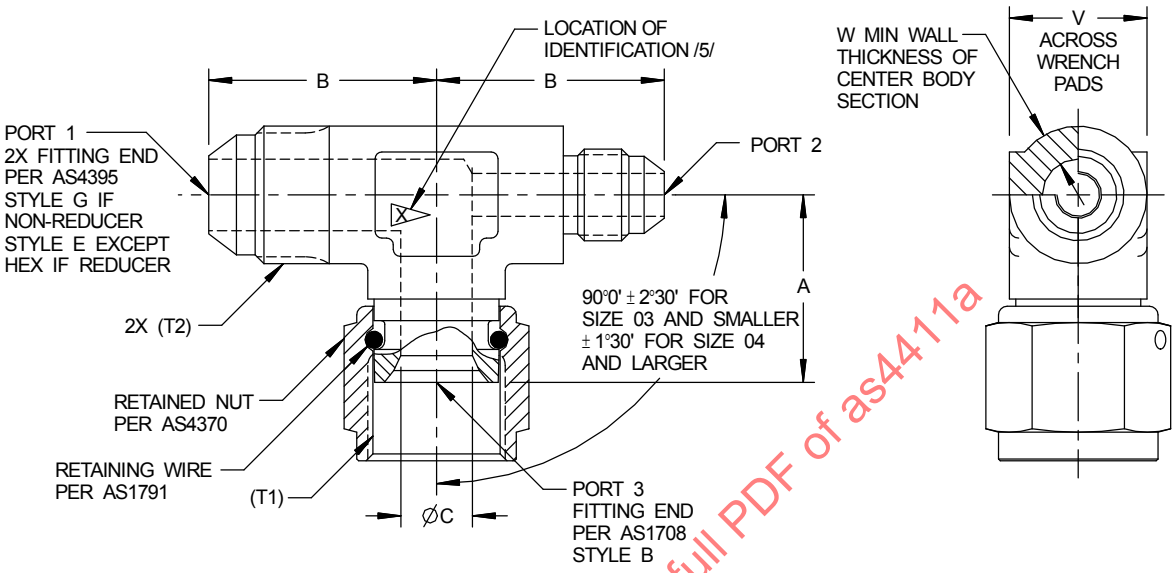


FIGURE 1 - FITTING ASSEMBLY, TEE

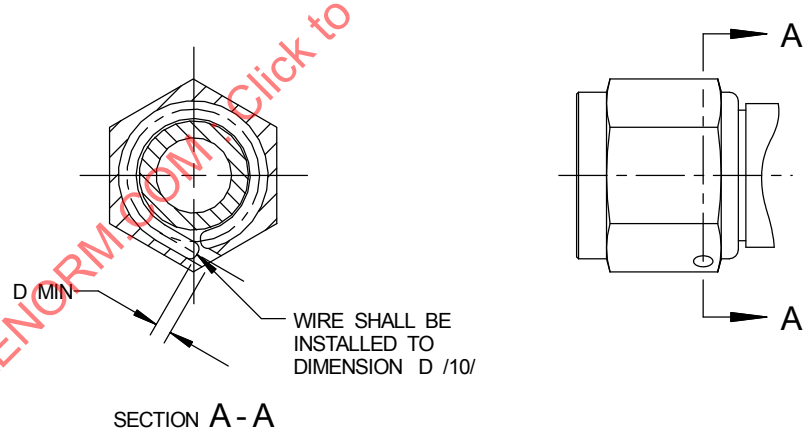
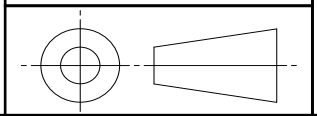


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

INACTIVE IN PART /18/

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS4411A

THIRD ANGLE PROJECTION



ISSUED 1995-03 REVISED 2011-02

CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4841

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) FITTING ASSEMBLY, TEE, REDUCER AND NONREDUCER, INTERNAL FLARE ON SIDE TO FLARED TUBE

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4411 /17/ SIZE CODE	(NOMINAL TUBE SIZE)	T1, T2 THREAD PER AS8879	C	D	V	W	LB/EA APPROX REF ALUM	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
02	.125	.3125-24 UNJF	.058- .065	.045	.297- .314	.090	.022	.063	.036
03	.188	.3750-24 UNJF	.121- .128	.045	.360- .377	.100	.028	.081	.046
04	.250	.4375-20 UNJF	.168- .175	.045	.423- .440	.110	.036	.105	.060
05	.312	.5000-20 UNJF	.230- .237	.045	.485- .502	.120	.045	.132	.076
06	.375	.5625-18 UNJF	.293- .301	.045	.547- .565	.120	.061	.177	.101
08	.500	.7500-16 UNJF	.387- .395	.055	.735- .753	.150	.113	.327	.187
10	.625	.8750-14 UNJF	.480- .488	.063	.860- .878	.170	.155	.449	.257
12	.750	1.0625-12 UNJ	.604- .614	.095	1.047-1.065	.185	.280	.814	.466
16	1.000	1.3125-12 UNJ	.839- .851	.125	1.292-1.317	.205	.407	1.180	.676
20	1.250	1.6250-12 UNJ	1.073-1.086	.155	1.605-1.630	.240	.748	2.170	1.243
24	1.500	1.8750-12 UNJ	1.307-1.320	.180	1.855-1.880	.250	.996	2.890	1.655
32	2.000	2.5000-12 UNJ	1.776-1.791	.180	2.542-2.572	.350	1.302	3.780	2.165

TABLE 2 - LEG LENGTH A

SIZE OF PORT #3	FORG. SIZE /8/ 02	FORG. SIZE /8/ 03	FORG. SIZE /8/ 04	FORG. SIZE /8/ 05	FORG. SIZE /8/ 06	FORG. SIZE /8/ 08	FORG. SIZE /8/ 10	FORG. SIZE /8/ 12	FORG. SIZE /8/ 16	FORG. SIZE /8/ 20	FORG. SIZE /8/ 24	FORG. SIZE /8/ 32
02	.658	.686	.743	.767	.884	.924	1.100	1.157	1.268	1.521	1.521	2.031
03	--	.672	.555	.587	.649	.743	.838	.931	1.056	1.213	1.338	2.015
04	--	--	.602	.633	.695	.789	.883	.976	1.101	1.258	1.383	1.890
05	--	--	--	.675	.737	.831	.925	1.018	1.143	1.300	1.425	1.937
06	--	--	--	--	.821	.915	1.009	1.102	1.227	1.384	1.509	1.968
08	--	--	--	--	--	1.023	1.117	1.210	1.334	1.491	1.616	2.130
10	--	--	--	--	--	--	1.167	1.260	1.383	1.540	1.665	2.098
12	--	--	--	--	--	--	--	1.224	1.348	1.505	1.630	2.098
16	--	--	--	--	--	--	--	--	1.387	1.524	1.649	2.150
20	--	--	--	--	--	--	--	--	--	1.571	1.696	2.243
24	--	--	--	--	--	--	--	--	--	--	1.776	2.286
32	--	--	--	--	--	--	--	--	--	--	--	2.442

TABLE 3 - LEG LENGTH B

SIZE OF PORT #1 OR #2	FORG. SIZE /8/ 02	FORG. SIZE /8/ 03	FORG. SIZE /8/ 04	FORG. SIZE /8/ 05	FORG. SIZE /8/ 06	FORG. SIZE /8/ 08	FORG. SIZE /8/ 10	FORG. SIZE /8/ 12	FORG. SIZE /8/ 16	FORG. SIZE /8/ 20	FORG. SIZE /8/ 24	FORG. SIZE /8/ 32
02	.757	.789	.789	.843	.946	1.033	1.135	1.232	1.341	1.544	1.685	2.169
03	--	.820	.811	.874	.977	1.064	1.166	1.263	1.372	1.575	1.716	2.200
04	--	--	.882	.945	1.048	1.135	1.237	1.334	1.443	1.646	1.787	2.271
05	--	--	--	.945	1.048	1.135	1.237	1.334	1.443	1.646	1.787	2.271
06	--	--	--	--	1.054	1.141	1.243	1.340	1.449	1.652	1.793	2.277
08	--	--	--	--	--	1.242	1.344	1.441	1.555	1.753	1.894	2.378
10	--	--	--	--	--	--	1.445	1.542	1.651	1.854	1.995	2.479
12	--	--	--	--	--	--	--	1.648	1.757	1.960	2.101	2.585
16	--	--	--	--	--	--	--	--	1.804	2.007	2.148	2.632
20	--	--	--	--	--	--	--	--	--	2.054	2.195	2.679
24	--	--	--	--	--	--	--	--	--	--	2.320	2.804
32	--	--	--	--	--	--	--	--	--	--	--	3.054

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

A. DASH AS CODE LETTER:

(1) BODY: TYPE 4130 STEEL FORGING OR BAR PER AMS6370 OR AMS-S-6758.

(2) NUT: DASH AS CODE LETTER OF AS4370 (TYPE 4130 STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

B. CODE LETTER D /18/:

(1) BODY: TYPE 2024-T6 ALUMINUM ALLOY FORGING PER AMS4133; OR TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6; OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS4339.

(2) NUT: CODE LETTER D OF AS4370 (TYPE 2024 ALUMINUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

C. CODE LETTER J:

(1) BODY: TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5639 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER J OF AS4370 (TYPE 304 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

D. CODE LETTER K:

(1) BODY: TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5648 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER K OF AS4370 (TYPE 316 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

E. CODE LETTER S:

(1) BODY: TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5646 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER S OF AS4370 (TYPE 347 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

F. CODE LETTER T:

(1) BODY: TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS4928.

(2) NUT: CODE LETTER T OF AS4370 (TYPE 6AL-4V TITANIUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

G. CODE LETTER W:

(1) BODY: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR TYPE 7075-T3 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

(2) NUT: CODE LETTER W OF AS4370 (TYPE 7075 ALUMINUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

2. HEAT TREATMENT PER PROCUREMENT SPECIFICATION.

3. FINISH:

A. DASH AS MATERIAL CODE LETTER:

(1) BODY: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK.

(2) NUT: DASH AS MATERIAL CODE LETTER OF AS4370 (CADMIUM PLATE, DYED BLACK).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

B. MATERIAL CODE LETTER D:

(1) BODY: ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL.

(2) NUT: MATERIAL CODE LETTER D OF AS4370 (ANODIC COATING, DYE BLUE).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

C. MATERIAL CODE LETTER J:

(1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

(2) NUT: MATERIAL CODE LETTER J OF AS4370 (PASSIVATED).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

D. MATERIAL CODE LETTER K:

(1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

(2) NUT: MATERIAL CODE LETTER K OF AS4370 (PASSIVATED).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

E. MATERIAL CODE LETTER S:

(1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

(2) NUT: MATERIAL CODE LETTER S OF AS4370 (PASSIVATED).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

F. MATERIAL CODE LETTER T:

(1) BODY: ANODIZE PER AMS2488 TYPE 2 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486.

(2) NUT: MATERIAL CODE LETTER T OF AS4370 (FLUORIDE PHOSPHATE CONVERSION COAT).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

G. MATERIAL CODE LETTER W:

(1) BODY: ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYED BROWN, DUPLEX SEAL.

(2) NUT: MATERIAL CODE LETTER W OF AS4370 (ANODIC COATING, DYE BROWN).

(3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

H. SUFFIX CODE LETTER U:

(1) BODY: HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION.

I. SUFFIX CODE LETTER N:

(1) NUT: SUFFIX CODE LETTER N OF AS4370 (COAT WITH DRY FILM LUBRICANT).

/4/ PROCUREMENT SPECIFICATION: AS4841 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE NATIONAL AEROSPACE AND DEFENSE CONTRACTORS ACCREDITATION PROGRAM (NADCAP) QUALIFIED MANUFACTURER LIST (QML) FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT www.eauditnet.com.