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REV.
B

AS4684

FEDERAL SUPPLY CLASS
4730

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

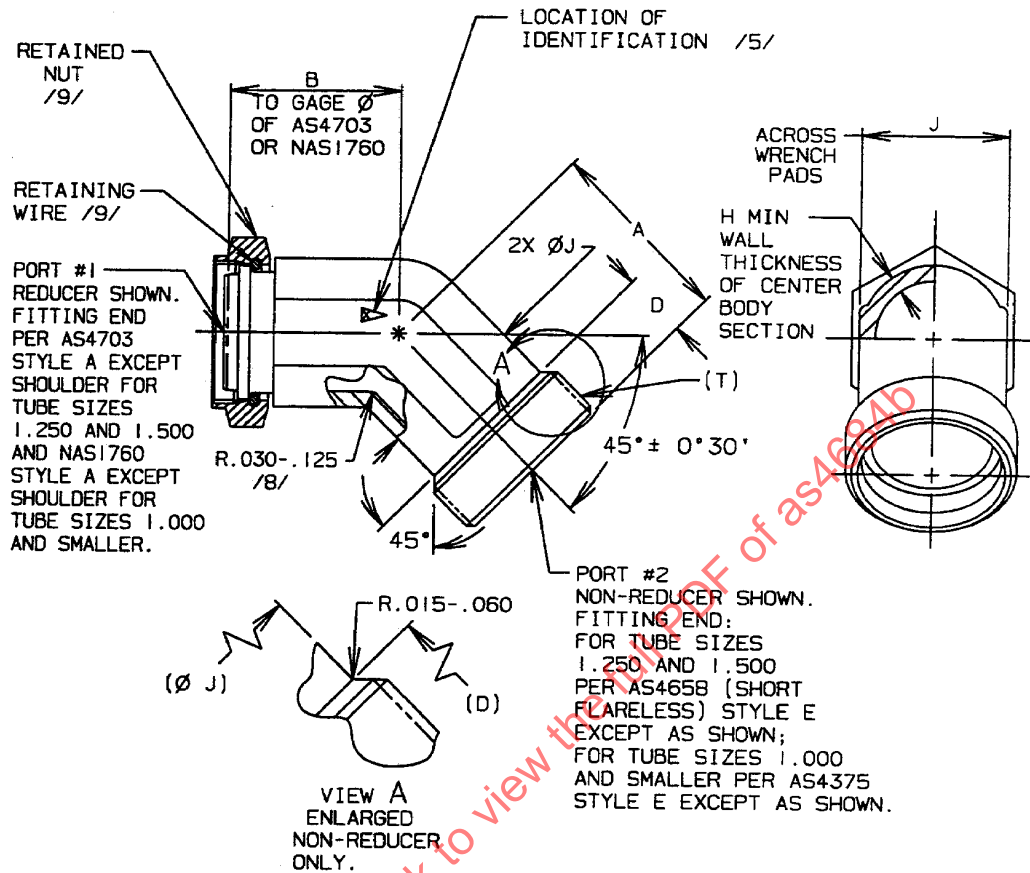


FIGURE 1 - ELBOW ASSEMBLY, 45°

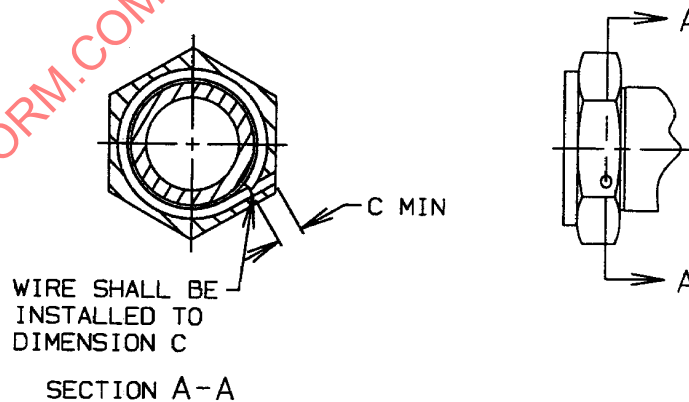
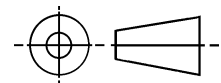


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4444

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING ASSEMBLY, ELBOW, 45°, FLARELESS AND
SHORT FLARELESS, REDUCER, RETAINED NUT

AS4684
SHEET 1 OF 4

**REV.
B**

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ISSUED 1992-07 REVISED 1997-03 REAFFIRMED 2007-10

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AS4684

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4684 /10/ /18/ SIZE CODE	D	H	J + .005/- .020	LB/EA MAX ALUM	LB/EA MAX CRES	LB/EA MAX TI
20	.517	.124	1.375	.268	.779	.451
24	.614	.156	1.688	.381	1.098	.636

(R) TABLE 2 - WIRE INSERTION DEPTH

PORT SIZE	(NOMINAL TUBE SIZE)	C
04	.250	.076
05	.312	.076
06	.375	.084
08	.500	.095
10	.625	.114
12	.750	.150
16	1.000	.176
20	1.250	.247
24	1.500	.287

TABLE 3 - LEG LENGTH A

SIZE OF PORT #2	FORGING SIZE /10/ 20	FORGING SIZE /10/ 24
04	.876	.928
05	.876	.928
06	.892	.944
08	.985	1.037
10	1.048	1.100
12	1.111	1.163
16	1.111	1.163
20	1.053	.956
24	--	1.105

TABLE 4 - LEG LENGTH B

SIZE OF PORT #1	FORGING SIZE /10/ 20	FORGING SIZE /10/ 24
04	.853	.950
05	.905	.957
06	.966	1.018
08	1.063	1.115
10	1.142	1.194
12	1.131	1.183
16	1.179	1.231
20	1.055	1.107
24	--	1.135

TABLE 5 - TUBE SIZE AND CORRESPONDING THREADS

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER MIL-S-8879 CLASS 3B
04	.250	.4375-20UNJF
05	.312	.5000-20UNJF
06	.375	.5625-18UNJF
08	.500	.7500-16UNJF
10	.625	.8750-14UNJF
12	.750	1.0625-12UNJ
16	1.000	1.3125-12UNJ
20	1.250	1.5625-12UNJ
24	1.500	1.8125-12UNJ

NOTES:

/1/ MATERIAL:

a. CODE LETTER T:

- (1) BODY: TYPE 6AL-4V TITANIUM ALLOY PER AMS 4928
- (2) NUT: CODE LETTER T OF AS4702 OR AS1790 REFERENCE (TYPE 6AL-4V TITANIUM ALLOY)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

b. CODE LETTER V:

- (1) BODY: TYPE 15-5PH CORROSION RESISTANT STEEL PER AMS 5659
- (2) NUT: CODE LETTER V OF AS4702 OR AS1790 REFERENCE (TYPE 15-5PH CORROSION RESISTANT STEEL)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

c. CODE LETTER W:

- (1) BODY: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS 4141 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124
- (2) NUT: CODE LETTER W OF AS4702 OR AS1790 REFERENCE (TYPE 7075-T73 ALUMINUM ALLOY)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

2. HEAT TREAT:

a. MATERIAL CODE LETTER T:

- (1) BODY, NUT, AND WIRE: NONE

b. MATERIAL CODE LETTER V:

- (1) BODY: HEAT TREAT TO CONDITION H-1075 PER AMS 2759/3
- (2) NUT: MATERIAL CODE LETTER V OF AS4702 OR AS1790 REFERENCE (HEAT TREAT TO CONDITION H-1075)
- (3) WIRE: NONE

c. MATERIAL CODE LETTER W:

- (1) BODY, NUT, AND WIRE: NONE

/3/ FINISH:

a. MATERIAL CODE LETTER T:

- (1) BODY: FLUORIDE PHOSPHATE CONVERSION COAT PER AMS 2486
- (2) NUT: CODE LETTER T OF AS4702 OR AS1790 WITH SUFFIX N REFERENCE (FLUORIDE PHOSPHATE CONVERSION COAT AND COAT WITH SOLID FILM LUBRICANT ON ID)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH SOLID FILM LUBRICANT)

b. MATERIAL CODE LETTER V:

- (1) BODY:
 - (a) V CODE PARTS TO BE PASSIVATED ONLY WILL HAVE NO FINISH CODE LETTER AFTER THE PART NUMBER. THE FINISH WILL BE: PASSIVATE PER QQ-P-35, TYPE II OR VIII.
 - (b) V CODE PARTS TO BE CADMIUM PLATED ONLY WILL HAVE THE FINISH CODE LETTER "P" AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.
- (2) NUT: CODE LETTER V OF AS4702 OR AS1790 REFERENCE
 - (a) NO FINISH CODE LETTER AT END OF PART NUMBER: PASSIVATE AND COAT WITH SOLID FILM LUBRICANT ON ID
 - (b) FINISH CODE LETTER P AT END OF PART NUMBER: CADMIUM PLATE
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH SOLID FILM LUBRICANT)