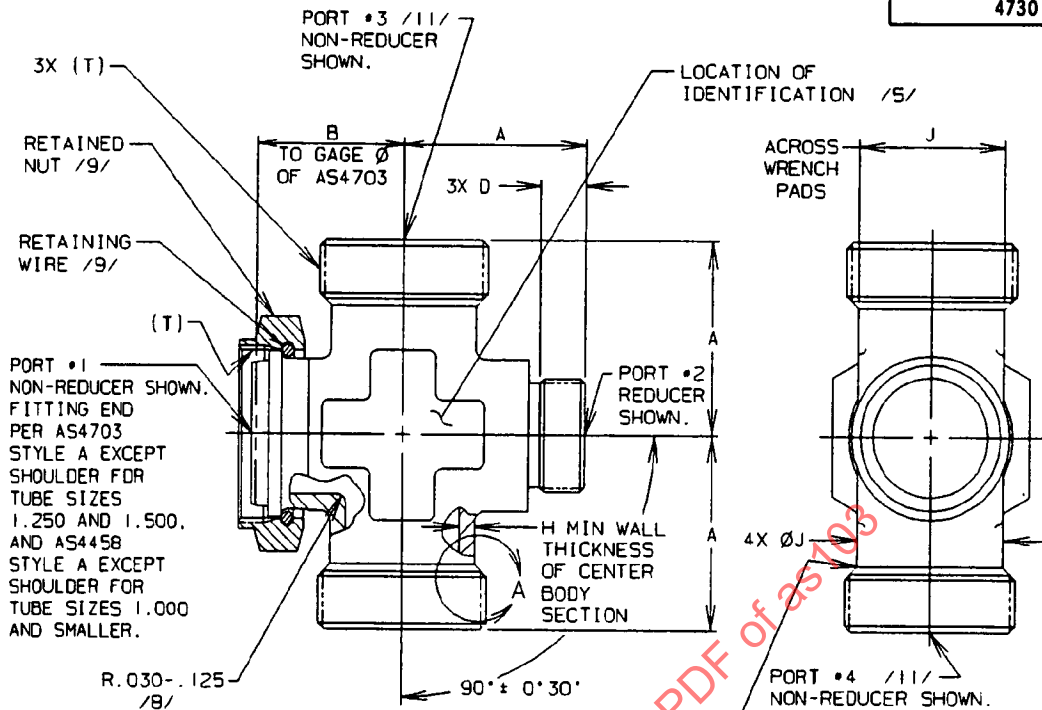
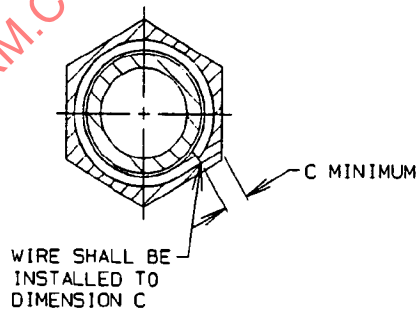
VIEW A
ENLARGED
NON-REDUCER
ONLY

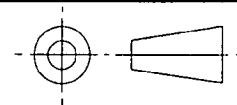
FIGURE 1 - CROSS



SECTION A-A

FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ MIL-F-18280

SAE The Engineering Society
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Land Sea Air and Space
INTERNATIONAL

AEROSPACE STANDARD

CROSS ASSEMBLY, REDUCER,
RETAINED NUT ON RUN,
FLARELESS AND SHORT FLARELESS

AS103

SHEET 1 OF 4

400 Commonwealth Drive, Warrendale, PA 15096-0001

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TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4691 /10/ /17/ SIZE CODE	C	D	H	J +.005/- .020	LB/EA MAX ALUM	LB/EA MAX CRES	LB/EA MAX TI
20	.155	.517	.124	1.375	.440	1.277	.742
24	.180	.614	.156	1.688	.617	1.787	1.132

TABLE 2 - LEG LENGTH A

SIZE OF PORT #2, #3, AND #4	FORGING SIZE /10/ 20	FORGING SIZE /10/ 24
04	1.424	1.549
05	1.424	1.549
06	1.440	1.565
08	1.533	1.658
10	1.596	1.721
12	1.659	1.784
16	1.659	1.784
20	1.678	1.577
24	---	1.803

TABLE 3 - LEG LENGTH B

SIZE OF PORT #1	FORGING SIZE /10/ 20	FORGING SIZE /10/ 24
04	1.401	1.526
05	1.453	1.578
06	1.514	1.639
08	1.611	1.736
10	1.690	1.815
12	1.679	1.850
16	1.727	1.852
20	1.603	1.728
24	---	1.756

TABLE 4 - TUBE SIZE AND CORRESPONDING THREADS

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER MIL-S-8879
04	.250	.4375-20 UNJF
05	.312	.5000-20 UNJF
06	.375	.5625-18 UNJF
08	.500	.7500-16 UNJF
10	.625	.8750-12 UNJF
12	.750	1.0625-12 UNJ
16	.875	1.3125-12 UNJ
20	1.000	1.5625-12 UNJ
24	1.500	1.8125-12 UNJ

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 DRY LUBRICANT ON ID)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH DRY 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.