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REV.
B

AS4139

RATIONALE

FEDERAL SUPPLY CLASS
4730

THE PRI-QPL NOTE AND CADMIUM WARNING NOTE HAVE BEEN REVISED. UPDATES OR CLARIFICATIONS TO PASSIVATION NOTE AND INTENDED USE NOTE HAVE BEEN ADDED.

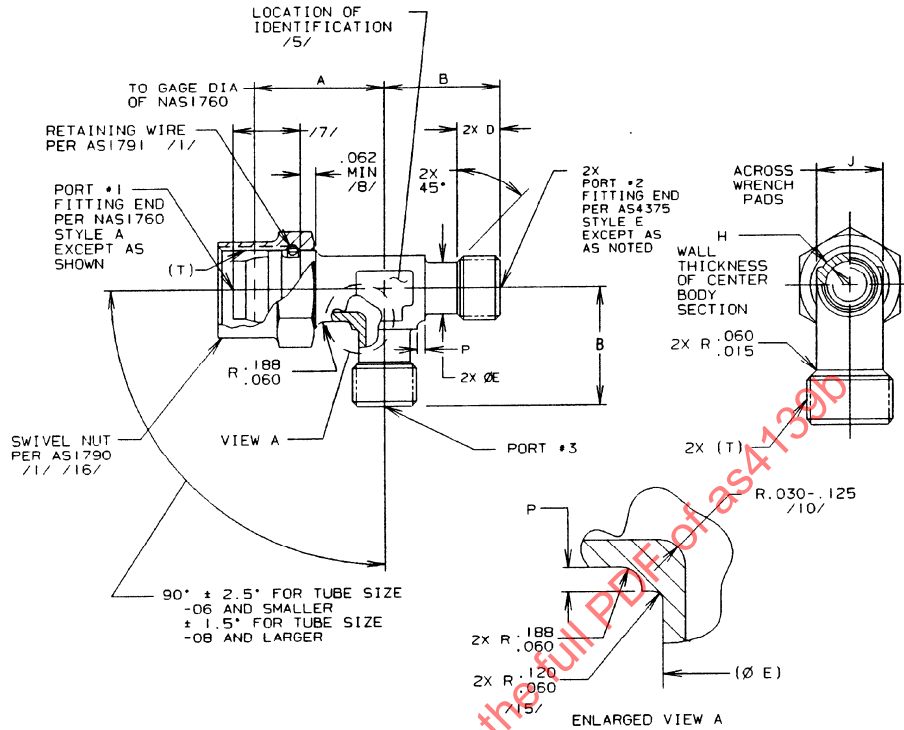


FIGURE 1 - FITTING ASSY, TEE, REDUCER, SWIVEL ON RUN, REDUCED BODY, FLARELESS

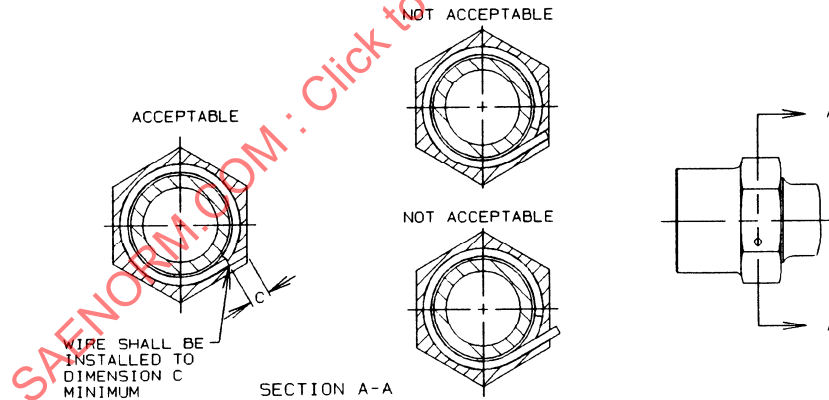
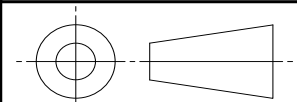


FIGURE 2 - INSTALLATION, SWIVEL NUT RETAINING WIRE

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on this Technical Report, please visit
<http://www.sae.org/technical/standards/AS4139B>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280



AEROSPACE STANDARD

(R) FITTING ASSY, TEE, REDUCER,
SWIVEL ON RUN,
REDUCED BODY, FLARELESS

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ISSUED 1992-11 REVISED 2013-10

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4139 /21/ SIZE CODE	H MIN	J	P ±.030	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
04	.050	.390	.030	.076	.042
05	.050	.453	.159	.098	.055
06	.050	.453	.137	.120	.067
08	.050	.577	.140	.220	.124
10	.070	.702	.157	.346	.197
12	.080	.890	.166	.529	.297
16	.090	1.140	.174	.781	.438
20	.110	1.390	.071	1.263	.709
24	.130	1.640	---	1.767	.992

TABLE 2 - FITTING END

SIZE CODE	TUBE OD	T THREAD PER AS8879	C /16/	D	E
04	.250	.4375-20UNJF	.075	.371	.350
05	.313	.5000-20UNJF	.076	.371	.412
06	.375	.5625-18UNJF	.084	.379	.453
08	.500	.7500-16UNJF	.095	.461	.577
10	.625	.8750-14UNJF	.115	.511	.702
12	.750	1.0625-12UNJ	.149	.556	.890
16	1.000	1.3125-12UNJ	.178	.556	1.140
20	1.250	1.6250-12UNJ	.221	.556	1.390
24	1.500	1.8750-12UNJ	.291	.556	1.640

TABLE 3 - LEG LENGTH A

FORGING SIZE	04	05	06	08	10	12	16	20	24
04	.745	---	---	---	---	---	---	---	---
05	.790	.842	---	---	---	---	---	---	---
06	.847	.899	.960	---	---	---	---	---	---
08	.932	.984	1.045	1.143	---	---	---	---	---
10	1.057	1.109	1.170	1.268	1.348	---	---	---	---
12	1.119	1.171	1.232	1.330	1.410	1.398	---	---	---
16	1.244	1.296	1.357	1.454	1.533	1.522	1.590	---	---
20	1.401	1.453	1.514	1.611	1.690	1.679	1.727	1.810	---
24	1.526	1.578	1.639	1.736	1.815	1.804	1.852	1.935	2.112



AEROSPACE STANDARD

(R) FITTING ASSY, TEE, REDUCER,
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REDUCED BODY, FLARELESS

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TABLE 4 - LEG LENGTH B

FORGING SIZE	04	05	06	08	10	12	16	20	24
04	.883	---	---	---	---	---	---	---	---
05	.799	.914	---	---	---	---	---	---	---
06	.861	.861	1.003	---	---	---	---	---	---
08	.955	.955	.971	1.204	---	---	---	---	---
10	1.049	1.049	1.065	1.158	1.380	---	---	---	---
12	1.142	1.142	1.158	1.251	1.314	1.560	---	---	---
16	1.267	1.267	1.283	1.376	1.439	1.502	1.684	---	---
20	1.424	1.424	1.440	1.533	1.596	1.659	1.659	1.903	---
24	1.549	1.549	1.565	1.658	1.721	1.784	1.784	1.784	2.028

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. CODE LETTER J:

- (1) BODY: TYPE 304 CORROSION RESISTANT STEEL PER AMS5639
- (2) NUT: CODE LETTER J OF AS1790 (TYPE 304 CORROSION RESISTANT STEEL)
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

b. CODE LETTER T:

- (1) BODY: TYPE 6AL-4V TITANIUM ALLOY PER AMS4928
- (2) NUT: CODE LETTER T OF AS1790 (TYPE 6AL-4V TITANIUM ALLOY)
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

c. CODE LETTER V:

- (1) BODY: TYPE 15-5PH CORROSION RESISTANT STEEL PER AMS5659
- (2) NUT: CODE LETTER V OF AS1790 (TYPE 15-5PH CORROSION RESISTANT STEEL)
- (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

2. HEAT TREATMENT:

a. MATERIAL CODE LETTER J:

- (1) BODY, NUT AND WIRE: NONE

b. MATERIAL CODE LETTER T:

- (1) BODY, NUT AND WIRE: NONE

c. MATERIAL CODE LETTER V:

- (1) BODY: HEAT TREAT TO CONDITION H-1075 PER AMS2759/3
- (2) NUT: MATERIAL CODE LETTER V OF AS1790 (HEAT TREAT TO CONDITION H-1075)
- (3) WIRE: NONE



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(R) FITTING ASSY, TEE, REDUCER,
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REDUCED BODY, FLARELESS

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/3/ FINISH:

a. MATERIAL CODE LETTER J:

- (1) BODY: PASSIVATE PER AMS2700 TYPE 2 OR 8 AND COAT WITH DRY FILM LUBRICANT PER AS5272 TYPE I /7/
- (2) NUT: CODE LETTER J SUFFIX CODE N OF AS1790 (PASSIVATE WITH DRY FILM LUBRICANT ON ID)
- (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT)

b. MATERIAL CODE LETTER T:

- (1) BODY: FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486 AND DRY FILM LUBRICANT PER AS5272 TYPE I /7/
- (2) NUT: CODE LETTER T WITH SUFFIX CODE N OF AS1790 (FLUORIDE PHOSPHATE CONVERSION COAT AND DRY FILM LUBRICANT ON ID)
- (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT)

c. MATERIAL CODE LETTER V:

- (1) BODY:
 - (a) NO SUFFIX FINISH CODE LETTER: PASSIVATE PER AMS2700 TYPE 6 OR 7 AND DRY FILM LUBRICANT PER AS5272 TYPE 1 /7/
 - (b) SUFFIX FINISH MATERIAL CODE LETTER P WITH CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2
- (2) NUT:
 - (a) NO SUFFIX FINISH MATERIAL CODE LETTER WITH CODE LETTER V AND SUFFIX CODE N OF AS1790 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT ON ID)
 - (b) SUFFIX FINISH MATERIAL CODE LETTER P WITH CODE LETTER V AND SUFFIX CODE LETTER P OF AS1790 (CADMIUM PLATE)
- (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

/4/ PROCUREMENT SPECIFICATION: AS18280 UNLESS SPECIFIED OTHERWISE ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS18280 FOR THIS STANDARD. SEE www.eAuditNet.com FOR CURRENT QPL ONLINE.

/5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.

- a. FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTERS "AS", MATERIAL CODE LETTER AND FORGING MANUFACTURER'S IDENTIFICATION WHEN MADE FROM FORGING
- b. FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER, MATERIAL CODE LETTER AND FORGING MANUFACTURER'S IDENTIFICATION WHEN MADE FROM FORGING

6. THIS PART IS INTENDED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:

- a. SIZES -04 THRU -16 AT 3000 PSI
- b. SIZES -20 AND -24 AT 1500 PSI

NOTE: OPERATING PRESSURES HAVE BEEN CHANGED FROM 4000 PSI AND 2000 PSI TO 3000 PSI AND 1500 PSI TO COMPLY WITH AS18280 SYSTEM PRESSURE REQUIREMENTS. USERS OF THIS STANDARD FOR 4000 PSI SYSTEM APPLICATIONS ARE ADVISED TO TO CONTROL SOURCE APPROVAL BY STANDARD PAGE SUPPLEMENT OR SIMILAR MEANS.

/7/ THIS AREA SHALL BE DRY FILM LUBRICATED ON EXTERNAL SURFACES /3/.

/8/ THIS DIMENSION APPLIES TO SIZE 06 AND LARGER NONREDUCER SWIVELS. ALL OTHERS, MACHINE "L1" DIAMETER OF NAS1760 TO WITHIN P DIMENSION OF ADJACENT FORGING DIAMETER.

9. WHEN MACHINED FROM BAR OR OVERSIZED FORGING, THE CENTER BODY SECTION SHALL CONFORM TO AS1376, TABLE 2.

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