

REV.  
A

AS5161

FEDERAL SUPPLY CLASS  
4730

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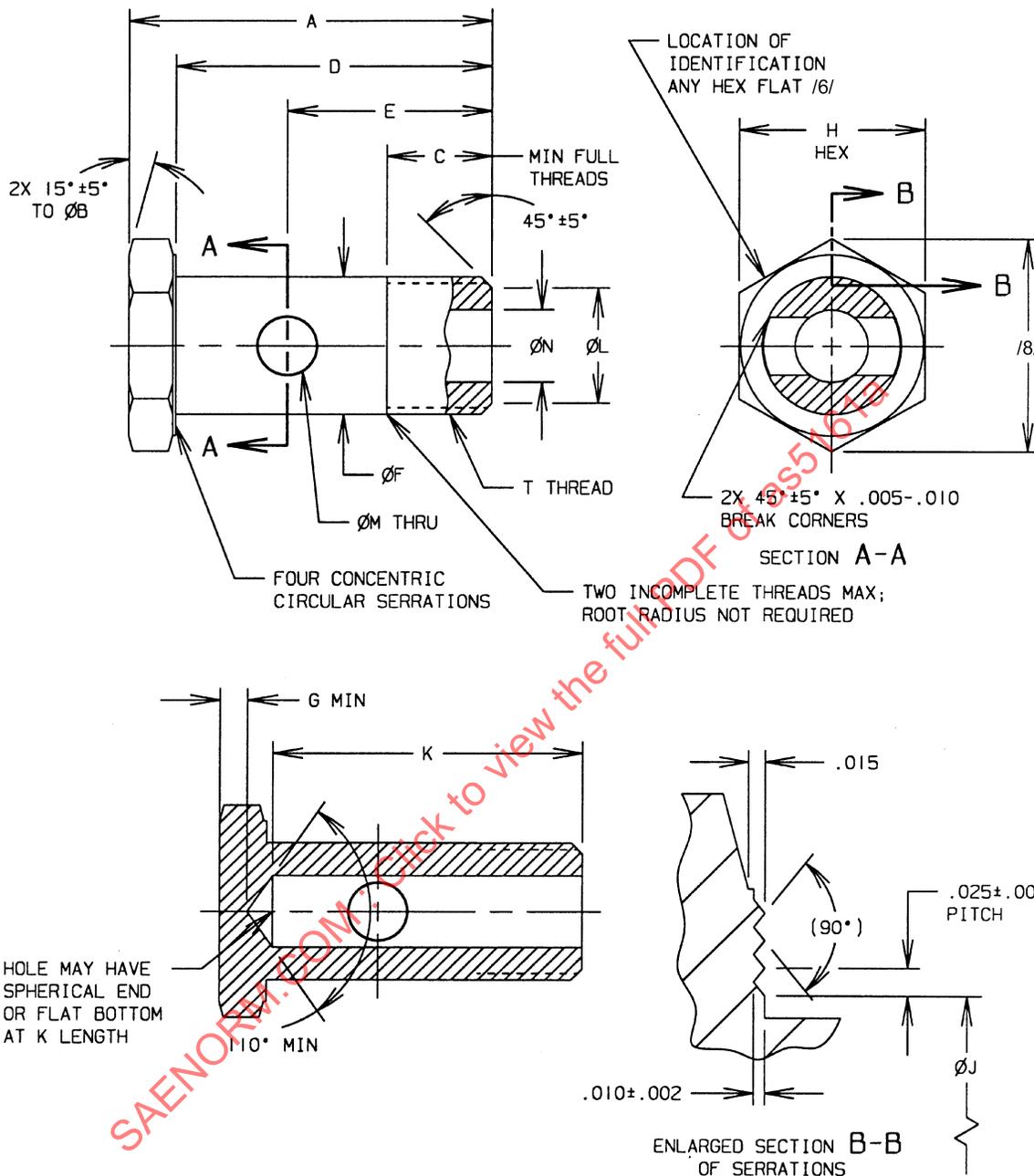
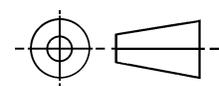


FIGURE 1 - FITTING, BOLT

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: AS4875 /5/

**SAE** The Engineering Society  
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Land Sea Air and Space  
**INTERNATIONAL**  
400 Commonwealth Drive, Warrendale, PA 15096-0001

(R)

**AEROSPACE STANDARD**

FITTING, BOLT, FLUID PASSAGE

**AS5161**  
SHEET 1 OF 4

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ISSUED 1998-03 REVISED 2000-08

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TABLE 1A - DIMENSIONS

BASIC NO. AS5161 /15/ SIZE CODE	(NOMINAL TUBE SIZE)	T THREAD PER MIL-S-8879 CLASS 3A	A	B ±.010	C	D	E ±.010	F ±.002	G
04	.250	.4375-20 UNJF	1.375	.668	.438	1.188	.781	.433	.109
05	.312	.5000-20 UNJF	1.375	.730	.438	1.188	.781	.496	.125
06	.375	.5625-18 UNJF	1.562	.792	.469	1.344	.875	.558	.125
08	.500	.7500-16 UNJF	1.938	.980	.562	1.688	1.094	.746	.156
10	.625	.8750-14 UNJF	2.250	1.103	.594	1.969	1.250	.871	.156
12	.750	1.0625-12 UNJ	2.625	1.352	.656	2.312	1.468	1.058	.188
16	1.000	1.3125-12 UNJ	3.188	1.603	.656	2.812	1.687	1.308	.188

TABLE 1B - DIMENSIONS AND WEIGHTS

BASIC NO. AS5161 /14/ SIZE CODE	H	J ±.005	K	L	M	N	LB/EA MAX AL	LB/EA MAX STEEL	LB/EA MAX TI
04	.678-.691	.474	1.156	.344	.188	.168-.175	.0112	.0322	.0178
05	.740-.753	.536	1.156	.406	.219	.230-.237	.0152	.0438	.0242
06	.802-.815	.599	1.312	.469	.250	.293-.301	.0234	.0672	.0371
08	.990-1.003	.786	1.656	.625	.312	.387-.395	.0448	.128	.0709
10	1.113-1.128	.911	1.938	.750	.375	.480-.488	.0713	.205	.113
12	1.363-1.380	1.099	2.156	.938	.438	.604-.614	.135	.387	.213
16	1.613-1.630	1.349	2.578	1.188	.625	.839-.851	.276	.791	.437

## NOTES:

/1/ MATERIAL:

- DASH AS CODE LETTER - TYPE 4130 CARBON STEEL BAR PER AMS-S-6758 OR AMS 6370 OR TYPE 4140 PER AMS 6382. /2/
- CODE LETTER D - 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.
- CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL BAR PER QQ-S-763 OR AMS 5639.
- CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL BAR PER QQ-S-763 OR AMS 5648.
- CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL BAR PER QQ-S-763 OR AMS 5645.
- CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY BAR PER AMS 4928.
- CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124.

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NOTES (CONTINUED):

- /2/ HEAT TREATMENT:
- a. DASH AS CODE LETTER - SEE HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
  - b. OTHER CODE LETTERS - NONE.
3. FINISH:
- a. DASH AS CODE LETTER - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2, DYE BLACK AND COAT WITH A LIGHT FILM OF OIL PER PROCUREMENT SPECIFICATION.
  - b. CODE LETTER D - ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
  - c. CODE LETTERS J, K, AND R - PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.
  - d. CODE LETTER T - ANODIZE PER AMS 2488 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS 2486, TYPE 2 WITH COLOR PER PROCUREMENT SPECIFICATION.
  - e. CODE LETTER W - ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
4. INVENTORIED PARTS CONFORMING TO THE PREVIOUS "LETTER CHANGE" MAY BE USED TO DEPLETION.
- /5/ PROCUREMENT SPECIFICATION: AS4875 EXCEPT AS SPECIFIED ON THIS STANDARD. THIS PART SHALL BE QUALIFIED TO THE PROCUREMENT SPECIFICATION IN A COMPLETE ASSEMBLY AS APPLICABLE. USERS OF THIS STANDARD SHALL PROCURE THIS PRODUCT FROM ACCREDITED MANUFACTURER(S), OR THEIR ACCREDITED DISTRIBUTOR(S), AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED MANUFACTURERS LIST (QML) FOR THIS TYPE OF PRODUCT.
- /6/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.
- a. FOR SIZE 06 AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTER "AS" AND MATERIAL CODE LETTER.
  - b. FOR SIZE 08 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER.
7. INTENDED USE: THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES AS FOLLOWS:
- a. SIZES 04 THROUGH 16 IN CARBON STEEL, CORROSION RESISTANT STEEL AND TITANIUM ALLOY AT 3000 psi.
  - b. SIZES 04 THROUGH 16 IN ALUMINUM ALLOY AT 1500 psi.
- THIS STANDARD IS THE FUNCTIONAL EQUIVALENT OF AN775 AND IS INTENDED TO BE SUITABLE AS A REPLACEMENT STANDARD.
- /8/ THE HEX CORNERS MAY BE ROUNDED PER ARP1942.
9. THE CHANGE BAR (1) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT.
10. INTERPRETATION OF DRAWING PER ARP4296.
11. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M; REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125  $\mu$ in Ra. SURFACES OF HEX FLATS MAY BE 250  $\mu$ in Ra.
12. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
13. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
14. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm$ .016, ANGULAR DIMENSIONS  $\pm$ 0°30'.