

INCH-POUND

MS51527D  
 7 August 2000  
 SUPERSEDING  
 MS51527C  
 16 February 1988

## DETAIL SPECIFICATION SHEET

FITTINGS, HYDRAULIC TUBE, FLARED, 37 DEGREE AND FLARELESS, STEEL;  
 ELBOW, TUBE TO BOSS, 90 DEGREE, O-RING, 37 DEGREE FLARED

Inactive for new design after 17 August 1999.  
 For new design use SAE J514.

This specification is approved for use by all Departments  
 and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification  
 and MIL-F-18866.

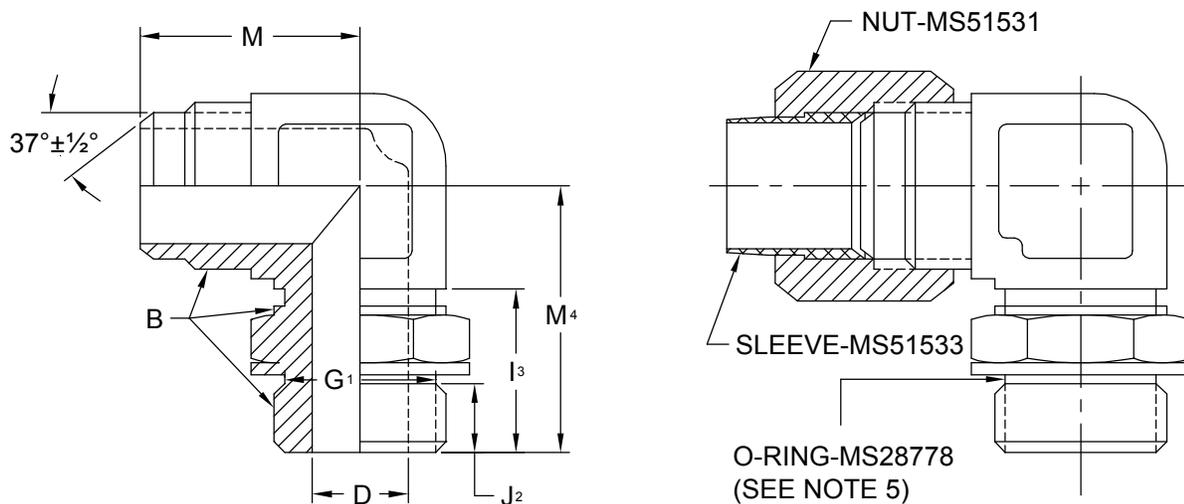


FIGURE 1. Elbow, tube to boss, 90 degree, o-ring, flared.

## MS51527D

TABLE I. Fitting dimensions.

Part number		Tube O.D. nom	B Straight Thread	D Diameter		G <sub>1</sub> +.002 -.003	I <sub>3</sub> +/- .020	J <sub>2</sub> Full Thread +/- .005	M +/- .030	M <sub>4</sub> +/- .030
Body	Assy			Basic	Tolerance					
B2	A2	1/8	.3125-24 UNF-2A	.062	+/- .003	.250	.610	.234	.770	.910
B3	A3	3/16	.3750-24 UNF-2A	.125		.313	.610	.234	.830	.940
B4	A4	1/4	.4375-20 UNF-2A	.172		.364	.700	.281	.890	1.030
B5	A5	5/16	.5000-20 UNF-2A	.234		.427	.700	.281	.950	1.090
B6	A6	3/8	.5625-18 UNF-2A	.297	+/- .004	.482	.770	.312	1.060	1.250
B8	A8	1/2	.7500-16 UNF-2A	.391		.660	.880	.344	1.250	1.450
B10	A10	5/8	.8750-14 UNF-2A	.484		.773	1.020	.391	1.450	1.700
B12	A12	3/4	1.0675-12 UN-2A	.609	+/- .005	.945	1.160	.469	1.660	1.940
B14	A14	7/8	1.1875-12 UN-2A	.718	+.007/- .005 +.008/- .005 +.010/- .005	1.070	1.160	.469	1.730	2.000
B16	A16	1	1.3125-12 UN-2A	.844		1.195	1.160	.469	1.810	2.050
B20	A20	1 1/4	1.6250-12 UN-2A	1.078		1.507	1.160	.469	2.060	2.250
B24	A24	1 1/2	1.8750-12 UN-2A	1.312		1.756	1.160	.469	2.330	2.390
B32	A32	2	2.5000-12 UN-2A	1.781		2.381	1.160	.469	3.060	2.890

## REQUIREMENTS:

1. Material: Steel, carbon in accordance with procurement specification. Steel, corrosion-resisting in accordance with procurement specification. Monel in accordance with Federal Specification QQ-N-281. Copper-nickel in accordance with Military Specification MIL-C-15726, composition 70-30.
2. Protective coating: Cadmium plated in accordance with procurement specification. Zinc plated in accordance with procurement specification. Phosphate coated in accordance with procurement specification. (A phosphate coated locknut with cadmium or zinc plated body is acceptable.) Passivation treatment in accordance with procurement specification.

## NOTES:

1. Dimensions and tolerances: Dimensions and tolerances not shown shall be in accordance with the SAE standards for 37-degree flared fittings (SAE J514).
2. Threads: Threads shall be in accordance with Screw-Thread Standards for Federal services. FED-STD-H28.
3. Part number: The MS part number consists of the MS number, plus the dash number.
  - a. For body only, cadmium plated, use the MS number, plus the body dash number. Example: MS51527B2.
  - b. For complete assembly (with nut and sleeve), cadmium plated, use the MS number, plus the assembly dash number. Example: MS51527A2.
  - c. For zinc coating add (Z) to the dash number. Example: MS51527B2Z or MS51527A2Z.
  - d. For phosphate coating add (P) to the dash number. Example: MS51527B2P or MS51527A2P.

MS51527D

e. For corrosion-resisting steel add (S) to the dash number. Example: MS51527B2S or MS51527BA2S.

f. For monel add (M) to the dash number. Example: MS51527B2M or MS51527A2M.

g. For copper-nickel add (CN) to the dash number. Example: MS51527A2CN.

4. The illustration is for identification purposes only and is not intended to restrict designs or shapes not dimensioned.

5. Procure the O-ring separately and install immediately before installation of fitting.

6. After 17 January 1979 bodies will be used for production only and SHALL NOT be stocked for maintenance. Existing stock of bodies should be used until depleted.

7. In the event of a conflict between the test of this Military Specification Sheet and the reference cited herein, the text of this Military Specification Sheet shall take precedence.

8. Referenced Government (or non-Government) documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this Military Specification Sheet to the extent specified herein.

Custodians:

Air Force - 99  
Army - AT  
Navy - OS  
DLA - CC

Preparing activity:

DLA - CC

(Project 4730-3013)

Review activities:

Air Force - 82  
Navy - MC  
Navy - SA