

INCH-POUND

MS51510B

14 December 2015

SUPERSEDING

MS51510A

17 January 1979

DETAIL SPECIFICATION SHEET

TEE, TUBE, 37 DEGREE FLARED

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

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

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

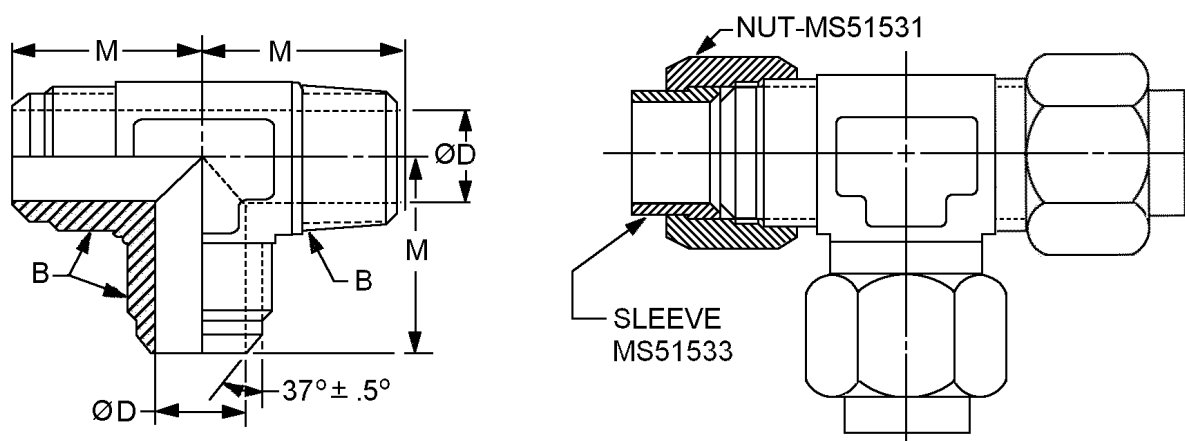


FIGURE 1. Tee, tube.



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Suffix designator		Tube OD nom.	B Straight thread
Assembly (see note 4)	Body		
A2	B2	.1250 (3.175)	.3125-24 UNF-2A
A3	B3	.1875 (4.763)	.3750-24 UNF-2A
A4	B4	.2500 (6.350)	.4375-20 UNF-2A
A5	B5	.3125 (7.936)	.5000-20 UNF-2A
A6	B6	.3750 (9.525)	.5625-18 UNF-2A
A8	B8	.5000 (12.700)	.7500-16 UNF-2A
A10	B10	.6250 (15.875)	.8750-14 UNF-2A
A12	B12	.7500 (19.050)	1.0625-12 UN-2A
A14	B14	.8750 (22.225)	1.1875-12 UN-2A
A16	B16	1.0000 (25.400)	1.3125-12 UN-2A
A20	B20	1.2500 (31.750)	1.6250-12 UN-2A
A24	B24	1.5000 (38.100)	1.8750-12 UN-2A
A32	B32	2.0000 (50.800)	2.500-12 UN-2A

Suffix designator		D diameter		M inches (mm) ±.030 (0.76)
Assembly (see note 4)	Body	Basic inches (mm)	Tolerance inches (mm)	
A2	B2	.062 (1.57)	±.003 (0.08)	.770 (19.56)
A3	B3	.125 (3.18)		.830 (21.08)
A4	B4	.172 (4.37)		.890 (22.61)
A5	B5	.234 (5.94)		.930 (23.62)
A6	B6	.297 (7.54)	±.004 (0.10)	1.060 (26.92)
A8	B8	.391 (9.93)		1.250 (31.75)
A10	B10	.484 (12.29)		1.450 (36.83)
A12	B12	.609 (15.47)	±.005 (0.13)	1.660 (42.16)
A14	B14	.718 (18.24)		1.730 (43.94)
A16	B16	.844 (21.44)	±.007 (0.18)	1.810 (45.97)
A20	B20	1.078 (27.38)	+.008 -.005 (+0.20 -0.13)	2.060 (52.32)
A24	B24	1.312 (33.32)		2.330 (59.18)
A32	B32	1.781 (45.24)	+.010 -.005 (+0.25 -.013)	3.060 (77.72)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Break all sharp edges and remove all burrs and slivers.
4. Assemblies are only furnished to this specification (body, nuts, and sleeves). Bodies are not to be stocked stored or issued.
5. Dimensions and tolerances not shown shall be in accordance with SAE-J514 for 37° flared fittings.
6. The drawing is for identification purposes only and is not intended to restrict designs and shapes not dimensioned.

FIGURE 1. Tee, tube. - Continued.

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REQUIREMENTS:

Fittings shall be as specified on figure 1 and in tables I and II.

Components of the assemblies shall be of the same material and finish.

Materials shall be in accordance with MIL-DTL-18866 and table I.

TABLE I. Materials.

Material	Form	Specification	Alloy
Carbon steel	Bar	SAE-J403	1110, 1120, 1140, 1213, 1215, or 12L14
	Forgings		
Chrome-molybdenum steel	Bars	SAE-AMS6370	4130
	Forgings	SAE-AMS6382	
		SAE-AMS6370	
Corrosion resistant steel	Bars and forgings	ASTM A276/A276M	304, 304L, 316, or 321
		ASTM A564/A564M	XM-12 (15-5 PH) UNS S15500 or 603 (17-4 PH) UNS S17400
		SAE-AMS5639	UNS S30400
		SAE-AMS5645	UNS S32100
		SAE-AMS5647	UNS S30403
		SAE-AMS5743	UNS S35500
	Bar	ASTM A582/A582M	UNS S30300
Nickel-copper alloy	Bar	ASTM B164 QQ-N-281	UNS N04400
High-chromium nickel alloy	Bar	ASTM B166	UNS N06690
	Forgings	ASTM B564	
Titanium <u>1/</u>	Bars	SAE-AMS4928	6Al-4V annealed
	Forgings		

1/ Titanium shall not be used in oxygen or potable water systems.

Finish. Finishes shall be as specified in table II. All platings shall be capable of meeting a minimum of 96 hours salt spray test in accordance with ASTM B117. The fittings shall show no evidence of corrosion after 96 hours of salt spray. Fluid passages, other openings and internal threads shall not be subject to the plating thickness requirement and may have bare areas provided they are protected with a light film of oil.

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TABLE II. Material and finish identification codes.

PIN code material/plating finish	Material	Plating finish
Blank	Steel	Cadmium plating in accordance with SAE-AMS-C-81562, type II, class 3 or SAE-AMS-QQ-P-416, type II, class 2. <u>1/</u>
CN		Cadmium plating in accordance with SAE-AMS-C-81562, type II, class 3 or SAE-AMS-QQ-P-416, type II, class 2 with NAVAIR trivalent chromium pretreatment (TCP) in accordance with MIL-DTL-81706, type II, class 1A. <u>1/</u>
E		NAVAIR TCP in accordance with MIL-DTL-81706, type II, class 1A.
F	Steel	Zinc plate (finish J, P, or R) with NAVAIR TCP in accordance with MIL-DTL-81706, type II, class 1A.
H	Steel	Zinc/Aluminum in accordance with ASTM F1136/F1136M, grade 3, NC.
J	Steel	Zinc-nickel in accordance with SAE-AMS2417, type 2, grade B.
M	Nickel-copper alloy UNS N04400	No additional finish.
N	High-chromium nickel alloy UNS N06690	No additional finish.
P	Steel	Zinc phosphate finish in accordance MIL-DTL-16232 type Z, class1.
R	Steel	Zinc plating in accordance with ASTM B633; type VI, Fe/Zn 5. <u>2/</u>
S	Corrosion resistant steel	No additional finish. Passivation in accordance with SAE-AMS2700, method 1, type 6 or 7.
T	Titanium	Anodize in accordance with SAE-AMS2488 type 2.
TF	Titanium	Fluoride phosphate in accordance with SAE-AMS2486. <u>3/</u>
Z	Steel	Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5. <u>4/</u>
ZN	Steel	Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5 with NAVAIR TCP in accordance with MIL-DTL-81706, type II, class 1A. <u>4/</u>

1/ Embrittlement test need not be run. Cadmium shall not be used in oxygen or potable water systems.

2/ Hexavalent chromium free.

3/ A pretreatment, a modification of the fluoride treatment, or a post treatment shall be applied so the final color of the fittings shall be similar to FED-STD-595 colors 36076 through 36293.

4/ Not for use in aircraft.

Trivalent wrenchability. When the finish has been damaged due to poor wrenchability, the surface of the connector shall be touched up using the brush plating process below. The term "trivalent wrenchability" is used to evaluate the ability of the finish to withstand abrasion from an excessive amount of wrenching.

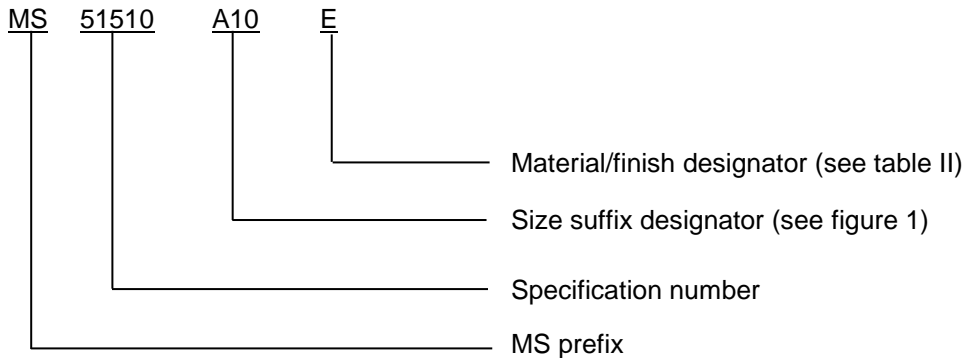
- a. Brush plating of hard chromium by electrodeposition shall be in accordance with SAE-AMS-2451/5.
- b. Brush plating of medium-hardness, low stress nickel by electrodeposition shall be in accordance with SAE-AMS-2451/9.

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- c. Brush plating of NAVAIR TCP shall be in accordance with MIL-DTL-81706, type II, class 1A, material form 1 through 6, application method B. Example of a PIN: M817062A6B.

Maximum operating pressure. Maximum operating pressure shall be in accordance with SAE-J514.

PIN: The PIN consists of the letters "MS", the specification number, a letter and number for tee size, and a letter for material finish designator.



PIN example: MS51510A10E indicates a tee tube, .6250 inch (15.875 mm), steel with NAVAIR TCP.

Cadmium is not recommended. To the users of this document, it is recommended that the use of carbon steel material with cadmium plating be used only when other materials and finishes specified in this document cannot meet performance requirements.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Referenced documents shall be of the issue in effect on date of invitations for bid.

Table III provides a detailed cross-reference of inactive MS51510 PIN's and for new design SAE-J514 PIN's.

MS51510 parts have straight threads in accordance with ASME B1.1 the SAE parts have straight threads in accordance with SAE-J425. Users are cautioned to evaluate replacement parts for their particular application.

CAUTION: The superseding information is valid as of the date of this specification and may be superseded by subsequent revisions of the superseding document.

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TABLE III. MS51510 to SAE-J514 cross reference.

Inactive for new design MS51510- PIN		Tube OD	For new design SAE-J514 PIN	
Assembly	Body		Assembly	Body
MS51510A2	MS51510B2	1/8	Not available	Not available
MS51510A2CN	MS51510B2CN	1/8	Not available	Not available
MS51510A2E	MS51510B2E	1/8	Not available	Not available
MS51510A2F	MS51510B2F	1/8	Not available	Not available
MS51510A2H	MS51510B2H	1/8	Not available	Not available
MS51510A2J	MS51510B2J	1/8	Not available	Not available
MS51510A2M	MS51510B2M	1/8	J514-2-2-070401MA	J514-2-2-070401MB
MS51510A2N	MS51510B2N	1/8	J514-2-2-070401NA	J514-2-2-070401NB
MS51510A2P	MS51510B2P	1/8	J514-2-2-070401PA	J514-2-2-070401PB
MS51510A2R	MS51510B2R	1/8	Not available	Not available
MS51510A2S	MS51510B2S	1/8	J514-2-2-070401SA	J514-2-2-070401SB
MS51510A2T	MS51510B2T	1/8	J514-2-2-070401TA	J514-2-2-070401TB
MS51510A2TF	MS51510B2TF	1/8	Not available	Not available
MS51510A2Z	MS51510B2Z	1/8	J514-2-2-070401ZA	J514-2-2-070401ZB
MS51510A2ZN	MS51510B2	1/8	Not available	Not available
MS51510A3	MS51510B3	3/16	Not available	Not available
MS51510A3CN	MS51510B3CN	3/16	Not available	Not available
MS51510A3E	MS51510B3E	3/16	Not available	Not available
MS51510A3F	MS51510B3F	3/16	Not available	Not available
MS51510A3H	MS51510B3H	3/16	Not available	Not available
MS51510A3J	MS51510B3J	3/16	Not available	Not available
MS51510A3M	MS51510B3M	3/16	J514-3-3-070401MA	J514-3-3-070401MB
MS51510A3N	MS51510B3N	3/16	J514-3-3-070401NA	J514-3-3-070401NB
MS51510A3P	MS51510B3P	3/16	J514-3-3-070401PA	J514-3-3-070401PB
MS51510A3R	MS51510B3R	3/16	Not available	Not available
MS51510A3S	MS51510B3S	3/16	J514-3-3-070401SA	J514-3-3-070401SB
MS51510A3T	MS51510B3T	3/16	J514-3-3-070401TA	J514-3-3-070401TB
MS51510A3TF	MS51510B3TF	3/16	Not available	Not available
MS51510A3Z	MS51510B3Z	3/16	J514-3-3-070401ZA	J514-3-3-070401ZB
MS51510A3ZN	MS51510B3ZN	3/16	Not available	Not available
MS51510A4	MS51510B4	1/4	Not available	Not available
MS51510A4CN	MS51510B4CN	1/4	Not available	Not available
MS51510A4E	MS51510B4E	1/4	Not available	Not available
MS51510A4F	MS51510B4F	1/4	Not available	Not available
MS51510A4H	MS51510B4H	1/4	Not available	Not available
MS51510A4J	MS51510B4J	1/4	Not available	Not available
MS51510A4M	MS51510B4M	1/4	J514-4-4-070401MA	J514-4-4-070401MB
MS51510A4N	MS51510B4N	1/4	J514-4-4-070401NA	J514-4-4-070401NB
MS51510A4P	MS51510B4P	1/4	J514-4-4-070401PA	J514-4-4-070401PB
MS51510A4R	MS51510B4R	1/4	Not available	Not available
MS51510A4PS	MS51510B4S	1/4	J514-4-4-070401SA	J514-4-4-070401SB
MS51510A4T	MS51510B4T	1/4	J514-4-4-070401TA	J514-4-4-070401TB
MS51510A4TF	MS51510B4TF	1/4	Not available	Not available
MS51510A4Z	MS51510B4Z	1/4	J514-4-4-070401ZA	J514-4-4-070401ZB
MS51510A4ZN	MS51510B4ZN	1/4	Not available	Not available

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TABLE III. MS51510 to SAE-J514 cross reference - Continued.

Inactive for new design MS51510- PIN		Tube OD	For new design SAE-J514 PIN	
Assembly	Body		Assembly	Body
MS51510A5	MS51510B5	5/16	Not available	Not available
MS51510A5 CN	MS51510B5CN	5/16	Not available	Not available
MS51510A5 E	MS51510B5E	5/16	Not available	Not available
MS51510A5 F	MS51510B5F	5/16	Not available	Not available
MS51510A5 H	MS51510B5H	5/16	Not available	Not available
MS51510A5 J	MS51510B5J	5/16	Not available	Not available
MS51510A5M	MS51510B5M	5/16	J514-5-5-070401MA	J514-5-5-070401MB
MS51510A5N	MS51510B5N	5/16	J514-5-5-070401NA	J514-5-5-070401NB
MS51510A5P	MS51510B5P	5/16	J514-5-5-070401PA	J514-5-5-070401PB
MS51510A5R	MS51510B5R	5/16	Not available	Not available
MS51510A5S	MS51510B5S	5/16	J514-5-5-070401SA	J514-5-5-070401SB
MS51510A5T	MS51510B5T	5/16	J514-5-5-070401TA	J514-5-5-070401TB
MS51510A5TF	MS51510B5TF	5/16	Not available	Not available
MS51510A5Z	MS51510B5Z	5/16	J514-5-5-070401ZA	J514-5-5-070401ZB
MS51510A5ZN	MS51510B5ZN	5/16	Not available	Not available
MS51510A6	MS51510B6	3/8	Not available	Not available
MS51510A6CN	MS51510B6CN	3/8	Not available	Not available
MS51510A6E	MS51510B6E	3/8	Not available	Not available
MS51510A6F	MS51510B6F	3/8	Not available	Not available
MS51510A6H	MS51510B6H	3/8	Not available	Not available
MS51510A6J	MS51510B6J	3/8	Not available	Not available
MS51510A6M	MS51510B6M	3/8	J514-6-6-070401MA	J514-6-6-070401MB
MS51510A6N	MS51510B6N	3/8	J514-6-6-070401NA	J514-6-6-070401NB
MS51510A6P	MS51510B6P	3/8	J514-6-6-070401PA	J514-6-6-070401PB
MS51510A6R	MS51510B6R	3/8	Not available	Not available
MS51510A6S	MS51510B6S	3/8	J514-6-6-070401SA	J514-6-6-070401SB
MS51510A6T	MS51510B6T	3/8	J514-6-6-070401TA	J514-6-6-070401TB
MS51510A6TF	MS51510B6TF	3/8	Not available	Not available
MS51510A6Z	MS51510B6Z	3/8	J514-6-6-070401ZA	J514-6-6-070401ZB
MS51510A6ZN	MS51510B6ZN	3/8	Not available	Not available
MS51510A8	MS51510B8	1/2	Not available	Not available
MS51510A8CN	MS51510B8CN	1/2	Not available	Not available
MS51510A8E	MS51510B8E	1/2	Not available	Not available
MS51510A8F	MS51510B8F	1/2	Not available	Not available
MS51510A8H	MS51510B8H	1/2	Not available	Not available
MS51510A8J	MS51510B8J	1/2	Not available	Not available
MS51510A8M	MS51510B8M	1/2	J514-8-8-070401MA	J514-8-8-070401MB
MS51510A8N	MS51510B8N	1/2	J514-8-8-070401NA	J514-8-8-070401NB
MS51510A8P	MS51510B8P	1/2	J514-8-8-070401PA	J514-8-8-070401PB
MS51510A8R	MS51510B8R	1/2	Not available	Not available
MS51510A8S	MS51510B8S	1/2	J514-8-8-070401SA	J514-8-8-070401SB
MS51510A8T	MS51510B8T	1/2	J514-8-8-070401TA	J514-8-8-070401TB
MS51510A8TF	MS51510B8TF	1/2	Not available	Not available
MS51510A8Z	MS51510B8Z	1/2	J514-8-8-070401ZA	J514-8-8-070401ZB
MS51510A8ZN	MS51510B8ZN	1/2	Not available	Not available

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TABLE III. MS51510 to SAE-J514 cross reference - Continued.

Inactive for new design MS51510- PIN		Tube OD	For new design SAE-J514 PIN	
Assembly	Body		Assembly	Body
MS51510A10	MS51510B10	5/8	Not available	Not available
MS51510A10CN	MS51510B10CN	5/8	Not available	Not available
MS51510A10E	MS51510B10E	5/8	Not available	Not available
MS51510A10F	MS51510B10F	5/8	Not available	Not available
MS51510A10H	MS51510B10H	5/8	Not available	Not available
MS51510A10J	MS51510B10J	5/8	Not available	Not available
MS51510A10M	MS51510B10M	5/8	J514-10-10-070401MA	J514-10-10-070401MB
MS51510A10N	MS51510B10N	5/8	J514-10-10-070401NA	J514-10-10-070401NB
MS51510A10P	MS51510B10P	5/8	J514-10-10-070401PA	J514-10-10-070401PB
MS51510A10R	MS51510B10R	5/8	Not available	Not available
MS51510A10S	MS51510B10S	5/8	J514-10-10-070401SA	J514-10-10-070401SB
MS51510A10T	MS51510B10T	5/8	J514-10-10-070401TA	J514-10-10-070401TB
MS51510A10TF	MS51510B10TF	5/8	Not available	Not available
MS51510A10Z	MS51510B10Z	5/8	J514-10-10-070401ZA	J514-10-10-070401ZB
MS51510A10ZN	MS51510B10ZN	5/8	Not available	Not available
MS51510A12	MS51510B12	3/4	Not available	Not available
MS51510A12CN	MS51510B12CN	3/4	Not available	Not available
MS51510A12E	MS51510B12E	3/4	Not available	Not available
MS51510A12F	MS51510B12F	3/4	Not available	Not available
MS51510A12H	MS51510B12H	3/4	Not available	Not available
MS51510A12J	MS51510B12J	3/4	Not available	Not available
MS51510A12M	MS51510B12M	3/4	J514-12-12-070401MA	J514-12-12-070401MB
MS51510A12N	MS51510B12N	3/4	J514-12-12-070401NA	J514-12-12-070401NB
MS51510A12P	MS51510B12P	3/4	J514-12-12-070401PA	J514-12-12-070401PB
MS51510A12R	MS51510B12R	3/4	Not available	Not available
MS51510A12S	MS51510B12S	3/4	J514-12-12-070401SA	J514-12-12-070401SB
MS51510A12T	MS51510B12T	3/4	J514-12-12-070401TA	J514-12-12-070401TB
MS51510A12TF	MS51510B12TF	3/4	Not available	Not available
MS51510A12Z	MS51510B12Z	3/4	J514-12-12-070401ZA	J514-12-12-070401ZB
MS51510A12ZN	MS51510B12ZN	3/4	Not available	Not available
MS51510A14	MS51510B14	7/8	Not available	Not available
MS51510A14CN	MS51510B14CN	7/8	Not available	Not available
MS51510A14E	MS51510B14E	7/8	Not available	Not available
MS51510A14F	MS51510B14F	7/8	Not available	Not available
MS51510A14H	MS51510B14H	7/8	Not available	Not available
MS51510A14J	MS51510B14J	7/8	Not available	Not available
MS51510A14M	MS51510B14M	7/8	J514-14-14-070401MA	J514-14-14-070401MB
MS51510A14N	MS51510B14N	7/8	J514-14-14-070401NA	J514-14-14-070401NB
MS51510A14P	MS51510B14P	7/8	J514-14-14-070401PA	J514-14-14-070401PB
MS51510A14R	MS51510B14R	7/8	Not available	Not available
MS51510A14S	MS51510B14S	7/8	J514-14-14-070401SA	J514-14-14-070401SB
MS51510A14T	MS51510B14T	7/8	J514-14-14-070401TA	J514-14-14-070401TB
MS51510A14TF	MS51510B14TF	7/8	Not available	Not available
MS51510A14Z	MS51510B14Z	7/8	J514-14-14-070401ZA	J514-14-14-070401ZB
MS51510A14ZN	MS51510B14ZN	7/8	Not available	Not available

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TABLE III. MS51510 to SAE-J514 cross reference - Continued.

Inactive for new design MS51510- PIN		Tube OD	For new design SAE-J514 PIN	
Assembly	Body		Assembly	Body
MS51510A16	MS51510B16	1	Not available	Not available
MS51510A16CN	MS51510B16CN	1	Not available	Not available
MS51510A16E	MS51510B16E	1	Not available	Not available
MS51510A16F	MS51510B16F	1	Not available	Not available
MS51510A16H	MS51510B16H	1	Not available	Not available
MS51510A16J	MS51510B16J	1	Not available	Not available
MS51510A16M	MS51510B16M	1	J514-16-16-070401MA	J514-16-16-070401MB
MS51510A16N	MS51510B16N	1	J514-16-16-070401NA	J514-16-16-070401NB
MS51510A16P	MS51510B16P	1	J514-16-16-070401PA	J514-16-16-070401PB
MS51510A16R	MS51510B16R	1	Not available	Not available
MS51510A16S	MS51510B16S	1	J514-16-16-070401SA	J514-16-16-070401SB
MS51510A16T	MS51510B16T	1	J514-16-16-070401TA	J514-16-16-070401TB
MS51510A16TF	MS51510B16TF	1	Not available	Not available
MS51510A16Z	MS51510B16Z	1	J514-16-16-070401ZA	J514-16-16-070401ZB
MS51510A16ZN	MS51510B16ZN	1	Not available	Not available
MS51510A20	MS51510B20	1 1/4	Not available	Not available
MS51510A20CN	MS51510B20CN	1 1/4	Not available	Not available
MS51510A20E	MS51510B20E	1 1/4	Not available	Not available
MS51510A20F	MS51510B20F	1 1/4	Not available	Not available
MS51510A20H	MS51510B20H	1 1/4	Not available	Not available
MS51510A20J	MS51510B20J	1 1/4	Not available	Not available
MS51510A20M	MS51510B20M	1 1/4	J514-20-20-070401MA	J514-20-20-070401MB
MS51510A20N	MS51510B20N	1 1/4	J514-20-20-070401NA	J514-20-20-070401NB
MS51510A20P	MS51510B20P	1 1/4	J514-20-20-070401PA	J514-20-20-070401PB
MS51510A20R	MS51510B20R	1 1/4	Not available	Not available
MS51510A20P	MS51510B20P	1 1/4	J514-20-20-070401PA	J514-20-20-070401PB
MS51510A20T	MS51510B20T	1 1/4	J514-20-20-070401TA	J514-20-20-070401TB
MS51510A20TF	MS51510B20TF	1 1/4	Not available	Not available
MS51510A20Z	MS51510B20M	1 1/4	J514-20-20-070401ZA	J514-20-20-070401ZB
MS51510A20ZN	MS51510B20ZN	1 1/4	Not available	Not available
MS51510A24	MS51510B24	1 1/2	Not available	Not available
MS51510A24CN	MS51510B24CN	1 1/2	Not available	Not available
MS51510A24E	MS51510B24E	1 1/2	Not available	Not available
MS51510A24F	MS51510B24F	1 1/2	Not available	Not available
MS51510A24H	MS51510B24H	1 1/2	Not available	Not available
MS51510A24J	MS51510B24J	1 1/2	Not available	Not available
MS51510A24M	MS51510B24M	1 1/2	J514-24-24-070401MA	J514-24-24-070401MB
MS51510A24N	MS51510B24N	1 1/2	J514-24-24-070401NA	J514-24-24-070401NB
MS51510A24P	MS51510B24P	1 1/2	J514-24-24-070401PA	J514-24-24-070401PB
MS51510A24R	MS51510B24R	1 1/2	Not available	Not available
MS51510A24S	MS51510B24S	1 1/2	J514-24-24-070401SA	J514-24-24-070401SB
MS51510A24T	MS51510B24T	1 1/2	J514-24-24-070401TA	J514-24-24-070401TB
MS51510A24TF	MS51510B24TF	1 1/2	Not available	Not available
MS51510A24Z	MS51510B24Z	1 1/2	J514-24-24-070401ZA	J514-24-24-070401ZB
MS51510A24ZN	MS51510B24ZN	1 1/2	Not available	Not available

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TABLE III. MS51510 to SAE-J514 cross reference - Continued.

Inactive for new design MS51510- PIN		Tube OD	For new design SAE-J514 PIN	
Assembly	Body		Assembly	Body
MS51510A32	MS51510B32	2	Not available	Not available
MS51510A32CN	MS51510B32CN	2	Not available	Not available
MS51510A32E	MS51510B32E	2	Not available	Not available
MS51510A32F	MS51510B32F	2	Not available	Not available
MS51510A32H	MS51510B32H	2	Not available	Not available
MS51510A32J	MS51510B32J	2	Not available	Not available
MS51510A32M	MS51510B32M	2	J514-32-32-070401MA	J514-32-32-070401MB
MS51510A32N	MS51510B32N	2	J514-32-32-070401NA	J514-32-32-070401NB
MS51510A32P	MS51510B32P	2	J514-32-32-070401PA	J514-32-32-070401PB
MS51510A32R	MS51510B32R	2	Not available	Not available
MS51510A32S	MS51510B32S	2	J514-32-32-070401SA	J514-32-32-070401SB
MS51510A32T	MS51510B32T	2	J514-32-32-070401TA	J514-32-32-070401TB
MS51510A32TF	MS51510B32TF	2	Not available	Not available
MS51510A32Z	MS51510B32Z	2	J514-32-32-070401ZA	J514-32-32-070401ZB
MS51510A32ZN	MS51510B32ZN	2	Not available	Not available

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

Referenced documents. In addition to MIL-DTL-18866, this document references the following:

FED-STD-595/36076	FED-STD-595/36280	ASTM B164	SAE-AMS2488
FED-STD-595/36081	FED-STD-595/36293	ASTM B166	SAE-AMS2700
FED-STD-595/36099	MIL-DTL-16232	ASTM B564	SAE-AMS4928
FED-STD-595/36118	MIL-DTL-81706	ASTM B633	SAE-AMS5639
FED-STD-595/36134	MS51531	ASTM B695	SAE-AMS5645
FED-STD-595/36152	MS51533	ASTM F1136/F1136M	SAE-AMS5647
FED-STD-595/36170	QQ-N-281	SAE-AMS-C-81562	SAE-AMS5743
FED-STD-595/36173	ASME B1.1	SAE-AMS-QQ-P-416	SAE-AMS6370
FED-STD-595/36176	ASTM A276/A276M	SAE-AMS2417	SAE-AMS6382
FED-STD-595/36231	ASTM A564/A564M	SAE-AMS2451/5	SAE-J403
FED-STD-595/36251	ASTM A582/A582M	SAE-AMS2451/9	SAE-J425
FED-STD-595/36270	ASTM B117	SAE-AMS2486	SAE-J514

MS51510B

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 4730-2016-006)

Review activities:

Army - AT
Navy - MC
Air Force - 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.