

INCH-POUND

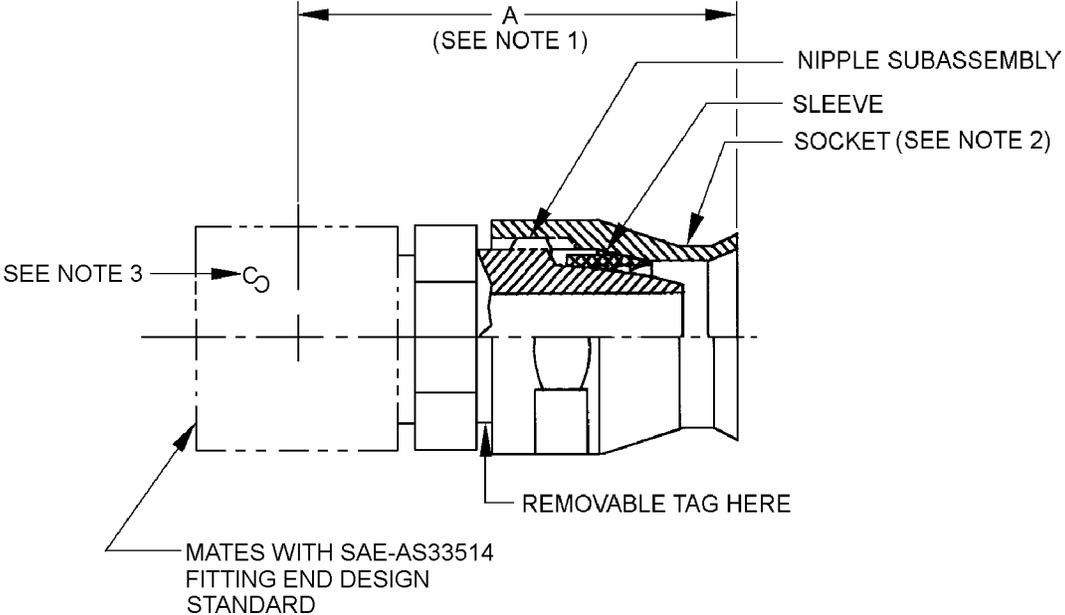
MS27381C
1 May 2013
SUPERSEDING
MS27381B
25 September 2003

DETAIL SPECIFICATION SHEET

ADAPTER ASSEMBLY, FLARELESS,
STRAIGHT, TUBE TO HOSE - WITH SWIVEL NUT

This specification sheet 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 sheet and MIL-DTL-27272.



NOTES:

- 1. Dimension A, see table II, is measured between the hose end of the socket and the free end of the radius MS8000 series seal insert at its centerline when the socket is assembled on the nipple subassembly (see MIL-DTL-25579/1 for conversion if NAS1760 style ends are used).
- 2. Socket may be either hex or 2-flat sides.
- 3. If required, lockwire holes to be drilled in accordance with SAE-AS1043.

FIGURE 1. Adapter assembly illustration.

MS27381C

REQUIREMENTS

Adapter assembly illustration, see figure 1

Intended use. This adapter is intended for use with hose conforming to MIL-DTL-27267.

Flareless fitting, hose connector design. Use MIL-DTL-25579/1 for application of NAS1760 design.

Materials. Material and material codes see table I. See applicable specification sheet and MIL-DTL-27272 for material of other components identified in table II for their material requirements.

TABLE I. Materials and PIN codes.

Material code	Material
Blank	Combination of aluminum alloy and corrosion-resistant steel (CRES)
C	CRES

TABLE II. Adapter assembly composition. 1/ 2/

Size and material code	Nipple subassembly size and material code	Sleeve size and material code	Socket size and material code	A max inch (mm)
	MS27386 3/	MS27070 3/	MS27069 3/	
-3/-4C 4/	-3/-4C	-4C	-4C	1.55 (39.4)
-4C	-4C			1.50 (38.1)
-5C	-5C	-5C	-5C	1.57 (39.9)
-6C	-6C	-6C	-6C	1.68 (42.7)
-8C	-8C	-8C	-8C	1.92 (48.8)
-8	-8			
-10C	-10C	-10C	-10C	2.14 (54.4)
-10	-10			
-12C	-12C	-12C	-12C	2.21 (56.1)
-12	-12			
-16C	-16C	-16C	-16C	2.42 (61.5)
-16	-16			
-20C	-20C	-20C	-20C	2.79 (70.9)
-20	-20			
-24C	-24C	-24C	-24C	3.11 (79.0)
-24	-24			

1/ Dimensions are in inches.

2/ Metric equivalent's are given for information only.

3/ MS27069, MS27070 and MS27386 shall be dry film lubricated in accordance with table III, dry film is applied in accordance with MS27069, MS27070 or MS27386 as applicable.

4/ Swivel nut and sealing surface of this nipple subassembly shall mate with SAE-AS33514-3 fitting. The remaining portion of the subassembly shall mate with M27267-4 hose.

MS27381C

If required, lockwire holes to be drilled in accordance with SAE-AS1043.

MS27069, MS27070 and MS27386 parts shall be coated with the same type of dry film lubricant as indicated in the Part or Identifying Number (PIN), no mixing of dry film lubricants shall be used on an assembly unless it is of the types specified by the "blank" designator.

NOTE: Avoid using graphite dry film lubes with aluminum unions and nipples because in a wet environment, graphite becomes corrosive to the aluminum.

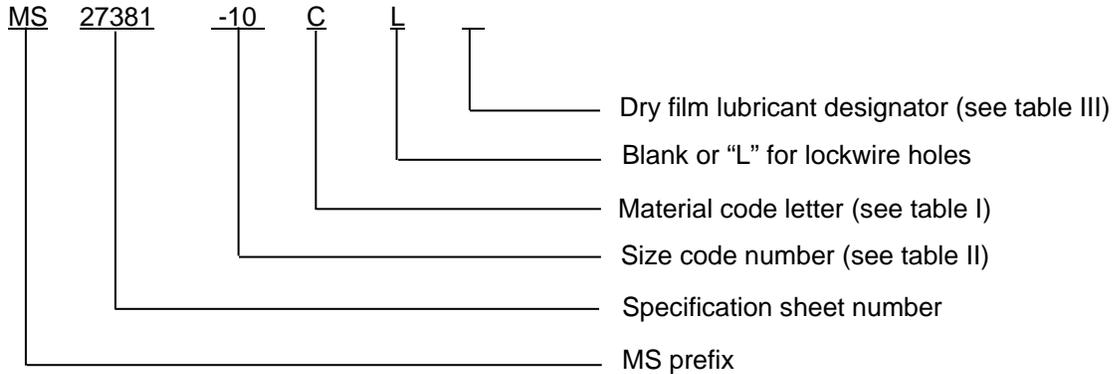
TABLE III. Dry film designator.

Dry film designator	SAE class or type designator	Dry film characteristics
Blank	Any SAE class or type below	N/A
SAE-AS1701	SAE-AS1701 class	SAE-AS1701 temperature ranges °F (°C)
4	4	-65° to +1400°F (-54° to 760°C)
5	5	-65° to +850°F (-54° to 454°C)
6	6	-375° to +850°F (-226° to 454°C)
SAE-AS5272	SAE-AS5272 type	SAE-AS5272 temperature ranges. °F (°C)
7	Type I	-90° to 400°F (-68 to 204°C) endurance life of 250 min minimum
8	Type II	-90° to 400°F (-68° to 204°C) endurance life of 450 min minimum
9	Type III	Color 1 - Natural product color -90° to 400°F (-68 to 204°C) low Volatile organic compound with an endurance life of 450 min minimum
10	Type III	Color 2 - Black color -90° to 400°F (-68 to 204°C) low Volatile organic compound with an endurance life of 450 min minimum
Dry film designator	MIL classification	Dry film characteristics
MIL-PRF-46010 1/	---	MIL-PRF-46010 temperature ranges. °F (°C)
11	1	Color 1 natural product color, -90° to 400°F (-68 to 204°C) solvent resisting
12	2	Color 2 - Black color -90° to 400°F (-68 to 204°C) solvent resisting

1/ Not for aerospace usage.

MS27381C

Part or Identifying Number (PIN): The PIN consists of prefix "MS", the specification sheet number, dash number for straight adapter assembly size, letter for material, blank or L for lockwire holes, and a blank or number for dry film lubricant. Unassigned PIN's shall not be used.



PIN examples:

- MS27381-10C indicates a straight adapter assembly size 10, CRES with dry film class designator "blank".
- MS27381-10CL4 indicates a straight° adapter assembly size 10, CRES with lockwire holes with dry film class designator 4.

Identification of product. The Part or Identifying Number (PIN) and the manufacturer PIN and Government Entity (CAGE) Code shall be marked on a removable tag securely attached to the adapter.

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.

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

Referenced documents. In addition to MIL-DTL-27272, this document references the following:

MIL-PRF-46010	NAS1760
MIL-DTL-25579/1	SAE-AS1043
MIL-DTL-27267	SAE-AS1701
MS27069	SAE-AS5272
MS27070	SAE-AS33514
MS27386	

MS27381C

CONCLUDING MATERIAL

Custodians:

Army - AV
Navy - AS
Air Force - 99
DLA - CC

Preparing activity:
DLA - CC

(Project 4730-2013-028)

Review activities:

Army - AR, AT, MI
Navy - MC, SA, SH
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>.