

INCH-POUND

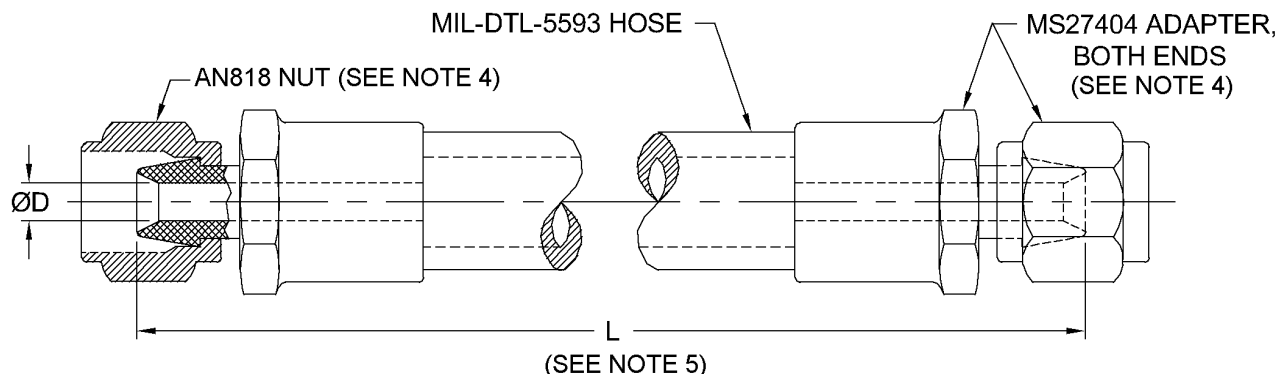
AN6270 Rev 10
 19 January 2017
 SUPERSEDING
 AN6270 Rev 9
 w/AMENDMENT 1
 3 December 2012

DETAIL SPECIFICATION SHEET

HOSE ASSEMBLY - DETACHABLE SWIVEL FITTING, LOW PRESSURE

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 sheet.



Dash size	Tubing OD	Hose	Hose ID (nominal) inch (mm)	Adapter (see notes 3 and 4)	D Min inch (mm)
-2	.125	M5593-2	.125 (3.18)	MS27404-2	.052 (1.32)
-3	.188	M5593-3	.188 (4.78)	MS27404-3	.109 (2.77)
-4	.250	M5593-4	.250 (6.35)	MS27404-4	.156 (3.96)
-6	.375	M5593-6	.375 (9.53)	MS27404-6	.281 (7.14)
-8	.500	M5593-8	.500 (12.70)	MS27404-8	.375 (9.53)
-10	.625	M5593-10	.625 (15.88)	MS27404-10	.453 (11.51)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. See table I for fitting materials and table II for fitting finishes.
4. MS27404 adapter assembly consists of a socket and an AN818 nut.
5. "L" is hose assembly length.
6. Dimensioning and tolerancing: ASME Y14.5M.

FIGURE 1. Hose assembly dimensions and configuration.

AMSC N/A

FSC 4720



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REQUIREMENTS:

The hose shall be a product that is listed on QPL-5593. The adapter shall be a product that is listed on QPL-38726.

The hose assembly shall be proof pressure tested in accordance with MIL-DTL-5593.

Materials and finishes shall be in accordance with MIL-DTL-38726, see table I for material designators.

TABLE I. Adapter material finish and identification codes.

Designator	Material
D <u>1/</u>	Aluminum alloy 2014-T6 or 2024-T6 or -T851
J	Corrosion resistant steel (CRES), type 304
K	Corrosion resistant steel (CRES), type 316
P	Chrome-molybdenum steel 4130
S	Steel 4140
T <u>2/</u>	Titanium
W	Aluminum alloy 7075-T73

1/ Inactive for new design, for new design use aluminum alloy 7075 to improve stress corrosion resistance and tensile strength.

2/ Titanium shall not be used in oxygen systems.

Finishes shall be in accordance with MIL-DTL-38726, see table II for plating finish designators.

TABLE II. Material finish identification codes.

Plating finish designator	Material	Plating Finish
Blank	Steel 4130 or 4140	Cadmium <u>1/</u>
Blank	Aluminum	Anodized
AN		Anodize then apply NAVAIR trivalent chromium pretreatment
H	Steel 4130 or 4140	Zinc aluminum in accordance with ASTM F1136/F1136M, grade 3, NC.
J	Steel 4130 or 4140	Zinc-nickel <u>2/</u>
P	Steel 4130 or 4140	Zinc phosphate in accordance with MIL-DTL-16232, type Z, Class 4
R	Steel 4130 or 4140	Zinc plating in accordance with ASTM B633 type III or V, Fe/Zn 8
Blank	CRES	No additional finish, passivated
Blank	Titanium	Anodize in accordance with SAE-AMS2488, type 2
TF	Titanium	Fluoride phosphate in accordance with SAE-AMS2486
Z	Steel 4130 or 4140	Zinc plating in accordance with ASTM B695, type I, class 8 <u>3/</u>
ZC	Steel	Zinc may be any zinc plating from PIN codes J, R, and Z with a colored chromate coating <u>3/</u>

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

2/ Zinc nickel shall be in accordance with SAE-AMS2417, type 2, grade B, except the zinc-nickel alloy plate shall contain 12% to 16% nickel. The coating thickness shall be 315 micro-inches (8 microns) minimum coating thickness.

3/ Not for use in aircraft. Requires approval from the Program Officer for all applications.

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Adapter color coding reference MIL-DTL-38726.

Hose assemblies under 12 to 999 inches are expressed in inches and fractional lengths, see table III.

TABLE III. Hose assembly fractional length designators.

Fractional Length designator	Length			Under 12 inches +.120 (3.05 mm)	12.0 to 17.75 inches +.188 (4.78 mm)	18 to 35.5 inches +.250 (6.35 mm)	36 to 999 inches ± 1%
	Fraction	Decimal	mm				
0	0	.000	0.00	0	0	0	0
1	1/8	.125	3.18	1	---	---	---
2	1/4	.250	6.35	2	2	---	---
3	3/8	.375	9.53	3	---	---	---
4	1/2	.500	12.70	4	4	4	4
5	5/8	.625	15.88	5	---	---	---
6	3/4	.750	19.05	6	6	---	---

Hose length is always 3 digits, use leading zeros as required see examples below.

Examples:

0063 is a hose assembly length of 6-3/8 inches with a tolerance of +.120 inches.

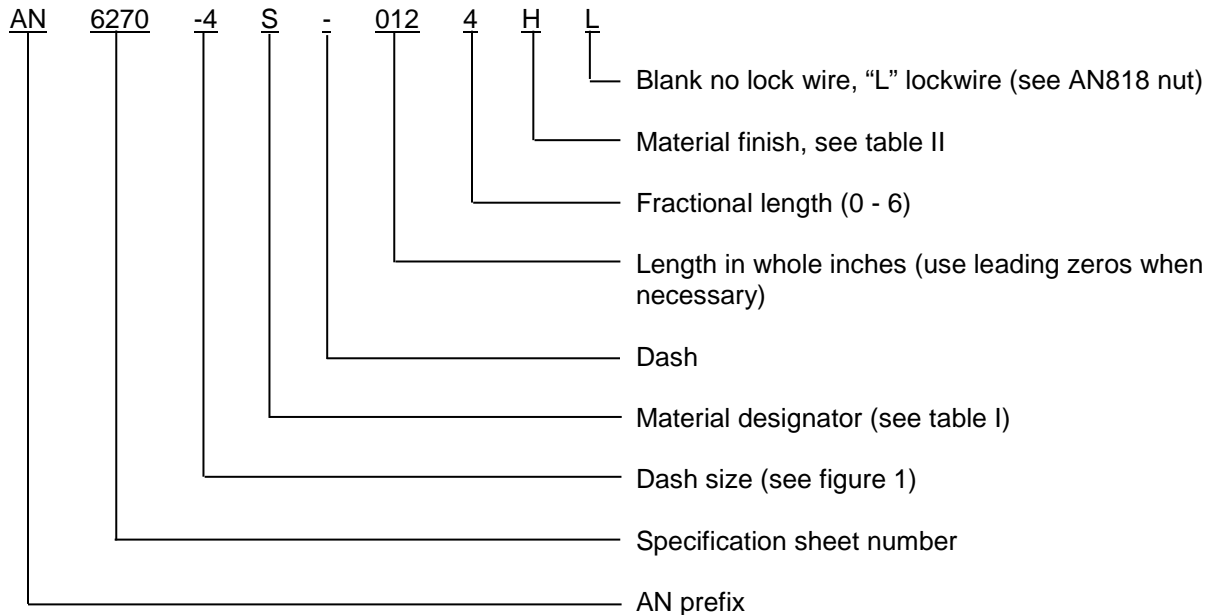
0152 is a hose assembly length of 15-1/4 inch with a tolerance of +.188 inches.

0244 is a hose assembly length of 24-1/2 inches with a tolerance of +.250 inches.

0800 is a hose assembly length of 6 feet 8 inches (80 inches) with a tolerance of ±1%.

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Part or Identifying Number (PIN): The PIN shall consist of AN prefix, specification sheet number, hose dash size, material code, a dash number for hose length in inches and fractional length designator, material finish code, and L hose with lock wire hole and leave blank with no lock wire hole.



Example of PIN: AN6270-4S-0124HL indicates a hose assembly .250-inch tube to hose, 4140 steel adaptor's, 12.5 inches long, zinc aluminum plating, and lock wire holes.

The hose assembly shall be identified with the PIN on an attached tag that shall be removed upon installation.

The age of the hose assembly covered by this specification sheet and furnished for use by the Government shall not exceed the limits specified in SAE-AS1933.

NOTE: Cadmium plating is not recommended. Carbon steel material with cadmium plating shall only be used when other materials and finishes specified in this document cannot meet performance requirements.

For design feature purposes, this specification sheet takes precedence over acquisition documents referenced herein.

In the event of a conflict between the text of this specification sheet and the references cited herein, the text of this specification sheet shall take precedence.

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.

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Referenced documents. This document references the following:

AN818	QPL-5593	ASTM F1136/F1136M
MIL-DTL-5593	QPL-38726	SAE-AS1933
MIL-DTL-16232	ASME Y14.5M	SAE-AMS2417
MIL-DTL-38726	ASTM B633	SAE-AMS2486
MS27404	ASTM B695	SAE-AMS2488

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 4720-2017-001)

Review activities:

Army - AV
Navy - MC, SA
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>.