

INCH-POUND

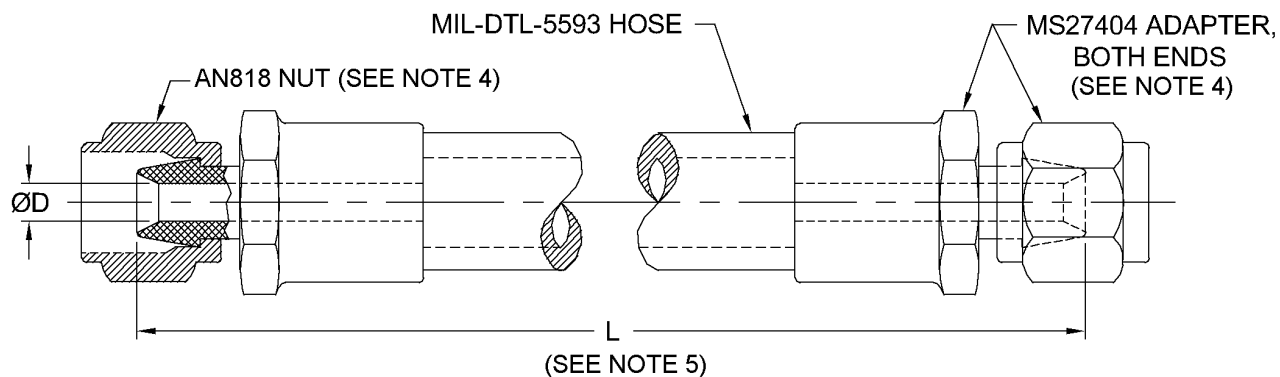
AN6270 Rev 9
w/AMENDMENT 1
3 December 2012
SUPERSEDING
AN6270 Rev 9
29 March 2012

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 $\pm .010$ (0.25) 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:

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

FIGURE 1. Hose assembly dimensions and configuration.

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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.

Hose assembly length "L" shall be specified with the following tolerances:

- a. Less than 12 inches (304.8 mm) long (tolerance ± 12 (3.05 mm)).
- b. 12 to 18 inches (304.8 to 457.2 mm) long (tolerance ± 25 (6.35 mm)).
- c. Greater than 18 inches (457.2 mm) long (tolerance ± 50 (12.70 mm)).

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

Materials and finishes shall be in accordance with MIL-DTL-38276, 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.

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TABLE II. Material finish identification codes.

| Plating finish designator | Material | Plating Finish |
|---------------------------|--------------------|--|
| Blank | Steel 4130 or 4140 | Cadmium |
| CN | | Cadmium plating with NAVAIR trivalent chromium pretreatment (TCP) |
| E | | NAVAIR TCP |
| F | Steel 4130 or 4140 | Zinc plate (finish J, P, or R) with NAVAIR TCP |
| Blank | Aluminum | Anodized |
| H | Steel 4130 or 4140 | Aluminum-nickel |
| J | Steel 4130 or 4140 | Zinc-nickel |
| P | Steel 4130 or 4140 | Zinc phosphate |
| R | Steel 4130 or 4140 | Zinc plating in accordance with ASTM B633; type VI, Fe/Zn 5 |
| Blank | CRES | No additional finish, passivated |
| Blank | Titanium | Anodize |
| Z <u>1</u> / | Steel 4130 or 4140 | Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5 |
| ZN <u>1</u> / | Steel 4130 or 4140 | Zinc plating in accordance with ASTM B633; type II or III, Fe/Zn 5, or ASTM B695, type II, class 5 with NAVAIR TCP |

1/ Not for use on aircraft.

Adapter color coding reference MIL-DTL-38726.

Hose length in inches is always 3 digits, use leading zeros as required and fractional lengths are 1 digit, see table III.

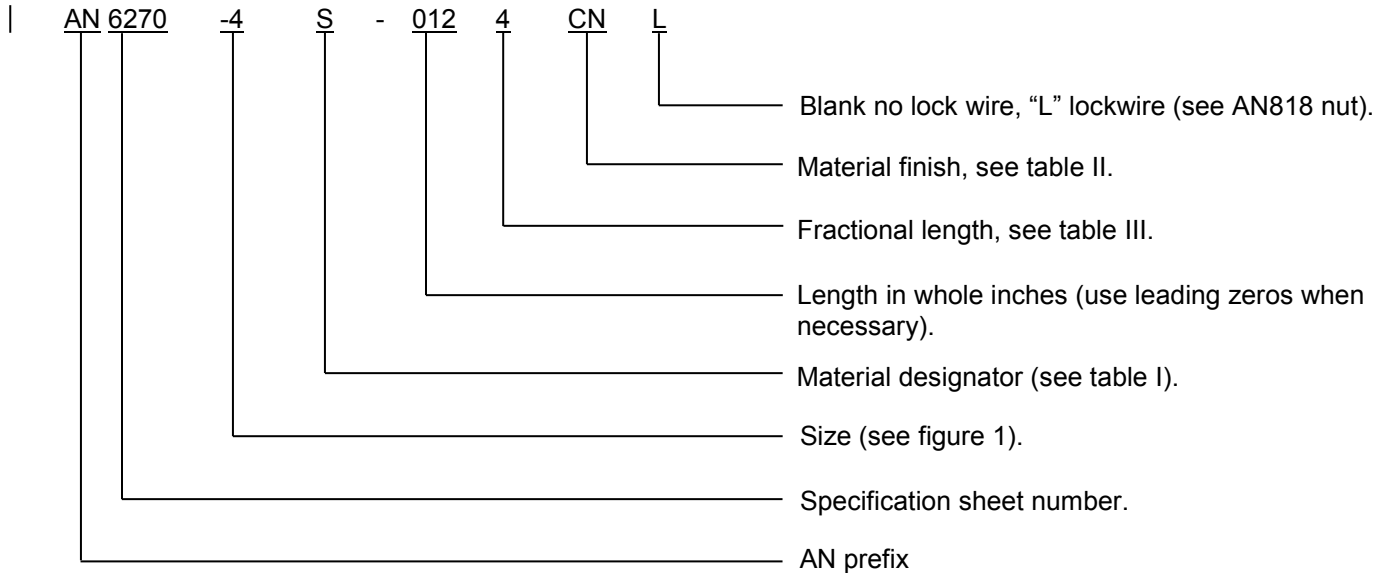
TABLE III. Hose assembly fractional length. 1/

| Fractional length designator | Length | | |
|------------------------------|----------|---------|-------|
| | Fraction | Decimal | mm |
| 0 | 0 | .000 | 0.00 |
| 1 | 1/8 | .125 | 3.18 |
| 2 | 1/4 | .250 | 6.35 |
| 3 | 3/8 | .375 | 9.53 |
| 4 | 1/2 | .500 | 12.70 |
| 5 | 5/8 | .625 | 15.88 |
| 6 | 3/4 | .750 | 19.05 |
| 7 | 7/8 | .875 | 22.23 |

1/ Fractional lengths are available only in .125 inch (3.18 mm) increments.

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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-0124CNL indicates a hose assembly .250-inch tube to hose, 4140 steel adaptor's, 12.5 inches long, cadmium plating with NAVAIR TCP, 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.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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Referenced documents. This document references the following:

| | |
|---------------|-------------|
| AN818 | ASME Y14.5M |
| MIL-DTL-5593 | ASTM B633 |
| MIL-DTL-38726 | ASTM B695 |
| MS27404 | SAE-AS1933 |

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 4720-2012-031)

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>.