



**DEFENSE LOGISTICS AGENCY
LAND AND MARITIME
P.O. BOX 3990
COLUMBUS, OHIO 43218-3990**

July 8, 2020

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft of: A-A-NICOPP. Project Number: 4710-2020-002

The initial draft for the subject document, is now available for viewing and downloading from the DLA Land and Maritime-VA Web site:

<https://landandmaritimeapps.dla.mil/programs/milspec/default.aspx>

Major changes to this document include new commercial item description for nickel copper brake, fuel, and transmission lines. The CID also has provisions for ordering tube only or tube with fittings.

Concurrence or comments are required at this Center within 30 days from the date of this letter. Late comments will be held for the next coordination of the document. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply. Lack of response to this draft will be construed as concurrence.

If this document is of interest to you, please provide your comments or suggested changes. The point of contact for this document is Mr. William Carpenter, phone number 614-692-0573, facsimile transmission, 614-692-6939, e-mail William.F.Carpenter@dlam.mil, or may be mailed via the US Postal Service to DLA LAND AND MARITIME, ATTN: VAI (Attention: William Carpenter), P.O. Box 3990, Columbus, OH 43218-3990.

Sincerely,

/SIGNED/

ABDONASSER M. ABDOUNI
Chief,
Interconnection Branch

cc: FMDB Joe Payne

[INCH-POUND]
A-A-NICOPP
DRAFT

TUBE AND FITTINGS, METALLIC, BRAKE, FUEL, AND TRANSMISSION LINES, NICKEL-COPPER ALLOY, GENERAL REQUIREMENTS FOR



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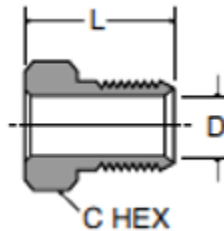
3.4 Tube. Tubing shall be supplied in coils 10, 15, 25, 50, or 100 feet as specified in the PIN. Tubing shall be seamless - extruded from an ingot, not rolled. Length tolerance shall be in accordance with ASTM B251/B251M. Note: reference tables in ASTM B251/B251M for ASTM B466/466M type tubing.

3.4.1 Tube materials. Tube materials shall be 90-10 nickel-copper alloy brake tubing in accordance with SAE J1650 alloy UNS70600 or ASTM B466/B466M alloy C70600.

3.5 Inverted flare nut. Fittings supplied to this CID are "Long Nut" inverted flare.

3.5.1 Inverted flare nut material. Fitting materials shall be in accordance with SAE J512.

3.5.2 Inverted flare nut dimensions. Fitting dimensions shall be in accordance with SAE J512 040110, see figure 1.



Tube size PIN code	SAE J512 Fitting/tube size O.D.	Straight thread	C Hex	L	D
-3	3/16	3/8-24	3/8	.53	.188
-4	1/4	7/16-24	7/16	.54	.188
-5	5/16	1/2-20	1/2	.59	.250
-6	3/8	5/8-18	5/8	.66	.312
-7	7/16	1 1/16-18	1 1/16	.75	.375
-8	1/2	3/4-18	3/4	.81	.576

NOTE: Dimensions and tolerances not show shall be in accordance with SAE J512 040110.

Figure 1. Inverted flare nuts.

3.5.3 Inverted flare nuts supplied. When specified in the PIN the following number of inverted flare nuts shall be furnished with the coil tubing. The inverted flare nuts shall fit the tubing size specified in the PIN.

- 10 - 10 foot coil comes with 4 inverted flare nuts.
- 15 - 15 foot coil comes with 6 inverted flare nuts.
- 25 - 25 foot coil comes with 8 inverted flare nuts.
- 50 - 50 foot coil comes with 16 inverted flare nuts.
- 100 - 100 foot coil comes with 32 inverted flare nuts.

3.6 Finish. Finish shall be in accordance with SAE J512.

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3.7 Usage. 90-10 copper-nickel tube corrosion resistant can be used for brake, fuel, and transmission lines. DOT approved for hydraulic brake systems and bends easier than steel tubing.

3.7.1 Working pressures. Working pressure see table I.

TABLE I. Working Pressure.

Tube O.D	PSI	Tube wall
3/16	3200	.028
1/4	2300	.028
5/16	1800	.028
3/8	1450	.028
1/2	1050	.028
5/8	1450	.048

3.8 Cleaning. The inside and outside surfaces of the finished tubing shall be cleaned in accordance with SAE J1650. Tubing and fittings shall be clean, and free from grease, oxide scale, carbon deposits, and any other contamination that cannot be readily removed by cleaning agents normally used in manufacturing plants.

3.9 Marking. Brake, fuel, and transmission line kits supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN. (NOTE: The part number marked on the unit pack shall be the CID PIN.)

3.10 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.11 Workmanship. Brake, fuel, and transmission line kits shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

4. **REGULATORY REQUIREMENTS**. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR).

5. **PRODUCT CONFORMANCE PROVISIONS**.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Certification. Certification must be done with the procuring activity approval. The contractor shall certify that the product offered meets the salient characteristics of the description and conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same as the product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

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7.6 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict acquisition to only the manufacturers shown.)

MFR's CAGE

CAGE

MFR's name and address

Manufacturer's NAME
Manufacturer's ADDRESS
Manufacturer's ADDRESS (Continued)
Manufacturer's PHONE NUMBER
Manufacturer's FAX NUMBER (if applicable)
Manufacturer's GENERIC E-MAIL (if applicable)
Manufacturer's URL (if applicable)

CAGE

Manufacturer's NAME
Manufacturer's ADDRESS
Manufacturer's ADDRESS (Continued)
Manufacturer's PHONE NUMBER
Manufacturer's FAX NUMBER (if applicable)
Manufacturer's GENERIC E-MAIL (if applicable)
Manufacturer's URL (if applicable)

7.7 Part number (P/N) supersession data. These CID PINs supersede the following MFR's P/N's as shown in table II. This information is being provided to assist in reducing proliferation in the Government inventory system.

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TABLE II. P/N supersession data.

Dash number (see paragraph 2) AANICOPP	MFR's CAGE BBBBB	MFR's P/N <u>1/</u> 12345	MFR's CAGE BBBBB	MFR's P/N <u>1/</u> 12345
-3-10				
-3-15				
-3-25				
-3-50				
-3-100				
-3-10F				
-3-15F				
-3-25F				
-3-50F				
-3-100F				
-4-10				
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-6-100				
-6-10F				
-6-15F				
-6-25F				
-6-50F				
-6-100F				

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TABLE II. P/N supersession data - Continued.

Dash number (see paragraph 2) AANICOPP	MFR's CAGE BBBBB	MFR's P/N ^{1/} 12345	MFR's CAGE BBBBB	MFR's P/N ^{1/} 12345
-8-10				
-8-15				
-8-25				
-8-50				
-8-100				
-8-10F				
-8-15F				
-8-25F				
-8-50F				
-8-100F				

^{1/} The manufacturer's P/N shall not be used for acquisition to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements see 3.9.

7.8 Government users. To acquire information on obtaining these tube and fittings, metallic, brake, fuel, and transmission lines, nickel-copper alloy from the Government inventory system, contact DLA Land and Maritime, ATTN Land Weapons System Division (-QL), P.O. Box 3990, Columbus, OH 43218-3990 or E-mail - DSCC-QLR.Chief@dla.mil, telephone (614) 692-4702 or DSN 850-3796.

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APPENDIX A
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TUBE AND FITTINGS, METALLIC, BRAKE, FUEL, AND TRANSMISSION LINES,
NICKEL-COPPER ALLOY, INSTALLATION PROCEDURE

A.1 SCOPE.

A.1.1 Scope. This commercial item description (CID) covers the general requirements for tube and fittings, metallic, brake, fuel, and transmission lines, nickel-copper alloy, installation procedure covered by this CID are intended for commercial/industrial applications. This appendix is not a mandatory part of the commercial item description (CID).

A.1.2 Intended use. The long nut specified in the CID offers additional vibration capacity.

A1.3 Assembly instructions:

- a. Cut tubing squarely and clean tube end thoroughly to remove burrs.
- b. Place nut onto tube. Place threaded end of nut toward end of tube.
- c. Flare tube end with flaring tool to provide a 37° or 45° flare, as required by the application.
- d. Lubricate threads and assemble to fitting body.
- e. Nut should be turned hand tight.
- f. Tighten with a wrench until a solid feeling is encountered. From that point, apply a one-six turn.
- g. Flare fittings are easy to disassemble and may be reassembled repeatedly, for a leak-proof connection.

NOTE: Do not over-torque as it may damage the fitting or split the tubing.

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MILITARY INTERESTS:

Custodians:

Army - AT
Navy - AS
Air Force - 71
DLA - CC

Review activities:

Army - AV, MI
Navy - MC, SH
Air Force - 11

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FAS

Preparing Activity:

DLA - CC

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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>.