

INCH-POUND

MIL-PRF-370J

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SUPERSEDING

MIL-PRF-370H

01 February 1999

PERFORMANCE SPECIFICATION

HOSE AND HOSE ASSEMBLIES, NONMETALLIC: ELASTOMERIC, LIQUID FUEL

This specification is approved for use by the U.S. Army Tank-automotive and Armaments Command, Department of the Army and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers standard collapsible and non-collapsible, lightweight collapsible, and low temperature non-collapsible elastomeric, liquid fuel transfer hose and hose assemblies.

1.2. Classification. The hose and hose assemblies are of the following types, sizes, classes, styles, material, and lengths (see 6.2).

1.2.1 Type. The types of hose and hose assemblies are as follows:

- | | |
|--------|---|
| Type A | - Collapsible (see 6.5.1). |
| Type B | - Non-collapsible (see 6.5.2). |
| Type C | - Collapsible, lightweight (2, 3, 4, and 6-inch (in.) nominal diameter only). |
| Type D | - Non-collapsible low temperature. |

1.2.2 Size. The sizes of the hose and hose assemblies, as determined by the nominal inside diameter of the hose, are as follows:

Size 01	—	0.50 in.	Size 06	—	2.00 in.
Size 02	—	0.75 in.	Size 07	—	2.50 in.
Size 03	—	1.00 in.	Size 08	—	3.00 in.
Size 04	—	1.25 in.	Size 09	—	4.00 in.
Size 05	—	1.50 in.	Size 10	—	6.00 in.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-D/210, Warren, MI 48397-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 4720

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1.2.3 Class. The classes of hose and hose assemblies will be as follows:

- | | |
|---------|---|
| Class 0 | - Without fittings |
| Class 1 | - Male fitting on one end and female fitting on other end |
| Class 2 | - Male fitting both ends |
| Class 3 | - Female fitting both ends |
| Class 4 | - Sexless both ends |

1.2.4 Style. The end fitting style will be as follows:

- | | |
|---------|--|
| Style 0 | - Bulk hose |
| Style A | - Cam-locking end fittings |
| Style B | - Re-attachable (reusable) compression end fitting up to 4-in. |
| Style C | - Grooved end fittings |
| Style D | - One-time-use internal expanded end fittings up to 4-in. |
| Style E | - Quick-disconnect, sexless couplings |

1.2.5 Material. The material used in the end fittings will be as follows:

- | | |
|------------|-----------------------------|
| Material A | - Aluminum |
| Material B | - Brass |
| Material C | - Corrosion resistant steel |
| Material D | - Steel (carbon) |
| Material O | - Other |
| Material S | - Contractor Specified |

1.2.6 Length. The hose and hose assembly length will be expressed in feet (ft), to 4 significant figures, with the last digit indicating tenths of a foot. The following are examples of the length code:

- | | |
|------|-----------------|
| 5000 | - 500 ft, 0 in. |
| 0505 | - 50 ft, 6 in. |

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirement documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

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SPECIFICATIONS

FEDERAL

- A-A-52557 - Fuel Oil, Diesel; For Posts, Camps and Stations.
- A-A-52592 - Pipe Fittings: One Or More Ends Grooved.
- A-A-59326 - Coupling Halves, Quick-Disconnect, Cam-Locking Type.
- A-A-59377 - Coupling Assembly, Quick-Disconnect, Sexless Type.

DEPARTMENT OF DEFENSE

- MIL-DTL-5624 - Turbine Fuel, Aviation, Grades JP-4 and JP-5, and JP-5/JP-8 St.
- MIL-F-46162 - Type I and II Referee Grade Diesel.
- MIL-DTL-83133 - Turbine Fuels, Aviation, Kerosene Types, NATO F-34 (JP 8), NATO F-35 and JP-8 +100.

STANDARDS

FEDERAL

- FED-STD-595 - Colors used in Government Procurement.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from Document Automation and Production Service, Bldg 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

- ASME B1.20.1 - Pipe Threads, General Purpose (Inch).

(Copies are available from the American Society of Mechanical Engineers, 3 Park Avenue, New York, NY 10016-5990 or website <http://www.asme.org/>.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM D380 - Standard Test Methods for Rubber Hose (DoD Adopted).
- ASTM D381 - Standard Test Method for Existent Gum Content in Fuels by Jet Evaporation (DoD Adopted).
- ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension (DoD Adopted).
- ASTM D413 - Standard Test Methods for Rubber Property - Adhesion to Flexible Substrate (DoD Adopted).

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ASTM D471	- Standard Test Method for Rubber Property - Effect of Liquids (DoD Adopted).
ASTM D518	- Standard Test Method for Rubber Deterioration - Surface Cracking (DoD Adopted)
ASTM D573	- Standard Test Method for Rubber – Deterioration in an Air Oven (DoD Adopted)
ASTM D746	- Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact (DoD Adopted)
ASTM D790	- Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (DoD Adopted)
ASTM D975	- Standard Specification for Diesel Fuel Oils (DoD Adopted)
ASTM D1053	- Standard Test Methods for Rubber Property - Stiffening at Low Temperatures: Flexible Polymers and Coated Fabrics (DoD Adopted).
ASTM D1149	- Standard Test Method for Rubber Deterioration - Surface Ozone Cracking in a Chamber (DoD Adopted).
ASTM D1655	- Standard Specification for Aviation Turbine Fuels (DoD Adopted).
ASTM D2137	- Standard Test Methods for Rubber Property - Brittleness Point of Flexible Polymers and Coated Fabrics (DoD Adopted)
ASTM D3389	- Standard Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform, Double-Head Abrader) (DoD Adopted).

(Copies are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or website <http://www.astm.org> .)

AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA C606	- Grooved and Shouldered Joints (DoD Adopted).
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(Copies are available from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or website <http://www.awwa.org/> .)

2.4 Order of precedence. 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.

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3. REQUIREMENTS

3.1 First article. Unless otherwise specified (see 6.2), hose/hose assembly shall be subjected to first article inspections in accordance with (IAW) 4.1.1.

3.2 Materials. The manufacturer shall select materials capable of meeting all the operational and environmental requirements specified herein. The hose assemblies shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide against corrosion and deterioration during storage and operational conditions experienced.

3.2.1 Recycled, recovered, or environmentally preferable materials. Recovered materials (see 6.5.3) shall be used to the maximum extent practicable, provided the components meet all other requirements of this specification. Used, rebuilt, or remanufactured components shall not be incorporated into the hose or hose assemblies.

3.3 Design and construction. The hose shall be finished lengths, as specified, consisting of a tube (see 6.5.4), reinforcement (see 6.5.5), stiffening (non-collapsible only), and a cover (see 6.5.6). Hose assemblies shall be the defined types, sizes and lengths of hose, equipped with end fittings as specified.

- a. Tiering of specification and standards. The following documents used for the procurement of hose or hose assemblies shall be designated as "first tier" requirements, and all requirements therein shall be applicable to this procurement. Design and performance data identified in commercially based standards, practices, and specifications as "General Notes" and "Notes" (e.g. ASME, CIDs, and similar) shall be required for the purposes of design and performance criteria, Government and contractor-conducted testing, and other verification activities. The Government's objective in requiring what would normally be considered secondary/tertiary-level and referenced information is due to the non-availability of a traditional Government or commercial-style document that would satisfy this system/item procurement requirements.

1. CID (Commercial Item Descriptions IAW the Federal Standardization Manual)
2. ASME
3. SAE
4. ASTM
5. Other specified commercially-based specifications/requirements
6. Other specified regulatory-based requirements (EPA, OSHA, UL, NSF, NOAA)

3.3.1 Hose dimensions.

3.3.1.1 Type A, B and D hose size. All type A, B, and D hoses shall conform to the size requirements as specified in table I.

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TABLE I. Type A, B, and D hose diameters and tolerances.

Size code	Inside diameter (in.)	Outside diameter (in.)
01	0.50 ± 0.03	1.06 ± 0.03
02	0.75 ± 0.03	1.37 ± 0.03
03	1.00 ± 0.06	1.62 ± 0.06
04	1.25 ± 0.06	1.87 ± 0.06
05	1.50 ± 0.06	2.12 ± 0.06
06	2.00 ± 0.06	2.66 ± 0.06
07	2.50 ± 0.06	3.19 ± 0.06
08	3.00 ± 0.06	3.75 ± 0.06
09	4.00 ± 0.06	4.75 ± 0.06
10	6.00 ± 0.06	$6.87 +0.12/-0.06$

3.3.1.2 Type C hose size and weight. Type C hoses shall conform to the size and weight requirements in table II.

TABLE II. Type C hose diameter, tolerance, and weight.

Size code	Inside diameter (in.)	Weight (lb/ft) ^{1/}
06	2.06 ± 0.06	0.5, maximum
08	3.06 ± 0.06	0.75, maximum
09	4.06 ± 0.06	1.0, maximum
10	6.06 ± 0.06	1.5, maximum

^{1/} lb/ft = pounds per foot

3.3.2 Length. The length of hose and hose assembly shall be the actual hose length exclusive of the end fittings. The tolerance on the length shall be ± 2 percent (%).

3.3.3 Tube and cover. The tube shall be of petroleum-resistant compounds (see 3.4.2) and shall be smooth, free of defects (e.g., holes, pitting, blisters, etc.), and of a uniform thickness. The cover shall be of petroleum-resistant compounds (see 3.4.2) and shall be free of defects (e.g., holes, pitting, blisters, etc.) and be ultraviolet-stable and ozone-resistant. The tube and cover shall meet all the performance requirements as specified herein.

3.3.4 Static bond. Unless otherwise specified (see 6.2), the hose shall contain a continuous embedded static wire(s) or other electrical conductor(s). The conductor(s) shall provide a continuous electrical bond between the hose ends to include fittings. The maximum resistance shall not be greater than 1.5 ohms per linear foot of hose. The bond shall not break when the hose is coiled, sharply bent, or subjected to internal or external pressures as specified.

3.3.5 End fittings. End fittings shall be as identified by class, style, and material and sized for the hose size specified. Non-corrosive devices (see 6.4) shall be used for the attachment of end fittings to the hose. All end fittings shall be securely attached to the hose to prevent slippage or leakage under normal operation and when subjected to hydrostatic proof pressure. Unless

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otherwise specified (see 6.2), the end fittings shall be provided with protective, closed end, reusable dust plugs or caps. Means (i.e. chain) shall be used to captively retain the dust plugs or caps to the end fittings.

3.3.5.1 Coupling halves, quick-disconnect cam-locking type. For type A, B, and D hoses, cam-locking end fittings shall be class 1 IAW A-A-59326. For type C hoses, all interface dimensions of the cam-locking end fittings shall be IAW A-A-59326, but the working pressure rating shall be not less than 150 pounds per square inch gage (psig). The 6-in. 150-psi rated coupling can use more than two cam arms. Unless otherwise specified, dust caps or plugs for cam-locking end fittings shall be in accordance with A-A-59326/10 and A-A-59326/11, respectively. The coupling halves and gaskets shall be compatible for use with the fuels listed in 3.4.2

3.3.5.2 Grooved end fittings. Grooved end of the hose fitting adapters shall be IAW AWWA C606, Table 4 (Cut grooving dimensions - Steel, aluminum, brass, and other metallic pipe of IPS dimensions). Hose adapter section of the grooved end fitting shall be sized to fit the inside diameter of hose as specified in Table I for non-collapsible type hoses and Table II for the collapsible type hoses. The grooved end fittings shall be rated at 150 psig.

3.3.5.3 Re-attachable screw-on hose fittings. The re-attachable compression type fitting (see figure 1) shall consist of an outer sleeve, inner body/tailpiece, and wire compression grip. The tailpiece shall have one end threaded with American National Standard Taper Pipe threads (NPT) IAW ASME B1.20.1, for attachment to existing assemblies and a hose shank type end for hose attachment. The hose shank end of the tailpiece shall have the sleeve threaded over the tailpiece that allows the hose to be compressed and firmly secured to the tailpiece. When the sleeve is fully engaged it shall extend beyond the hose end of the tailpiece but shall not cover any of the NPT thread. The sleeve shall have at least four flat surfaces to permit the use of a standard wrench for tightening or loosening.

3.3.5.3.1 Pull strength (assemblies with re-attachable fittings). The couplings, when installed in accordance to the manufacturers' instructions, shall withstand a repeated, longitudinal pull of 450 pounds (lb) without the fittings becoming detached from the hose.

3.3.5.4 One-time-use end fittings. The one-time-use internal expanded fittings shall have an internal expanding tailpiece and external ferrule. The tailpiece shall grip and press the hose wall against the external ferrule. When installed, these fittings shall have an inside diameter conforming to the nominal inside diameter of the hose.

3.3.5.5 Quick-disconnect, sexless couplings. The sexless couplings shall be type 1, class A or B, IAW A-A-59377. The couplings shall be reusable and sized to mate with type A, B, and D hoses, size 06 and 08. In addition to the specification requirements, the couplings shall be compatible with fuel as listed in 3.4.2.

3.3.6 Physical and chemical requirements of bulk hose. The requirements for the physical and chemical properties, by hose type, shall be as specified in Table III. The requirement

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column of the table shall be the minimum level for acceptability. Test procedures as listed in the ASTM column shall be used as augmented or modified by the noted test paragraphs.

TABLE III. Hose physical and chemical properties.

Physical properties	Hose type				Requirements	Test method	
	A	B	C	D		ASTM	Test
<u>Tensile strength, original:</u>							
Tube -	X	X	X	X	1250 psi, minimum	D412	4.3.6.1
Cover -	X	X	X	X	1250 psi, minimum 1000 psi, minimum		
<u>Tensile strength, after immersion in:</u>							
Fuel -	X	X	X	X	Minimum of 40% of original, or 600 psi	D471	4.3.6.2
Water (for 14 days) -			X		Minimum of 40% of original, or 600 psi	D471	4.3.6.2.1
Water (for 42 days) -			X		Minimum of 25% of original, or 300 psi		
<u>Ultimate elongation, original</u>	X	X	X	X	200%, minimum 400 % minimum	D412	4.3.6.1
<u>Ultimate elongation, after immersion in:</u>							
Fuel -	X	X	X	X	100%, minimum	D471	4.3.6.2
			X		200%, minimum		
Water (for 14 days) -			X		40% of original, minimum	D471	4.3.6.2.1
Water (for 42 days) -			X		25% of original, minimum		
<u>Volume increase, after immersion:</u>							
Tube -	X	X	X	X	60%, maximum 40%, maximum	D471	4.3.6.2
Cover -	X	X	X	X	100%, maximum 70%, maximum		
<u>Adhesion between reinforcement and:</u>							
Tube -	X	X	X	X	10 lbf/in 1/, minimum	D413	4.3.6.3.1
Cover -	X	X	X	X	10 lbf/in, minimum		
<u>Adhesion after immersion in fuel</u>							
Tube/reinforcement -	X	X	X	X	6 lbf/in, minimum	D413	4.3.6.3.2
Cover/reinforcement -	X	X	X	X	6 lbf/in, minimum		

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TABLE III. Hose physical and chemical properties - Continued.

Physical properties	Hose type				Requirements	Test method	
	A	B	C	D		ASTM	Test
<u>Low temperature flexibility</u>							
Young's modulus	X	X			10,000 psi, maximum	D1053	4.3.6.4.1
Relative torsional modulus			X		5, maximum		
Brittleness				X	No evidence of cracking	D471 D746 D2137	4.3.6.4.2
Modulus of elasticity:							
Tube -				X	10,000 psi, maximum	D790	4.3.6.4.3
Cover -				X	5000 psi, maximum		
<u>Resistance to Aging</u>							
Tensile Strength	X	X	X	X	70% of original, minimum	D 573	4.3.6.5
Ultimate elongation	X	X		X	50% of original, minimum		
			X		70% of original, minimum		
<u>Existent gum</u>	X	X		X	20 mg/100 mL <u>2</u> / of test fluid, maximum	D381 D471	4.3.6.6
			X		6 mg/100 mL of test fluid, maximum		
<u>Crush resistance:</u>							
Under load -		X		X	85% of original diameter, minimum	---	4.3.6.7
After load release -		X		X	95% of original diameter, minimum		
<u>Bend radius</u>		X		X	No deformation, crimping, or loss of pressure	---	4.3.6.8
<u>Ozone resistance</u>	X	X	X	X	No visible cracking (viewed under 7x lens)	D518 D1149	4.3.6.9
<u>Abrasion resistance</u> (When Required – see 6.2)			X		Report number of cycle needed to expose reinforcing material.	D3389	4.3.6.10

1/ lbf/in. = Pounds-force per inch

2/ mg/100 mL = milligrams per 100 milliliters

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3.3.7 Requirements of hose assemblies.

3.3.7.1 Proof pressure. Hose assemblies shall not leak nor have deleterious imperfections when subjected to the appropriate proof pressure, with respect to hose size, as specified in table IV (for hose assemblies constructed with type A, B or D hose) or table V (for hose assemblies constructed with type C hose). There shall be no slippage or pullout of the fittings from the hose. For Type A, B, and D hose, the length of the hose shall not change more than $\pm 7\%$ when subjected to proof pressure. For type C hose, the length of hose shall not change more than $\pm 2\%$ when subjected to proof pressure. Type A and C hose shall not twist more than one-half turn (180°) in 25 ft when subjected to proof pressure.

TABLE IV. Pressure requirements for type A, B and D hose.

Hose Nominal I.D. (in)	Proof pressure, minimum (psig)	Burst pressure, minimum (psig)	Working pressure, maximum (psig) <u>1/</u>
0.50	250	500	125
0.75	250	500	125
1.00	250	500	125
1.25	250	500	125
1.50	250	500	125
2.00	225	400	100
2.50	225	375	94
3.00	150	300	75
4.00	150	300	75
6.00	150	300	75

1/ Recommended.

TABLE V. Pressure requirements for type C hose.

Hose Nominal I.D. (in)	Proof pressure, minimum (psig)	Burst pressure, minimum (psig)	Working pressure, maximum (psig) <u>1/</u>
2.00	400	600	150
3.00	400	600	150
4.00	400	600	150
6.00	400	600	150

1/ Recommended.

3.3.7.2 Burst pressure. The hoses shall have a minimum burst pressure as specified in table IV (for hose assemblies constructed with type A, B or D hose) or table V (for hose assemblies constructed with type C hose). For hose assemblies constructed with type C hoses, the hoses shall not fail radially.

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3.4 Interface requirements

3.4.1 Connection to existing equipment. The hose or hose assemblies defined herein are required to interface with existing equipment and hose assemblies. The interface points, end fittings, shall be controlled. Re-attachable end fittings shall be as specified herein; A-A-59326 shall be used for cam-locking fittings; A-A-52592 shall be used for grooved end fittings; and A-A-59377 shall be used for quick disconnect sexless couplings.

3.4.2 Fuel and water compatibility. Finished hoses shall be resistant to, have no deleterious effects upon, and not be degraded by water and the following kerosene-based petroleum fuels. Meeting the hose physical and chemical properties requirements (see 3.3.6) with the specified test fluid shall provide sufficient evidence that the finished hoses conform to the fuel compatibility requirement.

- a. MIL-DTL-83133 (JP-8) (NATO F-34) (see 6.7).
- b. MIL-DTL-5624 (JP-5) (NATO F-44) (see 6.7).
- c. A-A-52557 (Diesel-military, including NATO F-54) (see 6.7).
- d. ASTM D975 (Diesel-US commercial).
- e. ASTM D1655 (Jet A-1).
- f. MIL-F-46162 (Type I and II Referee Grade Diesel).

3.5 Ownership and support requirements.

3.5.1 Safety. Hose and hose assemblies shall comply with all U.S. HAZMAT, OSHA and safety requirements regarding the prevention of inadvertent fuel discharge or leakage during operation, storage and maintenance.

3.5.2 Human factors engineering. Hose and hose assemblies shall be capable of being employed by the 5th percentile female to the 95th percentile male military personnel wearing gloves or arctic mittens, or equipped with Mission Orientated Protective Posture (MOPP) IV gear (see 6.8) without special tools or support equipment.

3.5.3 Cover color. Unless otherwise specified, the cover color shall be Tan 686, #33446, or Flat Black, #37038 of FED-STD-595, general match (see 6.2).

3.5.4 Hose marking. Hose and hose assemblies shall be permanently marked with the following information (see 6.2):

- a. Date of manufacture (quarter and year)
- b. Contract or order number
- c. Manufacturer's name or trademark
- d. "MIL-PRF-370"
- e. Hose type (Example: "TYPE C")
- f. "LIQUID FUEL"
- g. PIN, when required (see 6.7)

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The letters shall be a minimum of 0.18 in. high. Hoses shall be marked at 10-ft intervals or by continuous impression branding, provided that the pattern shall be repeated every 5 ft or less. Marking color shall contrast with the hose cover color. Each hose shall be marked with a longitudinal stripe of a contrasting color, not less than 0.125 in. wide, and extending the full length of the hoseline. The marking may be within the longitudinal stripe, provided the stripe is at least 0.2 in. greater than the height of the letters. The marking may substitute for the longitudinal stripe, provided it is continuous and extends the full length of the hoseline. Labeling and longitudinal stripe shall remain clear, distinct and legible for the life of the hoseline. Handling, bending, water, oil, and environmental effects shall not adversely affect the marking or stripe.

3.5.5 NBC. Hose and hose assemblies shall be NBC contamination survivable and capable of operating in an NBC environment. Nuclear survivability is not required. The hose and hose assemblies shall be capable of being operated and serviced by personnel wearing Mission Orientated Protective Posture (MOPP IV) chemical, biological and radiological clothing (see 6.8) without special tools or support equipment. The design of the hose and hose assemblies shall minimize the collection and retention of contaminants and decontaminates. The hose and hose assemblies shall be decontaminable to negligible risk levels as defined in Army-approved NBC contamination survivability criteria and AR70-75.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article test (FAT) (see 4.1.1)
- b. Conformance inspection (CI) (see 4.1.2)

4.1.1 FAT. The contractor shall perform FAT test and inspections on production hose and hose assemblies in accordance with Table VI and paragraphs 4.4 through 4.6 of this SPECIFICATION. Observations, recorded data, and results shall be provided to the Government in a FAT Final Test Report. Prior to the conduct of the FAT, a CI (see 4.1.2) shall be completed and recorded as part of the Final Test Report. Nonconformance to any specified requirement of this SPECIFICATION and any additional requirements of the contract, purchase order, or scope of work (SOW); the failure of any test; or the presence of one or more defects shall be cause for rejection of the FAT and the FAT Final Test Report (see 6.3).

TABLE VI. FAT application and test methods.

Test	Hose type				Test description	Requirement Paragraph	Test Paragraph
	A	B	C	D			
101			X		Weight	3.3.1.2	4.3.1.2
102	X	X	X	X	Static bond (at pressure)	3.3.4	4.3.4
103	X				Pull strength with re-attachable fittings	3.3.5.3.1	4.3.5.1

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TABLE VI. FAT application and test methods - Continued.

Test	Hose type				Test description	Requirement Paragraph	Test Paragraph
	A	B	C	D			
104	X	X	X	X	Tensile strength, original (tube and cover)	3.3.6, Table III	4.3.6.1
105	X	X	X	X	Tensile strength after fuel immersion	3.3.6, Table III	4.3.6.2
106			X		Tensile strength after water immersion (14 days)	3.3.6, Table III	4.3.6.2.1
107			X		Tensile strength after water immersion (42 days)	3.3.6, Table III	4.3.6.2.1
108	X	X		X	Ultimate elongation, original	3.3.6, Table III	4.3.6.1
109	X	X	X	X	Ultimate elongation after fuel immersion	3.3.6, Table III	4.3.6.2
110			X		Ultimate elongation after water immersion (14 days)	3.3.6, Table III	4.3.6.2.1
111			X		Ultimate elongation after water immersion (42 days)	3.3.6, Table III	4.3.6.2.1
112	X	X	X	X	Volume increase after fuel immersion (tube and cover)	3.3.6, Table III	4.3.6.2
113	X	X	X	X	Adhesion (between reinforcement and tube), original	3.3.6, Table III	4.3.6.3.1
114	X	X	X	X	Adhesion (between reinforcement and cover), original	3.3.6, Table III	4.3.6.3.1
115	X	X		X	Adhesion (tube/reinforcement), after immersion in fuel	3.3.6, Table III	4.3.6.3.2
116	X	X		X	Adhesion (cover/reinforcement), after immersion in fuel	3.3.6, Table III	4.3.6.3.2
117			X		Adhesion (tube/reinforcement), after fuel fill test	3.3.6, Table III	4.3.6.3.3
118			X		Adhesion (cover/reinforcement), after fuel fill test	3.3.6, Table III	4.3.6.3.3
119	X	X			Low temperature flexibility	3.3.6, Table III	4.3.6.4.1
120			X		Torsional rotation	3.3.6, Table III	4.3.6.4.2
121				X	Brittleness	3.3.6, Table III	4.3.6.4.3
122				X	Modulus of elasticity (tube and cover)	3.3.6, Table III	4.3.6.4.4

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TABLE VI. FAT application and test methods - Continued.

Test	Hose type				Test description	Requirement Paragraph	Test Paragraph
	A	B	C	D			
123	X	X	X	X	Resistance to aging	3.3.6, Table III	4.3.6.5
125		X		X	Crush resistance (under load and after load release)	3.3.6, Table III	4.3.6.7
Test	A	B	C	D		Paragraph	Paragraph
126		X		X	Bend radius	3.3.6, Table III	4.3.6.8
127	X	X	X	X	Ozone resistance	3.3.6, Table III	4.3.6.9
128			X		Abrasion resistance	3.3.6, Table III	4.3.6.10
129	X	X	X	X	Proof pressure	3.3.7.1	4.3.7.1
130	X				Twist (at pressure)	3.3.7.1	4.3.7.1
131	X	X	X	X	Burst pressure	3.3.7.2	4.3.7.2

4.1.2 Conformance inspection (CI). CI shall be performed on all hose and hose assembly production units prior to presentation for Government acceptance. CI shall include the examinations of table VII and the test as specified in 4.3.7.1. Nonconformance to any specified requirement of this specification and any additional requirements of the contract, purchase order, or scope of work (SOW) shall be cause for rejection.

TABLE VII. Examination schedule.

Examination	Examination description	Method of inspection
101	Materials not as specified (see 3.2).	Visual
102	Hose type not as specified (see 3.3).	Visual/Doc. 1/
103	Hose size not as specified (see 3.3.1).	Visual/Doc./SIE 2/
104	Hose length not as specified (see 3.3.2).	SIE
105	Tube not as specified (see 3.3.3).	Visual/Doc.
106	Cover not as specified (see 3.3.3).	Visual/Doc.
107	End fittings not as specified (see 3.3.5).	Visual/Doc.
108	Dust plug(s) or cap(s) not as specified (see 3.3.5).	Visual/Doc.
109	Cam-locking end fitting not as specified (see 3.3.5.1).	Visual/Doc.
110	Grooved end fitting not as specified (see 3.3.5.2).	Visual/Doc.
111	Re-attachable screw-on hose coupling not as specified (see 3.3.5.3).	Visual/Doc.
112	One-time-use end fitting not as specified (see 3.3.5.4).	Visual/Doc.
113	Quick-disconnect, sexless coupling not as specified (see 3.3.5.5).	Visual/Doc.

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TABLE VII. Examination schedule - Continued.

Examination	Examination description	Method of inspection
114	Physical/chemical requirements not as specified (see 3.3.6).	Visual/Doc.
115	Hose assemblies not as specified (see 3.3.7).	Visual/Doc.
116	Interface requirements not as specified (see 3.4).	Visual/Doc.
117	Finished hose not resistant to fuels as specified (see 3.4.2).	Doc.
118	Ownership/support requirements not as specified (see 3.5).	Visual/Doc.
119	Cover color not as specified (see 3.5.3).	Visual/Doc.
120	Marking not as specified (see 3.5.4).	Visual/Doc.
121	Packaging not as specified (see 5 and contract/SOW).	Visual/Doc.

1/ Doc. = Documentation

2/ SIE = Standard Inspection Equipment

4.2 Test conditions, schedules, other required reports or certifications, and prohibitions.

4.2.1 Test conditions. Unless otherwise specified, all testing and examinations shall be conducted at $+77^{\circ}\text{F} \pm 3^{\circ}\text{F}$ or, with prior Government permission, all values obtained using ambient temperature and humidity must be corrected to this required temperature in the test report(s).

4.2.2 Schedule and sequence of tests. A specific schedule and sequence of component tests are required, except where specified. Advance planning and provisions shall be made to insure that each item of the schedule and sequence shall not have a detrimental effect or preclude the performance of a subsequent test/examination on any test sample.

4.2.3 Advance notice of schedule. Appropriate advance notice of the test schedule, location(s), or changes shall be provided to the Government, contractor, designated test site/facility, and regulatory agency personnel to allow participation or oversight by each.

4.2.4 Certificates of Conformance (CoC). When specified, CoC's shall be:

- a. Provided by the contractor and in contractor format, except when specified otherwise by this specification, the contract, or a separate scope of work (SOW), with sufficient supporting technical information to insure adequate evaluation and comment by the Government.
- b. Required for delivery to the Government, and may be required for delivery to other activities or agencies to verify safety, HAZMAT, operational, and other requirements prior to delivery for test or acceptance in order to assure safe operation.
- c. Included in all Final Test Reports and, when specified, Conformance Inspection (CI).

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4.2.5 Test fluid(s). The test fluid for FAT shall be JP-8 only, except where specified.

4.2.5.1 Recycling and disposal. The use, reuse, and disposal of the required test fluid, lubricants, and other expendable items shall be in compliance with all applicable US statutory, regulatory, and local requirements for the proper storage and disposal of hazardous wastes and waste water discharges. Economic use and recycling for contractor in-process and other testing is encouraged to reduce costs to the Government.

4.2.5.2 Alternate test fluid. Unless specified otherwise, water may be used as the designated military fuels and ASTM test fluids (see 3.4.2) for the following tests when conducted above 33°F.

- a. Component testing where exposure to or compatibility with fuels/lubricants is not required; e.g. metallic fittings and connectors.
- b. Hose and hose assembly tests in which the distance exceeds one length of hose.
- c. As a test fluid media (product) for any CI tests and product demonstrations that are not FAT test requirements.

4.2.6 Prohibitions. The following are specifically prohibited unless specified otherwise within Section 4.

- a. Lot sampling, acceptable quality limits (AQL), or similar inspection and testing schemes/methods.
- b. Modeling and simulation for all tests and inspections

4.3 Design and construction verification. To verify conformance to 3.3, hose and hose assemblies shall be examined to determine that the hose type is as specified. Nonconformance to 3.3 shall constitute failure.

4.3.1 Hose dimensions.

4.3.1.1 Type A, B and D hose size. To verify conformance to 3.3.1.1, hose and hose assemblies shall be examined to determine that the hose size is as specified. Nonconformance to table I shall constitute failure.

4.3.1.2 Type C hose size and weight. To verify conformance to 3.3.1.2, hose and hose assemblies shall be examined to determine that the hose size is as specified. A 20-ft section of hose shall be weighed on a scale that measures in not greater than 0.25-lb increments. The weight in pounds per foot shall be calculated. Nonconformance to table II shall constitute failure.

4.3.2 Length. To verify conformance to 3.3.2, hose and hose assemblies shall be measured to determine that the hose length is as specified. Nonconformance to 3.3.2 shall constitute failure.

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4.3.3 Tube and cover. To verify conformance to 3.3.3, hose and hose assemblies shall be examined to determine that the hose tube and cover are as specified. Nonconformance to 3.3.3 shall constitute failure.

4.3.4 Static bond. To verify conformance to 3.3.4, hose and hose assemblies shall be examined for presence of a continuous embedded electrical conductor. Electrical resistance between ends of hose, including fittings for hose assemblies, shall be measured during and after subjection to proof test pressure (see 4.3.7.1). Nonconformance to 3.3.4 shall constitute failure of this test.

4.3.5 End fittings. To verify conformance to 3.3.5, hose assemblies shall be examined to determine that the class, style, material and size of the end fittings are as specified, and that they are securely attached to the hose. Hose assemblies shall also be examined to ensure the end fittings are provided with dust plugs or caps as specified. Nonconformance to 3.3.5 shall constitute failure.

4.3.5.1 Pull strength (assemblies with re-attachable fittings). To verify conformance to 3.3.5.3.1, two re-attachable fittings shall be installed on an appropriately sized hose, approximately 6 ft. in length. The hose assembly shall be hung vertically, and by attachment only to the fitting, used to lift a dead weight of 450 lb not less than 1 in. off the surface and back to it. The test shall be repeated for a total of 10 cycles. On completion of the lifts, the fitting-to-hose interface shall be examined for hose slippage and separation. Hose slippage or separation shall constitute failure of this test. Upon successful completion of the pull test, the hose assembly shall be subjected to the proof pressure test, IAW 4.3.7.1, for not less than 5 minutes. Any leakage, deformation or separation of the fitting shall constitute failure of this test.

4.3.6 Physical and chemical requirements of bulk hose. To verify conformance to 3.3.6, the tests of 4.3.6.1 through 4.3.6.9 shall be conducted.

4.3.6.1 Tensile strength and ultimate elongation. The tensile strength and ultimate elongation of the cover and tube of the hose shall be determined IAW ASTM D412. Nonconformance to table III shall constitute failure of this test.

4.3.6.2 Tensile strength, ultimate elongation, and volume change after fuel immersion. After fuel immersion, the tensile strength, ultimate elongation, and volume change of the cover and tube of the hose shall be determined IAW ASTM D471. The immersion time shall be 70 hours. The immersion fuel shall be reference fuel B as specified in ASTM D471. The immediate deteriorated properties method shall be used in determining changes in tensile strength and ultimate elongation. Nonconformance to table III shall constitute failure of this test.

4.3.6.2.1 Tensile strength and ultimate elongation after water immersion (type C hose only). Tensile strength and ultimate elongation of the cover and tube of type C hose shall be determined IAW ASTM D471 after immersion in water for 336 hours (14 days). This test shall be repeated after 1008 hours (42 days) of immersion. Nonconformance to table III shall constitute failure of this test.

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4.3.6.3 Adhesion.

4.3.6.3.1 Dry adhesion. The original (dry) adhesion between the hose tube and reinforcement shall be determined IAW the machine method of ASTM D413, using test specimens. This test shall be repeated to determine the dry adhesion between the hose cover and reinforcement. Nonconformance to table III shall constitute failure of this test.

4.3.6.3.2 Adhesion after immersion in fuel (type A, B and D hose). The adhesion between the hose tube and reinforcement shall be determined IAW the machine method of ASTM D413, using test specimens that have been immersed in reference fuel B as specified in ASTM D471 for a period of 70 hours. The adhesion shall be determined within 15 minutes after removal of the specimens from the fluid. This test shall be repeated to determine the adhesion between the hose cover and reinforcement after immersion in fuel. Nonconformance to table III shall constitute failure of this test.

4.3.6.3.3 Adhesion after fill test (type C hose only). A 12-in. section of hose shall be stoppered and filled with reference fuel B as specified in ASTM D471. The section of hose with the test fluid shall be maintained at a temperature of $160 \pm 2^{\circ}\text{F}$ for not less than 46 hours. At the conclusion of the 46-hour cycle, cool the hose to $71 \pm 9^{\circ}\text{F}$ and stabilize the temperature. Within 15 minutes after removal of the test fluid, specimens shall be cut from the hose and tested IAW ASTM D413, machine method. Nonconformance to table III shall constitute failure of this test.

4.3.6.4 Low temperature flexibility.

4.3.6.4.1 Low temperature flexibility (type A, B, and C hose only). A test for low temperature flexibility shall be conducted IAW the routine inspection and acceptance procedures specified in ASTM D1053, except a gaseous media shall be used. The test temperature shall be $-25 \pm 2^{\circ}\text{F}$. The exposure time shall be 168 hours. Nonconformance to table III shall constitute failure of this test.

4.3.6.4.2 Brittleness (type D hose only). Prepare test samples of type D hose tube and cover IAW ASTM D2137, method B. Condition the samples in reference fuel B as specified in ASTM D471, for 96 hours. Remove the samples from the fuel and air-dry them for 48 hours. When dry, oven-age the samples for 24 hours at $130 \pm 2^{\circ}\text{F}$, then test the samples IAW ASTM D746. Nonconformance to table III shall constitute failure of this test.

4.3.6.4.3 Modulus of elasticity (type D hose only). Using test samples of type D hose tube and cover, determine the modulus of elasticity at $-60 \pm 2^{\circ}\text{F}$ IAW ASTM D790, method II, and procedure B. The samples shall have been conditioned in reference fuel B as specified in ASTM D471 for 96 hours, then air-dried and oven-aged as specified for brittleness. Nonconformance to table III shall constitute failure of this test.

4.3.6.5 Resistance to aging. Hose samples selected shall be subjected to accelerated aging IAW ASTM D573. The samples shall be conditioned in an oven for 96 hours at a temperature of

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160 ± 2°F. The tensile strength and ultimate elongation shall then be determined on the aged samples. Nonconformance to table III shall constitute failure of this test.

4.3.6.6 Existent gum. A hose specimen 14-in. long shall be cut from the selected test item. One end of the hose shall be stoppered with a clean non-corrosive plug, and secured with a suitable clamp. The hose shall be filled to within 2 in. of the open end with reference fuel B as specified in ASTM D471, and plugged in a manner similar to the other end. A sample of the fuel shall be retained for later use. This hose section shall be stored in a vertical position for 168 hours at a temperature of 100 ± 4°F. At the end of each 24-hour period, the fuel shall be agitated for 5 minutes by moving the specimen from the vertical to the horizontal and back to the vertical position at a rate of 2 cycles per minute. On completion of the 168-hour period, the fuel shall be agitated, as before, for 5 minutes and immediately removed. The removed fuel shall be tested for existent gum IAW the air-jet solvent wash method of ASTM D381. The retained fuel sample shall be tested at the same time and with the same method. The existent gum from the original fuel sample shall be subtracted from the existent gum obtained from the fuel removed from the test hose. Nonconformance to table III shall constitute failure of this test.

4.3.6.7 Crush resistance (type B and D hose). Crush resistance shall be determined by centering a 12-in. length of hose between parallel plates, 3 in. wide, in such a way that a 3-in. length of hose is being compressed. The plates shall be brought together at a rate of 2 in. per minute until the applicable crush resistance load specified in table VIII is reached. The distance between the plates shall be determined to an accuracy of 0.01 in. The results shall be expressed as a percentage of the original hose outside diameter. The static bond (see 4.3.4) shall be measured at maximum crushing force. The load shall be released and the minimum outside diameter of the hose, at the center of the compressed area, shall be measured with the same accuracy. The results shall be expressed as a percentage of the original outside diameter. Nonconformance to 3.3.4 or table III shall constitute failure of this test.

TABLE VIII. Crush resistance and bend radius for types B and D hose.

Hose Nominal I.D. (in)	Crush resistance (lb)	Bend radius (in.)
0.50	200	2.75
0.75	200	3.50
1.00	200	4.00
1.25	200	5.00
1.50	225	6.00
2.00	250	8.00
2.50	325	10.00
3.00	325	12.00
4.00	325	16.00
6.00	325	24.00

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4.3.6.8 Bend radius (type B and D hose). A 20-ft section of hose shall be placed in a fixture such that the hose is bent through an angle of 90 degrees at the applicable radius specified in table VIII. The hose shall then be subjected to the appropriate proof pressure for the hose size. Nonconformance to table III shall constitute failure of this test.

4.3.6.9 Ozone resistance. Samples of the cover, prepared IAW ASTM D518, procedure A, shall be mounted in a 20%-elongated condition, and tested IAW ASTM D1149. After conditioning for 24 hours in an ozone-free atmosphere, the mounted samples shall be exposed to an atmosphere containing 50 ± 10 parts per hundred million (pphm) of ozone, for 336 hours at $104 \pm 2^\circ\text{F}$. On completion of the test, the samples shall be examined for visible cracking under a 7X lens. Nonconformance to table III shall constitute failure of this test.

4.3.6.10 Abrasion resistance (type C hose only). The cover of type C hose shall be tested for abrasion resistance IAW ASTM D3389, method A. Cut three samples from the hose and perform the abrasion appraisal on the cover. The appraisal shall be performed using abrasion wheel H-22 with neither additional weight nor counterweight applied (see 6.2). The number of cycles to expose the hose reinforcement should be included in the FAT Final test report.

4.3.7 Requirements of hose assemblies.

4.3.7.1 Proof pressure. To verify conformance to 3.3.7.1, each length of hose or hose assembly shall be subjected to the hydrostatic tests IAW ASTM D380 for elongation, twist and proof pressure. The test pressure shall be as specified in 3.3.7.1 and shall be maintained for not less than 30 seconds. Nonconformance to 3.3.7.1 shall constitute failure of this test.

4.3.7.2 Burst pressure. To verify conformance to 3.3.7.2, the hose shall be subjected to the straight bursting pressure test IAW ASTM D380. Nonconformance to 3.3.7.2 shall constitute failure of this test.

4.4 Interface requirements. To verify conformance to 3.4, CoC's shall be provided to certify compliance to each requirement listed and, in addition, written observations and photographic evidence of compliance shall be included in the FAT Final Test Report. Absence of the CoC, failure of CoC to certify all requirements of 3.4, and absence of the observations and photographic evidence of compliance shall constitute failure.

4.5 Ownership and support requirements. To verify conformance to 3.5, CoC's shall be provided to certify compliance to each requirement listed and, in addition, written observations and photographic evidence of compliance shall be included in the FAT Final Test Report. Absence of the CoC, failure of CoC to certify all requirements of 3.5, and absence of the observations and photographic evidence of compliance shall constitute failure.

4.5.1 NBC survivability. Conformance to 3.5.5 is a "design to" criteria that is not attainable with current commercial procedures, materials, and production processes therefore technical and performance testing/evaluation for this criteria shall not be performed. The FAT Final Report shall identify this known shortfall, and list each component that can not be decontaminated with current procedures.

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4.6 Packaging. To verify conformance to 5.0 and additional packaging requirements of the applicable scope of work (SOW) or contract, CoC's shall be provided to certify compliance to each requirement listed and, in addition, written observations and photographic evidence of compliance shall be included in the FAT Final Test Report. Absence of the CoC, failure of CoC to certify all requirements of 5.0 and additional packaging requirements of the applicable scope of work (SOW) or contract, and absence of the observations and photographic evidence of compliance in the final test report shall constitute failure.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The hose and hose assemblies is military unique and intended to be used for the transfer of liquid hydrocarbon fuels in a battlefield environment. The vagaries of the battlefield require petroleum equipment specification to exceed commercially available products in the range of performance. The expected operating terrain and climate are unique and beyond the design of similar commercial items.

6.2 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Classification (type, size, class, end fitting style, end fitting material, and length) of hose/hose assembly required (see 1.2 and 6.6).
- c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1 and 2.3).
- d. When first article inspection is not required, time frame for submission, and number of units required (see 3.1 and 4.1.1).
- e. When static wire is not required (see 3.3.4).
- f. When dust plugs or caps are not required (see 3.3.5).
- g. Cover color and marking requirements (see 3.5.3 and 3.5.4).
- h. When an abrasion resistance test for type C hose is required (see 4.3.6.10).
- i. Packaging required (see 5.1).

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6.3 First article. When a first article inspection is required, the item(s) should be a first article production unit(s). The first article should consist of one or more units. The contracting officer should include specific instructions in acquisitions documents regarding arrangements for examinations, approval of the first article examination results, and disposition of the first article(s). Invitation for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government. Bidders offering such products who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.4 Noncorrosive device. Appropriate hose band specified in SAE J1508 can be used as guidance for noncorrosive devices (see 3.3.5).

6.5 Definitions.

6.5.1 Collapsible hose. Hose or hose in assemblies that do not have integral stiffening and may be collapsed to ribbon form.

6.5.2 Non-collapsible hose. Hose or hose in assemblies that have a spiral or helix of stiffening material added between the cover and tube to provide resistance to collapse.

6.5.3 Recovered materials. Recovered materials are those materials that have been collected from solid waste and reprocessed to become a source of raw materials, as distinguished from virgin raw materials.

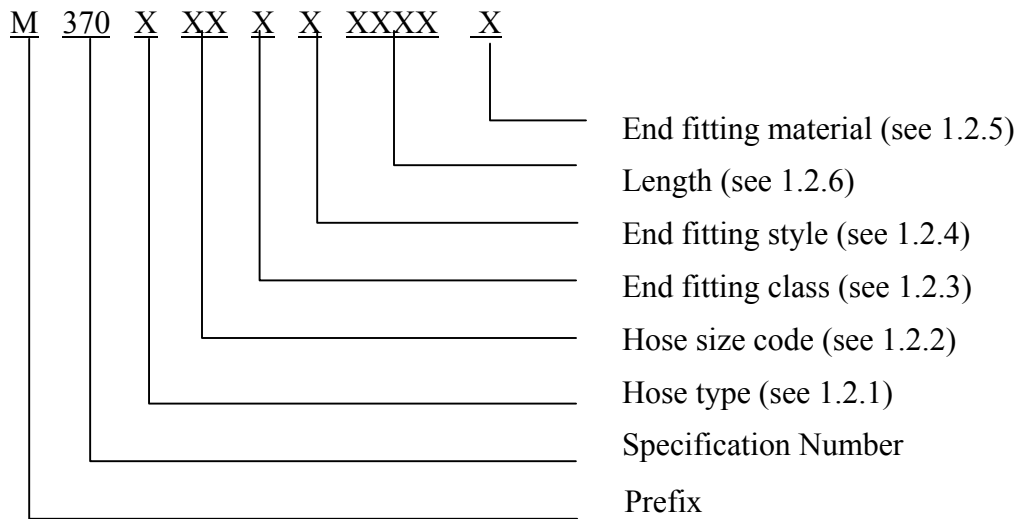
6.5.4 Tube. The inner layer of material in a hose, or hose in an assembly, that is in contact with the product being carried by the hose.

6.5.5 Reinforcement. Synthetic or natural material in fiber, cord, or mat used to provide additional tensile strength.

6.5.6 Cover. The outer layer of material on a hose, or hose in an assembly, that is in contact with the atmosphere.

6.6 Part or identifying number. This part or identifying number (PIN) of hose and hose assemblies covered by this specification is created in the following form (see 6.2).

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Example: M370B101A5000C (A reinforced, non-collapsing hose conforming to this specification, 6-in. in diameter, style of male one end female other end, cam-locking class fittings, a length of 500 ft, and fittings made of aluminum).

6.7 NATO fuel designations. The NATO fuel designations F-34, F-35, F-44 and F-54 are defined in STANAG 1135 (see 3.4.2).

6.8 MOPP IV gear. MOPP IV protection consists of a two-piece protective overgarment, protective mask with hood, overboots and rubber gloves with cotton liners. The overgarment is closed, and hood is pulled down and adjusted (Field manual FM-3-100) (see 3.5.2).

6.9 Subject term (key word) listing.

- Cam-locking
- Collapsing
- Hoseline
- Low temperature
- Static bond
- Torsional rotation
- Transfer

6.10 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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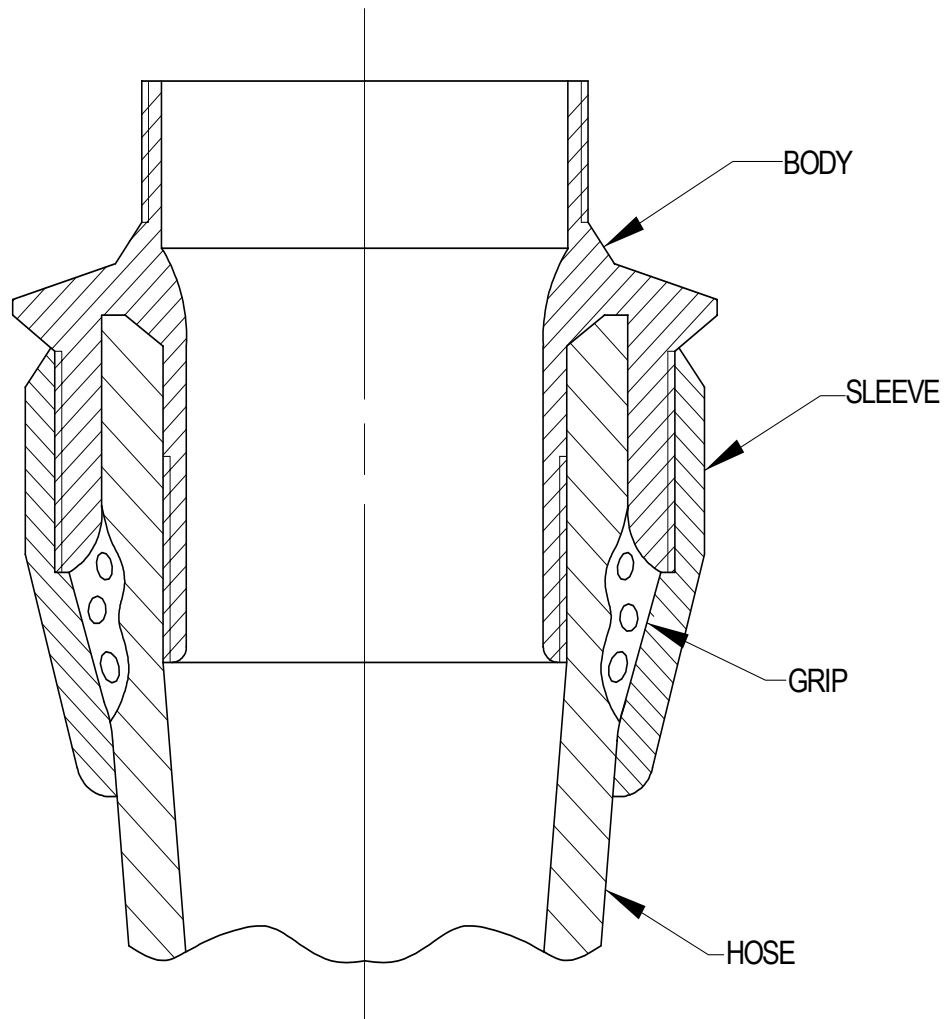


FIGURE 1. Compression type reattachable coupling - For guidance only.

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Custodians:

Army - AT

Navy - SH

Air Force - 99

Review activities:

Air Force - 71

DLA - CC

Preparing activity:

Army - AT

(Project 4720 -0276)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7, and send to preparing activity.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-PRF-370J

2. DOCUMENT DATE (YYYYMMDD)

20020507

3. DOCUMENT TITLE

HOSE AND HOSE ASSEMBLIES, NONMETALLIC: ELASTOMERIC, LIQUID FUEL

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

(1) Commercial

(2) DSN

(If applicable)

7. DATE SUBMITTED

(YYYYMMDD)

8. PREPARING ACTIVITY

a. NAME

Rebecca Li

b. TELEPHONE (Include Area Code)

(1) Commercial

(586) 574-4152

(2) DSN

786-4152

c. ADDRESS (Include Zip Code)

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