MIL-C-4109F
31 OCTOBER 1986
SUPERSEDING
MIL-C-4109E
28 October 1976

MILITARY SPECIFICATION

COUPLING HALVES, LOW PRESSURE, AIR HOSE, QUICK-DISCONNECT

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers quick-disconnect coupling halves designed to operate at pressure up to 150 psi, for use with all hose and portable pneumatic tools.

1.2 Classification.

- * 1.2.1 Part number. Specification part number for items described in this document will be formulated as shown in Section 6.3.
- 1.2.1.1 Type, class, style. The type, class and style of coupling half is identified by the two numeric digits which indicate its application characteristics (see Table I).

| TABLE | I. | Type. | class. | style | code | number. |
|--------------|----|-------|--------|-------|------|---------|
| T (PT) 4000 | | -, -, | , | | | |

| | Туре | : I | Тур | 2 II |
|-------|---------|---------|---------|---------|
| Style | Class A | Class C | Class A | Class C |
| 1 | 01 | 05 | 09 | 13 |
| 2 | 02 | 06 | 10 | 14 |
| 3 | 03 | 07 | 11 | 15 |
| 4 | 04 | 08 | 12 | 16 |

Types

Type I Halves - Female quick-disconnect half

Type II Halves - Male quick-disconnect half

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to:
San Antonio Air Logistics Center, Engineering Division, ATTN: MMEDO, Kelly AFB, TX 78241 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Classes

Class A - Low capacity

Class C - High capacity

Styles

- Style 1 Male thread end

 Class A sizes 1/8, 1/4, 3/8 inch NPT.

 Class C sizes 1/8, 1/4, 3/8, 1/2, 3/4 inch NPT
- Style 2 Female threaded end

 Class A sizes 1/8, 1/4, 3/8 inch NPT

 Class C sizes 1/8, 1/4, 3/8, 1/2, 3/4 inch NPT
- Style 3 Standard hose end Class A sizes - for .1875, .25, .3125, .375 inch I.D. hose Class C sizes - for .1875, .25, .3125, .375 inch, .5, .625, .75 inch I.D. hose.
- Style 4 Reusable hose end with hose locking sleeve Class A sizes - for .1875, .25, .3125, .375 inch I.D. hose Class C sizes - for .1875, .25, .3125, .375, .5, .625, .75 inch I.D. hose
- 1.2.1.2 <u>Size</u>. The size of the coupling half is identified by the two numeric digits which indicate nominal pipe size for Styles 1 and 2 or the hose I.D. for Styles 3 and 4 (see Table II).
- 1.2.1.3 <u>Hose O.D.</u> For Style 4 coupling halves the hose O.D. must be identified by two numeric digits (see Table II). All styles other than Style 4 use \$\varphi\$.
- 1.2.1.4 Material. The material of the coupling half is identified by a single alphabetic character. (See Table III and 3.1).

TABLE II. Size and hose O.D. code number.

| Size | | Code | Size | | Code |
|-------|----------|------|---------|-----------|------|
| 1/32 | (.03125) | 01 | 25/32 | (.78125) | 25 |
| 1/16 | (.0625) | 02 | 13/16 | (.8125) | 26 |
| 3/32 | (.09375) | 03 | 27/32 | (.84375) | 27 |
| 1/8 | (.125) | 04 | 7/8 | (.875) | 28 |
| 5/32 | (.15625) | 05 | 29/32 | (.90625) | 29 |
| 3/16 | (.1875) | 06 | 15/16 | (.9375) | 30 |
| 7/32 | (.21875) | 07 | 31/32 | (.96875) | 31 |
| 1/4 | (.25) | 08 | 1 | | 32 |
| 9/32 | (.28125) | 09 | 1-1/32 | (1.03125) | 33 |
| 5/16 | (.3125) | 10 | 1-1/16 | (1.0625) | 34 |
| 11/32 | (.34375) | 11 | 1-3/32 | (1.09375) | 35 |
| 3/8 | (.375) | 12 | 1-1/8 | (1.125) | 36 |
| 13/32 | (.34375) | 13 | 1-5/32 | (1.15625) | 37 |
| 7/16 | (.4375) | 14 | 1-3/16 | (1.1875) | 38 |
| 15/32 | (.46875) | 15 | 1-7/32 | (1.21875) | 39 |
| 1/2 | (.5) | 16 | 1-1/4 | (1.25) | 40 |
| 17/32 | (.53125) | 17 | 1-9/32 | (1.28125) | 41 |
| 9/16 | (.5625) | 18 | 1-5/16 | (1.3125) | 42 |
| 19/32 | (.59375) | 19 | 1-11/32 | (1.34375) | 43 |
| 5/8 | (.625) | 20 | 1-3/8 | (1.375) | 44 |
| 21/32 | (.65625) | 21 | 1-13/32 | (1.34375) | 45 |
| 11/16 | (.6875) | 22 | 1-7/16 | (1.4375) | 46 |
| 23/32 | (.71875) | 23 | 1-15/32 | (1.46875) | 47 |
| 3/4 | (.75) | 24 | 1-1/2 | (1,5) | 48 |

TABLE III. Material code letter.

| Material | Code |
|----------|------|
| Brass | B |
| Steel | C |

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

SPECIFICATION

FEDERAL

| QQ-B-626 | Brass, Leaded and Non-Leaded Rod, Shapes, Forgings, and Flat Product TH Finished Edges (Bar and Strip). |
|-----------|--|
| 00-C-320 | Chromium Plating (Electrodeposited). |
| QQ-N-290 | Nickel Plating (Electrodeposited). |
| QQ-S-763 | Steel Bars, Wire, Shapes and Forging, Corrosion Resisting. |
| QQ-W-423 | Wire, Steel, Corrosion Resisting. |
| MILITARY | |
| MIL-P-775 | Packaging of Hose, Hose Assemblies, Rubber Plastic, Fabric, or Metal (including tubing), and Fittings Nozzles. and Strainers). |

STANDARDS

FEDERAL

FED-STD-H28

| MILITARY | |
|-------------|--|
| MIL-STD-105 | Sampling Procedures and Tables for Inspection by Attributes. |
| MIL-STD-129 | Marking for Shipment and Storage. |
| MIL-STD-130 | Identification Marking of U.S. Military Property. |
| MIL-STD-147 | Palletized Unit Loads. |
| MIL-STD-794 | Parts and Equipment, Procedures for Packaging and |
| | Packing of. |
| MS28775 | Packing, Preformed, Hydraulic, Plus 275 Deg F (O, Ring). |

Screw Thread, Standard for Federal Services.

(Copies of specifications and standards required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS shall be the issue of the non-government documents which is current on the date of the solicitation.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| *ASTM A-108 | Steel Bar, Carbon, Cold Finished, Standard Quality. |
|--------------|---|
| *ASTM A-575 | Steel Bar, Carbon, Merchant Quality, M-grade. |
| *ASTM A-576 | Steel Bar, Carbon, Hot Wrought, Special Quality. |
| *ASTM B-633 | Zinc on Iron and Steel, Electrodeposited Coatings of. |
| *ASTM D-3951 | Packaging, Commercial. |

(Application for copies of ASTM publications should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

- 3.1 Material. Material shall be as specified herein (see 3.3.2 and 3.3.3).
- * 3.1.1 Metal surface. Wherever steel other than stainless is used in the construction, all surfaces shall be plated with nickel, zinc (type II, SC 3), or chromium in accordance with QQ-N-290, ASTM B-633, or QQ-C-320, respectively.
- 3.2 Design. Engagement of the type I and type II halves shall be accomplished by manually pushing the type II half into the type I socket until secure. Such engagement shall be done without tools and without manually rotating or manually retracting the type I actuating sleeve. It shall not be necessary to rotate the coupling halves with respect to each other in order to engage or disengage them. When engaged, the coupling halves shall be free to rotate with respect to each other under rated working air pressure.
- 3.2.1 Type I half design. Type I halves shall be designed to properly engage type II halves of the same class and size (see 1.2).
 - 3.2.1.1 Style 1. Style 1, type I halves shall be similar to figure 1.
 - 3.2.1.2 Style 2. Style 2, type I halves shall be similar to figure 2.
- 3.2.1.3 Style 3, type I halves shall be similar to figure 3. The hose end shall conform to the manufacturer's standard commercial practice and shall be suitable for the ID hose specified (see 6.2 and 6.3).
- 3.2.1.4 Style 4. Style 4, type I halves with hose locking sleeves shall be similar to figure 4. The hose end shall be suitable for the ID hose specified (see 6.2 and 6.3). The locking sleeve shall be suitable for the OD hose specified (see 6.2 and 6.3).

3.2.2 Type II half design.

- 3.2.2.1 Style 1. Style 1, type II halves shall be similar to Figure 5 and shall conform to Table IV.
- 3.2.2.2 Style 2. Style 2, type II halves shall be similar to Figure 6 and shall conform to Table IV.

| C1 | ass | | | | Dimensi | ons (in | ches) | | | | Deg |
|----|------|------|------|------|---------|---------|-------|-------|------|------|-----|
| | A | В | С | D | E | F | G | Н | J | R | х |
| Α | .427 | .317 | .307 | .462 | .211 | . 369 | .109 | .937 | .191 | .015 | 45 |
| С | .655 | .560 | .560 | .655 | .375 | .577 | .109 | 1.375 | .375 | .015 | 45 |

TABLE IV. Dimensional Requirements - Type II Halves.

Tolerance A, B, C, D, J \pm .002; E, F, G, H, R, \pm .005; X, \pm 1°

- 3.2.2.3 Style 3. Style 3, type II halves shall be similar to Figure 7, and shall conform to Table IV. The hose end shall conform to the manufacturer's standard commercial practice and shall be suitable for the ID hose specified (see 6.2 and 6.3).
- 3.2.2.4 Style 4. Style 4, type II halves with hose locking sleeves shall be similar to Figure 8. The hose end shall be suitable for the ID hose specified (see 6.2 and 6.3). The locking sleeve shall be suitable for the OD hose specified (see 6.2 and 6.3).

3.3 Construction.

- 3.3.1 Type I half construction. Type I halves shall consist essentially of a body (including end fittings), actuating sleeve, shut-off valve, and locking mechanism.
- * 3.3.2 Type I half material. Coupling springs shall be made of corrosion-resistant steel conforming to QQ-W-423. "O" rings, if used, shall conform to MS28775. Coupling valves and locking mechanism components shall be made of corrosion-resistant steel conforming to QQ-S-763, heat treated as necessary to provide suitable hardness and wear characteristics in accordance with good commercial practice. Material code B halves shall have actuating sleeves and bodies (including end fittings) made of brass conforming to QQ-B-626. Material code C halves shall have actuating sleeves and bodies (including end fittings) made of steel conforming to ASTM A-575, ASTM A-576 or ASTM A-108. An exception is that the Style 4 hose locking sleeves may be made of brass conforming to QQ-B-626.

- * 3.3.3 Type II half material. Material code B halves (including end fittings) shall be made of brass conforming to QQ-B-626. Material code C halves shall be made of steel conforming to ASTM A-575, ASTM A-576 or ASTM A-108. An exception is that the style 4 hose locking sleeve may be made of brass conforming to QQ-B-626.
- 3.3.4 Actuating sleeve. The coupling actuating sleeve shall be provided with a knurled, ribbed, or beaded surface to facilitate manual retraction of the sleeve during disconnect. The sleeve shall be beveled or have a radius at the front end to forestall accidental retraction.
- 3.3.5 Shut-off valve. The internal automatic shut-off valve shall be actuated by a spring or other suitable means of sufficient strength to automatically shut off all air flow upon disengagement from the connector. Where "O" rings are used for sealing purposes, they shall be constructed to conform to MS28775.
- 3.3.6 Locking mechanism. The locking mechanism shall be of sufficient strength to prevent accidental release because of vibration or impact.
- 3.3.7 Threads. Tapered pipe threads shall be Type NPT American Standard Pipe Threads conforming to Part II, Section VII of FED-STD-H28.
 - 3.4 Performance. Type I halves must conform to Table V.

| TABLE V. Performance. | | | | |
|-----------------------|--|---|--|--|
| | At 100 psi and 70°F. (21°C) ambient temperature | | | |
| Class | Minimum flow (CFM) | Maximum pressure drop at specified minimum flow (PSI) | | |
| A | 10 | 2-1/2 | | |
| С | 35 | 2-1/2 | | |

3.4.1 <u>Leakage</u>. Type I halves shall not leak while engaged with or while disengaged from type II halves of the same class when tested as specified in 4.4.1.

3.4.2 Structural rigidity.

3.4.2.1 Type I halves. While engaged with a type II half of the same class, the type I half shall withstand without permanent deformation or failure, a crush load of 500 pounds applied uniformly to an area of the actuating sleeve surface not exceeding one square inch. The type I half shall be capable of functioning in accordance with 3.2 after removal of the load. The type I half shall not leak after removal of load when tested as specified in 4.4.1.

- 3.4.2.2 Type I half locking mechanism. The type I half locking mechanism contained in the type I half shall withstand a tensile load of 500 pounds applied directly to an engaged type II half of the same class without releasing the type II half, or without deformation or failure of the type I half. The coupling shall not leak after removal of load when tested as specified in 4.4.1.
- 3.5 Marking. Types I and II halves shall be marked for identification in accordance with the applicable requirements of MIL-STD-130.
- 3.6 Workmanship. Workmanship shall be in accordance with high grade commercial practice covering this class of equipment.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Quality conformance inspection.

- 4.2.1 Lot. All type I and II halves of the same type, class, style and materials offered for delivery at one time shall be considered a lot for purposes of inspection.
- 4.2.2 <u>Sampling for examination</u>. A random sample of type I and type II halves shall be selected from each lot offered to the Government in accordance with MIL-STD-105 at inspection level II. The acceptable level shall be 1.5 percent defective.
- 4.2.3 <u>Sampling for test</u>. A random sample of type I and type II halves shall be selected from each lot offered to the Government in accordance with MIL-STD-105 at inspection level S-1.
- 4.2.4 <u>Material and metal surface</u>. Unless otherwise specified, certification showing conformance to the material and metal surface requirements of this specification shall be available to the Government Inspector for each lot.
- 4.3 Examination. Each of the samples selected in accordance with 4.2.2 shall be examined to verify compliance with this specification. The acceptance or rejection of halves containing defects classified in Table VI shall be in accordance with Standard MIL-STD-105, Acceptable Quality Level (AQL) of 1.5 percent defective.

- 4.4 Test procedure. Type I halves selected in accordance with 4.2.3 shall be assembled with mating type II halves of the same class and subjected to the following tests: Leak test (4.4.1), transverse load test (4.4.2) and locking mechanism test (4.4.3). Failure of any samples to pass any of these tests shall be cause for rejecting the lot. A mating coupling half of the same size, alternate to the type being procured will be furnished by the Government when requested by the contractor for conducting tests specified herein.
- 4.4.1 Leak test. While engaged with a type II half from the same class, each of the type I halves selected in accordance with 4.2.3 shall be connected to an air source of 300 psi and immersed in water for a minimum of 5 minutes to determine compliance with 3.4.1. This test shall be repeated with the mating type II half disengaged for a period of 10 minutes. Any leakage of air from the type I half under either condition shall be cause for rejection.

TABLE VI. Classification of defects in accordance with MIL-STD-105.

| Categories | Defects |
|------------|--|
| Critical: | None defined. |
| Major: | |
| 101 | Not finished as required. |
| 102 | Dimensions do not conform to illustrations. |
| 103 | Sharp burrs, sliver, or splinter affecting serviceability. |
| 104 | Marking identification incomplete, illegible or missing; hose or pipe connecting size not as specified in contract or order. |
| 105 | Pipe threads do not conform to the requirement of 3.3.7. |
| 106 | Visual inspection revealing material or metal surface not as specified in 3.3.2 or 3.3.3 as applicable. |
| 107 | Type I and Type II halves do not engage by manual pushing only. |
| 108 | Coupling and connector is not free to rotate as specified in 3.2. |
| 109 | Type I and II halves do not separate without the use of hand tools. |
| Minor: | None defined. |

4.4.2 Transverse load test. Type I halves assembled with type II halves shall be subjected to a transverse crushing load of 500 pounds applied at the exterior surface of coupling actuator sleeve over an area of one square inch maximum for a period of 10 seconds minimum. Permanent deformation or failure of coupling to function properly in accordance with 3.2, after removal of load, shall be cause for rejection. Couplings and type I halves shall be tested for leakage in accordance with 4.4.1 after completion of locking mechanism test.

- 4.4.3 Locking mechanism test. A tensile load of 500 pounds shall be applied for not less than 10 minutes to a type II half of the same class engaged to each sample type I half. Release of the type II half under load, or failure of coupling to function properly in accordance with 3.2 after removal of load, shall be cause for rejection. The coupling and type I halves shall then be tested in accordance with 4.4.1 for leakage caused by deformation.
- 4.5 <u>Inspection of packaging</u>. An examination shall be made to determine that preservation, packaging, packing, and marking, as required by Section 5 of this specification, are complied with. Sampling shall be accomplished in accordance with MIL-STD-105 at inspection level S-4 with an acceptable quality level of 4.0 percent defective. Defects will be as specified in Table VII.

| TABLE | VII. | Defects. |
|-------|----------------|----------|
| TUDDE | 7 L L . | DCICCES. |

| Examination | Defect |
|-------------------------------|---|
| Marking exterior and interior | Omitted; incorrect, illegible; or improper size, location, sequence or method of application. |
| Preservation | Preservation improperly applied or missing, or incorrect type. |
| Material | Component missing, damaged, type defective, or not as specified. |
| · - | Inadequate application of components such as incomplete closure of case liner, container flaps, loose strapping, inadequate stapling, bulging or distortion of containers, blocking and cushioning inadequate, improper or missing. |
| Content | Contents per container is more or less than required. |

* 5. PACKAGING

- 5.1 Preservation. Preservation shall be level A, C, or Commercial as specified (see 6.2).
- 5.1.1 <u>Level A</u>. The coupling halves shall be preserved in accordance with MIL-P-775.
- 5.1.2 <u>Level C.</u> The level C preservation for the coupling halves shall conform to the MIL-STD-794 requirements for this level.
- 5.1.3 <u>Commercial</u>. The commercial preservation of the coupling halves shall be in accordance with the requirements of ASTM-D-3951.
- 5.2 <u>Packing</u>. Packing shall be Level A, B, C or commercial, as specified (see 6.2).
- 5.2.1 Levels A and B. The preserved coupling halves shall be packed for shipment in accordance with MIL-P-775 except fiberboard boxes shall not be used for Level A packing.

- 5.2.2 Level C. The Level C packing for the coupling halves shall conform to the MIL-STD-794 requirements this level.
- 5.2.3 <u>Commercial</u>. The preserved coupling halves shall be packed in accordance with the requirements of ASTM-D-3951.
- 5.2.4 <u>Palletization</u>. When specified (see 6.2) unitized loads, commensurate with the level of packing specified in the contract or order, shall be palletized in accordance with MIL-STD-147. Palletized loads shall be uniform in size and quantities to the greatest extent possible. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.3 Marking.

- 5.3.1 Levels A, B, and C. In addition to any special or other identification marking required by the contract (see 6.2), each unit pack, intermediate and exterior container and unitized load shall be marked in accordance with MIL-STD-129.
- 5.3.2 Commercial. Commercial markings shall be in accordance with the requirements of ASTM-D-3951.

5.4 General.

- 5.4.1 Exterior containers. Exterior containers (see 5.2.1, 5.2.2, 5.2.3 and 5.2.4) shall be of minimum tare and cube consistent with the protection required and shall contain equal quantities of identical stock numbered items to the greatest extent practicable.
- 5.4.2 <u>Packaging inspection</u>. The inspection of these packaging requirements shall be in accordance with 4.5.

6. NOTES

6.1 Intended use. Coupling halves covered by this specification are intended to be used in all areas where a low pressure (up to 150 psig), quick-disconnect connection for air hose and portable pneumatic tools is needed. Water use and other service are not intended. Brass coupling halves are intended where corrosion or sparking are of prime consideration. Otherwise, steel is intended for durability. Engagement without sleeve actuation is intended to facilitate connection under difficult or awkward work conditions.

* 6.2 Ordering data.

- 6.2.1 <u>Acquisition requirements</u>. Acquisition documents should specify the following:
 - a. Title, number, and date of this specification.
- b. Definitive military specification part number required (see 1.2 and 6.3).

- c. Selection of applicable levels of preservation, packaging, packing, marking and commercial/industrial (see 5.1, 5.2 and 5.3).
- d. When palletized loads are required (see 5.2.5).
- 6.3 Definitive military specification part number. The military specification part number is a definitive part number which corresponds to the type, class, style, and size of coupling halves covered by this specification and defines the requirements of the options presented under this specification. The military specification number, type, class, style code number, size code number, hose 0.D. code number, and material code letter are combined to form the definitive military specification part number as shown below:

| $M4109 - \frac{xx}{T} - \frac{xx}{T} - \frac{xx}{T} - \frac{x}{T}$ | | | |
|--|--|--|--|
| Type, class, style code number (see Table I and 1.2.1.1) Size and a surban (see Table II and 1.2.1.2) | | | |
| Size code number (see Table II and 1.2.1.2) | | | |
| Hose O.D. code number for style 4 halves (see Table II and 1.2.1.3 - all styles other than style 4 use 00) | | | |
| Material code letter (see Table III and 1.2.1.4) | | | |

- * Example P/N: M4109-09-20-00C Style I, type II, class A, 5/8 O.D.; carbon steel half.
- * 6.4 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. 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 and relationship to the last previous issue.
- * 6.5 Subject term (key word) listing.

Quick-Disconnect Coupling Halves Low Pressure Air Hose Actuating Sleeve Shut-off Valve

Custodians:

Army - ME

Navy - AS

Air Force - 99

Preparing activity:
Air Force - 82

Reviewing activity:

DLA - CS

Using activity:

Army - AR, GL

(Project 4730-0773)

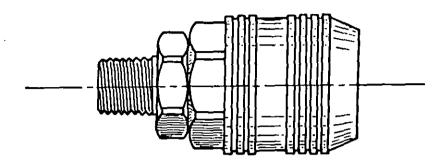


FIGURE 1. Style 1, type I half.

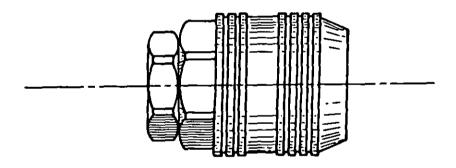


FIGURE 2. Style 2, type I half.

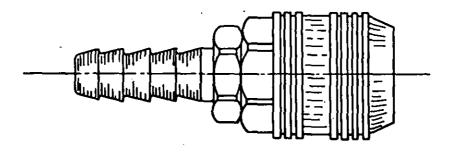


FIGURE 3. Style 3, type I half.

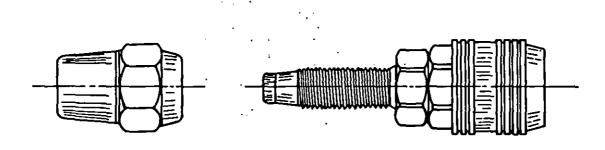


FIGURE 4. Style 4, type I half with hose locking sleeves.

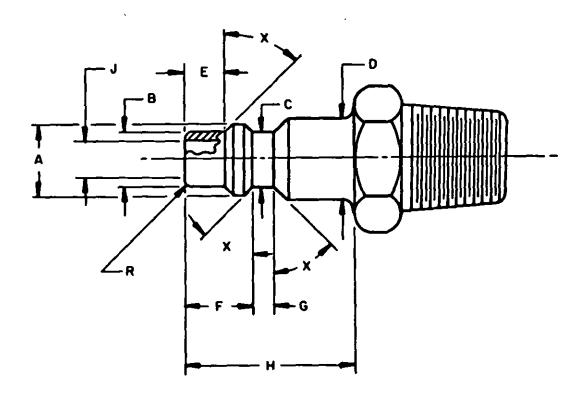


FIGURE 5. Style 1, type II half.

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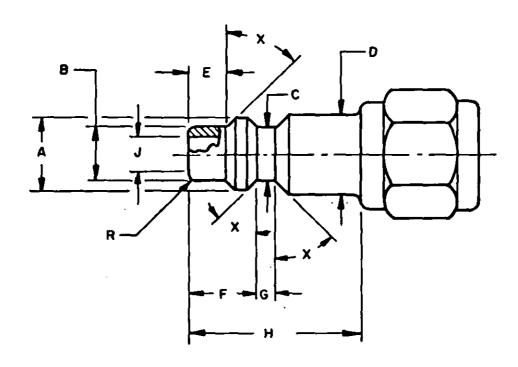


FIGURE 6. Style 2, type II half.

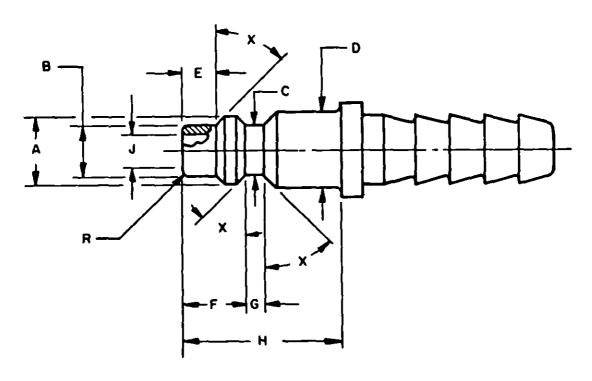
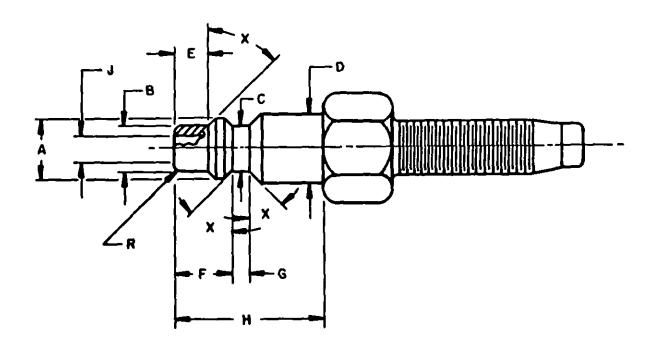


FIGURE 7. Style 3, type II half.



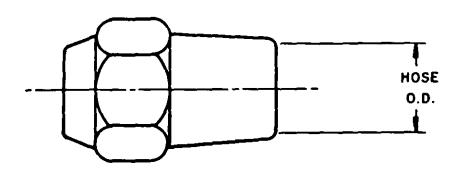


FIGURE 8. Style 4, type II halves with hose locking sleeves.

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San Antonio ALC/MMEDO Kelly AFB, TX 78241 NO POSTAGE
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| STAI | NDARDIZATION DOCUMENT IMPR (See Instructions – Revers | ROVEMENT PROPOSAL se Side) |
|---|--|--|
| 1. DOCUMENT NUMBER | To positive title | |
| MIL-C-4109F | Coupling Halves Low Press | ure Air Hose, Quick Disconnect |
| 3a. NAME OF SUBMITTING ORGANIZATION | | 4. TYPE OF ORGANIZATION (Mark one) VENDOR |
| | | USER |
| b. ADDRESS (Street, City, State, Z | IP Code) | MANUFACTURER |
| | | OTHER (Specify): |
| 5. PROBLEM AREAS a Paragraph Number and Wordin | ng: | |
| g Paragraph Number and Words | | |
| b. Recommended Wording: | | |
| c. Reason/Rationale for Recom | mendstion: | |
| 6. REMARKS | | |
| 7a. NAME OF SUBMITTER (Last | , First, MI) — Optional | b. WORK TELEPHONE NUMBER (Include Area Code) — Optional |
| c. MAILING ADDRESS (Street, C | City, State, ZIP Code) — Optional | B. DATE OF SUBMISSION (YYMMDD) |
| | | |

DD FORM 1426