

INCH-POUND
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SUPERSEDING
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MILITARY SPECIFICATION
FITTINGS, LUBRICATION,
GENERAL SPECIFICATION FOR

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

1. SCOPE

1.1 Scope. This specification covers threaded lubrication fittings to be used for admitting and retaining lubricants supplied by pressure lubricating equipment.

1.2 Classification. Lubrication fittings shall be of the types designated by the type and applicable MS standards listing in Table I.

TABLE I. Type of fittings.

Fitting	Type		Thread and Material
MS15001	I - Surface check	<u>Straights</u> <u>Elbows</u>	1/4-28 Taper threads, carbon steel
MS15002	II - Surface check	<u>Straights</u> <u>Elbows</u>	Straight threads, carbon steel
MS15003	III - Surface check	<u>Straights</u> <u>Elbows</u>	1/8 pipe threads carbon steel
MS15004	IV - Surface check	<u>Straights</u> <u>Elbows</u>	1/4-28 taper threads, NI-Cu-Al alloy 1/4-28 taper threads, Ni-Cu alloy
MS15005	V - Throat or Surface check	<u>Straights</u> <u>Elbows</u>	1/8 pipe threads, Ni-Cu-Al alloy 1/8 pipe threads, Ni-Cu alloy
MS15006	VI - Leakproof	<u>Straights</u> <u>Elbows</u>	1/8 pipe threads, carbon steel
MS15720	VII - Throat or Surface check	<u>Straights</u> <u>Elbows</u>	1/4-28 taper threads, corrosion- resisting steel
MS15721	VIII - Throat or Surface check	<u>Straights</u> <u>Elbows</u>	1/8 pipe threads, corrosion-resisting steel

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Air Engineering Center, Systems Engineering and Standardization Department (Code 53), Lakehurst, NJ 08733-5100, by using self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

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FSC 4730

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2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1. Specifications, standards, and handbooks. The following specifications, standards, and handbooks 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.

SPECIFICATIONS

FEDERAL

QQ-N-281	-	Nickel-Copper-Alloy (Monel and R-Monel) Bars, Plates, Rods, Sheets, Strips, Wire, Forging, and Structural and Special Shaped Sections
QQ-P-416	-	Plating, Cadmium (Electrodeposited)
QQ-S-763	-	Steel Bars, Shapes, and Forgings - Corrosion Resisting
QQ-W-390	-	Wire, Nickel-Chromium-Iron Alloy
VV-G-632	-	Grease, Lubricating, Automotive and Industrial
PPP-B-566	-	Boxes, Folding, Paperboard
PPP-B-636	-	Box, Fiberboard
PPP-B-640	-	Boxes, Fiberboard, Corrugated, Triple Wall
PPP-B-665	-	Boxes, Paperboard, Metal Stayed (Including Stay Material)
PPP-B-676	-	Boxes, Set-Up, Paperboard
PPP-T-60	-	Tape, Pressure Sensitive Adhesive, Waterproof for Packaging and Sealing

MILITARY

MIL-P-116	-	Preservation, Methods of
MIL-G-10924	-	Grease, Automotive and Artillery
MIL-G-23827	-	Grease, Aircraft and Instrument, Gear and Actuator Screw

STANDARDS

FEDERAL

FED-STD-151	-	Metals, Test Methods
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MILITARY

MIL-STD-105	-	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	-	Marking for Shipment and Storage
MIL-STD-970	-	Standards And Specifications, Order of Preference For the Selection Of

(See supplement 1 for list of MS sheet form standards.)

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(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (Attn: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

2.1.2 Other Government documents, drawings, and publications. The following ~~other Government documents~~, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

NATIONAL BUREAU OF STANDARDS

Handbook H28 - Thread Standards for Federal Services

2.2 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 FOR TESTING AND MATERIALS (ASTM)

ASTM-A108	-	Steel Bars, Carbon, Cold Finished, Standard Quality, Specification for
ASTM-A313	-	Chromium-Nickel Stainless and Heat Resisting Steel Spring Wire, Specification for
ASTM-A582	-	Free-Machining Stainless and Heat-Resisting Steel Bars, Hot-Rolled or Cold-Finished
ASTM-B633	-	Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
ASTM-E18	-	Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials Test Methods For

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASME -B46.1 - Surface Texture (Surface Roughness, Waviness, and Lay)

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, New York 10018.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

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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 Selection Of Specifications And Standards. Specifications and standards for necessary commodities and services which are not specified herein shall be selected in accordance with MIL-STD-970.

3.2 MS sheets. The individual item requirements shall be as specified herein and in accordance with the applicable MS sheets. In the event of any conflict between the requirements of this specification and the MS sheet, the latter shall govern.

3.3 Materials. Materials shall conform to applicable specifications and shall be as specified herein.

3.3.1 Types I, II, III and VI fittings.

3.3.1.1 Balls, bodies and tips. Balls, bodies and tips shall be carbon steel conforming to any of the chemical compositions of ASTM-A108, Table I.

3.3.2 Types IV and V fittings.

3.3.2.1 Balls, straight bodies and tips. Balls, straight bodies and tips shall be nickel-copper conforming to QQ-N-281.

3.3.2.2 Springs. Springs shall be nickel-chromium-iron alloy conforming to QQ-W-390, condition C.

3.3.2.3 Elbow bodies. Elbow bodies shall be nickel-copper alloy conforming to QQ-N-281, class B.

3.3.3 Types VII and VIII fittings.

3.3.3.1 Balls. Balls shall be corrosion-resisting steel conforming to QQ-S-763, Table II, classes 440A, 440B or 440C.

3.3.3.2 Springs. Springs shall be corrosion-resisting steel conforming to ASTM-A313, class 302, condition B.

3.3.3.3 Elbow bodies, straight bodies and tips. Elbow bodies, straight bodies and tips shall be corrosion-resisting steel conforming to ASTM-A582 Type 303.

3.4 Design and construction. All the design and construction requirements specified herein shall, when subjected to examination, be according to the examination requirements under 4.7.1.

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3.4.1 Envelope. The external configuration, dimensions, and other details of the design shall conform to the requirements of this specification and the applicable MS listed in Table I.

3.4.2 Inlet tip. The contour of the inlet tip shall conform to any of the shapes and dimensions shown on MS15000. The tip shall be integral with the body of the fitting, or securely attached thereto.

3.4.3 Threads. Threads shall be as shown on the applicable drawings and shall conform to Handbook H28.

3.4.4 Wrenching flats. All fittings shall have hexagonal wrenching flats of sufficient width to provide tip clearance for an end wrench of 1/4-inch thickness on each of the six surfaces when the fitting is screwed tightly into a tapped hole on a flat plate. No special tools shall be required for installation or removal of the fittings.

3.4.5 Check valves. All fittings shall be provided with a check valve which shall readily admit lubricant but shall prevent lubricant escape through the inlet tip.

3.4.5.1 Types I, II, III and IV fittings. Types I, II, III and IV fittings shall incorporate a surface ball-check valve located at the surface of the inlet tip.

3.4.5.2 Types V, VII and VIII fittings. Types V, VII and VIII fittings shall incorporate either a surface ball-check valve (see 3.3.5.1), or a throat ball-check valve located in the throat of the fitting.

3.4.5.3 Type VI fittings. Type VI fittings shall incorporate a synthetic-rubber check valve in the throat of the fitting.

3.5 Performance. The fitting, when mounted in any position, shall meet the performance requirements specified under 4.7 when subjected to the following tests.

- a. Operation (4.7.2).
- b. Hardness (4.7.3).
- c. Leakage (4.7.4).
- d. Blowout (4.7.5).
- e. Accelerated aging (4.7.6).

3.6 Finish.

3.6.1 Types I, II, III and VI fittings. All carbon steel fittings shall be cadmium plated in accordance with QQ-P-416, type I, class 3, or zinc coated in accordance with ASTM-B633, type I, class 1, except that the salt spray test period for red rust corrosion shall be a minimum of 50 hours. Plating or coating shall be as specified in the contract or order (see 6.2).

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3.6.2 Types IV, V, VII and VIII fittings. Types IV, V, VII and VIII fittings shall be bright dipped for cleaning only.

3.7 Marking. The fittings shall be marked for identification in accordance with the applicable MS listed in Table I.

3.8 Workmanship. Remove all burrs and break all sharp edges. Sealing surfaces shall be free of detrimental longitudinal and spiral tool marks. Unless a finer finish is specified on applicable drawings, sealing surfaces shall be smooth to a finish of 32 microinches R_a and all other machined surfaces shall be smooth to 125 microinches R_a maximum per ANSI B46.1. Unmachined surfaces, such as forging surfaces and bar stock flats shall be free of cracks, laps and seams.

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 inspection set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.2 Classification of inspection. All of the inspections of fittings shall be classified as quality conformance inspection.

4.3 Inspection conditions.

4.3.1 Ambient temperature and pressure. Unless otherwise specified, tests shall be conducted at an ambient temperature of $77 \pm 18^\circ\text{F}$ and at an ambient barometric pressure of 28 to 32 inches of mercury. All specified test pressures shall be gage pressures.

4.3.2 Inspection fluid. Type VI fittings shall be tested with grease conforming to MIL-G-23827 only; all other types shall be tested with grease conforming to any of the following: VV-G-632, type A, grade 1, MIL-G-23827, or MIL-G-10924.

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4.3.3 Equipment. Unless otherwise specified, the fitting shall be tested utilizing a hand-operated lubricating gun (hand gun), hydraulic coupling (coupling), and a suitable high pressure lubricant source (high pressure hose and lubricant supply system) for all tests.

4.4 Quality conformance inspection. Quality conformance inspection shall consist of sampling inspection only.

4.4.1 Sampling inspection. A random sample shall be selected from each inspection lot in accordance with MIL-STD-105 at the following inspection levels listed in Table II. The acceptable quality levels (AQLs) shall be in accordance with the contract specified by the contracting activity or procuring activity.

TABLE II. Quality conformance inspection.

Inspection	Requirement paragraph	Test paragraph	Inspection level
<u>Group A</u>			
Examination of Fitting	3.4	4.7.1	I
Examination of packaging	5.5.2	4.5	II
<u>Group B</u>			
Operation	3.5	4.7.2	S-2
Hardness	3.5	4.7.3	S-2
<u>Group C</u>			
Leakage	3.5	4.7.4	S-2
Blowout (all types except VI)	3.5	4.7.5	S-2
<u>Group D</u>			
Accelerated aging (type VI fittings only)	3.5	4.7.6	S-2

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4.4.2 Noncompliance. If a sample fails to pass group C or D inspection, the manufacturer shall notify the contracting activity or procuring activity and the cognizant inspection activity of such failure and take corrective action on the materials or processes, or both, as warranted, and on all units of product which can be corrected and which are manufactured with essentially the same materials and processes, and which are considered subject to the same failure. Acceptance and shipment of the product shall be discontinued until corrective action, acceptable to the contracting activity or procuring activity have been taken. After the corrective action has been taken, group C and D inspection shall be repeated on additional sample units (all tests and examinations, or the test which the original sample failed, at the option of the contracting or procuring activity). Groups A and B inspections may be reinstated; however, final acceptance and shipment shall be withheld until the group C or D inspection has shown that the corrective action was successful. In the event of failure after reinspection, the failure report shall be furnished to the cognizant inspection activity.

4.5 Inspection of packaging. Except when commercial packaging is specified, the sampling and inspection of the preservation and interior package marking shall be in accordance with groups A and B quality conformance inspection requirements of MIL-P-116. The sampling and inspection of the packing and marking for shipment and storage shall be in accordance with the quality assurance provisions of the applicable container specification referenced in section 5 and the marking requirements of MIL-STD-129. The inspection of commercial packaging shall be as specified in the contract (see 5.5.2 and 6.2).

4.6 Classification of defects. Defects found during examinations shall be classified in accordance with Table III.

4.7 Methods of inspection.

4.7.1 Examination. The fitting shall be thoroughly examined to determine conformance with this specification and applicable drawings with respect to all requirements not covered by tests specified herein.

4.7.2 Operation.

4.7.2.1 Extreme angular position. The fitting shall be assembled into a handgun and coupling. The longitudinal axis of the hand gun and coupling shall be displaced $10 +1$, -0 degrees from the longitudinal axis of the fitting (see MS15000). The fitting shall admit lubricant. This test shall be repeated with the hand gun and coupling realigned to the opposite angular position of $10 +1$, -0 degrees displacement.

4.7.2.2 Opening pressure. The fitting shall be tested utilizing a test set up similar to Figure 1. Pressure shall be applied to the inlet tip until the check valve opens (lubricant flows from the threaded end of the fitting). This pressure shall not exceed the applicable value given in Table IV.

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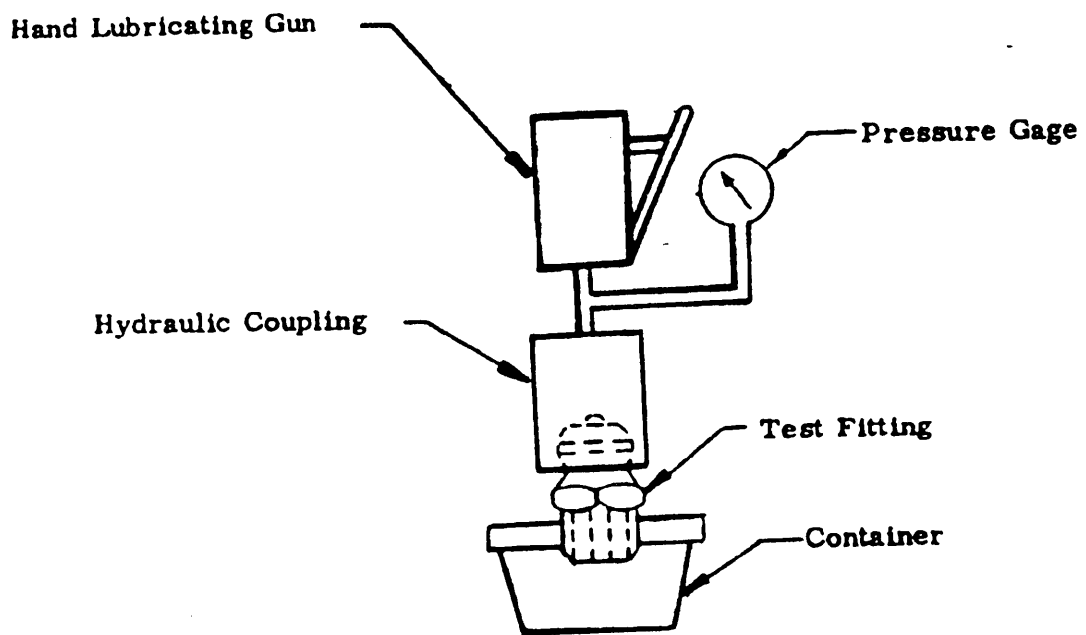


FIGURE 1. Extreme angular position and opening pressure test setup.

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4.7.3 Hardness. The fitting shall be tested for hardness in accordance with ASTM E18. The hardness shall conform to the applicable value specified in Table V.

4.7.4 Leakage.

4.7.4.1 Lubricant leakage. The fitting shall be tested utilizing a test setup similar to Figure 2. Lubricant shall be forced into the fitting until the applicable pressure specified in Table VII is reached. The coupling shall be disconnected from the fitting tip and rate of lubricant leakage from the tip shall be determined. Leakage from the fitting tip shall not exceed the applicable value given in Table VI.

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

<u>Major</u>	<u>Minor</u>
Defects which might result in failure or might significantly reduce the usability of the following items for their intended purpose:	Defects which would not significantly reduce the usability of the following items for their intended purpose:
<u>Fitting:</u> 101 Tip profile and dimensions 102 Missing check (where applicable) 103 Missing spring (where applicable) 104 Incomplete or missing bores or holes 105 Missing threads 106 Material	<u>Fitting:</u> 201 Thread length, size and form 202 Finish or plating (where applicable) 203 Hex, overall length, and angle (where applicable) 204 Identification
<u>Preservation and packaging:</u> 101 Number per package exceeds limit specified 102 Quantity of unit packages intermediate-packaged exceeds limit specified 103 Gross weight of intermediate container exceeds limit specified	
<u>Packing:</u> 101 Quantity per shipping container exceeds limit specified 102 Gross weight of shipping container exceeds limit specified 103 Shipping containers not water-proof sealed with tape as specified	

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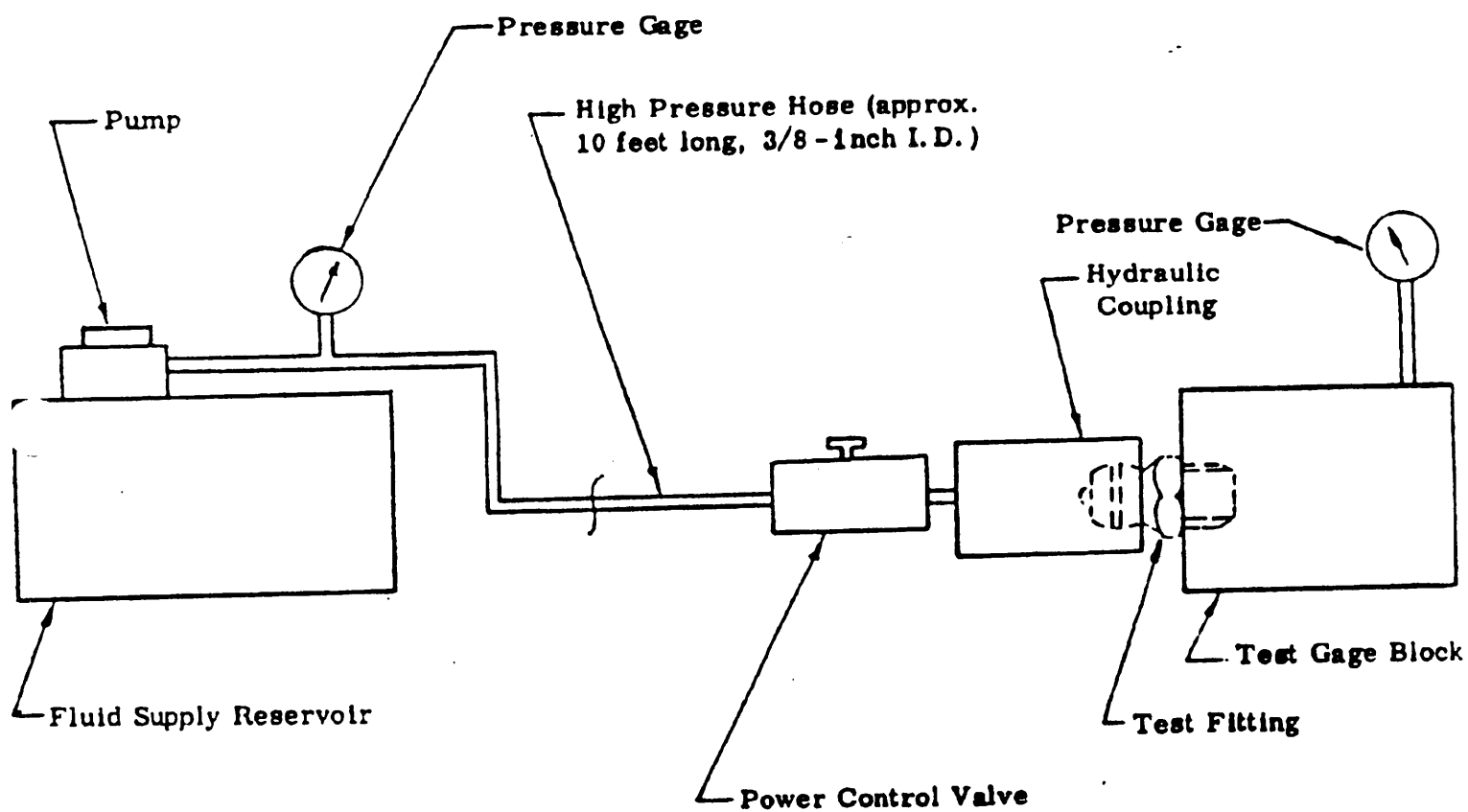


FIGURE 2. Leakage test setup.

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TABLE IV. Opening pressure.

Fitting Type	Maximum Opening Pressure-psi
I, II and III	450
IV, V, VI, VII and VIII	650

TABLE V. Hardness.

Fitting Type	Fitting Area	Hardness of Fitting Area
I, II and III	Tips (surface making contact with the nozzle or coupling of the lubricating gun) of all fittings	Case hardened to a depth of 0.005 to 0.009 inch with a minimum reading of 83 on 15-N scale of Rockwell superficial hardness test machine
IV and V	Tips of all fittings, and surface of all balls	Minimum Rockwell hardness No. 80 on the "B" scale (100 kilogram load) on end item
VI	Tips of all fittings	Case hardened to a depth of 0.002 to 0.005 inch with a minimum reading of 83 on 15-N scale of Rockwell superficial hardness test machine
VII and VIII	Tips of all fittings, and surface of all balls	Balls: Minimum hardness of No. 40 on the Rockwell "C" scale (150 kilogram load) Fitting tips: Minimum hardness of No. 92 on the Rockwell "B" scale

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TABLE VI. Leakage.

Fitting Type	Test Gage Block Pressure psi	Leakage
I, II, III, IV, V, VII and VIII	5000	2 cc per minute maximum
VI	3000	Zero

TABLE VII. Pressure range.

Fitting Type	Allowable Pressure Range-psi
I, II and III	8,000 to 8,100
IV, V, VII and VIII	6,000 to 6,100

4.7.4.2 Gasoline leakage (type VI fittings only). The fitting shall have a static head of 24 ± 1 inches of unleaded gasoline applied to the threaded end for a period of 120 seconds. Leakage of gasoline from the inlet tip of the fitting shall not exceed 10 drops per minute.

4.7.5 Blowout (all types except type VI). The fitting shall be installed in a test setup similar to Figure 3 and shall be tested as follows:

- a. The power lubrication system shall be charged to a pressure within the applicable pressure range specified in Table VII. The power control valve shall be opened and lubricant shall be discharged through the fitting for a period of 5 seconds. The coupling shall be disconnected from the inlet tip of the fitting, and the fitting ball-check and spring shall be examined. The ball-check shall have returned to the closed position and there shall be no evidence of loosening, damage or blowout of component parts.
- b. Repeat item a.
- c. The fitting shall be disassembled or sectionalized, as applicable. There shall be no evidence of damage to any component part.

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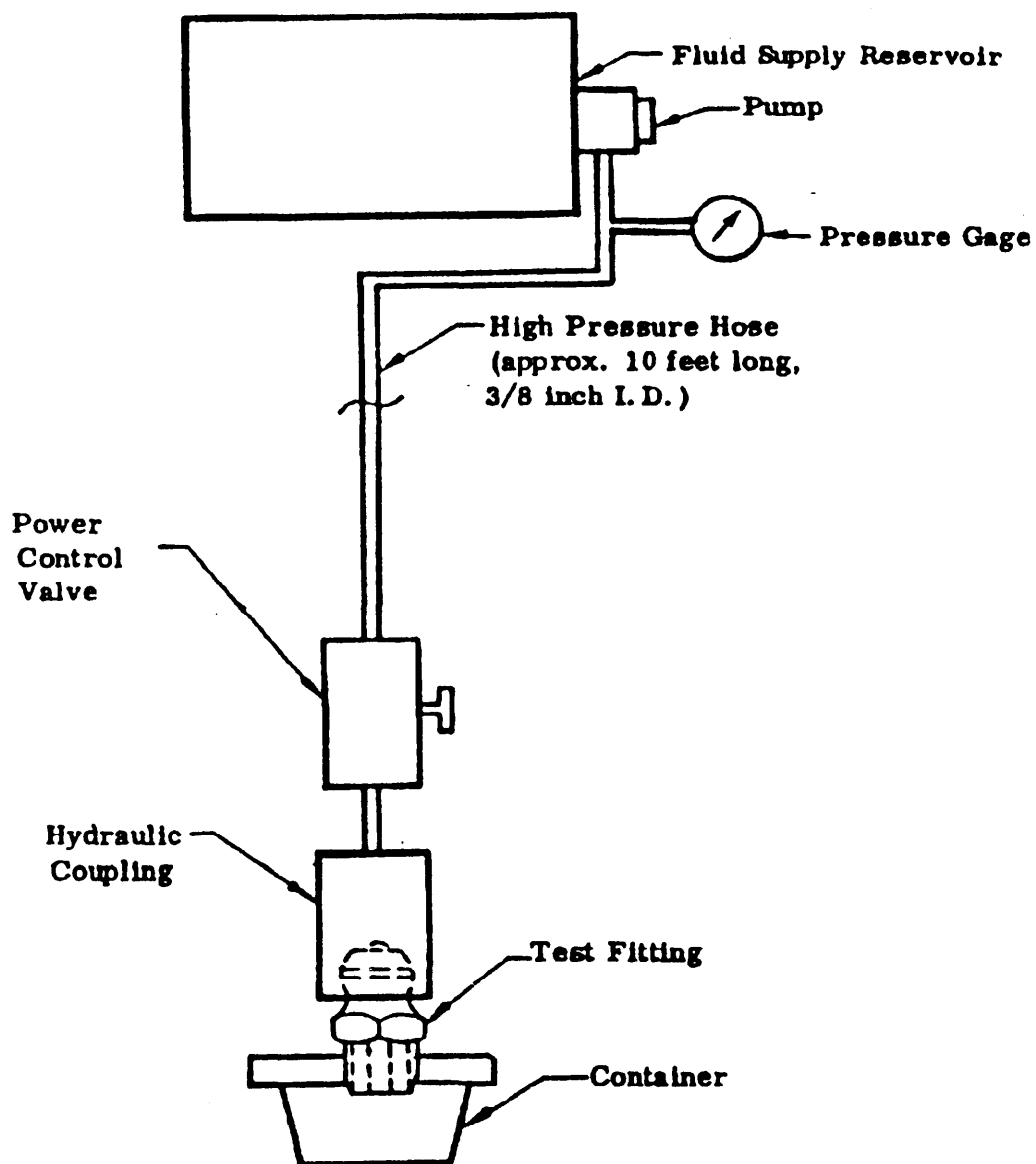


FIGURE 3. Blowout test setup.

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4.7.6 Accelerated aging (type VI fittings only). The fitting used for this test shall be free of all lubricant, both internally and externally. The fitting shall be suspended in a free-circulation air oven at a temperature of $158 \pm 2^\circ\text{F}$ for a period of 72 hours. Immediately following the 72 hour heating period, the fitting shall be submerged in unleaded gasoline at a temperature of $80 \pm 2^\circ\text{F}$ for a period of 48 hours. The fitting shall then withstand a back-pressure of 3,000 psi, applied to the threaded end of the fitting without rupture of component parts or leakage through the inlet tip.

5. PACKAGING

5.1 Preservation. Preservation shall be levels A or C, as specified (see 6.2).

5.1.1 Level A. Unless otherwise specified, fittings in a unit quantity of 50 each, of the same part number, shall be packaged in accordance with Method III of MIL-P-116. Fittings shall be packaged in unit containers conforming to PPP-B-566 or PPP-B-676.

5.1.2 Level C. The fitting shall be preserved in such a manner that it will ensure adequate protection against physical and environmental damage during shipment, handling, and storage.

5.1.3 Weight count method for small parts. The number of units per unit package may be determined by net weight, provided that this method of obtaining such weight is so adjusted that the contents of the package are within the following limits specified in Table VIII.

Table VIII. Unit package limits.

<u>Number per package</u>	<u>Permissible percent variation</u>
25	± 4
50	± 2
100	± 2
200	± 1
300	± 1
500	± 1
1000	± 0.5

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5.2 Intermediate packaging. When the quantity permits, five unit packages or a multiple thereof shall be further packaged in intermediate containers conforming to PPP-B-566, PPP-B-636 class domestic, PPP-B-676, or PPP-B-665. The gross weight of the intermediate containers conforming to PPP-B-665 shall not exceed 40 pounds.

5.3 Packing. Packing shall be as level A, C or commercial as specified (see 6.2).

5.3.1 Quantity per shipping container. The quantity per shipping container shall be as specified in the contract or order. In the absence of specified quantities, the weight limitations in 5.3.2 and 5.3.3 shall apply.

5.3.2 Level A. Fittings shall be packed in overseas type boxes conforming to either of the following: PP-B-636, class weather-resistant or PPP-B-640, class 2 (see 6.2). Fiberboard boxes shall not exceed the weight limitations of the box specification. Box closures shall be in accordance with the box specification and the appendix thereto. The joints and seams of all boxes shall be sealed with tape conforming to PPP-T-60.

5.3.3 Level B. Fittings shall be packed in domestic-type boxes conforming to either of the following: PPP-B-636, class domestic, or PPP-B-640, class 1. Boxes shall not exceed the weight limitations of the box specification. Box closures shall be in accordance with the box specification and appendix thereto.

5.4 Marking. In addition to any special or other identification marking required by the contract (see 6.2), each unit, supplementary, intermediate, interior, and exterior container shall be marked in accordance with MIL-STD-129.

5.5 General.

5.5.1 Exterior containers. Exterior containers (see 5.3.1, 5.3.2 and 5.3.3) 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.

5.5.2 Packaging inspection. The inspection of these packaging requirements shall be in accordance with 4.5.

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 fittings covered by this specification are intended for use on aircraft, ground vehicles, submarines, surface vessels and industrial equipment, where suitable.

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6.2 Acquisition requirements. Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. Type and MS part number required (see 1.2).
- c. Quantity per shipping container when required (see 5.3.1).
- d. Selection of applicable levels of preservations, packaging and packing required.
- e. Type of plating required (see 3.6.1).
- f. Fittings subjected to tests (see 4.4.1) are not to be considered or shipped as part of the contract or order.
- g. Items of data required (see 6.3).

6.3 Data. For the information of contractors and contracting officers, any of the data specified in (a) applicable documents listed in section 2 of this specification, or (b) referenced lower-tier documents need not be prepared for the Government and shall not be furnished to the Government unless specified in the contract or order. The data to be furnished shall be listed on DD Form 1423 (Contractor Data Requirements List), which shall be attached to and made a part of the contract or order.

6.4 Acceptable Quality Level (AQL). Unless otherwise specified in the contract, the following AQL's are recommended for the following inspections.

<u>Inspection</u>	<u>AQL % defective</u>
Examination of fitting (4.7.1)	1.5 Major 4.0 Minor
Examination of packaging (4.5)	4.0
Accelerated aging (Type VI fittings only) (4.7.6)	4.0
Operation (4.7.2)	4.0
Leakage (4.7.4)	4.0
Blowout (all types except VI) (4.7.5)	4.0
Hardness (4.7.3)	4.0

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6.5 Supersession data. Types I and III lubrication fittings of this specification supersede MIL-G-1833, type A lubrication fittings, with the exception of the fitting depicted by Figure 7 therein. Types IV and VI lubrication fittings of this specification supersede MIL-G-1833, type B lubrication fittings, with the exception of the fitting depicted by Figure 7 therein.

6.6 Subject term (keyword) listing.

Fitting, lubrication
Aircraft, ground vehicles, surface vessels
Pressure lubricating equipment
Screw type

6.7 Changes from previous issue. Asterisks (or vertical lines) are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Army - AR
Navy - AS
Air Force - 99

Preparing activity:
Navy - AS

(Project No. 4730-1095)

Review Activities:
Army - AV, MI, AT ME
Navy - AS, YD, SH
Air Force - 82
DLA-CS

User Activities:
Army - CE
Navy - OS

