



AEROSPACE INFORMATION REPORT



AIR737

REV.
E

Issued 1962-02
Revised 1995-05
Reaffirmed 2008-11

(R) AEROSPACE HYDRAULIC AND PNEUMATIC SPECIFICATIONS, STANDARDS, RECOMMENDED PRACTICES, AND INFORMATION REPORTS

TABLE OF CONTENTS

1.	SCOPE	2
1.1	Purpose	2
2.	REFERENCES	2
2.1	Applicable Documents	
2.1.1	SAE Publications	2
2.1.2	Military Publications	2
3.	DOCUMENT SOURCES	2
3.1	SAE Publications	2
3.2	ANSI Publications	2
3.3	U.S. Government Publications	3
3.4	ISO Publications	3
4.	DOCUMENT LISTS	3
4.1	Alphabetical Listing	3
4.2	Alphanumerical Listing	25
5.	NOTES	48

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2008 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
http://www.sae.org

SAE WEB ADDRESS:

SAE values your input. To provide feedback
on this Technical Report, please visit
<http://www.sae.org/technical/standards/AIR737E>

SAE AIR737 Revision E**1. SCOPE:**

This SAE Aerospace Information Report (AIR) lists military and industry specifications, standards, recommended practices and information reports used in the design of aerospace hydraulic and pneumatic components and systems. It is intended as a supplement to specifications ARP4752, MIL-H-5440, and MIL-P-5518. Only those hardware standards specifically applicable to hydraulic or pneumatic components or systems are listed in this document.

1.1 Purpose:

The purpose of this document is to provide a single document that lists active aerospace hydraulic and pneumatic specifications, standards, recommended practices and information reports.

2. REFERENCES:**2.1 Applicable Documents:**

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this specification and references cited herein, the text of this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

- 2.1.1 SAE Publications:** Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE Aerospace Technical Report Style Manual

SAE Aerospace Standards Index

ARP4752 Aerospace - Design and Installation of Commercial Transport Aircraft Hydraulic Systems

- 2.1.2 U.S. Government Publications:** Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-H-5440 Hydraulic Systems, Aircraft, Types I and II, Design and Installation Requirements for

MIL-P-5518 Pneumatic Systems, Aircraft; Design, Installation, and Data Requirements for Department of Defense Index of Specifications and Standards

3. DOCUMENT SOURCES:

- 3.1 SAE Publications -** Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

- 3.2 ANSI Publications -** Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

SAE AIR737 Revision E

3.3 U.S. Government Publications (Military Publications) - Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

3.4 ISO Publications - Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

4. DOCUMENT LISTS:

4.1 Alphabetical Listing:

Accessory Drive, Aircraft Engine Reference Chart	AND 10230
Accessory Drive, Aircraft Engine Reference Chart	MS 3336
Accumulator, Aircraft Hydropneumatic Pressure	MIL-A-5498
Accumulator Cylindrical, 3000 psi	MS 28700
Accumulators, Ground, Hydropneumatic Pressure	ARP763
Accumulator, Hydraulic, Cylindrical, 3000 psi, Type II	MS 28797
Accumulator, Hydraulic, Cylindrical Aircraft	ARP4379
Accumulator, Hydraulic, Cylindrical, 3000 psi, Aircraft	MIL-A-5498
Accumulators, Inspection of Inservice Airborne	AIR4150
Actuation System Data Summary for Missiles and Launch Vehicles	AIR1855
Actuation Systems for Aircraft with Fly-by-Wire Flight Control Systems, Description of	AIR4253
Actuators, Aeronautical, Linear Utility Hydraulic	MIL-A-5503
Actuators, Mechanical, Geared Rotary, General Specification for	ARP4058
Actuators: Aircraft Flight Controls,	ARP1281
Power Operated Hydraulic, General Specification for Actuators; Gas	ARP777
Adapter - Air Pressure Gage	AN 6285
Adapter - Port Connection, Ring Locked	AS1986
Adapter Assembly, 45° Elbow, Swivel Flange to Hose	MS 27056
Adapter Assembly, 90° Elbow, Swivel Flange to Hose	MS 27058
Adapter Assembly, Flared, 45° Elbow, Tube to Hose with Swivel Nut	MS 27055
Adapter Assembly, Flared, 90° Elbow, Tube to Hose with Swivel Nut	MS 27057
Adapter Assembly, Flared, 90° Forged Elbow, Tube to Hose with Swivel Nut	MS 27060
Adapter Assembly, Flareless, 45° Forged Elbow, Tube to Hose with Swivel Nut	MS 27384
Adapter Assembly, Flareless, 90° Elbow, Tube to Hose with Swivel Nut	MS 27383
Adapter Assembly, Flareless, 90° Forged Elbow, Tube to Hose with Swivel Nut	MS 27385
Adapter Assembly, Flareless, Straight Tube to Hose with Swivel Nut	MS 27381
Adapter Assembly, Reusable, Flexible Hose, Low Pressure	MIL-A-38726
Adapter Assembly, Straight, Swivel Flange to Hose	MS 27054
Adapter, Flareless Tube to AN Flared Tube	MS 21900
Adapter, Flareless Tube to AN Flared Tube, Precision Type	MS 24405
Adapter, Flareless Tube, Bulkhead and Universal to Flared Tube	MS 21923
Adapter, Hose to Tube, Pipe and Flange, Reusable Hydraulic, Pneumatic, and Oil Lines	MIL-A-5070
Adapter, Straight, Tube to Hose-Reusable, Hydraulic Pneumatic Fuel and Oil Lines	MS 24587
Adapter Assembly, Flareless, 45° Elbow, Tube to Hose with Swivel Nut	MS 27382

SAE AIR737 Revision E

4.1 (Continued):

Adhesive, Rubber Base, General Purpose (Federal Specification)	MMM-A-1617
Aerospace Fluid System Standards, Metric, National and International	AIR2000
Aerospace Hydraulic and Pneumatic Specifications and Standards	AIR737
Aerospace Hydraulic System Fluid Contamination, Location of Sampling Points	ARP4268
Aircraft Engine and Accessory Drives	AIR1160
Alternatives to Cadmium Plating	AIR4160
Aluminum Alloy Tempers - Determination of, Through Electrical Conductivity	ARP891
Arresting Hook Installations, Aircraft	MIL-A-18717
Backup Rings for Hydraulic and Pneumatic Fluid Power Applications, Selection and Application of Polytetrafluoroethylene (PTFE or TFE)	ARP1802
Backup Rings (Dyna-Bak), Equilateral Triangle Cross-Section Hydraulic O Ring Seal, Installation and Use of	AIR1186
Body, Cluster Fitting, One Way, Flareless	MS 21942
Body, Cluster Fitting, One Way, Internal Boss	MS 21946
Body, Cluster Fitting, One Way-Flare	MS 21953
Body, Cluster Fitting, Three Way, Flareless	MS 21945
Body, Cluster Fitting, Three Way, Internal Boss	MS 21960
Body, Cluster Fitting, Three Way-Flare	MS 21956
Body, Cluster Fitting, Two Way, 180° Flare	MS 21955
Body, Cluster Fitting, Two Way, 180°, Internal Boss	MS 21958
Body, Cluster Fitting, Two Way, 180°, Internal Boss	MS 21959
Body, Cluster Fitting, Two Way, 90° Flare	MS 21954
Body, Cluster Fitting, Two Way, 180°, Flareless	MS 21944
Body, Cluster Fitting, Two Way, 90°, Flareless	MS 21943
Bolt, Cluster Fitting, Double Port-Flare	MS 21951
Bolt, Cluster Fitting, Single Port Through Flare	MS 21950
Bolt, Cluster Fitting, Single Port-Flare	MS 21949
Bolt, Cluster Fitting, Double Port, Flareless	MS 21940
Bolt, Cluster Fitting, Double Port, Through, Flareless	MS 21941
Bolt, Cluster Fitting, Single Port, Flareless	MS 21938
Bolt, Flared Tube-Fitting End Universal	AN 774
Bolt, Fluid Passage, Precision Type	MS 24387
Bolt, Universal Fitting	AN 775
Bolt, Universal Fitting	NAS 551
Bolt, Universal, Tube Eng - Flareless (Inactive)	NAS 1236
Bonding, Electrical, and Lighting Protection, for Aerospace Systems	MIL-B-5087
Boss and Installations - Air Connection	AND 10071
Boss - Ring Locked, Fluid Connection Type, Standard Dimensions for	AS1300
Boss Spacing - Hydraulic, Design Standard for	MS 21343
Bosses, Fluid Connection - Internal Straight Thread	MS 33649
Bosses, Standard Dimensions for Gasket Seal Straight Thread	AND 10050
Bracket, Support Clamp	AN 743
Brake Control Systems, Anti Skid, Aircraft Wheels Instructions for Preparation of Specifications for	MIL-B-8075

SAE AIR737 Revision E

4.1 (Continued):

Brake Dynamics	AIR1064
Brake Release Response Time Required for Automatic Skid Control	ARP804
Brake Systems, Wheel, Aircraft, Design of	MIL-B-8584
Bushing, Screw Thread Expander	AN 894
Bushing, Screw Thread Expander, Precision Type	MS 24398
Bushing, Screw Thread Expander, Flareless Tube Connection	MS 21915
Bushing, Screw Thread Reducer	AN 893
Bushing, Screw Thread Reducer, Precision Type	MS 24397
Cadmium, Titanium Alloy Plating	AMS 2419
Calculations, Handbook of Hydraulic Metric	AIR1657
Cap Assembly, Pressure Seal Flared Tube Fitting	AN 929
Cap, High Pressure Air Valve	MS 20813
Cap, Pressure Seal, Flareless Tube Fitting	MS 21914
Caps and Plugs, Protective, Dust and Moisture Seal	MIL-C-5501
Caps, High Pressure Air Valves	MIL-C-5500
Cartridge Actuated Devices, Design and Evaluation of	MIL-D-23615
Castings, Classification and Inspection of	MIL-STD-2175
Circular Spline and Adapter Details, Engine Driven Accessories	MS 14169
Clamp Assembly, Saddle Type, Cushion, General Specification	MIL-H-85449
Clamp, Cushion, General Specification for	MIL-C-85052
Clamp, Cushioned, Support, Loop-Type, Aircraft	MS 21919
Clamp Loads and Bending Stresses in Aircraft Tubing Installations	AIR1593
Clamp, Plain, Support, Loop-Type, Aircraft	AN 742
Clamps, Tube Support, Loop Type	MIL-C-8603
Clean Room and Work Station Requirements, Controlled Environment	FED-STD-209
Cleaning and Protecting Piping, Tubing and Fittings for Hydraulic Transmission Systems	MIL-STD-419
Cleanliness Classification for Hydraulic Fluids - Aerospace	AS4059
Cleanliness Requirements of Parts used in Hydraulic Systems	NAS 1638
Climatic Extremes for Military Equipment	MIL-STD-2110
Coating, Nickel Phosphorous Electroless Nickel, Requirements for	MIL-C-26074
Coatings, Anodic for Aluminum and Aluminum Alloys	MIL-A-8625
Coatings, Electrodeposited, of Zinc on Iron and Steel	ASTM B 633
Coiled Tubing, Corrosion Resistant Steel, Hydraulic Applications	ARP584
Coiled Tubing - Titanium Alloy, Hydraulic Applications	ARP4146
Cold Gas Systems, Missile or Projectiles Design Installation Tests and Requirements for	ARP1625
Color Coding-Elastomers for Tube Clamp Cushions	ARP1527
Components, Hydraulic Systems, General Specification for Aircraft and Missiles	MIL-H-8775
Compressor Unit, Air, Aircraft, Shaft Power Driven, General Specification for	MIL-C-6388
Compressor Unit, Aircraft Electric Motor Driven, General Specification for	MIL-C-6591
Compressor Units, Air, General Requirements for	MIL-C-26805
Connector, Fixed Flange, to Flared Tube	MS 20760

SAE AIR737 Revision E

4.1 (Continued):

Connector, Fixed Flange, to Hose	MS 20757
Contamination, Aerospace-Chlorinated Solvent, of MIL-H-5606/MIL-H-83282	AIR4713
Vehicle Hydraulic Systems	
Contamination by Solid Particles, Method of Coding Level of, Hydraulic Fluid Power-Fluids-	ISO 4406
Contour and Mounting End, Cluster Fitting Body, Semi-Finish	MS 21936
Control Systems, Gas Power Servos and Reaction	ARP739
Control Unit, Pressure Generating, Manual Operated Aircraft Hydraulic Brake System	MIL-C-6026
Coupling Assembly, Hydraulic, Self-Sealing Quick Disconnect Flared Fitting to Internal Thread Boss	MS 24333
Coupling Assembly, Hydraulic, Self-Sealing	MS 24334
Coupling, Fittings Internal Screw Thread Quick-Disconnect	NAS 424
Couplings, Aircraft Hydraulic Self-Sealing	MIL-C-25427
Cross, Flared Tube	AN 827
Cross, Flared Tube, Precision Type	MS 24403
Cross, Flareless Tube	MS 21906
Cross, Internal Screw Thread	AN 937
Cross, Reducer, Flared Tube	AS1036
Cross, Reducer, Flareless Tube	AS1006
Cryogenically Fueled Dynamic Power Systems	AIR999
Cryogenic Propellants, Recommended Materials and Practices for Use with	AIR539
Cylinder, Pneumatic Actuating, Aircraft Utility System, General Specification for	MIL-C-8838
Cylinders, Compressed Gas, Nonshatterable	MIL-C-7905
Cylinders, Hydraulic Brake, Master, Power Assisted	MIL-C-7979
Drawing Practices, Engineering	MIL-STD-100
Drawings, Tube Bend	MIL-D-9898
Drive - Type X Engine Accessory	AND 20000
Drive - Type XI Engine Accessory	AND 20001
Drive - Type XII Engine Accessory	AND 20002
Drive Assembly, Constant Speed, Hydraulic, Type MD-1	MIL-D-26939
Drive Assembly, Constant Speed, General Specification for	MIL-D-83099
Drive-Accessory, 10.000 BC Round, QAD Design Standard for	AS971
Drive-Accessory, 5.000 BC Round, Design Standard for	AS969
Drive-Accessory, 8.000 BC Round, QAD, Design Standard for	AS970
Drive Pad-Accessory 2.653 BC Square, Design Standard for	MS 3325
Drive Pad-Accessory 5.000 BC Square, Design Standard for	MS 3326
Drive Pad-Accessory 5.000 BC Round, Design Standard for	MS 3327
Drive Pad-Accessory 8.000 BC Round, Design Standard for	MS 3328
Drive Pad-Accessory 10.000 BC Round, Design Standard for	MS 3329
Drive-Studded, Accessory, 10.000 BC Round, Design Standard for	AS967
Drive-Studded, Accessory, 2.653 BC Square, Design Standard for	AS959
Drive-Studded, Accessory, 5.000 BC Round, Design Standard for	AS963
Drive-Studded, Accessory, 5.000 BC Square, Design Standard for	AS961
Drive-Studded, Accessory, 8.000 BC Round, Design Standard for	AS965

SAE AIR737 Revision E

4.1 (Continued):

Duty Cycle Data, Method for Collection of, Aerospace-Flight Control Actuator Displacement-	ARP4895
Elastomer Compatibility Considerations Relative to O-ring and Sealant Selection	AIR786
Elbow - Flared Tube and Bulkhead Universal, 90°	AN 833
Elbow - Flared Tube and Universal, 45°	AN 837
Elbow - Flared Tube, 90°	AN 821
Elbow - Internal Screw Thread, 45°	AN 941
Elbow - Internal Screw Thread, 90°	AN 939
Elbow - Universal 15°	NAS 553
Elbow - Universal 45°	AN 778
Elbow - Universal 45°	NAS 554
Elbow - Universal 45° - Flareless (Inactive)	NAS 1239
Elbow - Universal 75°	AN 777
Elbow - Universal 75° - Flareless (Inactive)	NAS 1238
Elbow - Universal 90°	AN 776
Elbow - Universal 90°	NAS 552
Elbow - Universal 90° - Flareless	NAS 1237
Elbow Sub Assembly, Flared, 45°, Swivel Nut	MS 27063
Elbow Sub Assembly, Flared, 90°, Swivel Nut	MS 27065
Elbow Sub Assembly, Flareless, 45°, Forged, Swivel Nut	MS 27389
Elbow Sub Assembly, Flareless, 45°, Swivel Nut	MS 27387
Elbow Sub Assembly, Flareless, 90°, Forged Swivel Nut	MS 27390
Elbow Sub Assembly, Flareless, 90°, Swivel Nut	MS 27388
Elbow Sub Assembly, Swivel Flange, 45°	MS 27064
Elbow Sub Assembly, Swivel Flange, 90°	MS 27066
Elbow Tube, 90° (Used on MS 27226 and MS 27730 Hose to Tube Adapters)	MS 27234
Elbow, 45°, Reducer, Flared Tube	AS1040
Elbow, 45°, Reducer, Flareless Tube	AS1010
Elbow, 45°, Flared Tube to Hose, Attachable Pneumatic, 3000 psi	MS 28780
Elbow, 90°, Flared Tube to Hose, Attachable Hydraulic and Pneumatic, 3000 psi	MS 28781
Elbow, 90°, Reducer, Bulkhead, Flared Tube	AS1038
Elbow, 90°, Reducer, Flared Tube	AS1034
Elbow, 90°, Universal, Flareless Tube, High Profile	MS 21925
Elbow, 90°, Universal, Flareless Tube, Low Profile	MS 21926
Elbow, 90°, Reducer, Bulkhead, Flareless Tube	AS1008
Elbow, 90°, Reducer, Flareless Tube	AS1004
Elbow, Bulkhead Universal 90°, Flareless Tube	MS 21908
Elbow, Flared Tube and Universal 45°, Precision Type	MS 24396
Elbow, Flared Tube Bulkhead and Universal, 90° Precision Type	MS 24394
Elbow, Flared Tube, 90°, Precision Type	MS 24401
Elbow, Flareless Tube and Universal 45°	MS 21907

SAE AIR737 Revision E

4.1 (Continued):

Elbow, Flareless Tube, 90°	MS 21904
Elbow, Flareless, Tube to Hose - 45°	MS 27395
Elbow, Flareless, Tube to Hose - 90°	MS 27394
Elbow Sub Assembly, Flared, 45° Forged, Swivel Nut	MS 27067
Elbow Sub Assembly, Flared, 90° Forged, Swivel Nut	MS 27068
Elbow, Tube - 45°, Bulkhead, Flareless Tube Universal to Flared Tube	MS 24654
Elbow, Nipple End, Swivel Flange to Hose - 90°	MS 27082
Elbow, Tube - 90°, Bulkhead, Flared Tube Universal to Flared Tube	MS 24652
Elbow, Tube - 90°, Bulkhead, Flareless Tube Universal to Flared Tube	MS 24651
Elbow, Nipple End, Flared, Tube to Hose - 90° Swivel Nut	MS 27086
Elbow, Nipple End, Flared, Tube to Hose - 45° Swivel Nut	MS 27087
Elbow, Nipple End, Swivel Flange to Hose - 45°	MS 27084
Electromagnetic Interference, Electromagnetic Emission and Susceptibility Requirements for, The Control of	MIL-STD-461
Electromagnetic Interference Characteristics, Measurement of	MIL-STD-462
Electronic Equipment, Missiles, Boosters and Allied Vehicles, General Specification for	MIL-E-8189
Environmental Test Methods and Engineering Guidelines	MIL-STD-810
Examination, Magnetic Particle, Standard Practice for	ASTM E 1444
Felt Strip, Packing Gland	MS 28932
Felt, Sheet, Wool, Pressed	C-F-206
Films, Chemical for Aluminum and Aluminum Alloys	MIL-C-5541
Filter, Aircraft Hydraulic Line Type, 3000 psi	MS 28720
Filter and Disposable Element, Fluid Pressure, Hydraulic, 3 Micron Absolute	MIL-F-81836
Filter and Filter Elements, Fluid Pressure, Hydraulic Line, 15 Micron Absolute & 5 Micron Absolute, Type II Systems	MIL-F-8815
Filter Element Cleaning Methods	AIR787
Filter Element Cleaning, Method for Evaluating	ARP849
Effectiveness of Inspection Procedures for Adequacy of Filter Element, Evaluating Effectiveness of Cleaning Methods	ARP725
Filter Element, Fine Wire Mesh, Recommended Materials and Practices for Use with	AIR888
Filter Element, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, -65° to +275 °F	MIL-F-8815/3
Filter Element - Hydraulic Replaceable Micronic Reservoir Type	AN 238
Filter Element - Hydraulic Replaceable Micronic Line Type	AN 6235
Filter Element - Hydraulic Replaceable Vent Type	AN 6237
Filter Element, Noncleanable, Fluid Pressure Hydraulic Line, 15 Micron Absolute, AV8 Aircraft, 10 GPM	MIL-F-8815/1
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +275 °F, F14 Aircraft, 12 GPM	MIL-F-8815/22
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +275 °F, F14 Aircraft, 30 GPM	MIL-F-8815/23

SAE AIR737 Revision E

4.1 (Continued):

Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +275 °F, F-14 and F-18 Aircraft, 84 GPM	MIL-F-8815/24
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +160 °F, P3 Aircraft, 8 GPM	MIL-F-8815/28
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, P3 Aircraft, Return, 14 GPM	MIL-F-8815/27
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, -65° to +275 °F, P3 Aircraft, Rudder, 4 GPM	MIL-F-8815/25
Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 25 Micron Absolute, P3 Aircraft, Case Drain, 2 GPM	MIL-F-8815/26
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +275 °F	MIL-F-8815/6
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65° to +275 °F, 0.5 to 12.0 GPM	MIL-F-8815/7
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, A4 Aircraft, 2.0 GPM	MIL-F-8815/19
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, A4 Aircraft, 3.5 GPM	MIL-F-8815/20
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, AV8 and A7 Aircraft, 3.5 GPM	MIL-F-8815/18
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 1.5 GPM	MIL-F-8815/8
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 3.5 GPM	MIL-F-8815/9
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 4.5 GPM	MIL-F-8815/10
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 4.5 GPM (High Capacity)	MIL-F-8815/11
Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 32 GPM	MIL-F-8815/12
Filter Elements, The Degree of Cleanliness of The Downstream Side of, A Dynamic Method for Determining	ARP599
Filter, Fluid, Pressure, Hydraulic Line, 1500 psi, 5 Micron Absolute, Style A, Bypass, -65° to 275 °F, F/A-18E/F, Case Drain	MIL-F-8815/29
Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, Style A, Bypass, -65° to 275 °F	MIL-F-8815/1
Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, Style B, Non Bypass, -65° to +275 °F	MIL-F-8815/2
Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron 3000 psi, 5 Micron Absolute, Style A, Bypass, -65° to +275 °F	MIL-F-8815/4
Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, Style B, Non Bypass, -65° to +275 °F	MIL-F-8815/5
Filter, Fluid, Pressure, Absolute 25° Micron, Hydraulic	MIL-F-27656
Filter - Hydraulic Replaceable Element Line Type	AN 6234
Filter - Hydraulic Replaceable Vent Type	AN 6240

SAE AIR737 Revision E

4.1 (Continued):

Filter Patch Testing Procedures for Aerospace Hydraulic Non-Rotating Equipment	ARP1302
Filter Patch Testing Procedures for Aerospace Hydraulic Pumps and Motors	ARP575
Filter Ratings, Liquid, Parameters and Tests	AIR887
Filters and Filter Elements, Fluid Pressure, Hydraulic Micronic Type	MIL-F-5504
Filters, Cryogenic, Methods for Evaluating	ARP900
Filters, Secondary, for Fluid System Reliability	AIR405
Filters, Stainless Steel, Sensitization and, Corrosion in	AIR844
Finishes and Coatings; General Specification for Protection of Aerospace Weapons Systems, Structures and Parts	MIL-F-7179
Finishing Systems for Rockets, Guided Missiles, Support Equipment and Related Materials, Protective	MIL-STD-186
Fire Test Equipment for Flexible Hose and Tube Assemblies	AIR1377
Fire Testing of Flexible Hose, Tube Assemblies, Coils, Fittings and Similar System Components	AS1055
Fitting - Installation of Flared Tube, Straight Threaded Connectors, Design Standard for	MS 21344
Fitting - Installation of Universal Elbow	NAS 550
Fitting End - Attachable, Swivel Female 37°, Machined Flare Flexible - Metal Hose Straight, 45° Elbow and 90° Elbow Styles	AS1012
Fitting End Attachable, Male for 37° Flared Tube Connection, Flexible Metal Hose - Straight, 45° and 90° Elbow Styles	AS1011
Fitting End, Attachable, Female Flareless, Machined Nipple Flexible Metal Hose - Straight, 45° and 90° Elbow Styles	AS1015
Fitting End, Attachable, Flareless Male, Flexible Metal Hose Straight, 45° and 90° Elbow Styles	AS1016
Fitting End, Attachable, Hydraulic and Pneumatic High Pressure Hose, 3000 psi, Flared Tube	MS 28760
Fitting End, Attachable, Hydraulic and Pneumatic High Pressure Hose, 3000 psi, Flareless Tube	MS 28761
Fitting End, Attachable, Hydraulic, High Pressure Hose	MIL-F-8789
Fitting End, Attachable, Swivel Female 37° Flared Tube Flexible Metal Hose - Straight, 45° and 90° Elbow Styles	AS1013
Fitting End, Attachable, Swivel Flange, Flexible Metal Hose - Straight, 45° Elbow and 90° Elbow Styles	AS1014
Fitting End, Bolt Cluster Fitting, Double Port	MS 21934
Fitting End, Bolt Cluster Fitting, Double Port Through Flareless	MS 21935
Fitting End, Bolt Cluster Fitting, Single Port	MS 21932
Fitting End, Bolt Cluster Fitting, Single Port Through Flareless	MS 21933
Fitting End - Bulkhead Flared Tube Connection, Design Standard	AS4396
Fitting End - Flared Tube Connection, Design Standard	AS4395
Fitting End, Hose Connection, Standard Dimensions for	MS 33658
Fitting End, Standard Dimensions for Bulkhead Flareless Tube Connections	MS 33515
Fitting End, Standard Dimensions for Flareless Tube Connection and Gasket Seal	MS 33514

SAE AIR737 Revision E

4.1 (Continued):

Fitting, Hose, Tetrafluoroethylene High Temp, USAF Spec. Bulletin 528	USAF 528
Fitting End - Tetrafluoroethylene Hose Medium Pressure, 45°	MS 18089
Swivel Flange Resistant Steel	
Fitting End - Tetrafluoroethylene Hose Medium Pressure, 45°, Swivel Nut, Corrosion Resistant Steel	MS 18086
Fitting End - Tetrafluoroethylene Hose Medium Pressure, 90°	MS 18087
Fitting End - Tetrafluoroethylene Hose Medium Pressure, Swivel Flange, Corrosion Resistant Steel	MS 18088
Fitting End - Tetrafluoroethylene Hose Medium Pressure, 90° Swivel Flange, Corrosion Resistant Steel	MS 18090
Fitting End - Tetrafluoroethylene Hose Medium Pressure Swivel Nut, Corrosion Resistant Steel	MS 21947
Fitting Installation, Cluster	MS 21931
Fitting Installation, Flared Tube and Hose, Swivel	MS 33786
Fitting, Hose, Tetrafluoroethylene, High Temperature Medium Pressure, General Requirements for	MIL-H-27272
Fitting, Installation of Universal Elbow	MS 21345
Fittings - Installation in Straight Threaded Boss	AS758
Fittings - Styles of Pipe Threaded, Flared Tube and Hose	AND 10059
Fittings, Catalog of Flared, Flareless, Pipe Threaded Port Hose and Other Type Tube Standard Connectors	AIR310
Fittings, Coated Lubricant and Sealant	NAS 1367
Fittings, Flareless, Fluid Connection	MIL-F-18280
Fittings, Fluid Connection	MIL-F-5509
Fittings, Hose, Design Standards for Assembly of Tetrafluoroethylene	MS 18084
Fittings, Installation of Flareless Tube, Straight-Threaded Connectors	MS 33566
Fittings, Lubrication	MIL-F-3541
Fittings, Lubrication, Drive Type	MIL-F-8839
Fittings, Tube, Fluid Systems, Separable, Dynamic Beam Seal General Requirements for	MIL-F-85421
Flange Accessory, 5" Bolt Circle	AS471
Flange Accessory, 8" Bolt Circle	AS472
Flange Accessory, 10" Bolt Circle	AS473
Flange - Accessory, 10.000 BC Round, Design Standard for	MS 3334
Flange - Accessory, 2.653 BC Square, Design Standard for	MS 3330
Flange - Accessory, 5.000 BC Round, Design Standard for	MS 3331
Flange - Accessory, 5.000 BC Square, Design Standard for	MS 3332
Flange - Accessory, 8.000 BC Round, Design Standard for	MS 3333
Flange - Accessory, 10.000 BC Round, Design Standard for	AS968
Flange - Accessory, 2.653 BC Square, Design Standard for	AS960
Flange - Accessory, 5.000 BC Round, Design Standard for	AS964
Flange - Accessory, 5.000 BC Square, Design Standard for	AS962
Flange - Accessory, 8.000 BC Round, Design Standard for	AS966
Flange Assembly, Adapter, Hose to Tube, Reusable, Hydraulic, Fuel and Oil Line, 90°	MS 27227

SAE AIR737 Revision E

4.1 (Continued):

Flange Assembly, Adapter, Hose to Tube, Reusable, Hydraulic, Fuel and Oil Line, 45°	MS 27230
Flange Assembly, Adapter, Straight, Hose to Tube, Reusable, Hydraulic, Fuel to Oil Lines	MS 27232
Flange, Bulkhead Mounting, Hydraulic Self-Sealing Coupling	MS 24335
Flange Assembly, Adapter, Hose to Tube, Reusable, Hydraulic Fuel and Oil Line, 90°	MS 27228
Flange Nipple Assembly, Adapter, Hose to Tube, Reusable, Hydraulic Fuel and Oil Line, 45°	MS 27229
Flange Nipple Assembly, Adapter, Straight, Hose to Tube, Reusable, Hydraulic, Fuel to Oil Lines	MS 27231
Flange - Straight Thread Boss Welding	AN 871
Flange, Swivel, Retaining	MS 20756
Flange, Swivel, Retaining	MS 27077
Flange - Type X Accessory Mounting	AND 10260
Flange - Type XI Accessory Mounting	AND 10261
Flange - Type XII Accessory Mounting	AND 10262
Flange - Type XIII Accessory Mounting	AND 10263
Flange - Type XIV Accessory Mounting	AND 10264
Flange - Type XIX Accessory Mounting	AND 10269
Flange - Type XV Accessory Mounting	AND 10265
Flange - Type XVI Accessory Mounting	AND 10266
Flange - Type XVII Accessory Mounting	AND 10267
Flange - Type XVIII Accessory Mounting	AND 10268
Flareless Fitting Connections Fabrication and Assembly	NAS 1095
Flexure Testing of Bent Hydraulic Tubing	ARP1321
Flexure Testing of Hydraulic Tubing Joints and Fittings	ARP1185
Flexure Testing of Hydraulic Tubing Joints and Fittings By Planar Resonant Vibration	AIR1529
Flight Control Systems Bubble Point Test Method, Terminology for	ARP1181
Flight Control Systems Descriptions for Aircraft	AIR4094
Flight Control Systems, Design, Installation and Test of General Specification for	MIL-F-9490
Flight Control Systems; Design, Installation and Tests of, Aircraft, (General Specification for)	MIL-F-18372
Fluerics Terminology and Symbols	MIL-STD-1306
Fluid Connections, Installation Procedures and Torques	AS683
Fluid Power, Actuation, and Control Technologies, Terminology and Definition for Aerospace	ARP4386
Fluid Properties	AIR1116
Fluidic Technology	ARP993
Fluidic Test Methods and Instrumentation	MIL-STD-1361
Flying Qualities of Piloted Airplanes	MIL-F-8785
Fuse - Hydraulic Quantity Measuring, Class 3000, Type I	AN 6281
Fuse - Hydraulic Quantity Measuring, Class 3000, Type II	AN 6282
Fuses; Aircraft, Automatic Quantity Measuring, Hydraulic	MIL-F-5508

SAE AIR737 Revision E

4.1 (Continued):

Gage, Pressure, Dial Indicating, General Purpose, Aircraft	MIL-G-25987
Gage, Pressure, Dial Indicating, Pneumatic	MIL-G-25867
Gage, Single 1-Inch Dial, Pneumatic Pressure	MS 24478
Gages, Pressure, Dial Indicating, General Specification for	MIL-G-8402
Gages, Pressure, Dial Indicating, Hydraulic Type ME-1	MIL-G-25308
Gages, Pressure, Engine and Utility, 2-Inch Flanged Mounted, Back Ports	MS 28061
Gages, Pressure, Engine and Utility, 2-Inch Flange or Port Mounted, Bottom Port	MS 28063
Gages, Pressure, Engine and Utility, Aircraft	MIL-G-7734
Gas Generation Systems, Liquid Propellant	AIR1343
Gasket - Hydraulic Replacement Reservoir Type Filter Element	AN 6238
Gasket - Metal Tube Connection Seal	AN 901
Gasket - Straight Thread Tube Fitting, Boss	AN 6290
Gas Properties, Compendium of	AIR4093
Gland Design, O-ring and other Elastomeric Seals, Aerospace Standard-	AS4716
Graphic Symbols for Aircraft Hydraulic and Pneumatic Systems	AS1290
Grease, Pneumatic System	MIL-G-4343
Handling and Installation Practice for Aerospace Hose Assemblies	AIR1569
Hose and Tube Fitting-Installation and Qualification Test Torque Requirements	ARP908
Hose Assemblies, Flexible Metal, High Pressure and High Temperature	ARP824
Hose Assemblies, PTFE, Aramid Fiber Reinforced, 5000 & 8000 psi, General Specification for	MIL-H-85800
Hose Assembly, 3000 psi, TFE, Flared, 45° to 45°, Heavyweight	AS630
Hose Assembly, 3000 psi, TFE, Flared, 45° to 90°, Heavyweight	AS631
Hose Assembly, 3000 psi, TFE, Flared, 90° to 90°, Heavyweight	AS632
Hose Assembly, 3000 psi, TFE, Flared, Straight to 45°, Heavyweight	AS628
Hose Assembly, 3000 psi, TFE, Flared, Straight to 90°, Heavyweight	AS629
Hose Assembly, 3000 psi, TFE, Flared, Straight to Straight, Heavyweight	AS627
Hose Assembly, 3000 psi, TFE, Flareless, 45° to 45°, Heavyweight	AS624
Hose Assembly, 3000 psi, TFE, Flareless, 45° to 90°, Heavyweight	AS625
Hose Assembly, 3000 psi, TFE, Flareless, 90° to 90°, Heavyweight	AS626
Hose Assembly, 3000 psi, TFE, Flareless, Straight to 45°, Heavyweight	AS622
Hose Assembly, 3000 psi, TFE, Flareless, Straight to 90°, Heavyweight	AS623
Hose Assembly, 3000 psi, TFE, Flareless, Straight to Straight, Heavyweight	AS621
Hose Assembly Cleaning Methods, Tetrafluoroethylene	AS611
Hose Assembly - Detachable Swivel Fitting, Low Pressure	AN 6270
Hose Assembly, Detachable End Fitting, Medium Pressure	MS 28741
Hose Assembly, High Temperature, Convuluted Tetrafluoroethylene for Aircraft	AS620
Hose Assembly, Hydraulic and Pneumatic High Pressure, 3000 psi, Flared Tube	MS 28759
Hose Assembly, Hydraulic and Pneumatic High Pressure, 3000 psi, Flareless Tube	MS 28762
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 45° to 45°, Lightweight	AS156

SAE AIR737 Revision E**4.1 (Continued):**

Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 45° to 90°, Lightweight	AS157
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 90° to 90°, Lightweight	AS158
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, Straight to 45°, Lightweight	AS154
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, Straight to 90°, Lightweight	AS155
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 45° to 45°, Lightweight	AS118
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 45° to 90°, Lightweight	AS119
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 90° to 90°, Lightweight	AS120
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, Straight to 45°, Lightweight	AS116
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, Straight to 90°, Lightweight	AS117
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless Straight to Straight, Lightweight	AS115
Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared Straight to Straight, Lightweight	AS153
Hose Assembly, Pneumatic High Pressure	MIL-H-26666
Hose Assembly, Rubber, Aircraft, Hydraulic Fuel and Oil Resistant	MIL-H-8795
Hose Assembly, Rubber, Hydraulic and Pneumatic 3000 psi Fitting End to Elbow 45°, Flared Tube	MS 28920
Hose Assembly, Rubber, Hydraulic and Pneumatic 3000 psi Fitting End to Elbow 90°, Flared Tube	MS 28921
Hose Assembly, Rubber, Hydraulic and Pneumatic 3000 psi Elbow 90° to Elbow 90°, Flared Tube	MS 28924
Hose Assembly, Rubber, Hydraulic, High Pressure (3000 psi)	MIL-H-8790
Hose Assembly, Tetrafluoroethylene, High Temperature, Medium Pressure, General Requirements for	MIL-H-25579
Hose Assembly, Tetrafluoroethylene, Pneumatic High Pressure	MIL-H-38390
Hose Assembly, Tetrafluoroethylene, Heavy Duty, High Temperature, High Pressure, 4000 psi, 27,580 kPa Hydraulic and Pneumatic	AS614
Hose Assembly, Tetrafluoroethylene, 400 °F, 3000 psi, Hydraulic, Heavy Braid	AS604
Hose Assembly, Tetrafluoroethylene, 400 °F, 3000 psi, Hydraulic, Lightweight	AS1339
Hose Characteristics and Selection Chart	AIR797
Hose, Aircraft Low Pressure Flexible Hose, Hydraulic, High Pressure	MIL-H-5593
Hose, Oil, Fuel, Bend Data, Minimum, Hydraulic, Pneumatic	MS 33790

SAE AIR737 Revision E

4.1 (Continued):

Hose, Rubber, Aircraft, - Hydraulic and Pneumatic Fuel and Oil Resistant Hose Selection Chart	MIL-H-8794 MS 33620
Hose, Tetrafluoroethylene, High Temperature, Medium Pressure	MIL-H-27267
Hydraulic - Aircraft System Characteristics	AIR1899
Hydraulic and Pneumatic Systems, General, Test Procedure for Aircraft	MIL-T-5522
Hydraulic Components, Type III, (-65° to +450 °F) General Specification for	MIL-H-8890
Hydraulic External Leakage for In-Service Components	ARP1084
Hydraulic Fluid Characteristics	AIR81
Hydraulic Fluids, Degradation Limits of Hydrocarbon-Based, MIL-H-5606, MIL-H-6083, MIL-H-83282, and MIL-H-46170 Used in Hydraulic Test Stands	AIR810
Hydraulic Fluid, Fire Resistant, Hydrocarbon Base, Aircraft NATO Code # H537	MIL-H-83282
Hydraulic Fluid, Fire Resistant; Low Temperature, Synthetic Hydrocarbon Base, Aircraft and Missile	MIL-H-87257
Hydraulic Fluid, Fire Resistant Phosphate Ester, Aircraft	AS1241
Hydraulic Fluid, Non Flammable, Chlorotrifluoroethylene Base	MIL-H-53119
Hydraulic Fluid, Petroleum Base, Aircraft and Ordnance	MIL-H-5606
Hydraulic Fluid, Petroleum Base, Preservative	MIL-H-6083
Hydraulic Fluid, Petroleum Base, Ultra-Low, Temperature	MIL-H-81019
Hydraulic Fluid, Rust Inhibited, Fire Resistant, Synthetic Hydrocarbon Base	MIL-H-46170
Hydraulic Fluids, Physical Properties of	AIR1362
Hydraulic Power Systems	MIL-H-87227
Hydraulic System Diagrams and Assoc.	HRP4382
Hydraulic System Diagrams and Associated Table for Marine Vehicles	HIR4382
Hydraulic Systems, Missile, Long Term Storage of	AIR974
Hydraulic System Survivability for Military Aircraft	AIR1083
Hydraulic Systems - Aircraft Design and Installation of in Commercial Transport Aircraft	ARP4752
Hydraulic Systems, Aircraft, Types I and II, Design, Installation, and Data Requirements for	MIL-H-5440
Hydraulic System Cleanliness Procedures and Requirements Comparing Ten Aerospace Companies	AIR1918
Hydraulic Systems, 8000 psi, Experience and Test Results	AIR4002
Hydraulic Systems, Manned Flight Vehicles, Type III, Design, Installation and Data Requirements for	MIL-H-8891
Hydraulic Systems, Missile, Design, Installation, Tests, and Data Requirements (General Requirements for)	MIL-H-25475
Identification Marking of Rubber Products	MIL-STD-190
Identification Marking of U.S. Military Property	MIL-STD-130
Impregnants for Cast or Powder Metal Components	MIL-I-17563
Impregnation of Porous Nonferrous Metal Castings	MIL-STD-276
Impulse Test Machine, Sine Wave, Equipment and Operation of	AIR4298
Impulse Testing of Hydraulic Actuators, Valves, Pressure Containers and Similar Fluid System Components	ARP1383

SAE AIR737 Revision E

4.1 (Continued):

Impulse Testing of Hydraulic Hose, Tubing, and Fitting Assemblies	ARP603
Index of Hydraulic System Component Manufacturers and Their Trademarks	AIR1973
Indicator Pressure AGU-3-A, Hydraulic, 0 - 4000 psi	MIL-I-27190
Indicator, Position, Landing Gear	MIL-I-6839
Indicator, Pressure, Hydraulic, 0 - 4000 psi	MIL-I-7084
Inspection of Aluminum Alloy Parts, Anodizing Process for	MIL-I-8474
Inspection, Liquid Penetrant	MIL-STD-6866
Instruments, Pressure - Fuel, Oil, and Hydraulic (Reciprocating Engine Powered Aircraft)	AS408
Investigation of PTFE "Melt" Phenomenon for High Pressure Hoses	AIR4092
Joints, Hydraulic Swivel	MIL-J-5513
Landing Gear, Aircraft Shock Absorber (Air - Oil Type)	MIL-L-8552
Landing Gear, Aircraft, Tests, Impact, Shock Absorber	MIL-T-6053
Lessons Learned, Aerospace Hydraulics and Actuation	AIR4543
Lines, Fluid, Protection of	NAS 810
Lock - Rod End (Key Type)	NAS 559
Locking Device - Positive Index	NAS 1043
Lubricating Oil, Aircraft Turbine Engine, Synthetic Base	MIL-L-23699
Marking, Functions and Hazard Designations of Hose, Pipe, and Tube	MIL-STD-1247
Lines for Aircraft, Missile and Space Systems	
Marking, Standard Hose Aircraft	MIL-M-6002
Materials, Hydraulic Servoactuator	AIR4066
Materials, Rubber and Rubber-Like	MIL-HDBK-149
Mechanical Symbols (Part No. 1)	MIL-STD-17
Mechanical Symbols for Aeronautical; Aerospacecraft and Spacecraft Use (Part No. 2)	MIL-STD-17
Metals, Dissimilar	MIL-STD-889
Missile and Rocket Applications: Hose Assemblies, Flexible Metal, High Temperature and High Pressure	ARP907
Missile and Space Systems, Pressurized, Standard General Requirements for Safe Design and Operation of	MIL-STD-1522
Monitoring, Airborne of Commercial Transport Aircraft Fluid Systems and Equipment Performance	AIR1155
Motor - Aircraft Hydraulic Start	AS714
Motors, Aircraft Hydraulic, Constant Displacement	MIL-M-7997
Motor, Gas	ARP719
Nipple Assembly, Adapter, Hose to Tube, Reusable, Hydraulic Fuel and Oil Line, 90°	MS 27223
Nipple Assembly, Adapter, Hose to Tube, Reusable, Hydraulic, Fuel and Oil Line, 45°	MS 27225
Nipple Sub Assembly, Flared, Straight - with Swivel Nut	MS 27061
Nipple Sub Assembly, Flareless, Straight - with Swivel Nut	MS 27386
Nipple Sub Assembly, Straight, Swivel Flange Nitrogen Technical	MS 27062

SAE AIR737 Revision E

4.1 (Continued):

Nipple, Adapter, Hose to Tube, Reusable, Hydraulic, Pneumatic, Fuel and Oil Lines 3/16 through 3/4 Inch Tubing Size	MS 24588
Nipple, Adapter, Hose to Tube, Reusable, Hydraulic, Pneumatic, Fuel and Oil Lines 1 through 2 Inch Tubing Size	MS 24589
Nipple, Flareless, Tube to Hose - Swivel Nut	MS 27391
Nipple, Straight, Swivel Flange	MS 27076
Nipple, Tube to Hose - Swivel Nut	MS 27075
Nipple, Tube, 37° to 45° Seat	MS 24487
Noise Control in Fluid Power Systems of Marine Vehicles	HIR1622
Nomenclature, Aircraft Hydraulic and Pneumatic Systems Fittings, Catalog of Flared, Flareless, Pipe Threaded Port	BB-N-311
Nomenclature, Aircraft Hydraulic and Pneumatic Systems	ARP243
Non-Metallic Shaft/Coupling Details, Engine Driven Accessories	MS 14184
Nut, Cluster Fitting, Retainer	MS 21937
Nut, Coupling	AN 818
Nut, Drilled Jam	NAS 509
Nut, Flared Tube Bulkhead and Universal Fitting	AN 924
Nut, Flared Tube Universal Fitting	AN 6289
Nut, Sleeve Coupling Flareless	MS 21921
Nut, Sleeve, Coupling	AN 817
Nut, Swivel, Tube Coupling, Designed for Adapter, Hose to Tube Reusable, Hydraulic Fuel and Oil Lines	MS 27233
Nut, Tube Coupling - Swivel	MS 27073
Oil, Lubricating, Internal Combustion Engine, Arctic	MIL-L-46167
Oil, Lubricating, Internal Combustion Engine, Tactical Service	MIL-L-2104
O-ring Elongation Modulus Test	NAS 1629
O-ring Packings and Gaskets - Surface Inspection Guide and Acceptance Standards, Top Visual Quality (TVQ)	AS708
O-ring Packings, 3000 psi Hydraulic Service, Physical and Performance Tests for Type II (-65 to +275 °F)	ARP820
O-ring Seal, Elastomeric, Gland Design	ARP1231
O-ring Selection and Cavity Design for Static Seal Use In Aircraft	AS666
Tubeless Wire Wheels	
O-ring Tension Testing Calculations	AIR851
O-rings - Aerospace Size Standard for	AS568
O-rings, Fluid Systems-Sealing Devices-, Inside Diameters, Cross Sections, Tolerances and Size Identification Code	ISO 3601/1
O-rings, Fluid Systems-Sealing Devices-, Design Criteria for O-ring Housings	ISO 3601/2
O-rings, Rubber, Visual Inspection Guide for	MIL-STD-413
Packings, Hydraulic, General Requirements for Gland Design	MIL-G-5514
Packing, "D" Ring, Shock Strut	MS 28772
Packing, O-ring Hydraulic (Inactive; Use MS 28775)	AN 6227
Packing, O-ring, Phosphate Ester Resistant	NAS 1613
Packing, Preformed - High Pressure Air Valve	MS 24690

SAE AIR737 Revision E

4.1 (Continued):

Packings, Preformed, Manufacturing and Inspection Standard for	AS871
Packing, Preformed, O-ring Standard Sizes	NAS 1601
Packing, Preformed, O-ring, Straight Thread Tube Fitting Boss, Sizes	NAS 1602
Packing, Preformed, Hydraulic, +275°F "O" Ring	MS 28775
Packing, Preformed, O-ring, Phosphate Ether Resistant (-65 °F to +160 °F)	NAS 1611
Packing, Preformed, Petroleum Hydraulic Fluid Resistant, 275 °F	MIL-P-25732
Packing, Preformed, Petroleum Hydraulic Fluid Improved Performance at 275 °F (135 °C)	MIL-P-83461
Packing, Preformed, Rubber, Packaging of	MIL-P-4861
Packing, Preformed, Straight Thread Tube Fitting Boss, Type I Hydraulic	MIL-P-5510
Packing, Preformed, Straight Thread	MS 28778
Packing, Preformed, Straight Thread Tube Fitting Boss (-65 °F to +160 °F)	NAS 1612
Packing, U Cup Hydraulic	AN 6226
Packing, V Ring, Hydraulic (Inactive)	AN 6225
Particle Count Data Conversion and Extrapolation	AIR877
Particle Counter: Procedure for Calibration and Verification	ARP1192
Particulate Contamination Air in Dust Controlled Spaces by the Particle, Procedure for the Determination of	ARP743
Particulate Contamination Air in Hydraulic Fluids by the Control Filter Gravimetric Procedure, Procedure for the Determination of	ARP785
Particulate Contamination in Liquids by the Particle Count Method, The Determination of	ARP598
Petrolatum, Technical	VV-P-236
Placarding of Aircraft Hydraulic Equipment to Identify Required Fluid Suitability	ARP1288
Plate - Instrument Identification	AN 7515
Plates - Identification	MIL-P-6906
Plating, Cadmium (Electrodeposited)	QQ-P-6906
Plating, Chromium (Electrodeposited)	QQ-C-320
Plating, Nickel (Electrodeposited)	QQ-N-290
Plating, Silver (Electrodeposited)	QQ-S-365
Plating, Tin, Electrodeposited or Hot Dipped for Ferrous and Non-Ferrous Metals	MIL-T-10727
Plug - Flared Tube	AN 806
Plug - Machine Threaded "O" Ring Seal (Inactive)	MS 9015
Plug and Bleeder-Flared Tube	AN 814
Plug, Flared Tube, Precision Type	MS 24404
Plug, Flareless Tube	MS 21913
Plug-Bleeder, Bleeder, Tube, Precision Type	MS 24391
Pneumatic Aircraft Start Systems, Historical Tabulation of	AIR4278
Pneumatic Components, Aeronautical, General Specification for	MIL-P-8564
Pneumatic Duct Systems for Aircraft, High Temperature	ARP699
Pneumatic Ground Power Supplies for Starting Aircraft	AIR944
Pneumatic Pressure Regulators for Missile Flight Control Systems	ARP4196

SAE AIR737 Revision E

4.1 (Continued):

Pneumatic Systems, Aircraft, Design, Installation and Data	MIL-P-5518
Requirements for Applications	AIR744
Power Sources for Fluidic Controls	AIR1245
Power Transfer Units, Aircraft Fixed Displacement Application Guide for	ARP1280
Preparation for Delivery, General Requirements for Hose Assemblies	ARP1835
Pressure Drop, Hydraulic, Determination of	ARP24
Pressure Indicating System, Hydraulic A/A27J-1	MIL-P-38027
Prestressing (Autofrettaging) of Hydraulic Tubing Lines	AIR1379
Propellant Pressurizing Agent, Helium	MIL-P-27407
Propellant Pressurizing Agent, Nitrogen	MIL-P-27401
Protective Closure - Cap	NAS 813
Protective Closure - Cap	NAS 814
Protective Closure - Cap	NAS 817
Protective Closure - Cap	NAS 820
Protective Closure - Cap (Inactive)	NAS 811
Protective Closure - Cap (Inactive)	NAS 812
Protective Closure - Cap or Plug	NAS 816
Protective Closure - Plug	NAS 815
Protective Closure - Plug	NAS 818
Pump - Driven Hydraulic, 3 GPM at 3000 psi Power	AN 4149
Pump, Drive, Fluid Power Type XII-J, Installation Clearance	AND 10331
Pump, Drive, Fluid Power Type XII-K, Installation Clearance	AND 10338
Pump, Drive, Type IX, Installation Clearance	AND 10302
Pump - Hydraulic Hand	AN 6201
Pump - Hydraulic Hand, Type 3000	AN 6248
Pump Unit, Hydraulic, Electric Motor Driven, Fixed Displacement	MIL-P-5954
Pump, Hydraulic, Fluid System Characteristics Affecting Operation	ARP819
Pump, Hydraulic Ram, Hand Driven	MIL-P-5515
Pump, Hydraulic, Civil Type Aircraft and Variable Delivery	AS595
Pump, Hydraulic, Electric-Motor-Driven, Variable Delivery Control Unit,	MIL-P-5994
Pressure Generating, Manually Operated Aircraft Hydraulic Brake System	
Pump, Hydraulic, Power Driven, Fixed Displacement	MIL-P-7858
Pumps, Hydraulic, Variable Delivery, General Specification for	MIL-P-19692
Pumps, Missile Hydraulic	ARP560
Pump, Pressure, Oil-free Air, Type MA-2	MIL-P-9388
Pump, Pressure, Oil-free Air, Type MA-3	MIL-P-9389
Pumps and Motors, Power, Oil Hydraulic	MIL-P-17869
Quick Disconnect Couplings for Aerospace Fluid Systems, a Guide for the	AIR1047
Selection of	
Qualification of Hydraulic Tube Joints to Specified Flexure Fatigue	ARP1258
Requirements	
Recommended Formulae for Determining Drop Dimensions for	ARP1676
Simple-Bend Tube Fittings with Flared and Flareless End Connections	
Used in Aerospace Applications	

SAE AIR737 Revision E

4.1 (Continued):

Recommended Part Numbering Guidelines for Fluid System Components	AIR1590
Inch System of Measurements	
Reducer - External Thread Flared Tube	AN 919
Reducer Tee - Bulkhead on Run, Flared Tube	AS1033
Reducer Tee - Bulkhead on Run, Internally Threaded Side Port, Flared Tube	AS1031
Reducer, External Thread Flared Tube, Precision Type	MS 24399
Reducer, External Thread, Flareless Tube	MS 21916
Reducers, Pneumatic Pressure, Missile	AS1297
Reducers, Pneumatic Pressure, Aircraft	MIL-R-8572
Regulator - 10 GPM Hydraulic Pressure	AN 6206
Regulator - 10 GPM Hydraulic Pressure	AN 6295
Reliability Programs for Systems and Equipment Development and Production	MIL-STD-785
Relief, Cylindrical, Type II Systems	MS 28887
Reports, Scientific and Technical - Organization, Preparation and Production, Information Sciences -	ANSI Z39.18
Reservoirs, Air, Nonshatterable Steel	MIL-R-8573
Reservoirs, Aircraft and Missile, Hydraulic, Separated Type	MIL-R-8931
Reservoirs, Aircraft, Hydraulic, Non-Separated Type	MIL-R-5520
Reservoirs: Aircraft and Missile, Hydraulic Separated Type	MIL-R-8931
Retainer, Backup, Tetrafluoroethylene; Straight Thread Tube Fitting Boss	MS 28773
Retainer, Packing, Back-Up Ring, Leather	MS 35803
Retainer, Packing, Back-Up Teflon	MS 28782
Retainer, Packing, Hydraulic and Pneumatic, Tetrafluoroethylene Resin	MIL-R-8791
Ring - Back-Up, Boss Connection, AMS 3651	MS 9058
Ring - Hydraulic Gasket Backup	AN 6244
Ring, Gasket, Back-Up, Teflon	MS 28783
Rod Scraper Gland Design Standard	AS4088
Rubber Molded Items, Visual Inspection Guide for	MIL-STD-407
Rubber Products, Terms for Visible Defects of	MIL-STD-177
Rubber, Fluorocarbon Elastomer, High Temperature, Fluid and Compression Set, Resistant	MIL-R-83248
Rubber, Fluorocarbon Elastomer, High Temperature, Fluid and Compression Set, Resistant, O-rings, Class 1,75 Hardness	MIL-R-83248/1
Rubber, Fluorocarbon Elastomer, High Temperature, Fluid and Compression Set, Resistant, O-rings, Class 2,90 Hardness	MIL-R-83248/2
Rubber, Fluorocarbon Elastomer, Improved Performance at Low Temperature	MIL-R-83485
Rubber Fluorocarbon Elastomer, High-Temperature, Fluid and Compression Set, Resistant	MIL-R-83248
Rubber, Silicone, Oil and Fuel Resistant	MIL-R-25988
Safety Wiring and Cotter Pinning, General Practices for	MS 33540
Sampling Points, Location of in Aerospace Hydraulic System Fluid Contamination	ARP4268
Sampling Procedures and Tables for Inspection by Attributes	MIL-STD-105

SAE AIR737 Revision E

4.1 (Continued):

Seal, Metal Ring, Groove Design	ARP674
Seal, Ring, Metallic, High Temperature Reciprocating Hydraulic Service	AIR1077
Seals, Strip Anti-Blow-By Design Practice for Cap	AIR1243
Scraper, Piston Rod	MS 28776
Scraper, Installation, Packing Gland Ring	MS 33675
Scrapers; Piston Rod	MIL-S-5049
Screw Thread, Controlled Radius Root with Increased Minor Diameter, General Specification for	MIL-S-8879
Screw Threads, Standard, Optimum Selected Series, General	MIL-S-7742
Screw Thread Representation	ANSI Y14.6
Sealing Techniques for Missile Applications	ARP1833
Service Damage Limits for Aircraft Hydraulic Tubing	AIR1388
Servoactuators, Electromechanical Feedback	ARP988
Servovalves, Electrohydraulic	ARP490
Shoulder - Designed for 45° and 90° Swivel Nut Hose to Fuel and Oil Lines	MS 27236
Silicone Fluid, Chlorinated Phenol Methyl Polysiloxane	MIL-S-81087
Skid Control Equipment	AS483
Skid Control Performance Evaluation	ARP862
Sleeve Coupling Flareless	MS 21922
Sleeve, Flared Tube Fitting	MS 20819
Sleeve, Hose Assembly, Heat Shrinkable	AS1073
Sleeve, Hose Coupling	MS 27070
Socket, Adapter, Hose to Tube, Reusable, Hydraulic, Pneumatic Fuel and Oil Lines 3/16 through 3/4 Inch Tubing Size	MS 24590
Socket, Adapter, Hose to Tube, Reusable, Hydraulic, and Pneumatic Fuel and Oil Lines 1 through 2 Inch Tubing Size	MS 24591
Socket, Hose Coupling	MS 27069
Solenoid, Electrical, General Specification for	MIL-S-4040
Spline Details, Accessory Drives and Flanges	AS972
Spline Details, Drive Pads and Accessory Flanges, Design Standard for	MS 3335
Spring, Hydraulic, General Specification for	MIL-S-8959
Springs, Mechanical, Drawing Requirements for	MIL-STD-29
Stand, Test, Aircraft Hydraulic System, Gasoline-Engine-Driven, Type MJ-1	MIL-S-26874
Standard Codes for Sleeving on PTFE Hose Assemblies	ARP1785
Standards and Specifications, Order of Preference for	MIL-STD-970
Starter Drive, Engine, Guide for Determining Torque Requirements	AIR781
Starter, Pneumatic, Aircraft Engine, General Specification for	AS943
Starter/Pumps, Aircraft Hydraulic	AS838
Starter, Reciprocating Engine Pneumatic	AIR4152
Starting Systems, Hydraulic Energy Limited	AIR1466
Starting Systems, Pneumatics, Safety Criteria for	AIR1639
Steering System; Aircraft, General Specification for	MIL-S-8812
Surface Texture	ASA-B46.1
Switch, Pressure, Aircraft, General Specification for	MIL-S-8932
Switch, Pressure, Bulkhead Mounted (Type 2)	MS 25276

SAE AIR737 Revision E

4.1 (Continued):

Switch, Pressure, Engine Mounted (Type 1)	MS 25275
Swivel Nut Assembly, Adapter, Hose to Tube, Reusable, Hydraulic Fuel and Oil Line, 90°	MS 27224
Swivel Nut Assembly, Adapter, Hose to Tube, Reusable Hydraulic Fuel and Oil Line, 45°	MS 27226
System Integration Factors that Affect Hydraulic Pump Life	AIR1922
Tee - Bulkhead and Universal Flared Tube	AN 834
Tee - Flared Tube	AN 824
Tee - Internal Screw Thread	AN 938
Tee - Universal	NAS 555
Tee - Universal - Flareless	NAS 1240
Tee - Universal Fitting	AN 779
Tee, Bulkhead and Universal Flared Tube, Precision Type	MS 24395
Tee, Bulkhead and Universal, Flareless Tube	MS 21909
Tee, Bulkhead, Flareless Tube, Internal Thread on Side	MS 21910
Tee, Bulkhead, Flareless Tube, Internal Thread on Run	MS 21911
Tee, Flared Tube, Internal Thread on Run	AN 784
Tee, Flared Tube, Internal Thread on Side	AN 783
Tee, Flared Tube, Internal Thread on Side, Precision Type	MS 24389
Tee, Flared Tube, Precision Type	MS 24402
Tee, Flared Tube, with Bulkhead on Run, Precision Type	MS 24390
Tee, Flared with Bulkhead on Run	AN 804
Tee, Flareless Tube	MS 21905
Tee, Flareless Tube with Bulkhead on Run	MS 21912
Tee, Reducer - Bulkhead and Internally Threaded Port on Run, Flared Tube	AS1032
Tee, Reducer, Bulkhead and Internal Port on Run, Flareless Tube	AS1002
Tee, Reducer, Bulkhead on Run, Flareless Tube	AS1003
Tee, Reducer, Bulkhead on Run, Internal Port on Side, Flareless Tube	AS1001
Tee, Reducer, Bulkhead on Side, Flared Tube	AS1039
Tee, Reducer, Bulkhead on Side, Flareless Tube	AS1009
Tee, Reducer, Flared Tube	AS1035
Tee, Reducer, Flareless Tube	AS1005
Test Method, Bubble-Point	ARP901
Test of Hydraulic Components in Contamination Controlled System , Procedure and Methods for	ARP219
Test Stand, Aircraft Hydraulic System, Gasoline-Engine-Driven, Type MJ-2A	MIL-S-26877
Test Stand, Aircraft Hydraulic System, Trailer Mounted A/M27T	MIL-T-26398
Test Stand, Hydraulic System, Gasoline Engine Driven, Type D-5A	MIL-T-7612
Tester, Hose Assemblies, Hydraulic, Pneumatic, Fuel, and Oil, Aircraft	MIL-T-25456
Threads, Pipe, Taper, Aeronautical National Form, Symbol ANPT, General Requirements for	MIL-P-7105
Titanium Alloy Tubing, Seamless, Hydraulic- Evaluation of 3.0Al 2.5V, Cold Worked, Stress Relieved	AMS 4944
Titanium Alloy Tubing Seamless, Hydraulic, 3Al 2.5V, Texture Controlled, 105,000 psi (724 MPa) Yield Strength	AMS 4945

SAE AIR737 Revision E

4.1 (Continued):

Torque Determination, Method of, for Tube or Hose End Fitting Miscellaneous Screw Thread Style	ARP600
Torsion Strength Testing of Hydraulic Tube Joints	ARP4457
Transmission, Power, Constant Speed, 60/25 KW	MIL-T-7101
Transmitter, Pressure, Hydraulic, Type MJ1	MIL-T-25307
Transmitters, Pressure, Synchro, Aircraft	MS 28005
Tube End Radii	MS 33611
Tube Fittings and Tube Assemblies, Standard Words for Test Paragraphs for	AIR1378
Tube Fittings, Fluid Systems, Permanent Type, General Requirements for	ARP899
Tube, Aluminum Alloy, Drawn, Seamless, 5052	WW-T-700/4
Tube, Aluminum Alloy, Drawn, Seamless, 6061	WW-T-700/6
Tubing, Aircraft, Tables of Compressibility	NBS Circ.No 564
Tubing, Aluminum Alloy, Seamless, Round 6061, Aircraft Hydraulic Quality	MIL-T-7081
Tubing End, Double Flare, Standard Dimensions for	MS 33583
Tubing End, Hose Connection, Standard Dimensions for	MS 33660
Tubing End, Standard Dimensions for Flared Tube	MS 33584
Tubing, Steel, Corrosion Resistant #304, Aerospace Vehicle Hydraulic Systems, Annealed, Seamless and Welded	MIL-T-8504
Tubing, Steel, Corrosion-Resistant (304), Annealed, Seamless and Welded	MIL-T-8506
Tubing, Steel, Corrosion-Resistant (18-8 Stabilized) Aircraft Hydraulic Quality	MIL-T-8808
Tubing, Steel, corrosion-Resistant #304, Aerospace Vehicle Hydraulic System, 1/8 Hard Condition	MIL-T-6845
Tubing, Steel, Corrosion-Resistant Round, Standard Dimensions for	AND 10104
Turbine Installations for Aerospace Fluid Power, Recommended Practice for and Design of	ARP994
Union, Flared Tube	AN 815
Union, Flared Tube 3/8 Bulkhead and Universal	AN 832
Union, Flared Tube 3/8 Bulkhead and Universal, Precision Type	MS 24393
Union, Flared Tube, Precision Type	MS 24392
Union, Flareless Tube	MS 21902
Union, Flareless Tube, 3/8 Bulkhead and Universal	MS 21903
Union, Flareless Tube, Bulkhead and Universal	MS 21924
Union, Nipple	MS 27071
Union, Reducer, Bulkhead, Flared Tube	AS1037
Union, Reducer, Bulkhead, Flareless Tube	AS1007
Valve - 4 way Rotary Selector, 3000 psi, Interflow	AN 6294
Valve - 4 Way Rotary Selector, 3000 psi, Non-Interflow	AN 6293
Valve, 1500 psi Hydraulic Check	AN 6207
Valve, 3000 psi Hydraulic Check	AN 6249
Valve, 3000 psi Hydraulic Check, Flareless, Type II Systems	MS 28892
Valve-3000 psi Hydraulic Check Internal Ports	AN 6280
Valves, Air, Aircraft, Guide for Qualification Testing	ARP986
Valves, Air, High Pressure - Core	AN 809
Valves, Air, High Pressure, Core, Aircraft	MIL-C-5499

SAE AIR737 Revision E

4.1 (Continued):

Valve, Air, High-Pressure Charging	MS 28889
Valves, Aircraft Hydraulic Flow Regulator	MIL-V-8566
Valves, Aircraft Power Brake	MIL-V-5525
Valve, Aircraft, Air, High Pressure	MIL-V-6164
Valves; Aircraft Hydraulic Shuttle	MIL-V-5530
Valves; Aircraft, Hydraulic Thermal Expansion Relief	MIL-V-5527
Valves; Aircraft, Hydraulic Pressure Relief, Type II Systems	MIL-V-8813
Valve, Aircraft Hydraulic Flow Regulator	MS 28886
Valves, Check, Controllable, Hydraulic, Aircraft, Type II Systems	MIL-V-19067
Valves, Check, Hydraulic, Aircraft and Missile, Type III Systems	MIL-V-25675
Valves, Check, Hydraulic, Aircraft, Type II Systems	MIL-V-19069
Valve, Check, Controllable Plunger-Type, Hydraulic 3000 psi, Type II Systems	MS 28768
Valve, Check, Controllable, Rotary Action, Hydraulic 3000 psi, Type II Systems	MS 28764
Valves; Check, Hydraulic, Aircraft, Type I Systems	MIL-V-5524
Valve, Check, Hydraulic, Flared, 3000 psi, Type II Systems	MS 28771
Valve, Check, Hydraulic, Internal Ports, 3000 psi, Type II Systems	MS 28765
Valve, Check-Hydraulic, Minus 65 °F to Plus 450 °F	MS 24423
Valve, Check-Hydraulic, Minus 65 °F to Plus 450 °F 3000 psi, Flared Tube	MS 24593
Valve - Check, Low Pressure, Internal Threads (ASG)	MS 28050
Valve - Control, Aircraft, Pneumatic 28-Volt D-C Solenoid Operated	MIL-V-19593
Valve, Fuel Shutoff Solenoid Operated, 28 Volt DC 60 psi Operating Pressure	MS 29527
Valve, Hydraulic Bleeder	AN 6204
Valve, Hydraulic Check, 3000 psi, Flareless, Type II Systems	MS 28890
Valves; Hydraulic Directional Control, Rotary Selector	MIL-V-5529
Valve - Hydraulic Dual Thermal Expansion Relief	MS 28016
Valve, Hydraulic Relief, Cylindrical, Type II Systems	MS 28893
Valve - Hydraulic Shuttle, 3000 psi, Internal Thread Tube Fitting Outlet (Inactive; Use MS 28767)	AN 6277
Valve - Hydraulic Shuttle, 3000 psi, Universal and Internal	AN 6278
Valve - Hydraulic, Directional Control, Slide Selector 4 Way, 300 psi	MS 28881
Valve - In Line Type 3-1/2 GPM Hydraulic Directional Control	AN 6210
Valve - In Line Type 6 GPM Hydraulic Directional Control	AN 6211
Valve Installation - Hydraulic Bleeder, Standard Dimensions for	AND 10067
Valve - Instrument Vacuum Control	AN 5829
Valve - Low Pressure Check, Internal Pipe Threads (Use MS 28050)	AN 5830
Valves, One Cycle, Explosive Actuated, General Components Specification for	ARP745
Valves - Pressure Gage Lines Bleeder and Filler Check (Use MS 28050)	AN 5832
Valve - Radial Type 16 GPM Hydraulic Directional Control	AN 6215
Valve - Radial Type 3-1/3 GPM Hydraulic Directional Control	AN 6213
Valve - Radial Type 6 GPM Hydraulic Directional Control	AN 6214
Valve Regulating Fluid Pressure	MIL-V-5519
Valve; Relief, Hydraulic Pressure Type II Systems	MIL-V-81940

SAE AIR737 Revision E

4.1 (Continued):

Valves, Servo Control, Electric-Hydraulic, General Specification for	MIL-V-27162
Valves, Shuttle, Hydraulic, Aircraft, Type II Systems	MIL-V-19068
Valve - Static Pressure Selector	MS 28051
Valve, Shuttle, Hydraulic, 3000 psi, Direct Mounting	MS 28891
Valve, Shuttle, Hydraulic, Direct Mounting, 3000 psi, Type II Systems	MS 28766
Valve, Shuttle, Hydraulic, Internal-Thread, Tube Fitting Outlet 3000 psi, Type II Systems	MS 28767
Valve - Starter Control, Pneumatic Aircraft Engine, General Specification for	AS1607
Valve, Stop Check, Purge, Manifold Manifold Pressure Gage Line	MIL-V-6618
Valve, Vacuum Breaking	MIL-V-5461
Valve, Vacuum Breaking	MS 87005
Visual Inspection Guide for Installed Hose Assemblies	ARP1658
Washer - Aircraft Hydraulic Packing Back-Up	MIL-W-5521
Washer, Flat, Aircraft Hydraulic Backup	MS 28777
Washer - Rod End Locking	NAS 513
Wheel and Brake Assemblies; Aircraft	MIL-W-5013
Wheels and Brakes, Minimum Requirements for Civil Aircraft Applications	AS227
Wheels and Brakes, Supplementary Criteria for Design Endurance Civil Transport Aircraft	ARP597
Wire, Lock	MS 20995
Wire, Nut Retaining, Designed for Adapter Hose to Tube and Oil Lines	MS 27238
Wire, Retainer	MS 27074
Wire, Retainer	MS 27072
Wiring, Aerospace Vehicle	MIL-W-5088
Wrench Pads, Fluid Fitting, Alternate Machined Shapes	AS1376
Wrought Corrosion and Heat Resistant Steels and Alloys Tubing, Welded and Drawn-9.0Mn 20Cr 6.5Ni 0.28N, High-Pressure Hydraulic	AMS 5561

4.2 Alphanumerical Listings:

AIR81	Hydraulic Fluid Characteristics
AIR310	Fittings, Catalog of Flared, Flareless, Pipe Threaded Port Hose and Other Type Tube Standard Connectors
AIR405	Filters, Secondary, for Fluid System Reliability
AIR539	Recommended Materials and Practices for Use with Cryogenic Propellants
AIR737	Aerospace Hydraulic and Pneumatic Specifications and Standards
AIR744	Auxiliary Power Sources for Aerospace Applications
AIR781	Guide for Determining Engine Starter Drive Torque Requirements
AIR786	Elastomer Compatibility Considerations Relative to O-ring and Sealant Selection
AIR787	Filter Element Cleaning Methods
AIR797	Hose Characteristics and Selection Chart
AIR810	Degradation Limits of Hydrocarbon-Based Hydraulic Fluids, MIL-H-5606, MIL-H-6083 MIL-H-83282, and MIL-H-46170 Used Hydraulic Test Stands
AIR844	Sensitization and Corrosion in Stainless Steel Filters

SAE AIR737 Revision E

4.2 (Continued):

AIR851	O-ring Tension Testing Calculations
AIR877	Particle Count Data Conversion and Extrapolation
AIR887	Liquid Filter Ratings, Parameters and Tests
AIR888	Recommended Standard for Aerospace Filter Element Fine Wire Mesh
AIR901	Bubble-Point Test Method
AIR944	Pneumatic Ground Power Supplies for Starting Aircraft
AIR974	Long-Term Storage of Missile Hydraulic Systems
AIR999	Cryogenically Fueled Dynamic Power Systems
AIR1047	Quick Disconnect Couplings for Aerospace Fluid Systems, A Guide for the Selection of
AIR1064	Brake Dynamics
AIR1077	Metallic Seal Rings for High Temperature Reciprocating Hydraulic Service
AIR1083	Hydraulic System Survivability for Military Aircraft
AIR1116	Fluid Properties
AIR1155	Airborne Monitoring of Commercial Transport Aircraft Fluid Systems and Equipment Performance
AIR1160	Aircraft Engine and Accessory Drives and Flange Standards
AIR1186	Installation and Use of Equilateral Triangle Cross-Section Hydraulic O-ring Seal Backup Rings (Dyna-Bak)
AIR1243	Anti-Blowby Design Practice for Cap Strip Seals
AIR1245	Power Sources for Fluidic Controls
AIR1343	Liquid Propellant Gas Generation Systems
AIR1362	Physical Properties of Hydraulic Fluids
AIR1377	Fire Test Equipment for Flexible Hose and Tube Assemblies
AIR1378	Standard Words for Test Paragraphs for Tube Fittings and Tube Assemblies
AIR1379	Prestressing (Autofretting) of Hydraulic Tubing Lines
AIR1388	Service Damage Limits for Aircraft Hydraulic Tubing
AIR1466	Starting Systems, Hydraulic Energy Limited
AIR1529	Flexure Testing of Hydraulic Tubing Joints and Fittings By Planar Resonant Vibration
AIR1569	Handling and Installation Practice for Aerospace Hose Assemblies
AIR1590	Recommended Part Numbering Guidelines for Fluid System Components
AIR1593	Inch System of Measurements
AIR1593	Clamp Loads and Bending Stresses in Aircraft Tubing Installations
AIR1639	Safety Criteria for Pneumatic Starting Systems
AIR1657	Handbook of Hydraulic Metric Calculations
AIR1855	Actuation System Data Summary for Missiles and Launch Vehicles
AIR1899	Aircraft Hydraulic System Characteristics
AIR1918	Comparison of Hydraulic System Cleanliness Procedures and Requirements for Ten Aerospace Companies
AIR1922	System Integration Factors that Affect Hydraulic Pump Life
AIR1973	Index of Hydraulic System Component Manufacturers and Their Trademarks
AIR2000	Aerospace Fluid System Standards, Metric, National and International

SAE AIR737 Revision E

4.2 (Continued):

AIR4002	Hydraulic Systems, 8000 psi, Experience and Test Results
AIR4057	Secondary Filters for Fluid System Reliability
AIR4066	Hydraulic Servoactuator Materials
AIR4092	Investigation of PTFE "Melt" Phenomenon for High Pressure Hoses
AIR4093	Compendium of Gas Properties
AIR4094	Aircraft Flight Control Systems Descriptions
AIR4150	Inspection of Inservice Airborne Accumulators for
AIR4152	Reciprocating Engine Pneumatic Starter
AIR4160	Alternatives to Cadmium Plating
AIR4253	Description of Actuation Systems for Aircraft with Fly-by-Wire Flight Control Systems
AIR4278	Historical Tabulation of Aircraft Pneumatic Start Systems
AIR4298	Impulse Test Machine, Sine Wave, Equipment and Operation of
AIR4543	Aerospace Hydraulics and Actuation Lessons Learned
AIR4713	Aerospace-Chlorinated Solvent Contamination of MIL-H-5606/Mil-H-83282 Vehicle Hydraulic Systems
AMS 2419	Cadmium, Titanium Alloy Plating
AMS 4944	Titanium Alloy Tubing, Seamless, Hydraulic-3.0Al-12.5V, Cold Worked, Stress Relieved
AMS 4945	Titanium Alloy Tubing Seamless, Hydraulic, 3.0Al-2.5V, Texture Controlled, 105,000 psi (724 MPa) Yield Strength
AMS 5561	Wrought Corrosion and Heat Resistant Steels and Alloys Tubing, Welded and Drawn-9.0Mn 20Cr 6.5Ni 0.28N, High-Pressure Hydraulic
AN 238	Filter Element - Hydraulic Replaceable Micronic Reservoir Type
AN 742	Clamp, Plain, Support, Loop-Type, Aircraft
AN 743	Bracket, Support Clamp
AN 774	Bolt, Flared Tube-Fitting End Universal
AN 775	Bolt, Universal Fitting
AN 776	Elbow - Universal 90°
AN 777	Elbow - Universal 75°
AN 778	Elbow - Universal 45°
AN 779	Tee - Universal Fitting
AN 783	Tee, Flared Tube, Internal Thread on Side
AN 784	Tee, Flared Tube, Internal Thread on Run
AN 804	Tee, Flared with Bulkhead on Run
AN 806	Plug - Flared Tube
AN 809	Core - High Pressure Air Valve
AN 814	Plug and Bleeder-Flared Tube
AN 815	Union, Flared Tube
AN 817	Nut, Sleeve, Coupling
AN 818	Nut, Coupling
AN 821	Elbow - Flared Tube, 90°
AN 824	Tee - Flared Tube
AN 827	Cross, Flared Tube
AN 832	Union, Flared Tube 3/8 Bulkhead and Universal
AN 833	Elbow - Flared Tube and Bulkhead Universal, 90°

SAE AIR737 Revision E

4.2 (Continued):

AN 834	Tee - Bulkhead and Universal Flared Tube
AN 837	Elbow - Flared Tube and Universal, 45°
AN 871	Flange - Straight Thread Boss Welding
AN 893	Bushing, Screw Thread Reducer
AN 894	Bushing, Screw Thread Expander
AN 901	Gasket - Metal Tube Connection Seal
AN 919	Reducer - External Thread Flared Tube
AN 924	Nut, Flared Tube Bulkhead and Universal Fitting
AN 929	Cap Assembly, Pressure Seal Flared Tube Fitting
AN 937	Cross, Internal Screw Thread
AN 938	Tee - Internal Screw Thread
AN 939	Elbow - Internal Screw Thread, 90°
AN 941	Elbow - Internal Screw Thread, 45°
AN 4149	Pump - 3 GPM at 3000 psi Power Driven Hydraulic
AN 5829	Valve - Instrument Vacuum Control
AN 5830	Valve - Low Pressure Check, Internal Pipe Threads (Use MS 28050)
AN 5832	Valves - Pressure Gage Lines Bleeder and Filler Check (Use MS 28050)
AN 6201	Pump - Hydraulic Hand
AN 6204	Valve, Hydraulic Bleeder
AN 6206	Regulator - 10 GPM Hydraulic Pressure
AN 6207	Valve - 1500 psi Hydraulic Check
AN 6210	Valve - In Line Type 3-1/2 GPM Hydraulic Directional Control
AN 6211	Valve - In Line Type 6 GPM Hydraulic Directional Control
AN 6213	Valve - Radial Type 3-1/3 GPM Hydraulic Directional Control
AN 6214	Valve - Radial Type 6 GPM Hydraulic Directional Control
AN 6215	Valve - Radial Type 16 GPM Hydraulic Directional Control
AN 6225	Packing, V Ring, Hydraulic (Inactive)
AN 6226	Packing, U Cup Hydraulic
AN 6227	Packing, O-ring Hydraulic (Inactive; Use MS 28775)
AN 6234	Filter - Hydraulic Replaceable Element Line Type
AN 6235	Filter Element - Hydraulic Replaceable Micronic Line Type
AN 6237	Filter Element - Hydraulic Replaceable Vent Type
AN 6238	Gasket - Hydraulic Replacement Reservoir Type Filter Element
AN 6240	Filter - Hydraulic Replaceable Vent Type
AN 6244	Ring - Hydraulic Gasket Backup
AN 6248	Pump - Hydraulic Hand, Type 3000
AN 6249	Valve, 3000 psi Hydraulic Check
AN 6270	Hose Assembly - Detachable Swivel Fitting, Low Pressure
AN 6277	Valve - Hydraulic Shuttle, 3000 psi, Internal Thread Tube Fitting Outlet (Inactive; Use MS 28767)
AN 6278	Valve - Hydraulic Shuttle, 3000 psi, Universal and Internal Thread Fitting Outlet (Inactive)
AN 6280	Valve-3000 psi Hydraulic Check Internal Ports
AN 6281	Fuse - Hydraulic Quantity Measuring, Class 3000, Type I
AN 6282	Fuse - Hydraulic Quantity Measuring, Class 3000, Type II
AN 6285	Adapter - Air Pressure Gage

SAE AIR737 Revision E

4.2 (Continued):

AN 6289	Nut, Flared Tube Universal Fitting
AN 6290	Gasket - Straight Thread Tube Fitting, Boss
AN 6293	Valve - 4 Way Rotary Selector, 3000 psi, Non-Interflow
AN 6294	Valve - 4 Way Rotary Selector, 3000 psi, Interflow
AN 6295	Regulator - 10 GPM Hydraulic Pressure
AN 7515	Plate - Instrument Identification
AND 10050	Bosses, Standard Dimensions for Gasket Seal Straight Thread
AND 10059	Fittings - Styles of Pipe Threaded, Flared Tube and Hose
AND 10067	Valve Installation - Hydraulic Bleeder, Standard Dimensions for
AND 10071	Boss and Installations - Air Connection
AND 10104	Tubing, Steel, Corrosion-Resistant Round, Standard Dimensions for
AND 10230	Reference Chart, Aircraft Engine Accessory Drive
AND 10260	Flange - Type X Accessory Mounting
AND 10261	Flange - Type XI Accessory Mounting
AND 10262	Flange - Type XII Accessory Mounting
AND 10263	Flange - Type XIII Accessory Mounting
AND 10264	Flange - Type XIV Accessory Mounting
AND 10265	Flange - Type XV Accessory Mounting
AND 10266	Flange - Type XVI Accessory Mounting
AND 10267	Flange - Type XVII Accessory Mounting
AND 10268	Flange - Type XVIII Accessory Mounting
AND 10269	Flange - Type XIX Accessory Mounting
AND 10302	Installation Clearance - IX Drive
AND 10331	Installation Clearance - Type XII-J Drive (Fluid Power Pump)
AND 10338	Installation Clearance - Type XII-K (Fluid Power Pump)
AND 20000	Drive - Type X Engine Accessory
AND 20001	Drive - Type XI Engine Accessory
AND 20002	Drive - Type XII Engine Accessory
ANSI Y14.6	Screw Thread Representation
ANSI Z39.18	Information Sciences - Scientific and Technical Reports - Organization, Preparation and Production
ARP24	Determination of Hydraulic Pressure Drop
ARP219	Procedure and Method for Conducting Test of Hydraulic Components in Contamination Controlled System
ARP243	Aircraft, Hydraulic & Pneumatic Systems Nomenclature
ARP490	Electrohydraulic Flow-Control Servovalves
ARP560	Missile Hydraulic Pumps
ARP575	Filter Patch Testing Procedures for Aerospace Hydraulic Pumps and Motors
ARP584	Coiled Tubing, Corrosion Resistant Steel, Hydraulic Applications
ARP597	Wheels and Brakes, Supplementary Criteria for Design Endurance Civil Transport Aircraft
ARP598	The Determination of Particulate Contamination in Liquids by the Particle Count Method
ARP599	Dynamic Test Method for Determining the Degree of Cleanliness of the Downstream

SAE AIR737 Revision E

4.2 (Continued):

ARP600	Torque Determination, Method of, for Tube or Hose End Fitting Side of Filter Elements
ARP603	Impulse Testing of Hydraulic Hose, Tubing, and Fitting Assemblies
ARP674	Metal Ring Seal Groove Design Connections, Flared, Flareless or Miscellaneous Screw Thread Style
ARP699	High Temperature Pneumatic Duct Systems for Aircraft
ARP719	Gas Motor
ARP725	Evaluating Effectiveness of Filter Element Cleaning Methods
ARP739	Gas Power Servos and Reaction Control Systems
ARP743	Procedure for the Determination of Particulate Contamination Air in Dust Controlled Spaces by the Particle Count Method
ARP745	General Components Specification for Explosive Actuated Valves One Cycle
ARP763	Accumulators, Ground, Hydropneumatic Pressure
ARP777	Actuators; Gas
ARP785	Procedure for the Determination of Particulate Contamination in Hydraulic Fluids By the Control Filter Gravimetric Procedure
ARP804	Brake Release Response Time Required for Automatic Skid Control
ARP819	Fluid System Characteristics Affecting Hydraulic Pump Operation
ARP820	Physical and Performance Tests for Type II (-65 to 275 °F) O-ring Packings 3000 psi Hydraulic Service
ARP824	Hose Assemblies, Flexible Metal, High Pressure and High Temperature
ARP849	Method for Evaluating Effectiveness of Inspection Procedures for Adequacy of Filter Element Cleaning
ARP862	Skid Control Performance Evaluation
ARP891	Determination of Aluminum Alloy Tempers Through Electrical Conductivity Measurements
ARP899	Tube Fittings, Fluid Systems, Permanent Type, General Requirements for
ARP900	Evaluating Cryogenic Filters, Methods for
ARP901	Bubble-Point Test Method
ARP907	Missile and Rocket Applications: Hose Assemblies, Flexible Metal, High Temperature and High Pressure
ARP908	Hose and Tube Fitting-Installation and Qualification Test Torque Requirements
ARP986	Guide for Qualification Testing of Aircraft Air Valves
ARP988	Electrohydraulic Mechanical Feedback Servoactuators
ARP993	Fluidic Technology
ARP994	Design of Turbine Installations for Aerospace Fluid Power Recommended Practice for
ARP1084	Hydraulic External Leakage for In-Service Components
ARP1181	Terminology for Flight Control Systems
ARP1185	Flexure Testing of Hydraulic Tubing Joints and Fittings
ARP1192	Procedure for Calibration and Verification of Liquidborne Particle Counter: An Absolute Standard
ARP1231	Gland Design, Elastomeric "O" Ring Seal

SAE AIR737 Revision E

4.2 (Continued):

ARP1258	Qualification of Hydraulic Tube Joints to Specified Flexure Fatigue Requirements
ARP1280	Application Guide for Fixed Displacement Aircraft Power Transfer Units
ARP1281	Actuators: Aircraft Flight Controls, Power Operated Hydraulic, General Specification for
ARP1288	Placarding of Aircraft Hydraulic Equipment to Identify Required Fluid Suitability
ARP1302	Filter Patch Testing Procedures for Aerospace Hydraulic Nonrotating Equipment
ARP1321	Flexure Testing of Bent Hydraulic Tubing
ARP1383	Impulse Testing of Hydraulic Actuators, Valves, Pressure Containers and Similar Fluid System Components
ARP1527	Color Coding-Elastomers for Tube Clamp Cushions
ARP1625	Cold Gas Systems, Missile or Projectiles Design Installation Tests and Requirements for
ARP1658	Visual Inspection Guide for Installed Hose Assemblies
ARP1676	Recommended Formulae for Determining Drop Dimensions for Simple-Bend Tube Fittings with Flared and Flareless End Connections Used in Aerospace Applications
ARP1785	Standard Codes for Sleeving on PTFE Hose Assemblies
ARP1802	Selection and Application of Polytetrafluoroethylene (PTFE or TFE) Backup Rings for Hydraulic and Pneumatic Fluid Power Applications
ARP1833	Sealing Techniques for Missile Applications
ARP1835	Preparation for Delivery, General Requirements for Hose Assemblies
ARP4058	Actuators, Mechanical, Geared Rotary, General Specification for
ARP4146	Coiled Tubing - Titanium Alloy, Hydraulic Applications
ARP4196	Pneumatic Pressure Regulators for Missile Flight Control Systems
ARP4268	Aerospace Hydraulic System Fluid Contamination, Location of Sampling Points
ARP4379	Accumulator, Hydraulic, Cylindrical Aircraft
ARP4386	Terminology and Definition for Aerospace Fluid Power, Actuation, and Control Technologies
ARP4457	Torsion Strength Testing of Hydraulic Tube Joints
ARP4752	Aerospace - Design and Installation of Commercial Transport Aircraft Hydraulic Systems
ARP4895	Aerospace-Flight Control Actuator Displacement-Method for Collection of Duty Cycle Data
AS115	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, Straight to Straight, Lightweight
AS116	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, Straight to 45°, Lightweight
AS117	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, Straight to 90°, Lightweight
AS118	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 45° to 45°, Lightweight

SAE AIR737 Revision E

4.2 (Continued):

AS119	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 45° to 90°, Lightweight
AS120	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flareless, 90° to 90°, Lightweight
AS153	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, Straight to Straight, Lightweight
AS154	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, Straight to 45°, Lightweight
AS155	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, Straight to 90°, Lightweight
AS156	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 45° to 45°, Lightweight
AS157	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 45° to 90°, Lightweight
AS158	Hose Assembly, Nonmetallic, 3000 psi, TFE, Flared, 90° to 90°, Lightweight
AS227	Wheels and Brakes, Minimum Requirements for Civil Aircraft Applications
AS408	Pressure Instruments - Fuel, Oil, and Hydraulic (Reciprocating Engine Powered Aircraft)
AS471	Flange Accessory, 5" Bolt Circle
AS472	Flange Accessory, 8" Bolt Circle
AS473	Flange Accessory, 10" Bolt Circle
AS483	Skid Control Equipment
AS568	Aerospace Size Standard for O-rings
AS595	Civil Type Aircraft Variable Delivery Hydraulic Pump
AS604	Hose Assembly, Tetrafluoroethylene, 400 °F 3000 psi Hydraulic, Heavy Braid
AS611	Tetrafluoroethylene Hose Assembly Cleaning Methods
AS614	Hose Assembly, Tetrafluoroethylene, Heavy Duty, High Temperature, High Pressure, 4000 psi 27,580 kPa Hydraulic and Pneumatic
AS620	High Temperature Hose Assembly, Convolute Tetrafluoroethylene for Aircraft
AS621	Hose Assembly, 3000 psi, TFE, Flareless, Straight to Straight, Heavyweight
AS622	Hose Assembly, 3000 psi, TFE, Flareless, Straight to 45°, Heavyweight
AS623	Hose Assembly, 3000 psi, TFE, Flareless, Straight to 90°, Heavyweight
AS624	Hose Assembly, 3000 psi, TFE, Flareless, 45° to 45°, Heavyweight
AS625	Hose Assembly, 3000 psi, TFE, Flareless, 45° to 90°, Heavyweight
AS626	Hose Assembly, 3000 psi, TFE, Flareless, 90° to 90°, Heavyweight
AS627	Hose Assembly, 3000 psi, TFE, Flared, Straight to Straight, Heavyweight
AS628	Hose Assembly, 3000 psi, TFE, Flared, Straight to 45°, Heavyweight
AS629	Hose Assembly, 3000 psi, TFE, Flared, Straight to 90°, Heavyweight
AS630	Hose Assembly, 3000 psi, TFE, Flared, 45° to 45°, Heavyweight
AS631	Hose Assembly, 3000 psi, TFE, Flared, 45° to 90°, Heavyweight

SAE AIR737 Revision E

4.2 (Continued):

AS666	Cavity Design and O-ring Selection for Static Seal Use in Aircraft Tubeless Wire Wheels
AS683	Installation Procedures and Torques for Fluid Connections
AS708	Top Visual Quality (TVQ) O-ring Packings and Gaskets - Surface Inspection Guide and Acceptance Standards
AS714	Aircraft Hydraulic Start Motor
AS758	Fittings - Installation in Straight Threaded Boss
AS838	Starter/Pumps, Aircraft Hydraulic
AS871	Manufacturing and Inspection Standard for Preformed Packings
AS943	Starter, Pneumatic, Aircraft Engine, General Specification for
AS959	Drive-Studded, Accessory, 2.653 BC Square, Design Standard for
AS960	Flange Accessory, 2.653 BC Square, Design Standard for
AS961	Drive-Studded, Accessory, 5.000 BC Square, Design Standard for
AS962	Flange Accessory, 5.000 BC Square, Design Standard for
AS963	Drive-Studded, Accessory, 5.000 BC Round, Design Standard for
AS964	Flange Accessory, 5.000 BC Round, Design Standard for
AS965	Drive-Studded, Accessory, 8.000 BC Round, Design Standard for
AS966	Flange Accessory, 8.000 BC Round, Design Standard for
AS967	Drive-Studded, Accessory, 10.000 BC Round, Design Standard for
AS968	Flange Accessory, 10.000 BC Round, Design Standard for
AS969	Drive-Accessory, 5.000 BC Round, Design Standard for
AS970	Drive-Accessory, 8.000 BC Round, QAD, Design Standard for
AS971	Drive-Accessory, 10.000 BC Round, QAD, Design Standard for
AS972	Spline Details, Accessory Drives and Flanges
AS1001	Tee, Reducer, Bulkhead on Run, Internal Port on Side, Flareless Tube
AS1002	Tee, Reducer, Bulkhead and Internal Port on Run, Flareless Tube
AS1003	Tee, Reducer, Bulkhead on Run, Flareless Tube
AS1004	Elbow, 90°, Reducer, Flareless Tube
AS1005	Tee, Reducer, Flareless Tube
AS1006	Cross, Reducer, Flareless Tube
AS1007	Union, Reducer, Bulkhead, Flareless Tube
AS1008	Elbow, 90°, Reducer, Bulkhead, Flareless Tube
AS1009	Tee, Reducer, Bulkhead on Side, Flareless Tube
AS1010	Elbow, 45° Reducer, Flareless Tube
AS1011	Fitting End; Attachable, Male for 37° Flared Tube Connection, Flexible Metal Hose - Straight, 45° Elbow and 90° Elbow Styles
AS1012	Fitting End; Attachable, Swivel Female 37°, Machined Flare Flexible Metal Hose - Straight, 45° Elbow and 90° Elbow Styles
AS1013	Fitting End; Attachable, Swivel Female 37° Flared Tube Flexible Metal Hose - Straight, 45° and 90° Elbow Styles
AS1014	Fitting End; Attachable, Swivel Flange, Flexible Metal Hose - Straight, 45° Elbow and 90° Elbow Styles
AS1015	Fitting End; Attachable, Female Flareless, Machined Nipple Flexible Metal Hose - Straight, 45° and 90° Elbow Styles

SAE AIR737 Revision E**4.2 (Continued):**

AS1016	Fitting End; Attachable, Flareless Male, Flexible Metal Hose Straight, 45° and 90° Elbow Styles
AS1031	Reducer Tee - Bulkhead on Run, Internally Threaded Side Port, Flared Tube
AS1032	Tee, Reducer - Bulkhead and Internally Threaded Port on Run, Flared Tube
AS1033	Reducer Tee - Bulkhead on Run, Flared Tube
AS1034	Elbow, 90° Reducer, Flared Tube
AS1035	Tee, Reducer, Flared Tube
AS1036	Cross, Reducer, Flared Tube
AS1037	Union, Reducer, Bulkhead, Flared Tube
AS1038	Elbow, 90° Reducer, Bulkhead, Flared Tube
AS1039	Tee, Reducer, Bulkhead on Side, Flared Tube
AS1040	Elbow, 45° Reducer, Flared Tube
AS1043	Lockwire Hole, Standard Dimension
AS1055	Fire Testing of Flexible Hose, Tube Assemblies, Coils, Fittings and Similar System Components
AS1073	Sleeve, Hose Assembly, Heat Shrinkable
AS1241	Fire Resistant Phosphate Ester Hydraulic Fluid for Aircraft
AS1290	Graphic Symbols for Aircraft Hydraulic and Pneumatic Systems
AS1297	Reducers, Pneumatic Pressure, Missile
AS1300	Boss - Ring Locked, Fluid Connection Type, Standard Dimensions for
AS1339	Hose Assembly, Tetrafluoroethylene, 400 °F, 3000 psi Hydraulic, Lightweight
AS1376	Wrench Pads, Fluid Fitting, Alternate Machined Shapes of Design Standard
AS1607	Valve, Starter Control Pneumatic Aircraft Engine General Specification for
AS1986	Adapter - Port Connection, Ring Locked
AS4059	Aerospace-Cleanliness Classification for Hydraulic Fluids
AS4088	Rod Scraper Gland Design Standard
AS4395	Fitting End - Flared Tube Connection, Design Standard
AS4396	Fitting End - Bulkhead Flared Tube Connection, Design Standard
AS4716	Aerospace Standard-Gland Design, O-ring and other Elastomeric Seals
ASA-B46.1	Surface Texture
ASTM B 633	Electrodeposited Coatings of Zinc on Iron and Steel
ASTM E 1444	Standard Practice for Magnetic Particle Examination
BB-N-311	Nomenclature, Aircraft Hydraulic and Pneumatic Systems Fittings, Catalog of Flared, Flareless, Pipe Threaded Port
C-F-206	Felt, Sheet, Wool, Pressed
FED-STD-209	Clean Room and Work Station Requirements, Controlled Environment
HIR1622	Noise Control in Fluid Power Systems of Marine Vehicles
HIR4382	Hydraulic System Diagrams and Associated Tables for Marine Vehicles
ISO 3601/1	Fluid Systems-Sealing Devices-O-rings, Inside Diameters, Cross Sections, Tolerances and Size Identification Code

SAE AIR737 Revision E

4.2 (Continued):

ISO 3601/2	Fluid Systems-Sealing Devices-O-rings, Design Criteria for O-ring Housings
ISO 4406	Hydraulic Fluid Power-Fluids-Method of Coding Level of Contamination by Solid Particles
MIL-A-5070	Adapter, Hose to Tube, Pipe and Flange, Reusable Hydraulic, Pneumatic, Fuel and Oil Lines
MIL-A-5498	Accumulator, Hydraulic, Cylindrical, 3000 psi, Aircraft
MIL-A-5503	Actuators, Aeronautical, Linear Utility Hydraulic
MIL-A-8625	Anodic Coatings, for Aluminum and Aluminum Alloys
MIL-A-18717	Arresting Hook Installations, Aircraft
MIL-A-38726	Adapter Assembly, Reusable, Flexible Hose, Low Pressure
MIL-B-5087	Bonding, Electrical, and Lighting Protection, for Aerospace Systems
MIL-B-8075	Brake Control Systems, Anti Skid, Aircraft Wheels Instructions for Preparation of, Specifications for
MIL-B-8584	Brake Systems, Wheel, Aircraft, Design of
MIL-C-5499	Cores, Aircraft High Pressure Air Valves
MIL-C-5500	Caps, High Pressure Air Valves
MIL-C-5501	Caps and Plugs, Protective, Dust and Moisture Seal
MIL-C-5541	Chemical Films for Aluminum and Aluminum Alloys
MIL-C-6026	Control Unit, Pressure Generating, Manual Operated Aircraft Hydraulic Brake System
MIL-C-6388	Compressor Unit, Air, Aircraft, Shaft Power Driven, General Specification for
MIL-C-6591	Compressor Unit, Aircraft Electric Motor Driven, General Specification for
MIL-C-7905	Cylinders, Compressed Gas, Nonshatterable
MIL-C-7979	Cylinders, Hydraulic Brake, Master, Power Assisted
MIL-C-8603	Clamps, Tube Support, Loop Type
MIL-C-8838	Cylinder, Pneumatic Actuating, Aircraft Utility System, General Specification for
MIL-C-25427	Couplings, Aircraft Hydraulic Self-Sealing Quick-Disconnect
MIL-C-26074	Coating, Nickel Phosphorous Electroless Nickel, Requirements for
MIL-C-26805	Compressor Units, Air, General Requirements for
MIL-C-85052	Clamp, Cushion, General Specification for
MIL-D-9898	Drawings, Tube Bend
MIL-D-23615	Design and Evaluation of Cartridge Actuated Devices
MIL-D-26939	Drive Assembly, Constant Speed, Hydraulic, Type MD-1
MIL-D-83099	Drive Assembly, Constant Speed, General Specification for
MIL-E-8189	Electronic Equipment, Missiles, Boosters and Allied Vehicles, General Specification for
MIL-F-3541	Fittings, Lubrication
MIL-F-5504	Filters and Filter Elements, Fluid Pressure, Hydraulic Micronic Type
MIL-F-5508	Fuses; Aircraft, Automatic Quantity Measuring, Hydraulic
MIL-F-5509	Fittings; Fluid Connection
MIL-F-7179	Finishes and Coatings; General Specification for Protection of Aerospace Weapons Systems, Structures and Parts
MIL-F-8785	Flying Qualities of Piloted Airplanes

SAE AIR737 Revision E

4.2 (Continued):

MIL-F-8789	Fitting End, Attachable, Hydraulic, High Pressure Hose
MIL-F-8815	Filter and Filter Elements, Fluid Pressure, Hydraulic Line 15 Micron Absolute, Type II Systems
MIL-F-8815/1	Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, Style A, Bypass, -65 to +275 °F
MIL-F-8815/2	Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, Style B, Non Bypass, -65 to +275 °F
MIL-F-8815/3	Filter Element, Fluid, Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, -65 to +275 °F
MIL-F-8815/4	Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, Style A, Bypass, -65 to +275 °F
MIL-F-8815/5	Filter, Fluid, Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, Style B, Non Bypass, -65 to +275 °F
MIL-F-8815/6	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi Micron Absolute, -65 to +275 °F
MIL-F-8815/7	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65 to +275 °F, 0.5 to 12.0 GPM
MIL-F-8815/8	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 1.5 GPM
MIL-F-8815/9	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 3.5 GPM
MIL-F-8815/10	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 4.5 GPM
MIL-F-8815/11	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 4.5 GPM (High Capacity)
MIL-F-8815/12	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, F4 Aircraft, 32 GPM
MIL-F-8815/18	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, AV8 and A7 Aircraft, 3.5 GPM
MIL-F-8815/19	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, A4 Aircraft, 2.0 GPM
MIL-F-8815/20	Filter Elements, Noncleanable, Fluid Pressure, Hydraulic Line, 5 Micron Absolute, A4 Aircraft, 3.5 GPM
MIL-F-8815/21	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 15 Micron Absolute, AV8 Aircraft, 10 GPM
MIL-F-8815/22	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65 to +275 °F, F14 Aircraft, 12 GPM
MIL-F-8815/23	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65 to +275 °F, F14 Aircraft, 30 GPM
MIL-F-8815/24	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65 to +275 °F, F-14 & F-18 Aircraft, 84 GPM
MIL-F-8815/25	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 15 Micron Absolute, -65 to +275 °F, P3 Aircraft, Rudder, 4 GPM
MIL-F-8815/26	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 25 Micron Absolute, P3 Aircraft, Case Drain, 2 GPM

SAE AIR737 Revision E

4.2 (Continued):

MIL-F-8815/27	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, P3 Aircraft, Return, 14 GPM
MIL-F-8815/28	Filter Element, Noncleanable, Fluid Pressure, Hydraulic Line, 3000 psi, 5 Micron Absolute, -65 to +160 °F, P3 Aircraft, 8 GPM
MIL-F-8815/29	Filter, Fluid, Pressure, Hydraulic Line, 1500 psi, Absolute 5 Micron, Style A, Bypass, -65 to +275 °F, F/A-18E/F Aircraft, Case Drain
MIL-F-8839	Fittings, Lubrication, Drive Type
MIL-F-9490	Flight Control Systems, Design, Installation and Test of General Specification for
MIL-F-18280	Fittings, Flareless, Fluid Connection
MIL-F-18372	Flight Control Systems; Design, Installation and Tests of, Aircraft, (General Specification for)
MIL-F-27656	Filter, Fluid, Pressure, Absolute 25° Micron, Hydraulic
MIL-F-81836	Filter and Disposable Element, Fluid Pressure, Hydraulic, 3 Micron Absolute
MIL-F-85421	Fittings, Tube, Fluid Systems, Separable, Dynamic Beam Seal General Requirements for
MIL-G-4343	Grease, Pneumatic System
MIL-G-5514	Gland Design, Packings, Hydraulic, General Requirements for
MIL-G-7734	Gages, Pressure, Engine and Utility, Aircraft Gas Motor
MIL-G-8402	Gages, Pressure, Dial Indicating, General Specification for
MIL-G-25308	Gages, Pressure, Dial Indicating, Hydraulic Type ME-1
MIL-G-25867	Gage, Pressure, Dial Indicating, Pneumatic
MIL-G-25987	Gage, Pressure, Dial Indicating, General Purpose, Aircraft
MIL-H-5440	Hydraulic Systems, Aircraft, Types I and II, Design, Installation, and Data Requirements for
MIL-H-5593	Hose, Aircraft Low Pressure Flexible Hose, Hydraulic, High Pressure
MIL-H-5606	Hydraulic Fluid, Petroleum Base, Aircraft and Ordnance
MIL-H-6083	Hydraulic Fluid, Petroleum Base, Preservative
MIL-H-8775	Hydraulic Systems Components, Aircraft and Missiles, General Specification for
MIL-H-8790	Hose Assembly, Rubber, Hydraulic, High Pressure (3000 psi)
MIL-H-8794	Hose, Rubber, Aircraft, - Hydraulic and Pneumatic Fuel and Oil Resistant
MIL-H-8795	Hose Assembly, Rubber, Aircraft, Hydraulic Fuel and Oil Resistant
MIL-H-8890	Hydraulic Components, Type III, (-65 to +450 °F) General Specification for
MIL-H-8891	Hydraulic Systems, Manned Flight Vehicles, Type III, Design, Installation and Data Requirements for
MIL-H-25475	Hydraulic Systems, Missile, Design, Installation, Tests, and Data Requirements (General Requirements for)
MIL-H-25579	Hose Assembly, Tetrafluoroethylene, High Temperature, Medium Pressure, General Requirements for
MIL-H-26666	Hose Assembly, Pneumatic High Pressure
MIL-H-27267	Hose, Tetrafluoroethylene, High Temperature, Medium Pressure
MIL-H-27272	Fitting, Hose, Tetrafluoroethylene, High Temperature Medium Pressure, General Requirements for

SAE AIR737 Revision E

4.2 (Continued):

MIL-H-38390	Hose Assembly, Tetrafluoroethylene, Pneumatic High Pressure
MIL-H-46170	Hydraulic Fluid, Rust Inhibited, Fire Resistant, Synthetic Hydrocarbon Base, NATO Code H-515
MIL-H-53119	Hydraulic Fluid, Non Flammable, Chlorotrifluoroethylene Base
MIL-H-81019	Hydraulic Fluid, Petroleum Base, Ultra-Low, Temperature
MIL-H-83282	Hydraulic Fluid, Fire Resistant, Hydrocarbon Base, Aircraft, NATO Code H-537
MIL-H-85449	Clamp Assembly, Saddle Type, Cushion, General Specification
MIL-H-85800	Hose Assemblies, PTFE, Aramid Fiber Reinforced, 5000 & 8000 psi, General Specification for
MIL-H-87227	Hydraulic Power Systems
MIL-H-87257	Hydraulic Fluid, Fire Resistant; Low Temperature, Synthetic Hydrocarbon Base, Aircraft and Missile
MIL-HDBK-149	Rubber and Rubber-Like Materials
MIL-I-6839	Indicator, Position, Landing Gear
MIL-I-7084	Indicator, Pressure, Hydraulic, 0 - 4000 psi
MIL-I-8474	Inspection of Aluminum Alloy Parts
MIL-I-17563	Impregnants for Cast or Powder Metal Components
MIL-I-27190	Indicator Pressure AGU-3-A, Hydraulic, 0 - 4000 psi Anodizing Process for
MIL-J-5513	Joints, Hydraulic Swivel
MIL-L-2104	Lubricating Oil, Internal Combustion Engine, Tactical Service
MIL-L-8552	Landing Gear, Aircraft Shock Absorber (Air - Oil Type)
MIL-L-23699	Lubricating Oil, Aircraft Turbine Engine, Synthetic Base
MIL-L-46167	Lubricating Oil, Internal Combustion Engine, Arctic
MIL-M-6002	Marking, Standard Hose Aircraft
MIL-M-7997	Motors, Aircraft Hydraulic, Constant Displacement
MIL-P-4861	Packing, Preformed, Rubber, Packaging of
MIL-P-5510	Packing, Preformed, Straight Thread Tube Fitting Boss, Type I Hydraulic
MIL-P-5515	Pump, Hydraulic Ram, Hand Driven
MIL-P-5518	Pneumatic Systems, Aircraft, Design, Installation and Data Requirements for
MIL-P-5954	Pump Unit, Hydraulic, Electric Motor Driven, Fixed Displacement
MIL-P-5994	Pump, Hydraulic, Electric-Motor-Driven, Variable Delivery Control Unit, Pressure Generating, Manually Operated Aircraft Hydraulic Brake System
MIL-P-6906	Plates - Identification
MIL-P-7105	Pipe Threads, Taper, Aeronautical National Form, Symbol ANPT, General Requirements for
MIL-P-7858	Pump, Hydraulic, Power Driven, Fixed Displacement
MIL-P-8564	Pneumatic Components, Aeronautical, General Specification for
MIL-P-9388	Pump, Pressure, Oil-free Air, Type MA-2
MIL-P-9389	Pump, Pressure, Oil-free Air, Type MA-3 (Canceled 1993)
MIL-P-17869	Pumps and Motors, Power, Oil Hydraulic
MIL-P-19692	Pumps, Hydraulic, Variable Delivery, General Specification for
MIL-P-25732	Packing, Preformed, Petroleum Hydraulic Fluid Resistant, 275 °F