

SAE Aerospace
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AEROSPACE INFORMATION REPORT

SAE

AIR737

REV.
E

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

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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.**

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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
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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
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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

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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
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Bolt, Cluster Fitting, Single Port-Flare	MS 21949
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Bolt, Flared Tube-Fitting End Universal	AN 774
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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

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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
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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
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Control Unit, Pressure Generating, Manual Operated Aircraft Hydraulic Brake System	MIL-C-6026
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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
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Environmental Test Methods and Engineering Guidelines	MIL-STD-810
Examination, Magnetic Particle, Standard Practice for	ASTM E 1444
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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
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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
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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
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Solenoid, Electrical, General Specification for	MIL-S-4040
Spline Details, Accessory Drives and Flanges	AS972
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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
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Starter, Reciprocating Engine Pneumatic	AIR4152
Starting Systems, Hydraulic Energy Limited	AIR1466
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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

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Switch, Pressure, Engine Mounted (Type 1)	MS 25275
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Tee - Flared Tube	AN 824
Tee - Internal Screw Thread	AN 938
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Tee, Bulkhead and Universal Flared Tube, Precision Type	MS 24395
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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
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Tee, Flared Tube, Precision Type	MS 24402
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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
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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
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Torque Determination, Method of, for Tube or Hose End Fitting Miscellaneous Screw Thread Style	ARP600
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Transmitters, Pressure, Synchro, Aircraft	MS 28005
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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
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Union, Flareless Tube, Bulkhead and Universal	MS 21924
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Valve - 4 way Rotary Selector, 3000 psi, Interflow	AN 6294
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Valve, 3000 psi Hydraulic Check, Flareless, Type II Systems	MS 28892
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Valves, Aircraft Power Brake	MIL-V-5525
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Valves; Aircraft, Hydraulic Thermal Expansion Relief	MIL-V-5527
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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
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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
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Valve - Radial Type 3-1/3 GPM Hydraulic Directional Control	AN 6213
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Valve Regulating Fluid Pressure	MIL-V-5519
Valve; Relief, Hydraulic Pressure Type II Systems	MIL-V-81940

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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
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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

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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 (Autofrettaging) 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 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

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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°

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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

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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

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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

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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

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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, Convoluted 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

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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

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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

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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

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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

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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

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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