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AEROSPACE STANDARD

AS4841™ REV. D

Issued 1995-05
Reaffirmed 2005-06
Revised 2021-04

Superseding AS4841C

Fittings, 37 Degree Internal Flare, Fluid Connection, Procurement Specification

RATIONALE

Note 4.5.1.2 revised to remove the statement that destructive testing is required to retain QML status. This requirement is regulated by AC7112.

1. SCOPE

1.1 Purpose

This SAE Aerospace Standard (AS) establishes the requirements for 37 degree flared tube fittings or machined internal cone fluid connection fittings for use with 37 degree external cone, spherical nose, and seal ring fittings in all types of aerospace fluid systems (see Section 6).

1.2 Classification

Tube fittings shall be furnished in types, styles and sizes designated by the applicable AS, AN, and MS standards. This specification is a similar and an improvement to MIL-F-5509 for 37 degree flared tube fittings. It is intended to serve as the procurement specification for the fittings described herein.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document 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 document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS2472 Anodic Treatment of Aluminum Alloys, Sulfuric Acid Process, Dyed Coatings

AMS2486 Conversion Coating of Titanium Alloys, Fluoride-Phosphate Type

AMS2488 Anodic Treatment - Titanium and Titanium Alloys, Solution pH 13 or Higher

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https://www.sae.org/standards/content/AS4841D/

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AMS2658	Hardness and Conductivity Inspection of Wrought Aluminum Alloy Parts
AMS2700	Passivation of Corrosion Resistant Steels
AMS2759	Heat Treatment of Steel Parts, General Requirements
AMS2770	Heat Treatment of Wrought Aluminum Alloy Parts
AMS2771	Heat Treatment of Aluminum Alloy Castings
AMS2772	Heat Treatment of Aluminum Alloy Raw Materials
AMS4124	Aluminum Alloy, Rolled or Cold Finished Bars, Rods, and Wire, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T73, T7351), Solution Heat Treated, Stress Relieved by Stretching, and Overaged
AMS4133	Aluminum Alloy Forgings and Rolled Rings, 4.4Cu - 0.85Si - 0.80Mn - 0.50Mg (2014-T6), Solution and Precipitation Heat Treated
AMS4141	Aluminum Alloy Die Forgings, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T73), Solution and Precipitation Heat Treated
AMS4339	Aluminum Alloy, Rolled or Cold Finished Bars and Rods, 4.4Cu - 1.5Mg - 0.60Mn (2024-T851), Solution Heat Treated, Cold Worked, and Artificially Aged
AMS4610	Brass, Free-Cutting Bars and Rods, 61.5Cu - 35Zn - 3.1Pb, Half Hard (H02)
AMS4928	Titanium Alloy Bars, Wire, Forgings, Rings, and Drawn Shapes, 6Al - 4V, Annealed
AMS5639	Steel, Corrosion-Resistant, Bars, Wire, Forgings, Mechanical Tubing, and Rings, 19Cr - 10Ni, Solution Heat Treated
AMS5645	Steel, Corrosion and Heat Resistant, Bars, Wire, Forgings, Tubing, and Rings, 18Cr - 10Ni - 0.40Ti (321), Solution Heat Treated
AMS5646	Steel Corrosion and Heat-Resistant, Bars, Wire, Forgings, Tubing and Rings, 18Cr - 11Ni - 0.060Cb(Nb), (347) Solution Heat Treated
AMS5648	Steel, Corrosion and Heat-Resistant, Bars, Wire, Forgings, Tubing, and Rings, 17Cr - 12Ni - 2.5Mo (316), Solution Heat Treated
AMS5666	Nickel Alloy, Corrosion and Heat-Resistant, Bars, Forgings, Extrusions, and Rings, 62Ni - 21.5Cr - 9.0Mo - 3.65Cb (Nb), Annealed
AMS6370	Steel, Bars, Forgings, and Rings, 0.95Cr - 0.20Mo (0.28 - 0.33C) (SAE 4130)
AMS6382	Steel, Bars, Forgings, and Rings, 0.95Cr - 0.20Mo (0.38 - 0.43C) (SAE 4140), Annealed
AMS-QQ-A-225/6	Aluminum Alloy, 2024, Bar, Rod, and Wire; Rolled, Drawn, or Cold Finished
AMS-QQ-A-225/9	Aluminum Alloy 7075, Bar, Rod, Wire, and Special Shapes; Rolled, Drawn, or Cold Finished
AMS-QQ-P-416	Plating, Cadmium (Electrodeposited)
AMS-S-6758	Steel, Chrome-Molybdenum (4130), Bars and Reforging Stock (Aircraft Quality)
AMS-H-6875	Heat Treatment of Steel Raw Materials
ARP4784	Definitions and Limits, Metal Material Defects and Surface and Edge Features, Fluid Couplings, Fittings and Hose Ends

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ARP9013 Statistical Product Acceptance Requirements

AS478 Identification Marking Methods

AS1376 Alternate Dimensions, Center Body Section, Shape Fluid Fitting, Design Standard

AS1708 Fitting End, Internal Flare, Design Standard

AS4330 Tubing, Flared, Standard Dimensions for, Design Standard

AS4395 Fitting End, Flared, Tube Connection, Design Standard

AS4396 Fitting End, Bulkhead, Flared, Tube Connection, Design Standard

AS5176 Fitting, Sleeve, Flared

AS5202 Port or Fitting End, Internal Straight Thread, Design Standard

AS5203 Tube End, Double Flare, Design Standard

AS5309 Fitting End, Spherical, 37° Flared Tube Connection Design Standard

AS5310 Fitting End, Bulkhead, Spherical, 37° Flared Tube Connection Design Standard

AS8879 Screw Threads - UNJ Profile, Inch, Controlled Radius Root with Increased Minor Diameter

AS33583 Tubing End Double Flare, Standard Dimensions for

AS71051 Pipe Threads, Taper, Aeronautical National Form, Symbol ANPT - Design and Inspection Standard

2.1.2 U.S. Government Publications

Copies of these documents are available online at https://quicksearch.dla.mil.

A-A-59133 Cleaning Compound, High Pressure (Steam) Cleaner

FED-STD-595 Colors Used in Government Procurement

MIL-A-8625 Anodic Coatings, for Aluminum and Aluminum Alloys

MIL-DTL-83488 Coating, Aluminum, High Purity

MIL-PRF-6083 Hydraulic Fluid, Petroleum Base, for Preservation and Operation

MIL-PRF-83282 Hydraulic Fluid, Fire Resistant, Synthetic Hydrocarbon Base, Aircraft, Metric

MS21344 Fitting - Installation of Flared Tube, Straight Threaded Connectors, Design Standard for

2.1.3 ASME Publications

Available from ASME, P.O. Box 2900, 22 Law Drive, Fairfield, NJ 07007-2900, Tel: 800-843-2763 (U.S./Canada), 001-800-843-2763 (Mexico), 973-882-1170 (outside North America), www.asme.org.

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