

MIL-F-27272A
AMENDMENT -16 MARCH 1969

MILITARY SPECIFICATION

FITTINGS, TETRAFLUOROETHYLENE HOSE, HIGH TEMPERATURE, MEDIUM
PRESSURE, GENERAL REQUIREMENTS FOR

This amendment forms a part of Military Specification MIL-F-27272A, 2 May 1966, and is mandatory for use by all Departments and Agencies of the Department of Defense.

Page 2, paragraph 2.1: Under Military Standards, add:

"MS33786 Fitting Installation, Flared Tube and Hose, Swivel"

Page 3, paragraph 3.4.1, second line: Delete "MS20756" and substitute "mounting pad as shown on MS33786".

Page 4: In table I add "1/" at top of "Proof pressure (psi min.)" column, and add the following footnote to table:

1/ Assemblies having aluminum flange fittings shall be proof pressure tested to the pressures listed under 'Operating pressure' above. Assemblies having steel flange fittings shall be proof pressure tested to the values listed in the 'Proof pressure' column."

Page 6: Add new paragraph as follows:

"4.1.1 Notification of inspection. - The fitting manufacturer shall give advance notice to the procuring activity when quality conformance inspection will be accomplished."

Page 7:

(a) Paragraph 4.3.1.1.6: Add as last sentence: "SAE-30 lubricant shall be used for class 2 fittings."

(b) Paragraph 4.3.1.1.7 Delete, and substitute:

"4.3.1.1.7 With the proper size torque wrench, the socket and nipple shall be tightened together, until the minimum gap (0.023 inch) is obtained. The final reading of the torque wrench shall be recorded. (See figure 1 for gap measurement.)"

(c) Paragraph 4.3.1.2.4: Delete, and substitute: "4.3.1.2.4 The fitting components shall be cleaned with air pressure to remove dirt or other foreign matter, and shall be inspected in accordance with MIL-STD-845, prior to reassembly."

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Page 9:

(a) Paragraph 4.4.1.2, first, second, and third lines, first sentence: Delete, and substitute: "Qualification inspections shall be performed on stright-type swivel ends (MS27053), except that samples 6, 8, 11, 13, and 14 shall have a 90-degree elbow-swivel nut (MS27057 and MS27060)."

(b) Paragraph 4.5, first sentence: Delete period at end of sentence, and add the following: ", with the exception of the individual tests."

(c) Paragraph 4.5.1: Delete, and substitute:

"4.5.1 Individual tests. - Each fitting assembly, or parts thereof (of a procurement) shall be subjected to the examination of product as specified in 4.6.1."

(d) Paragraph 4.5.1.1: Delete, and substitute:

"4.5.1.1 Brazed, welded, and mechanically attached fittings. - In addition to the test specified in 4.5.1, each fitting assembly, or sub-assembly having a brazed, welded, or mechanically attached joint shall be subjected to the joint integrity proof pressure test as specified in 4.6.3."

(e) Paragraph 4.5.2.1: Delete, and substitute:

"4.5.2.1 Lot. - A sampling test lot shall consist of not more than 3,000 fitting assemblies, or parts thereof, all of one dash size, manufactured under essentially the same conditions, and at essentially the same time."

(f) Paragraph 4.5.2.2: Delete, and substitute:

"4.5.2.2 Tests. - Sampling test fitting assemblies, or parts thereof, shall be individually selected at random over each entire lot. The fitting assemblies or parts thereof, shall be inspected for defects in accordance with MIL-STD-845. A single sampling plan shall be used, unless the procuring activity is notified in writing prior to testing that a double sampling plan will be used for the procurement. The Acceptable Quality Level (AQL) for each class of defects shall be as follows: Major - 1.0 percent defective, Minor - 6.5 percent defective, at general inspection level II, and spot check - 4.0 percent defective at special inspection level S-1. Additional fitting assemblies, or parts thereof, shall be selected at random from the lot. These shall be assembled to the appropriate standard hose and subjected in the order indicated, to tests listed below and specified in 4.6. A single sampling plan shall be used at special inspection level S-2

with an AQL of 1.5. Any fitting assembly, or part thereof, failing to pass any one, or a combination of the following tests, is counted as a defective unit:

- | | |
|----------------------------------------|---------|
| (a) Proof pressure | (4.6.4) |
| (b) Leakage | (4.6.5) |
| (c) Room temperature burst
pressure | (4.6.6) |

Fitting assemblies, or parts thereof, subjected to these destructive tests shall not be delivered to the Government."

Page 10:

(a) Paragraph 4.5.2.3: Delete in its entirety.

(b) Paragraph 4.5.3.1: Delete, and substitute:

"4.5.3.1 Lot. - A periodic control lot shall consist of not more than 9,000 fitting assemblies, or parts thereof, all of one dash size, manufactured under essentially the same conditions, and at essentially the same time."

(c) Paragraph 4.5.3.3: Delete in its entirety.

(d) Add new paragraph:

"4.5.4 Rejection and retest. - The provisions of this paragraph apply to both the sampling tests, and the periodic control tests. If a sample has defectives equal to, or greater than the rejection number, the lot it represents shall be rejected. Once a lot, or part of a lot, has been rejected by any Government or commercial procuring activity, before it can be resubmitted for tests, full particulars concerning the cause of previous rejections and the suitable action taken to correct the defects in the lot shall be furnished, in writing, by the contractor."

(e) Add the following new paragraphs:

(1) "4.5.5 Switching procedures. - Switching inspection severity levels, e.g., from normal to tightened inspection, shall be in accordance with MIL-STD-105."

(2) "4.5.6 Destructive test samples. - Prior to testing, a letter "D" shall be impression stamped on each end fitting assembly, or part thereof, used for destructive tests (see 4.5.2 and 4.5.3)."

(f) Paragraph 4.6.1, second line: Delete "dimension".

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Page 11, table II: In column entitled "13 through 18", add "5/". Below table II, add the following footnote: "5/ Two samples (13 and 14) are to have an MS27057 elbow fitting on one end of the assembly (if size is applicable)."

Page 12, paragraph 4.6.3: Delete, and substitute:

"4.6.3 Joint integrity proof pressure. - Fitting assemblies or subassemblies having brazed, welded, or mechanically attached joints shall be subjected to the applicable proof pressure specified in table I. One end of the test sample shall be capped and the proof pressure applied through the other end for a minimum of 30 seconds and a maximum of 5 minutes. The test fluid shall be water. Any evidence of failure at any of these joints shall be cause for rejection of the fitting."

Page 17, paragraph 4.6.9, tenth and eleventh lines, eighth sentence: Delete, and substitute "Any evidence of leakage at the end fittings shall constitute failure."

Page 21, paragraph 6.3, last sentence: Delete, and substitute "The activity responsible for the Qualified Products List is Commander, Aeronautical Systems Division, Attn: ASNJP-20, Wright-Patterson Air Force Base, Ohio 45433, and information pertaining to qualification of products may be obtained from that activity."

Custodians:
Army - AV
Navy - AS
Air Force - 11

Preparing activity:
Air Force - 11
Agent - AG
Project No. 4730-0772

Reviewer activities:
Army - AV
Navy - AS
Air Force - 11, 82

User activities:
Army - MI
Navy - SH