

1. SCOPE

1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts and provide reconditioning instructions for the 84-183180 and 804-183180 fire extinguisher system installations, and the 189450P engine compartment fire extinguisher lines installation as installed in T-7, T-7C, UC-45B, and C-45F aircraft and instructions for modifications necessary to adapt them for use in C-45G aircraft in accordance with Drawings 894-183185 and 189450P.

1.2 Application.- All reconditioning operations and repairs covered by this specification may be accomplished where required without further authorization. Repairs not authorized by this specification cannot be performed without further authorization.

1.3 List of Pages and Revisions.- This specification consists of the pages listed below. An asterisk (*) denotes pages revised by the current revision.

<u>Page</u>	<u>Date</u>	<u>Description of Revision</u>	<u>Serial Effectivity</u>
1	6-8-53		
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PROJECT ENGINEER <i>[Signature]</i>			FIRE EXTINGUISHER SYSTEM - MODEL C-45G		
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2. APPLICABLE PUBLICATIONS

2.1 Air Force - Navy.-

AN-333-P-363 National Standard Taper Pipe Threads

AND 10375 Color Code Specification

2.2 Federal.-

QQ-P-416 Cadmium Plating

2.3 Beech.-

FB 370A Finish Specification for Model C-45G and C-45H

FB 201F Use, Characteristics, and Application of Glues, Cements, and Sealers

FB 398A Thread Lubricants

OS 7002 Cleaning Procedures for Reconditioned Aircraft

OS 7008 General Acceptable Quality Standards

2.4 Technical Orders.- Compliance with this specification constitutes compliance with the technical orders listed below.

03-45-1 Inspection, Testing, Charging, and Marking of Airborne Portable and Fixed CO₂ Fire Extinguisher Cylinder Assemblies, dated August 30, 1950

03-45C-1 Handbook Operation, Service, and Overhaul Instructions with Parts Catalog for Types A-11, A-12, and A-18 Fire Extinguishing Systems, dated July 15, 1949

03-45CA-4 Handbook Overhaul Instructions CO₂ Fire Extinguisher Airborne Model 36-1, dated September 23, 1949

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3. REQUIREMENTS

3.1. Parts Involved:

3.1.1 Parts Not Used:- All parts called out on Drawings 84-183180, 804-183180 fire extinguisher system installations, and 189450P engine compartment fire extinguisher lines installation are to be disposed of at the direction of the customer except the parts listed in Paragraph 3.1.2 of this specification.

3.1.2 Parts to be Reconditioned.- The following parts are to be reconditioned in accordance with the instructions contained herein. "Reconditioned" means the disassembly, cleaning, inspection and correction of discrepancies, repair and/or replacement of components, and modifications to incorporate changes in accordance with applicable engineering drawings to assure an operationally safe and serviceable aircraft.

3.1.2.1 Fire Extinguisher System Installations 84-183180 and 804-183180.-

981557	Cylinder and valve assembly
20400	Pulley
933583	Pulley
41A4178	Indicator
27082	Control panel
919475	Control panel
734-183182	Support assembly

3.1.2.2 Engine Compartment Fire Extinguisher Lines Installation 189450P.-

8 PFT	Plug
189460P-2	Clamp
3786535	Flex hose
189396	Tube assembly
189397	Tube assembly
189398	Tube assembly
189399	Tube assembly

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3.1.3 Parts to be Supplied New:

3.1.3.1 Fuselage and Wing Fire Extinguisher Installation 694-183185.- All parts called out on Drawing 694-183185 fuselage and wing fire extinguisher installation are to be supplied new except the parts listed in Paragraph 3.1.2.1 of this specification.

3.1.3.2 Engine Compartment Fire Extinguisher Lines Installation 189450P.- All parts called out on Drawing 189450P engine compartment fire extinguisher lines installation are to be supplied new except the parts listed in Paragraph 3.1.2.2 of this specification.

3.2 Cause for Rejection.- Damage or wear which cannot be corrected by one or more of the authorized repairs listed in Paragraph 3.4 of this specification and the specific conditions listed below will be cause for rejection.

3.2.1 Fire Extinguisher System Installations 84-183180 and 804-183180:

3.2.1.1 Cylinder and Valve Assembly 981557.-

- (a) Cylinders are to be rejected if they are not the wire-wrapped, non-shatterable type or if the wire wrappings are broken or frayed.
- (b) Cylinders will be rejected if dented in excess of 1/8 inch.
- (c) Cylinders will be rejected when corroded on the inside or have excessive amount of corrosion on the outside.

3.2.2 Engine Compartment Fire Extinguisher Lines Installation 189450P:

3.2.2.1 Tube Assemblies 189396, 189397, 189398, and 189399.-

- (a) Tubing will be rejected if worn or scratched to a depth exceeding .005 inch or dented to a depth exceeding 1/16 inch.
- (b) Tubing will be rejected if the flared ends are worn, scratched, or bent or if end fittings have damaged threads.
- (c) Perforated tubing will be rejected if the discharge holes are oversize.

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3.3 Reconditioning Operations:

3.3.1 Fire Extinguisher System Installations 84-183180 and 804-183180:

3.3.1.1 Cylinder and Valve Assembly 981557.-

- (a) Discharge cylinder to make certain that the cylinder is empty before attempting any disassembly or any reconditioning operations.
- (b) Disassemble the cylinder and valve assembly, observing the following precautions. Before disassembly of the valve from the cylinder can be accomplished, it is necessary that the valve be completely disassembled. During the disassembly operation, before unscrewing the two headless set screws which key together the torque arm and lead nut, note that the lead screw has a quadruple thread and can mate in four different positions relative to the lead nut; for proper reassembly if the original parts are reused, mark the following parts lightly with a center punch prior to removal; torque arm, casing, lead nut, lead screw, and valve body.
- (c) Clean all parts thoroughly with clean, dry compressed air. Pay particular attention to the seating surfaces, passages and threads.
- (d) Inspect all parts carefully.
- (e) Inspect for signs of corrosion.
- (f) Inspect springs for deformity or damage to ends.
- (g) Examine lead screw and lead nut for burrs and foreign particles.
- (h) Check threads of safety disc retainer assembly and non-recoil connector assembly for burrs, nicks, stripping, or corrosion.
- (i) Check valve seat for scoring, roughness, or pitting.
- (j) Test to see that there is absolutely smooth action between the lead screw and lead nut. The one part should drop of its own weight when the other is held and vice-versa.
- (k) Repair or replace parts as necessary as authorized herein.

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3.3.1.1 Cylinder and Valve Assembly 981557.- (Continued)

- (l) Lubricate the latch bearings, the lead screw, lead nut, stem thread, stem packing, and lower stem with grease conforming to Specification MIL-G-3278, and reassemble. Check the entire assembly for tightness of parts.
- (m) Test the valve operationally by charging the cylinder with air at 20 psi. Pull the lever and discharge the cylinder to see that the valve operates properly.
- (n) Finish in accordance with FS 370A and install 694-180090 placard.
- (o) Recharge the cylinder to comply with winterization requirements as follows: Charge the cylinder with nitrogen to 200 (± 5 psi) measured at room temperature ($70^{\circ} F \pm 10^{\circ} F$ or $21.1^{\circ} C \pm 5.5^{\circ} C$). Then immediately charge the cylinder with 5.33 pounds ($\pm .11$ pound) of carbon dioxide.

NOTE: 3/4-inch yellow dots are no longer required to indicate that a cylinder has been winterized.

- (p) Test cylinder for leakage.

3.3.1.2 Pulleys 20400 and 933583.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) ~~_____~~ with grease conforming to Specification MIL-G-3278.

3.3.1.3 Indicator 41A4178.-

- (a) Inspect for nonrepairable conditions.
- ~~_____~~ Clean in accordance with OS 7002.
- (c) Install a new indicator disc.

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3.3.1.4 Control Panel 919475 and 27082.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002 - do not deface placard in cleaning.
- (c) Repair as necessary as authorized herein.
- (d) Install a new release cable.
- (e) Install AN fittings in accordance with Drawing 694-183185. Lubricate threads in accordance with PS 398A.

3.3.1.5 Fire Extinguisher Bottle Support Assembly 734-183182.-

- (a) Inspect for nonrepairable conditions.
- (b) Remove felt pads.
- (c) Clean in accordance with OS 7002.
- (d) Finish in accordance with PS 370A.
- (e) Install new pads in accordance with Drawing 734-183182 and PS 201F.

3.3.2 Engine Compartment Fire Extinguisher Lines Installation 189450P:

3.3.2.1 Flex Hose 37B6535 and Plug 8 FWT.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.

3.3.2.2 Clamp 189460P-2.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Strip and cadmium plate in accordance with Specification QQ-P-416.

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3.3.2.3. Tube Assemblies 189396, 189397, 189398, and 189399.-

- (a) Clean in accordance with OS 7002.
- (b) Repair as necessary as authorized herein.
- (c) Color code in accordance with AND 10375.

3.4 Authorized Repairs:

3.4.1 Fire Extinguisher System Installation 84-183180 and 804-183180:

3.4.1.1 Cylinder and Valve Assembly 981557.-

- (a) Parts needing further cleaning (reference Paragraph 3.3.1) may be cleaned with Stanisol cleaning solvent in accordance with OS 7002.
- (b) Repair of the detail parts of the cylinder and valve assembly is not practical. Replace all damaged parts with new ones. The safety disc and safety disc washer must never be reused.

3.4.1.2 Indicator 41A4178.-

- (a) Chase damaged threads.

3.4.1.3 Control Panel 919475.-

- (a) If valve is sticking, soak it in Stanisol cleaning solvent.
- (b) When 15092 spacers are damaged or missing, 1008D1-A4-0812 bushings may be used.
- (c) When 18367 coupling is damaged or missing, make a new part from 3/8- by 1/4-inch bar 618-T6 aluminum alloy. Make part .813 by .375 by .250. Prime new part.
- (d) If socket 19110 is missing or damaged beyond useability, and new part is not available, socket No. 17297 may be reworked into a useable part by cutting off small threaded end flush with flange of larger threaded portion. Ream center hole with a 21/64-inch drill and tap 1/8 by 27 pipe thread, National Standard taper in accordance with Specification AN-GGG-P-363.

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3.4.1.3 Control Panel 919475.- (Continued)

- (e) Straighten bent panels to best shop practice.
- (f) Touch up scratched or exposed areas on placards and handles.
- (g) Finish release handle in accordance with FS 370A.
- (h) Chase damaged threads.

3.4.1.4 Control Panel 27082.-

- (a) Touch up placards that are scratched or have exposed areas with black paint.
- (b) Finish release handles in accordance with FS 370A.
- (c) Chase damaged threads.

3.4.2 Engine Compartment: Fire Extinguisher Lines Installation 189450P:

3.4.2.1 Tube Assemblies 189396, 189397, 189398, and 189399.-

- (a) Perforated tubing discharge holes shall be open and free of all foreign matter. Ream clogged holes .063 diameter, No. 52 drill.

4. INSPECTION

4.1 General.- Parts will be inspected to the general acceptable quality standards of Overhaul Specification 7008.

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