1. SCOPE

1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts and provide reconditioning instructions for component parts of the 84-189060 and 804-189060 engine control system installations as installed in aircraft received for overhaul and instructions for modifications required to adapt them for installation in Model C-45G aircraft in accordance with Drawings 694-189050 and 694-189060 and installation in C-45H aircraft in accordance with Drawings 694-189055 and 694-189064.

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 thespages revised by the current revision.

Page	Date	Description of Revision	Serial Effectivity
1	6-30-53		
2	6-30-53		
3	6-30-53		
4	6-30-53		
5	6-30-53		
6	6-30-53		
7	6-30-53		
8	6-30-53		
9	6-30-53		
10	6-30-53		

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USAF Quality Control

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WRITTEN BY	DATE ISSUED 6-30-53	OVERHAUL SPECIFICATION		
PROJECT ENGINEER		ENGINE CONTROLS - MODEL C-45G AND C-45H		
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APPROVAL				

E-330A

2. APPLICABLE PUBLICATIONS

2.1 Air Force - Navy.-

QQ-A-696a	Anodic Films; Corrosion-Protective for Aluminum Alloys

2.2 Federal.-

QQ-P-416	Plating, Cadmium

2.3 Beech.-

FS 370A	Finish Specification for Model C-45G and C-45H Aircraft
MP 1122	Stripping Anodic Coating
OS 3201	Instruments
OS 7002	Cleaning Procedures for Reconditioned Aircraft
OS 7003	Air Frame and Control Antifriction Bearings
OS 7008	General Acceptable Quality Standards

3. REQUIREMENTS

3.1 Parts Involved.- For parts involved in addition to those covered by this specification, refer to the overhaul specification listed below:

OS 3201 Instruments

3.1.1 Parts Not Used.- All parts listed on Drawings 189060 engine controls installation, 189065 pedestal controls installation, and 804-189065 pedestal controls installation, will not be re-used except those parts listed in Paragraph 3.1.2 of this specification and will be disposed of at the direction of the customer.

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

3.1.2 Parts to be Reconditioned.- (Continued)
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 Engine Controls Installation 183906C.-

18S936P	Support
18S9185	Arm
189185	Arm
189073	Bracket
S-241	Bushing
189878	Bracket
RSB-3N	Rod end

3.1.2.1.1 Cowl Flap Control Assembly 189526A.-

18S5967	Control rod assembly
189521	Arm
189522	Arm
189523	Hanger
189525	Tube

3.1.2.1.2 Cowl Flap Control Assemblies 189038-2 and 189038-4.-

105020	Housing assembly
183072	Spacer
183078	Plunger
183076	Collar
183091	Collar
183084	Clamp assembly
183077	Latch
183092	Handle
105019	Clamp assembly
1/4 x 20 x 3/8	Socket cup point set screw

3.1.2.2 Pedestal Controls Installations 18906P and 804-189065.-

S-195	Control
189063	Bolt
189088	Spacer
189082	Shaft
189085	Spacer
183857-1	Control guide
183857-2	Control guide
189046	Block
183847P	Bushing
183868-1	Bushing
183868-2	Bushing
189074	Reinforcement
189089	Reinforcement
106336	Elevator tab position gauge
106335	Flap position gauge

3.1.2.2.1 Friction Control Assembly 189490.-

189083	Shaft
189491-1	Wheel
189491-2	Wheel
189492	Lever
189493-1	Spacer screw
189493-2	Spacer screw,
189495	Phenolite washer
189496	Phenolite washer

3.1.2.2.2 Lever Assemblies 189065 and 189066.-

189077	Lever

3.1.2.2.3 Wheel Assembly 181318.-

187729	Hand wheel

3.1.2.2.4 Pedestal Assembly Control 183849P.-

183080	Upper cowl flap control mounting bracket
183081	Lower cowl flap control mounting bracket

3.1.2.2.5 Fuel Valve Control 189260.-

189714	Driver
066656	Universal
066653	Shaft
942105	Plate assembly
189260-9	Handle

3.1.3 Parts to be New.-

(a) All parts called out on Drawings 694-189060 engine controls installation and 694-189050 pedestal controls installation will be supplied new on C-45G aircraft except those parts listed in Paragraph 3.1.2 of this specification.

(b) All parts called out on Drawings 694-189064 engine controls installation and 694-189055 pedestal controls installation will be supplied new on C-45H aircraft except those parts listed in Paragraph 3.1.2 of this specification.

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

(a) Scrap 189493 spacer screws and 189491 wheels with threads that deviate from original print tolerances.

(b) Scrap 183078 plungers with mill cuts not located in accordance with the latest revision of Drawing 183078.

3.3 Reconditioning Operations.

3.3.1 Phenolic Parts, Spacers 189085, 189088, and 189087; Bushings S-241, 183847P, 183868-1, and 183868-2; Washers 189495 and 189496; Control Guides 183857-1 and 183857-2; and Block 189046.-

(a) Clean in accordance with OS 7002.

(b) Inspect for serviceability.

NOTE: Control guides 183857-1 and 183857-2 and block 189046 shall be kept in matching pairs.

3.3.2 Support 18S936P; Arms 189185 and 18S9185; Brackets 189073 and 189878; Reinforcements 189074 and 189089; Control S-197; Bolt 189063; and Shaft 189082.-

(a) Clean in accordance with OS 7002.

(b) Inspect for nonrepairable conditions.

(c) Make necessary repairs as authorized herein.

(d) Cadmium plate in accordance with Specification QQ-P-416.

3.3.3 Rod End REB-3N.-

(a) Clean and recondition in accordance with OS 7003.

3.3.4 Cowl Flap Control Assembly 189526A.-

(a) Disassemble.

(b) Clean in accordance with OS 7002.

(c) Make necessary repairs as authorized herein.

(d) Clean REB-3N and A539 bearing in accordance with OS 7003.

NOTE: Do not remove A539 bearing from 189523 hanger unless it is to be replaced with a new bearing.

(e) Cadmium plate the 18S5968 link, the 185969 adjusting screw, and the 189525 tube in accordance with Specification QQ-P-416.

(f) Finish the 189521 arm, the 189522 arm, and the 189523 hanger in accordance with FS 370A.

3.3.5 Cowl Flap Control Assemblies 189038-2 and 189038-4.-

(a) Disassemble.

(b) Clean in accordance with OS 7002.

(c) Inspect for nonrepairable conditions.

(d) Cadmium plate the following parts in accordance with Specification QQ-P-416.

183084	Clamp assembly
183072	Spacer
183078	Plunger
183076	Collar
183091	Collar

(e) Buff and polish the 183092 handle.

(f) Assemble, using new parts as needed to conform to Drawing 189038.

(g) Finish in accordance with FS 370A.

3.3.6 Friction Control Assembly 189490.-

(a) Disassemble.

(b) Clean in accordance with OS 7002.

(c) Inspect for nonrepairable conditions.

(d) Cadmium plate the 189083 shaft and the 189492 lever in accordance with Specification QQ-P-416.

(e) Strip anodic coating on the 189491 wheel and the 189493 spacer screw in accordance with MP 1122 and re-anodize in accordance with Specification QQ-A-696.

(f) Assemble, using new parts as needed to conform to Drawing 189490.

(g) Finish in accordance with FS 370A.

3.3.7 Fuel Valve Control 189260.-

(a) Disassemble.

(b) Clean in accordance with OS 7002.

(c) Inspect for nonrepairable conditions.

3.3.7 Fuel Valve Control 189260.- (Continued)

(d) Strip and cadmium plate the 139714 driver, the 066656 universal, and the 066653 shaft in accordance with Specification QQ-P-416.

(e) Assemble, using new parts as needed to conform to Drawing 694-189260-6 and 694-189260-8.

(f) Finish in accordance with FS 370A.

3.3.8 Upper Cowl Flap Control Mounting Bracket 183080 and Lower Cowl Flap Control Mounting Bracket 183081.-

(a) Clean in accordance with OS 7002.

(b) Inspect for nonrepairable conditions.

(c) Make necessary repairs as authorized herein.

(d) Finish in accordance with FS 370A.

3.3.9 Lever Assemblies 189065 and 189066.-

(a) Disassemble.

(b) Clean 189065 lever in accordance with OS 7002.

(c) Assemble the 189065 lever assembly using new parts as needed to conform to Drawing 694-189065.

(d) Assemble the 189066 lever assembly using new parts as needed to conform to Drawing 694-189066.

(e) Finish in accordance with FS 370A.

3.3.10 Wheel Assembly 181318.-

(a) Clean in accordance with OS 7002.

(b) Install a new 180053 placard in accordance with the latest drawing information.

(c) Finish in accordance with FS 370A.

3.3.11 Elevator Tab Position Gauge 106336 and Flap Position Gauge 106335.- Refer to OS 3201 for reconditioning information.

3.4 Authorized Repairs.-

(a) Slightly damaged threads on bolts, threaded holes, etc., will be chased with an appropriate sized tap or die according to applicable print specifications.

(b) Brackets 188937, 103080, and 103081, and clamp assemblies 183084 that are bent will be straightened at red heat to best shop procedures.

(c) Oversized taper holes in the 189525 shaft and the 189522 arm and/or the 189521 arm will be repaired by taper reaming, 1/2 inch per foot, to receive an AN386-3-10 taper pin. Ream so the small end of the taper pin shall not extend more than 1/16-inch above the surface of the work. Install AN386-3-10 taper pin, AN975-4 washer, and AN320-4 nut in place of AN386-2-10 taper pin, AN975-3 washer, and AN320-3 nut.

(d) An additional hole for the 1/16-inch cotter pin in the 189082 shaft (reference Drawings 694-189050 and 694-189055) will be drilled at approximately 90 degrees to the original hole when difficulty is experienced in securing proper alignment between the hole in the nut and in the shaft. Drill the nut and shaft together when the new hole is drilled.

(e) In cases where the 185967 cowl flap control rod rides on the rubber grommet edge around the hole in the finner cowl (reference Drawing 694-185910) the hole in the inner cowl will be elongated to align with the control rod and enlarged to accommodate an S-104-22 metal grommet. Maximum elongation of the grommet hole will not be over 1/4-inch from the edge of the original hole. If more than 1/4-inch elongation is required, the hole will be elongated as necessary and reinforced with a doubler of .016 corrosion-resistant steel, Specification MIL S 5059. Extend the doubler approximately 3/4-inch beyond the limits of the existing hole. Cut out a 1-5/16-inch hole in the doubler to align with the control rod. Form doubler to fit inner cowl and attach with AN470AD3 rivets, spaced approximately 1 inch with 1/4-inch edge distance. Rivets falling below the Kearsarge in the cowl flange will be AN426AD3 rivets and driven flush.

4. INSPECTION

4.1 General. - The parts will be inspected to the general acceptable quality standards of Overhaul Specification 7008 and the specific quality standards listed below:

(a) Cowl flap controls are acceptable at a push or pull load of 25 pounds maximum to close or open flaps. This load will be established at the control handle. This is exclusive of the force required for locking the control in full open or closed position.