

1. SCOPE

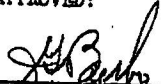
1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts and provide reconditioning instructions for components of 84-189740 and 94-189750 engine oil systems, as installed in T-7, T-7C, UC-45B, C-45F and T-11 aircraft and instructions for modifications required to adapt them for installation in C-45G and C-45H aircraft in accordance with Drawing 694-189740 nacelle oil system installation and Drawing 694-189800 nacelle oil tank installation.


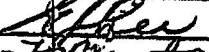
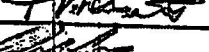
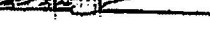
1.2 Application.- All reconditioning operations and repairs covered by this specification may be accomplished where required without further authorization. Repairs not authorized by this specification cannot be performed without further authorization.

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	5-4-53	To note revision	
2	5-4-53		
*3	5-4-53	Correct part number	Any
*4	5-4-53	Correct part number	Any
5	5-4-53		
*6	5-4-53	Correct part number	Any
*7	5-4-53	To add more detailed information	Any
8	5-4-53		
9	5-4-53		
10	5-4-53		

APPROVED:

  
 USAF Quality Control

WRITTEN BY		DATE ISSUED	5-4-53	OVERHAUL SPECIFICATION <span style="float: right;">831</span>		
PROJECT ENGINEER				ENGINE OIL SYSTEM -		
APPROVAL				MODEL C-45G AND C-45H		
APPROVAL		DATE REVISED	7-3-53	Beach Aircraft CORPORATION	OVERHAUL SPECIFICATION NO. 9301	PAGE 1
				Wichita 1; Kansas		

2. APPLICABLE PUBLICATIONS

2.1 Specifications:

2.1.1 Army and Navy.-

AND 10375 Color Coding  
 QQ-A-696A Anodic Films; Corrosion Protective for Aluminum Alloys

2.1.2 Federal.-

QQ-P-416 Cadmium Plating (Electro-deposited)

2.1.3 Beech.-

MP 1122 Stripping Anodic Coating  
 FS 370A Finish Specifications for Model C-45G and C-45H Aircraft  
 OS 3612 Oil Dilution Solenoid Valve  
 OS 7002 Cleaning Procedures for Reconditioned Aircraft  
 OS 7008 General Acceptable Quality Standards  
 OS 7010 Removing Corrosion from Aluminum Parts  
 OS 9310 Oil Tanks  
 OS 9311 Oil Radiator and Oil Radiator Air Duct Installation

3. REQUIREMENTS

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

OS 9310 Oil Tanks  
 OS 9311 Oil Radiator and Oil Radiator Air Duct Installation  
 OS 3612 Oil Dilution Solenoid Valve - 37D6210

WRITTEN BY	<i>W. Fitzpatrick</i>	DATE ISSUED	5-4-53	OVERHAUL SPECIFICATION ENGINE OIL SYSTEM - MODEL C-45G AND C-45H	
PROJECT ENGINEER	<i>[Signature]</i>	DATE REVISED			
APPROVAL	<i>[Signature]</i>			Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9901
					PAGE 2

3.1.1 Parts Not Used.- All parts listed on Drawings 84-189740 and 94-189750 oil system installations will be disposed of at the direction of the customer except those 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 Oil System Installation 84-189740:

3.1.2.1.1 Oil Tank Installation 189800P.-

107464	Turnbuckle assembly
189600P	Strap
184240-1	Clamp support
189806	Tube
189807	Tube

3.1.2.1.2 Oil Tank 189801P.-

189801P-6	Tank assembly left hand
189801P-7	Tank assembly right hand
189816P	Engine oil tank cap assembly

3.1.2.1.3 Oil Piping System Installation 1899740P.-

3152-5-3/8	Nipple
3152-9-3/8D	Coupling
37A3528	Restricted oil dilution fitting
37D6210	Oil dilution solenoid
1899741P	Oil dilution solenoid valve bracket
37D6114-4	Oil system Y-drain

WRITTEN BY <i>[Signature]</i>	DATE ISSUED 3-4-53	<b>OVERHAUL SPECIFICATION</b> ENGINE OIL SYSTEM - MODEL C-45G AND C-45H		
PROJECT <i>[Signature]</i>				
APPROVAL <i>[Signature]</i>	DATE REVISED 7-3-53	Cessna Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9301	PAGE 3
APPROVAL <i>[Signature]</i>				

3.1.2.1.3 Oil Piping System Installation 18S974OP-- (Continued)

- 18S9753 Oil bypass firewall bracket
- 185992 Oil bypass valve arm assembly
- 189749P Oil system Y-drain spacer
- A10898 Oil adapter flange

3.1.2.2 Oil System Installation 94-189750:

3.1.2.2.1 Nacelle Oil System Installation 94-189740--

- 37D6210 Oil dilution solenoid valve
- 37A3528 Restricted oil dilution fitting
- 37D6114-4 Oil system Y-drain
- S-80 Valve assembly
- 189749P Oil system drain spacer
- 94-189850 Oil radiator
- 94-189850-1 Oil radiator
- 189759 45° oil pressure fitting
- 18S9753 Oil bypass firewall bracket
- 18S9741P Oil dilution solenoid valve bracket
- 185992 Oil bypass valve arm assembly
- 3152-9-3/8D Coupling
- 3152-5-3/8 Nipple
- A10898 Oil adapter flange
- 109638 Elbow
- 109639 Elbow
- 109640 Nipple
- 94-189741 Oil tank inlet tube
- 94-189742 Oil radiator outlet tube
- 704-189742 Front left hand oil vent tube
- 704-189743 Front right hand oil vent tube
- 84-189744 Left hand oil tank outlet tube assembly

WRITTEN BY <i>[Signature]</i>	DATE ISSUED 5-4-53	<b>OVERHAUL SPECIFICATION</b>	
PROJECT <i>[Signature]</i>			
APPROVAL <i>[Signature]</i>	DATE REVISED 7-3-53	ENGINE OIL SYSTEM - MODEL C-45G AND C-45H	
APPROVAL <i>[Signature]</i>		Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9301
D-252A			PAGE 4

3.1.2.1.3 Oil Piping System Installation 189740P.- (Continued)

189753 Oil bypass firewall bracket  
 185992 Oil bypass valve arm assembly  
 189749P Oil system Y-drain spacer  
 A10898 Oil adapter flange

3.1.2.2 Oil System Installation 94-189750:

3.1.2.2.1 Nacelle Oil System Installation 94-189740.-

37D621C Oil dilution solenoid valve  
 37A3528 Restricted oil dilution fitting  
 37D6114-4 Oil system Y-drain  
 S-80 Valve assembly  
 189749P Oil system drain spacer  
 94-189850 Oil radiator  
 94-189850-1 Oil radiator  
 189759 45° Oil pressure fitting  
 1859753 Oil bypass firewall bracket  
 189741P Oil dilution solenoid valve bracket  
 185992 Oil bypass valve arm assembly  
 3152 9-3/8D Coupling  
 3152 5-3/8 Nipple  
 A10898 Oil adapter flange  
 109638 Elbow  
 109639 Elbow  
 109640 Nipple  
 94-189741 Oil tank inlet tube  
 94-189742 Oil radiator outlet tube  
 704-189742 Front left hand oil vent tube  
 704-189743 Front right hand oil vent tube  
 84-189744 Left hand oil tank outlet tube assembly

WRITTEN BY <i>H. Fitzpatrick</i>	DATE ISSUED 5-4-53	<b>OVERHAUL SPECIFICATION</b> ENGINE OIL SYSTEM - MODEL C-45G AND C-45H		
PROJECT ENGINEER <i>[Signature]</i>				
APPROVAL <i>[Signature]</i>	DATE REVISED	Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO 9301	PAGE 4
APPROVAL <i>[Signature]</i>				

3.3 Reconditioning Operations:

3.3.1 Oil System Installation 84-189740:

3.3.1.1 Oil Tank Installation 189800P:

3.3.1.1.1 Turnbuckle Assembly 107464.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Strip and cadmium plate 107463-2 and 107463-4 eye in accordance with Specification QQ-P-416.
- (d) Buff the 107462 turnbuckle to remove corrosion.

3.3.1.1.2 Strap 189740P and Clamp Support 184240-1.-

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

3.3.1.1.3 Tubes 189806 And 189807.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Replace color code in accordance with Specification AND 10375.
- (d) Cap ends of tubes until installation.

3.3.1.2 Oil Piping System Installation 189740P:

3.3.1.2.1 3152-5-3/8 Nipple.-

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

WRITTEN BY <i>[Signature]</i>	DATE ISSUED 5-4-53	<b>OVERHAUL SPECIFICATION</b>	
PROJECT <i>[Signature]</i>		ENGINE OIL SYSTEM - MODEL C-45G AND C-45H	
APPROVAL <i>[Signature]</i>	DATE REVISED 7-3-53	Boech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9301
APPROVAL <i>[Signature]</i>			PAGE 6

E-283A

3.3.1.2.2 3152-9-3/8D Coupling; Restricted Oil Dilution Fitting 37A3528; Oil System Y-Drain Spacer 189749P; and Oil Adapter Flange A10898.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Strip anodic coating in accordance with HP 1122.
- (d) Anodize in accordance with Specification QQ-A-696A.

3.3.1.2.3 Oil Dilution Solenoid Valve Bracket 18S9741P.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Finish in accordance with FS 370A.

3.3.1.2.4 Oil Bypass Firewall Bracket 18S9753 and Oil Bypass Valve Arm Assembly 185992.-

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

3.3.1.2.5 Oil System Y-Drain 87D6114-4.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Disassemble, inspect and repair as necessary as authorized herein.
- (d) Apply 5 psi air pressure to the drain port with the valve assembly submerged in light oil. If leaks are evident add one AN960-916L washer under the spring and retest. No leaks are permissible.
- (e) Flush with engine oil and cap ends.

3.3.2 Oil System Installation 94-189750:

3.3.2.1 Nacelle Oil System Installation 94-189740:

WRITTEN BY <i>E. Lee</i>	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE OIL SYSTEM - MODEL C-45G AND C-45H		
PROJECT ENGINEER <i>E. Lee</i>				
APPROVAL <i>[Signature]</i>	DATE REVISED 7-3-53	Boeing Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9301	PAGE 7
APPROVAL <i>[Signature]</i>				

3.3.2.1.1 Valve Assembly S-80.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Disassembly, inspect and repair as necessary as authorized herein.
- (d) Adjust the packing == to obtain 1/16-inch minimum clearance from the plunger head.
- (e) Check the pressure relief feature to see that it will open between 25 and 45 psi.

3.3.2.1.2 45° Oil Pressure Fittings 189759; Elbows 109638 and 109639; and Elbows 109640.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Strip anodic coating in accordance with MP 1112.
- (d) Anodize in accordance with Specification QQ-A-696A.

3.3.2.1.3 Oil Tank Inlet Tube 8-189741; Oil Radiator Outlet Tube 9-189742; Front Left Engine Oil Vent Tube 704-189742; Front Right Engine Oil Tube 704-189743; Left Hand Oil Tank Outlet Tube Assembly 84-189744; Right Oil Tank Vent Tube 84-189745; Radiator Inlet Elbow 704-189747; Right Hand Oil Tank Outlet Tube Assembly 84-189752; Left Engine Oil Inlet Tube 704-189754; Right Engine Oil Inlet Tube 704-189755; Right Hand Lower Oil Tank Vent Tube 804-189755; Left Hand Lower Oil Tank Vent Tube 804-189756; and Oil Drain Tube 704-189757.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Replace color code in accordance with AED 10375.

3.4 Authorized Repairs:

WRITER BY <i>H. Fitzpatrick</i>	DATE ISSUED 5-1-53	<b>OVERHAUL SPECIFICATION</b> <b>ENGINE OIL SYSTEM -</b> <b>MODELS C-45E AND C-45E</b>		
PROJECT ENGINEER <i>[Signature]</i>	DATE REVISED			
APPROVAL <i>[Signature]</i>	APPROVAL <i>[Signature]</i>	Gessch Giffersall CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9301	PAGE 8



3.4.1 Oil System Installation 81-1597140:

3.4.1.1 Oil Tank Installation 159800P:

3.4.1.1.1 Straps 159670P.-

- (a) Best straps will be straightened in accordance with best shop practice.
- (b) Straps that are too short may be used by installing a 155-168 barrel in place of 107462 barrel when making up the 159670P-601 assembly.

3.4.1.1.2 Clamp Support 156240-1.-

- (a) Clamps will be straightened in accordance with best shop practice when best.

3.4.1.2 Oil Piping Installation 155714P:

3.4.1.2.1 Oil System Y-Drain.-

- (a) Leaking valve cones may be lapped into mating seats with fine grade lapping compound. If a good seal cannot be obtained by this method the parts must be replaced.
- (b) If the aluminum retaining washer is noticeably cupped or the 3444252 spring is lacking in tension, resulting in leakage between the stem and the main body, add one AN560-7161 washer between the aluminum retaining washer and the spring to increase the tension.

3.4.2 Oil System Installation 94-1597150:

3.4.2.1 Facelle Oil System Installation 94-1597140:

3.4.2.1.1 Valve Assembly S-80.-

- (a) Excessively worn or damaged parts will be replaced with new parts.

WRITTEN BY <i>H. Fitzpatrick</i>	DATE REVISED <i>7-3-73</i>	OVERHAUL SPECIFICATION ENGINE OIL SYSTEM - MODELS C-450 AND C-451		
PROJECT ENGINEER <i>[Signature]</i>	DATE REVISED	Joseph Girardelli CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO 7301	PAGE 9
APPROVAL <i>[Signature]</i>				

**INSPECTION**

**A.1 General.** - The parts will be inspected to the general acceptable quality standards of OS 7008 and the specific quality standards listed below.

**A.1.1 Oil Tank Installation 169200P.-**

- (a) The 199070P straps will be acceptable for use if the length is not less than 39 inches.
- (b) The AN-155-148 barrel will be acceptable in place of 107A62 barrel for the 107A62 turbopump assembly.

WRITTEN BY <i>D. F. Stojanovich</i>	DATE ISSUED 5-6-53	<b>OVERHAUL SPECIFICATION ENGINE OIL SYSTEM - MODEL C-451 AND C-452</b>		
PROJECT ENGINEER <i>[Signature]</i>	DATE REVISED			
APPROVAL <i>[Signature]</i>		Geesh Aircraft CORPORATION EIGHTH & FIFTH	OVERHAUL SPECIFICATION DC 7501	PAGE 10