

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 189860 oil radiator air duct installation and for the 94-189850 and 94-189850-1 oil radiator as installed in aircraft received for overhaul and instructions for modifications required to adapt them for use on Model C-45G, C-45H, SNB-5, and SNB-5P aircraft.

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 the pages revised by the current revision.

<u>Page</u>	<u>Date</u>	<u>Description of Revision</u>	<u>Serial Effectivity</u>
1	5-7-53		
2	5-7-53		
3	5-7-53		
4	5-7-53		
5	5-7-53		
6	5-7-53		

APPROVED:

J. B. Buro
USAF Quality Control

633

WRITER BY <i>J. Fitzpatrick</i>	DATE ISSUED <i>5-7-53</i>	OVERHAUL SPECIFICATION		
PROJECT ENGINEER <i>[Signature]</i>		OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45H, SNB-5, AND SNB-5P		
APPROVAL <i>[Signature]</i>	DATE REVISED	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9311	PAGE 1
APPROVAL <i>[Signature]</i>				

E-338A

2. APPLICABLE PUBLICATIONS

2.1 Specifications:

2.1.1 Military.-

MIL-S-6872 Soldering Process, General Specification for

2.1.2 Federal.-

QQ-P-416 Plating, Cadmium

2.1.3 Beech.-

FS 302 Finish Specification for Model SNB-5 and SNB-5P Aircraft

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

OS 7002 Cleaning Procedures for Reconditioned Aircraft

OS 7008 General Acceptable Quality Standards

OS 7010 Removing Corrosion from Aluminum Parts

OS 7011 Removing Slushing Compound

3. REQUIREMENTS

3.1 Parts Involved:

3.1.1 Parts Not Used.- The parts called out on Drawings 189860 and 94-189850 which are not listed in Paragraph 3.1.2 of this specification will not be re-used in Model C-45G, C-45H, SNB-5, and SNB-5P aircraft and will be disposed of at the direction of the customer.

WRITER BY <i>W. Fitzpatrick</i>	DATE ISSUED 5-7-55	OVERHAUL SPECIFICATION		
PROJECT ENGINEER <i>[Signature]</i>		OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45H, SNB-5, AND SNB-5P		
APPROVAL <i>[Signature]</i>	DATE REVISED	Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9311	PAGE 2
APPROVAL <i>[Signature]</i>				

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 Radiator Air Duct Installation 189860.-

189860-15	Right-hand weld assembly
189860-16	Left-hand weld assembly
18S9863	Left-hand oil radiator upper air duct assembly
18S9863-1	Right-hand oil radiator upper air duct assembly
189860-20	Left-hand valve duct assembly
189860-21	Right-hand valve duct assembly

3.1.2.2 Oil Radiators 94-189850 and 94-189850-1.- The complete assemblies will be reconditioned.

3.1.3 Parts to be Supplied New:

3.1.3.1 Oil Radiator Air Duct Installation 189860.- All parts called out on Drawing 404-189860, oil radiator air duct installation, will be supplied new except those parts listed in Paragraph 3.1.2 of this specification.

3.2 Cause for Rejection.- The specific causes for rejection listed below and any 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 oil radiator if more than twenty tubes are soldered shut.

3.3 Reconditioning Operations:

WRITTEN BY <i>H. Fitzpatrick</i>	DATE ISSUED 5-7-53	OVERHAUL SPECIFICATION OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45E, SNE-5, AND SNE-5P		
PROJECT ENGINEER <i>[Signature]</i>				
APPROVAL <i>[Signature]</i>	DATE REVISED	Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO.	PAGE
APPROVAL <i>[Signature]</i>			9311	3

3.3.1 Oil Radiators 94-189850 and 94-189850-1.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean and degrease in accordance with OS 7002.
- (c) Plug outlet tube and apply 40 to 50 psi air pressure at inlet with radiator submerged in water and check for leaks.
- (d) Repair as necessary as authorized herein.
- (e) Flush radiator with No. 40 weight engine lubricating oil.
- (f) Drain excess oil and cap ends.

3.3.2 Oil Radiator Air Duct Weld Assemblies 189860-15, 189860-16, 189860-5, 189860-4, 189863, and 189863-1.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Remove corrosion in accordance with OS 7010.
- (d) Repair as necessary as authorized herein.
- (e) Finish in accordance with FS 370A or FS 320 as applicable.

3.3.3 Valve Assembly 189862.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Repair as necessary as authorized herein.
- (d) Cadmium plate the 189864 shaft and the 189869 collar in accordance with Specification QQ-F-416.
- (e) Assemble.
- (f) Finish in accordance with FS 370A or FS 302 as applicable.

3.4 Authorized Repairs:

3.4.1 Oil Radiator 94-189850 and 94-189850-1.-

- (a) Radiators with leaks will be repaired by soldering with tin-lead solder, Specification QQ-S-571, Class A. Solder leaks in accordance with Specification MIL-S-6872. If

WRITTEN BY <i>W. Fitzpatrick</i>	DATE ISSUED 5-7-53	OVERHAUL SPECIFICATION		
PROJECT ENGINEER <i>J. Lee</i>		OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45H, SNE-5, AND SNE-5P		
APPROVAL <i>W. Lee</i>	DATE REVISED	Bessie Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO.	PAGE
APPROVAL <i>W. Lee</i>			9311	4

3.4.1 Oil Radiator 94-189850 and 94-189850-1.- (Continued)

necessary, due to inaccessibility of leaks, tubes may be soldered closed on both ends if the total number of closed tubes per radiator will not exceed twenty.

- (b) Bent and dented port fittings may be straightened in accordance with best shop procedures.

NOTE: Radiators must be tested in accordance with Paragraph 3.3.1.(c) of this specification after completing any repair.

3.4.2 Oil Radiator Air Duct Weld Assemblies 189860-15, 189860-16, 189860-5, 189860-6, 189863, and 189863-1.-

- (a) Remove dents and straighten parts in accordance with best shop procedures.
- (b) Worn or cracked duct flanges will be reworked by welding and/or patching defective area with same material and thickness as the duct. Use welding rod that conforms to Specification QQ-B-566, Type I. Smooth down welds that would cause interference with mating parts. Acidize newly welded parts in accordance with PS 1111.
- (c) Replace nut plates that do not provide an effective lock.
- (d) To facilitate the alignment of the existing fourteen attaching holes, in front of the 189863 and 189863-1 duct assembly, with the nut plates in the firewall angle, rework the 189863 and 189863-1 duct as follows: In each corner of the front edge, drill one No. 30 (.128) hole. Locate the hole 3/4-inch from the leading edge. Cut a slot in each corner approximately 3/32-inch wide, extending from the leading edge rearward to the 3/32-inch hole. This procedure is recommended at the time of assembly and should be used only when necessary.

3.4.3 Valve Assembly 189862.-

- (a) Replace the 189866 bearing, the 189867 bearing and/or the 189864 shaft with new parts when the clearance between the shaft and the bearing exceeds .020 inch.

WRITTEN BY <i>H. J. Fitzpatrick</i>	DATE ISSUED 5-7-53	OVERHAUL SPECIFICATION		
PROJECT ENGINEER <i>R. J. Lee</i>		OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45H, SNB-5, AND SNB-5P		
APPROVAL <i>[Signature]</i>	DATE REVISED	Beech Aircraft CORPORATION White I. Kansas	OVERHAUL SPECIFICATION NO.	PAGE
APPROVAL <i>[Signature]</i>			9311	5

3.4.3 Valve Assembly 189862.- (Continued)

- (b) Replace the 189869 collar(s) and/or the 189866 bearing or 189867 bearing when the wear between the collar(s) and the bearing(s) is sufficient to allow the 189865 plate to bind or touch the sides of the air duct.
- (c) Replace all 189157 bushings in the 189863 arms that exceed .200 inside diameter.

4. INSPECTION

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

- (a) Oil radiators will be acceptable with twenty or less core tubes soldered shut.
- (b) A maximum of .020 clearance will be acceptable between the 189864 shaft and the 189866 and/or 189867 bearing(s).

WRITTEN BY	<i>W. Fitzpatrick</i>	DATE ISSUED	OVERHAUL SPECIFICATION	
PROJECT ENGINEER	<i>[Signature]</i>		OIL RADIATOR AND OIL RADIATOR AIR DUCT INSTALLATION - MODEL C-45G, C-45H, SNB-5, AND SNB-5P	
APPROVAL	<i>[Signature]</i>	DATE REVISED	Bosch Girard CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO.
				9311