

Beech Aircraft Corporation


# OVERHAUL SPECIFICATION

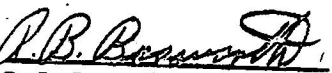
LANDING GEAR RETRACTING MECHANISM ASSEMBLY -  
MODEL C-450, C-45H, SNB-5, AND SNB-5P

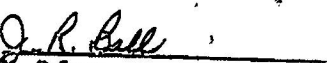
Beech Overhaul Specification 8C14

ISSUED February 17, 1953

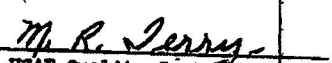
REVISED March 22, 1954

  
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**OVERHAUL SPECIFICATION 8014**

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TITLE LANDING GEAR RETRACTING MECHANISM ASSEMBLY - MODEL C-45G, C-45H,

SNB-5, AND SNB- 5P ISSUED 2-17-53

WRITTEN BY T. R. Taylor REVISED 3-22-54

1. SCOPE

1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts; to provide reconditioning instructions for component parts of the 84-188500 and 804-188500 retracting mechanism assemblies as installed in aircraft received for overhaul; and to provide instructions for modifications required to adapt them for installation in Model C-45G, C-45H, SNB-5, and SNB-5P aircraft in accordance with Drawing 804-188500.

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	3-22-54	To note revision	Record change
2	2-17-53		
3	2-17-53		
4	2-17-53		
5	2-17-53		
6	2-17-53		
* 7	3-22-54	Change Para. 3.4.2.(c) to delete OS 8014-1 pin and add OS 8014-2 pin	Class III

2. APPLICABLE PUBLICATIONS

2.1 Specifications:

2.1.1 Military.-

MIL-I-6868 Magnetic Inspection

2.1.2 Federal.-

QQ-P-416 Plating; Cadmium (Electro Deposited)

2.1.3 Beech.-

FS 302 Finish Specification for Overhauled Navy  
SNB-JRB Airplanes

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

OS 7002 Cleaning Procedures for Reconditioned Aircraft

OS 7003 Air Frame and Control Antifriction Bearings

OS 7008 General Acceptable Quality Standards

OS 7010 Removing Corrosion from Aluminum Parts

OS 8015 Landing Gear Overload Clutch Assembly - Model  
C-45G, C-45H, SNB-5, and SNB-5P

OS 8016 Landing Gear Motor Assembly - Model C-45G,  
C-45H, SNB-5, and SNB-5P

2.2 Technical Orders.- Compliance with this specification constitutes compliance with the technical order listed below.

OL-90-57A Modification of Landing Gear Retracting Mechanism,  
dated March 15, 1949

3. REQUIREMENTS

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

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DESIGNED BY <i>[Signature]</i>				
APPROVAL <i>[Signature]</i>	DATE REVISED 4-17-53	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO 8014	PAGE 2

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3.1 Parts Involved.- (Continued)

- OS 8015 Landing Gear Overload Clutch Assembly - Model C-45G, C-45H, SNB-5, and SNB-5P
- OS 8016 Landing Gear Motor Assembly - Model C-45G, C-45H, SNB-5, and SNB-5P.

3.1.1 Parts Not Used.- All parts listed on Drawings 84-188500 and 804-188500, retracting mechanism assemblies, 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.

- 188500-1 Tube
- 804-188500-1 Tube
- 804-188500-8 Tube
- 188500-2 Tube
- 804-188500-2 Tube
- 804-188500-10 Tube
- 804-188500-4 Tube
- 804-188500-6 Tube
- 188501 Cross shaft
- 804-188502 Sprocket assembly
- 188509-1 Collar
- 84-188900 Motor assembly
- 188906 Shifting Lever
- 188907 Fingers
- 188910 Overload clutch assembly
- 188914 Cover
- KF16A Bearing

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3.1.3 Parts to be Supplied New.- All parts called out on Drawing 804-188500, retracting mechanism assembly, will be supplied new except those parts listed in Paragraph 3.1.2 of this specification.

NOTE: The 404-188910 clutch assembly will be made from 188910 clutch assembly and will not be new.

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 is cause for rejection.

3.3 Reconditioning Operations:

3.3.1 Bearing KP16A.-

(a) Recondition in accordance with OS 7003.

3.3.2 Cross Shaft 188501; Collar 188509-1; and Fingers 188907.-

- (a) Inspect for nonrepairable conditions.
- (b) Scrap all 188504 universals on the cross shaft. Install 404-188506 universals.
- (c) Clean in accordance with OS 7002.
- (d) Repair as necessary as authorized in Paragraph 3.4 of this specification.
- (e) Magnetically inspect in accordance with MIL-I-6868.
- (f) Recadmium plate in accordance with Specification QQ-P-416.

3.3.3 Tubes 188500-1 and 804-188500-1.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Remove and scrap all 188505 and 188504 universals.
- (d) Modify the tubes to conform to Part 804-188500-10 by cutting one inch from each end to remove the universal attaching holes. Then cut the tubes to a length of 61-1/8 inches.
- (e) Cadmium plate in accordance with Specification QQ-P-416.
- (f) Finish in accordance with FS 370A or FS 302 as applicable.

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PRODUCT ENGINEER <i>A. Rei</i>				
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3.3.3 Tubes 188500-1 and 804-188500-1.- (Continued)

- (g) Install a 404-188507 universal on one end of the tube and drill the other end to match the 804-188500-6 splice tube as shown on Drawing 804-188500.

3.3.4 Tubes 188500-2 and 804-188500-2.-

- (a) Inspect for nonrepairable conditions.  
 (b) Clean in accordance with OS 7002.  
 (c) Remove and scrap all 188505 and 188504 universals.  
 (d) Modify the tubes to conform to Part 804-188500-8 by cutting one inch from each end to remove the universal attaching holes. Then cut the tubes to a length of 57-3/8 inches.  
 (e) Cadmium plate in accordance with Specification QQ-P-416.  
 (f) Finish in accordance with FS 370A or FS 302 as applicable.  
 (g) Install a 404-188507 universal on one end and drill the other end of the tube to match the 804-188500-6 splice tube as shown on Drawing 804-188500-6.

3.3.5 Tubes 804-188500-8 and 804-188500-10.-

- (a) Inspect for nonrepairable conditions.  
 (b) Clean in accordance with OS 7002.  
 (c) Remove and scrap all 188505 universals.  
 (d) Cut one inch from the end of each tube to which the universal is attached and 2-3/4 inches from the end to which the 804-188500-6 splice tube is attached.  
 (e) Cut the 804-188500-8 tube into 6-5/8-inch lengths to conform to Part 804-188500-4.  
 (f) Step (d) above changed the 804-188500-10 tube from 61-1/8 inches to 57-3/8 inches in length. This makes it conform to Part 804-188500-8. Install a 404-188507 universal on one end and drill the other end to match the 804-188500-6 splice tube as shown on Drawing 804-188500.

3.3.6 Sprocket Assembly 804-188502.-

- (a) Inspect for nonrepairable conditions.

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PROJECT ENGINEER <i>[Signature]</i>				
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3.3.6 Sprocket Assembly 804-188502.- (Continued)

- (b) Clean in accordance with OS 7002.
- (c) Disassemble the 804-188504 hub from the 804-188503 sprocket.
- (d) Magnetically inspect the hub and sprocket in accordance with MIL-I-6868.
- (e) Cadmium plate the hub and sprocket in accordance with Specification QQ-P-416.
- (f) Assemble the hub and sprocket in accordance with Drawing 804-188502.

3.3.7 Cover 188914.-

- (a) Disassemble and 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 in Paragraph 3.4 of this specification.
- (e) Paint in accordance with FS 302 or FS 370A as applicable.
- (f) Reassemble, using new felt.

3.3.8 Shifting Lever 188906.-

- (a) Inspect for nonrepairable conditions.
- (b) Clean in accordance with OS 7002.
- (c) Paint in accordance with FS 302 or FS 370A as applicable.

3.4 Authorized Repairs:

3.4.1 Cover 188914.-

- (a) Remove dents and straighten part in accordance with shop practice.

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3.4.2 Cross Shaft 188501.-

- (a) Repair ridges and corrosion of the outside diameter by turning the outside diameter to bottom tolerance to clean up. Depressions of .003 depth are acceptable after turning.
- (b) Repair damaged or worn keyways by placing a spot of ARC weld in existing keyways. Rotate 90° and machine the keyways to print. Remove any weld extending above the .999  $\pm$ .000 outside diameter.
- (c)  $\frac{.250}{.246}$  diameter holes which are oversize may be reamed to  $\frac{.3085}{.3125}$  diameter provided the edge of the hole falls no closer than 3/32-inch to the end of the shaft, 404-188506 universal, or 804-188504 hub. Install OS 8014-2 pin made from 9/32 x 1-7/16 chrome-moly steel, Specification MIL-B-6758, Condition E-4. Rivet ends of pin.
- (d) When the No. 12 hole through the 188501 shaft and 188509-1 collar do not align, drill a new No. 12 hole through the shaft approximately 90° to the old hole to match the hole in the 188509-1 collar.

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.

4.2 Acceptable Standards:

4.2.1 Cross Shaft 188501.-

- (a)  $\frac{.864}{.854}$  slot dimension may be .004 below bottom tolerance.
- (b) .999  $\pm$ .000 outside diameter may be .999  $\pm$ .000  $\pm$ .0015. Grind to the print if oversize. Dimensions to be met before plating.
- (c) Extra slots milled in the shaft are acceptable.
- (d) An extra hole drilled in the shaft in accordance with Paragraph 3.4.2 (d) of this specification is acceptable.