

72-16-02 R3 BEECH: Amendment 39-1494 as amended by Amendment 39-1549 and 39-2211 is further amended by Amendment 39-4085. Applies to Beech Models C45G, TC-45G, C-45H, TC-45H, TC-45J (SNB-5), RC-45J (SNB-5P), D18C, D18S, E18S, E18S-9700, G18S, H18, JRB-6, 3N, 3NM and 3TM Aircraft certificated in all categories with STC SA4-1531, STC SA111WE, STC SA1832WE or any other STC modification incorporating the provisions of the Volpar Tri-Gear Installation.

Compliance required as indicated.

1. Nose Landing Gear Fork

a. For airplanes incorporating Volpar nose landing gear fork P/N 347 perform the following:

(i) Within the next 50 hours time in service or 25 landings, whichever occurs earlier, after the effective date of this amendment to AD 72-16-02, unless already accomplished within the last 50 hours time in service or 25 landings, and thereafter at intervals not to exceed 100 hours time in service or 70 landings, whichever occurs earlier, from the last inspection, inspect the fork for cracks using dye penetrant or fluorescent penetrant inspection methods in accordance with Volpar Service Bulletin No. 17, as revised July 29, 1969, or later FAA-approved revisions, or an equivalent inspection approved by the Chief, Aircraft Engineering Division, FAA Western Region, until modified in accordance with paragraph 1b. below.

(ii) Before each flight conduct a visual check of fork P/N 347 for cracks until modified in accordance with 1b. below. This visual check may be performed by the pilot in command and shall be recorded in the appropriate aircraft records per FAR 91.173.

b. If cracks are found by the inspections or checks per paragraph 1.a.(i) or 1.a.(ii) above, replace fork prior to further flight with Volpar P/N 884.

c. The inspections and checks required per paragraphs 1.a.(i) and 1.a.(ii) may be discontinued when Volpar fork P/N 884 is installed.

2. NOSE LANDING GEAR TRUNNION

a. For airplanes incorporating Volpar nose landing gear trunnion P/N 271 with outside boss diameter of $1.01 \pm .01$ in. (color coded clear) within the next 50 hours time in service after the effective date of this AD, unless already accomplished within the last 950 hours time in service, and thereafter at intervals not to exceed 1000 hours time in service from the last inspection, inspect the trunnion for cracks using dye penetrant or fluorescent penetrant inspection methods in accordance with Volpar Service Bulletin No. 19, dated 16 January 1970, or later FAA-approved revision, or an equivalent inspection approved by the Chief, Aircraft Engineering Division, FAA Western Region, until modified in accordance with paragraph 2b. below.

b. If cracks are found by the inspection per paragraph 2a. above, replace trunnion prior to further flight with Volpar P/N 271

c. The inspections required per paragraph 2a. may be discontinued upon accomplishment of paragraph 2b. above.

3. Main Landing Gear Cylinder and Top Brace Assembly

a. For airplanes with Volpar tri-gear which do not incorporate the Volpar P/N 859 strap reinforcement on Beech main landing gear cylinder and top brace assembly P/N 404-188406, inspect the cylinder and top brace assembly for cracks within 50 hours' time in service after the effective date of amendment 39-1594 to AD 72-16-02, unless already accomplished. For inspection purposes accomplish the following:

- (1) Support aircraft on jacks.
- (2) Remove main wheel and brake assembly.
- (3) Remove main landing gear shock strut assembly from aircraft.
- (4) Clean surfaces and inspect the cylinder and top brace assembly for cracks using magnetic particle inspection method per MIL-I-6868 or dye penetrant inspection method "C", type II, per MIL-I-6866.

b. If cracks are found by the inspections per paragraph 3a. above, repair in accordance with FAR Part 43 prior to accomplishing modification per paragraph 3c. below.

NOTE: The repair is restricted to the areas shown on the attached Figure No. 2. If cracks are found in areas other than shown, disassemble shock strut and replace cylinder and top brace assembly as follows:

- (1) Release air charge and remove AN 6286 valve from main landing gear shock strut.
- (2) Remove the following components from shock strut:
 - (a) Cylinder cap assembly P/N 414-188438
 - (b) Bracket P/N 709
 - (c) Torque links P/N 738 and P/N 706
- (3) Drain oil from the cylinder.
- (4) Remove the AN 365-820 nut from the lower end of the piston at the P/N 426 fork.

NOTE: Care must be taken to avoid shearing the roll pin installed on the E-G-H18 aircraft metering rod assembly. Use a 3/4" socket to hold the upper end of the metering rod. On C-45 and D18 aircraft, a slotted screw driver is used to hold the metering rod.

(5) Remove the P/N 426 fork from the piston by pressing off. Heat may be used on the fork to facilitate removal. Heat to a maximum of 300 degrees F - 350 degrees F.

(6) Remove the P/N 275 stud from the bottom of the piston and slide piston, metering rod, inner cylinder and seals from the outer cylinder assembly.

(7) Reverse the above procedure for the assembly of shock strut using a cylinder and top brace assembly that has been inspected and modified in accordance with paragraph 3c. below.

(8) Complete a landing gear operational check before returning the aircraft to service.

CAUTION: (a) The AN 936-816 lock washer should be installed on to the threaded portion of the metering rod between the P/N 275 stud and the base of the piston.

(b) The AN 6227-7 "O" ring should be installed in groove on metering rod before installation in the piston.

(c) The 426 fork should not be driven or pressed on to piston with the AN 365 nut. Heat should be used on the P/N 426 fork. Cool piston with ice to allow slide fit, then torque AN 365 nut in place on stud.

c. If no cracks are found by the inspections per paragraph 3a. above, modify cylinder and top brace assembly with Volpar P/N 859 strap reinforcement prior to further flight in accordance with the attached Figure No. 1.

NOTE: Following the installation of the reinforcement, reinspect the top brace assembly for cracks using magnetic particle inspection method per MIL-I-6868. If cracks are found, repair in accordance with FAR Part 43 prior to further flight.

Amendment 39-1494 became effective August 3, 1972.

Amendment 39-1549 became effective November 3, 1972.

Amendment 39-2211 became effective May 27, 1975.

This amendment 39-4085 becomes effective April 16, 1981.

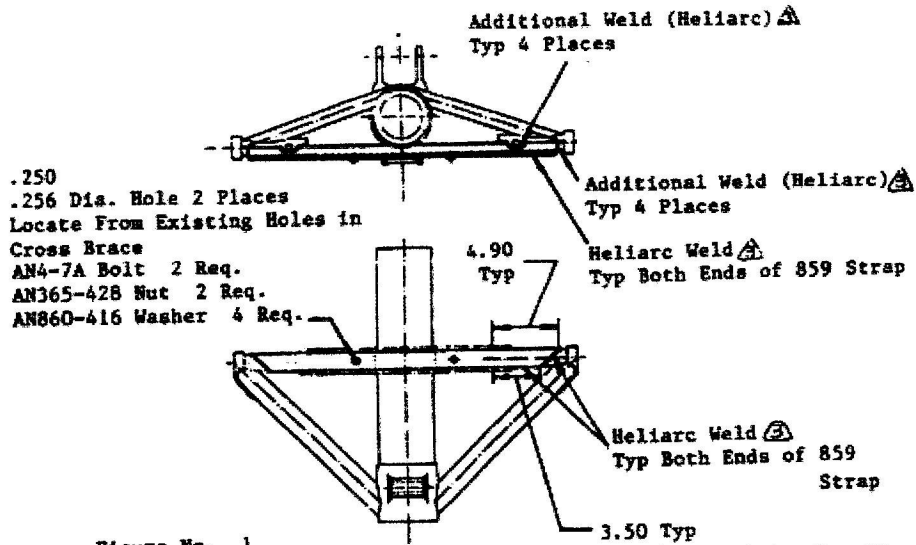


Figure No. 1
 (AD 72-16-2)

5. After Welding, Paint Non-Plated Weld Areas with Zinc Chromate and then Aluminum Lacquer.
4. Heliarc Weld in accordance with the requirements of FAR 43. Δ Before Welding, Remove Cadmium Plating in Areas to be Welded.
2. Magnetic Particle Inspect 404-188406 Cylinder 4 Top Brace Asst Per Mil-I-6868 Before and After Welding.
1. Disassemble Beech 414-188400-1 or 404-188400-600/-601 Shock Absorber Assy to Obtain 404-188406 Cylinder Top Brace Assy. Part of Original Airplane. Not Furnished with Kit.

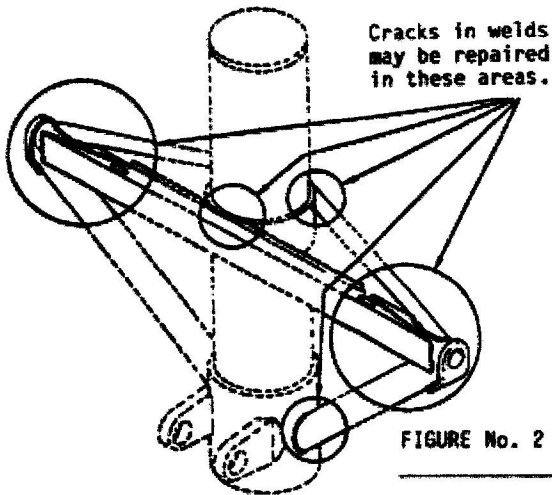


FIGURE No. 2
 (AD 72-16-2)