

INSTALLATION MANUAL

ISSUE DATE 05/09/97

APPLICABLE MODEL

PA-34-200

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SECTION 1- PART # OA. LEFT OUTBOARD SEAL LOCATION AND DRILLING.

Remove left aileron from aircraft. Position outboard aileron seal P/N OA, 1/8" inboard of the wing tip with bottom of seal flush with bottom of lower wing skin. (Reference detail #1) Check for existing rivets which prevent seal from laying flush against spar. Drill clearance holes in seal flange to allow seal to clear existing rivets. Drill #40 holes through pilot holes in part, cleco seal in place.

SECTION 2- PART # CA. CENTER AILERON SEAL LOCATION AND DRILLING.

Using 1/32" end spacing, locate center aileron seal P/N CA up to P/N OA with bottom of seal flush with bottom of lower wing skin. (Reference detail #1) Check for existing rivets which prevent seal from laying flush against spar. Drill clearance holes in seal flange to allow seal to clear existing rivets. Drill #40 holes through pilot holes in part, cleco seal in place.

SECTION 3- PART # CA. CENTER AILERON SEAL LOCATION AND DRILLING.

Using 1/32" end spacing, locate center aileron seal P/N CA up to P/N CA just installed, with bottom of seal flush with bottom of lower wing skin. (Reference detail #1) Check for existing rivets which prevent seal from laying flush against spar. Drill clearance holes in seal flange to allow seal to clear existing rivets. Drill #40 holes through pilot holes in part, cleco seal in place.

SECTION 4- PART # LIA. LEFT INBOARD AILERON GAP SEAL LOCATION AND DRILLING

Using 1/32" end spacing, locate inboard aileron seal P/N LIA up to P/N CA just installed, with bottom of seal flush with bottom of lower wing skin. (Reference detail #1) Check for existing rivets which prevent seal from laying flush against spar. Drill clearance holes in seal flange to allow seal to clear existing rivets. Drill #40 holes through pilot holes in part, cleco seal in place.

NOTE. *WHEN VIEWED FROM THE END, SEALS SHOULD PRESS FIRMLY AGAINST THE AILERON AT THE TRAILING EDGE AND BOW DOWNWARD AT THE CENTER OF THE SEAL TO CLEAR EXISTING RIVETS ON THE AILERON. IF THE SEALS DO NOT HAVE SUFFICIENT BOW TO MAKE CONTACT OR CLEARANCE THEY MAY BE BOWED FURTHER BY SQUEEZING THEM CHORDWISE.*

SECTION 5- ENLARGING MOUNTING HOLES FOR P/N' s OA AND LIA.

Remove P/N's OA and LIA from aircraft. Enlarge mounting holes to #15 drill size. Install 3 P/N A6-75 Rivnuts in the P/N OA locations. Install 3 P/N A6-120 Rivnuts in the 3 most inboard holes for P/N LIA. Install 1 P/N A6-75 Rivnut in the most outboard hole for P/N LIA. Enlarge holes in P/N's OA and LIA to #27 drill size.

SECTION 6- ENLARGING MOUNTING HOLES IN P/N's CA, CENTER AILERON GAP SEAL.

Drill all holes in aircraft and seals for P/N CA's to # 27 hole size.

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SECTION 7- FINAL CLEANUP.

Clean all shavings from aircraft. Deburr all holes, and corrosion proof all holes just drilled with alodine or equivalent.

SECTION 8- INSTALLING P/N's OA AND LIA.

Locate P/N OA so the holes line up with rivnuts. Use 3 P/N AN526-632-R10 screws to secure seal to aircraft. Locate P/N LIA so the holes line up with rivnuts. Use 4 P/N AN526-632-R10 screws to secure seal to aircraft. In the most outboard hole place 2 P/N AN960-6 washers between seal and spar to act as a spacer.

SECTION 9- RIVETING P/N CA's.

Locate P/N's CA so holes line up. Cleco seals in place. Using P/N CR3243-4-2 Cherrymax rivets rivet seals in place.

SECTION 10- REINSTALLING AILERON AND FINAL ALIGNMENT CHECK.

Reinstall left aileron, removing P/N's OA and LIA will give you the clearance necessary. After installation is complete, check for proper travel and fit of seals to aileron. Also check to make sure no rivets are chaffing on the seals. If adjustment is necessary the seals can be bent slightly by applying pressure in the appropriate direction.

SECTION 11- RIGHT SIDE INSTALLATION.

Repeat steps 1 thru 10 on right side of aircraft. NOTE.....P/N RIA is used on right side instead of P/N LIA.

SECTION 12- PAPERWORK AND LOGBOOK ENTRY.

Perform paperwork and logbook entry

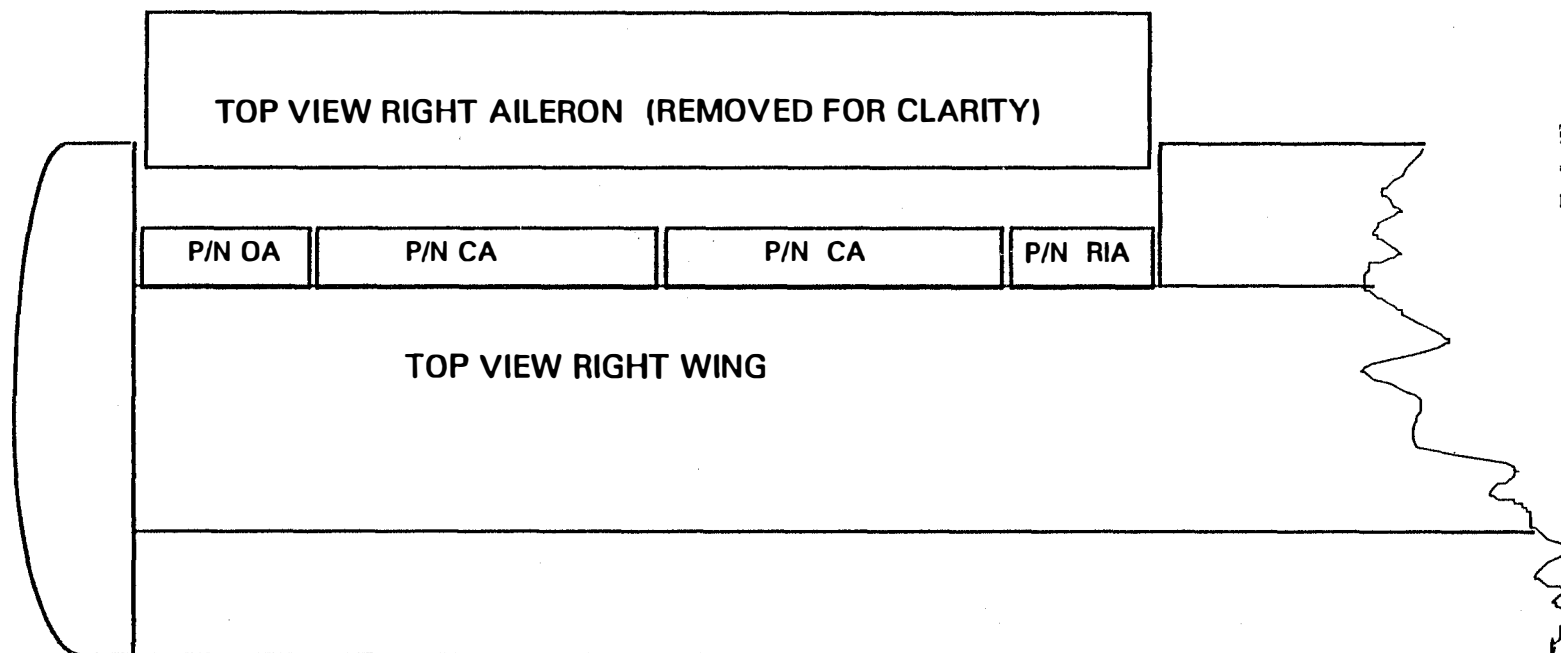
Seal weight (including hardware).....22 oz Arm.....136 inches

SECTION 13- PARTS LIST.

| PART # | NO REQ. | DESCRIPTION. |
|---------------|----------------|----------------------------|
| OA | 2 | OUTBOARD AILERON SEAL |
| CA | 4 | CENTER AILERON SEAL |
| LIA | 1 | LEFT INBOARD AILERON SEAL |
| RIA | 1 | RIGHT INBOARD AILERON SEAL |
| LIA | 1 | LEFT INBOARD AILERON SEAL |
| CR3243-4-2 | 32 | CHERRYMAX RIVET |
| A6-75 | 8 | RIVNUT |
| A6-120 | 6 | RIVNUT |
| AN960-6 | 4 | WASHER |
| AN526-632-R10 | 14 | SCREW |

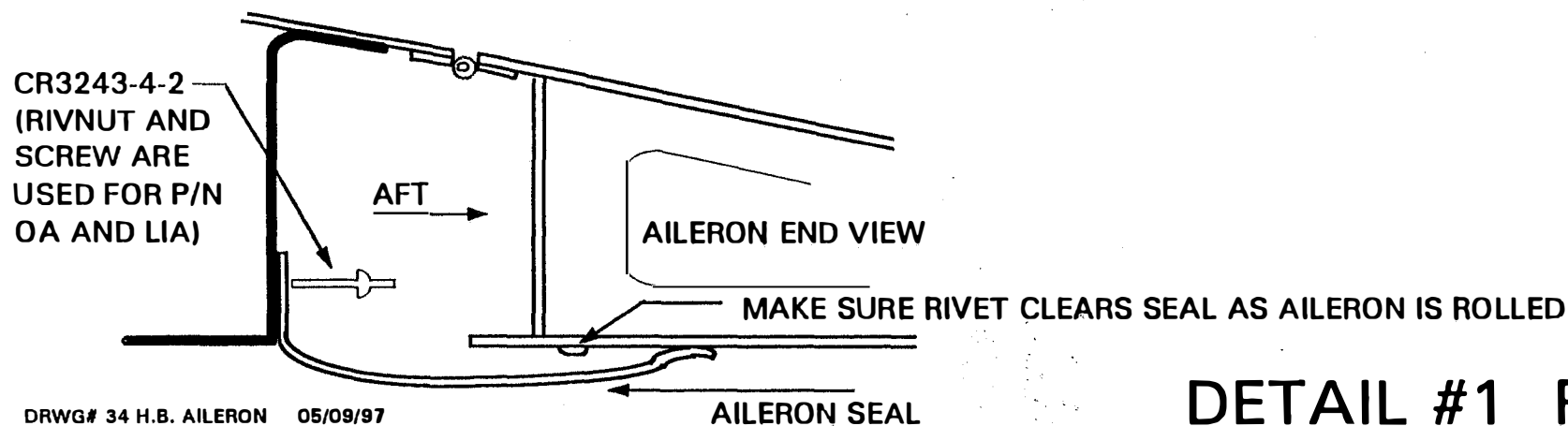
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PA-34-200 AILERON SEAL INSTALLATION



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GAP SEAL MAINTENANCE MANUAL.

PART A. INSPECTION.

1. Inspect daily at preflight to ensure there is no bending of the controls, bent gap seals, abrading of rivets or control surfaces, or broken parts.
2. When aircraft has been stored outside during snow or freezing conditions, a careful inspection should be made of the areas behind and under the seals for ice accumulations. If ice is found, which cannot be removed with careful brushing with seal held slightly away from control surface, the aircraft should be de-iced or defrosted.
3. 100 hour inspections are suggested to check for abrading of the control surfaces and rivet heads, wear of the gap seals or peeling of the anti abrasion coating. Check for loose rivets and/or other gap seal attach hardware.

PART B. MAINTENANCE.

- 1 There are no special tools required to maintain the seals. Any tools needed are basic hand tools.
- 2 Maintenance of the gap seals is to keep the seal surface clean of oil and dirt and the edge of the seal touching the control surface smoothly. If the gap seal appears to be abrading the control surface, 3M 5490 Teflon tape or equivalent may be applied to the gap seal to act as a wear surface.
- 3 If upon installation or through wear, there is a warp in the seal, or it lies unevenly, you may drill a # 40 hole and cut the seal to the hole in a direction 90 degrees to the trailing edge of the seal. Drill the hole in the center of the warp 1/2" from the trailing edge of the surface to which the seal is attached. The slots should be no closer than 6" to each other or the edge of the seal.
4. When washing aircraft, care should be taken to brush along the length of the seal rather than perpendicular to, or across the seal.
5. When aircraft is painted care should be taken to protect anti-abrasion coating from strippers or paint. If coating is damaged, use 3M 5490 tape or equivalent to replace.

PART C. CRACKING, DEFECTS, LOOSE RIVETS.

1. If cracks are found in a seal, stop drill the crack. If there are more than three cracks in a seal it must be replaced.
2. If the anti- abrasion coating peels or wears replace with 3M 5490 or equivalent.
3. If there are excessive kinks or bends in the seals, and the airflow over the control surface is disturbed, the seal must be replaced.
4. If seal rivets become loose you may drill the rivet and replace with the next size rivet.

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