

# Service Bulletin

No. SB-AG-43

P.O. Box 3090 One Ayres Way Albany, GA 31706-3090 Phone (912) 883-1440 Fax (912) 439-9790

#### **WING SPAR STRAP INSTALLATION**

MODELS AFFECTED: The airplanes listed below left the factory with aluminum front spar webs outboard

of wing station 120.000. This bulletin only affects those airplanes in the following list that are equipped (by the factory or by field modification) with engines

exceeding 680 SHP, either piston or turbine.

| MODEL     | SERIAL NUMBER  |
|-----------|--|
| S2R       | 1380R, 1416R, THRU 2582R   |
| S2R       | 5000R THRU 5099R   |
| S2R-R3S   | R3S-001 THRU R3S-011   |
| S2R-R1820 | R1820-001 THRU R1820-035   |
| S2R-T65   | T65-001  |
| S2R-T45   | T45-001  |
| S2R-T34   | 6000R THRU 6049R, T34-001 THRU T34-143,<br>T34-145, T34-147 THRU T34-167, T34-171, T34-<br>180 AND T34-181 |
| S2R-T15   | T15-001 THRU T15-033   |

NOTE: For the S2R-T65, S2R-T45, S2R-T34 and S2R-T15 models listed above, this bulletin also applies to any airplanes with a "DC" suffix after the serial number.

**MODELS EXEMPTED:** All model S2R airplanes listed above that are <u>NOT</u> used in Firebombing

Operations.

**REASON FOR** 

**PUBLICATION:** To strengthen the wing spar for Firebombing Operations.

**COMPLIANCE:** Prior to continued use in Firebombing Operations.

BY WHOM MAY

WORK BE

**ACCOMPLISHED:** A FAA approved repair station or equivalent.

**APPROVAL:** The FAA and Ayres Corporation.

ESTIMATED MAN

HOURS FOR

COMPLIANCE: 80 Hours

**PARTS DATA:** See Parts List for SB-AG-43

**SPECIAL TOOLS:** Drill Blocks (for ½" and 3/16" holes).

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### ACCOMPLISHMENT INSTRUCTIONS:

#### ON THE UPPER SURFACE OF EACH WING:

- 1) Place jacks under wings to, lightly, support their weight.
- 2) Locate Station 149.750 through 221.000 and mark strap positions along wing spar.
- 3) Remove landing light, if installed.
- 4) Cut inspection holes at stations 155.750, 179.500, and 203.250 as required.
- 5) Remove affected rivets along the top of the spar at the strap position identified in step 2.
- 6) Locate and mark centerline position down the length of the strap template (included).
- 7) Slip the strap template between the spar and the leading edge skin. Align the centerline with the rivet hole pattern. Remove an additional rivet inboard and outboard of the strap, as required, to allow the template to slip into place.
- 8) Choose a drill bit that best fits the rivet holes in the leading edge skin and drill template. Work from inboard to outboard and cleco as you go using draw-tight cleco's.
- 9) Label the template's orientation to the wing (i.e. inboard, outboard, aft, up) and remove the template. Deburr the holes.
- 10) Draw a centerline down the length of the bottom of the strap.
- 11) CAREFULLY orient the template to the strap.
- Align the template holes with the centerline on the bottom of the strap. Using the same drill sizes as before and a drill block, drill and deburr the strap, skin, and spar.
- 13) Cleco the strap into position and visually check for any rivet hole misalignment.
- Locate the strap to the spar as shown in drawing #: 22520 and attach temporarily using draw-tight cleco's.
- 15) Drill holes to required size and tolerance (reference drawing # 22520).
- 16) Remove the strap and place "liquid shim" over that location.
- 17) Reinstall the strap using draw-tight cleco's.

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18) Install required hardware.

#### \*\*\*NOTE\*\*\*

As the strap is secured to the wing the "Liquid Shim" (Part #: EA9394 or equivalent) will be spread unevenly and away from the strap. Remove the excess "Liquid Shim" with a damp cloth before hardening begins.

19) Re-accomplish these steps for the underside of each wing.

WEIGHT &

BALANCE: No Change

**PUBLICATIONS** 

AFFECTED: None

RECORD OF

**COMPLIANCE:** Make appropriate logbook entry.

#### **PARTS LIST**

| QTY | PART NO       | DESCRIPTION                                   |
|-----|---------------|---|
| A/R | EA9394        | ADHESIVE, STRUCTURAL OR EQUIVILENT            |
| 50  | MS21044N4     | NUT   |
| A/R | AN960-416     | WASHER  |
| A/R | AN-960        | WASHER  |
| 50  | AN525-416R14  | SCREW   |
| 172 | MS21044N3     | NUT   |
| A/R | AN960-10      | WASHER  |
| A/R | AN960-10L     | WASHER  |
| 60  | AN525-1032R16 | SCREW   |
| 112 | AN525-1032R14 | SCREW   |
| 56  | MS20470AD4    | RIVET   |
| 24  | MS35206-243   | SCREW   |
| 24  | SL 21308 1    | NUT CLIP                                      |
| 6   | 10857-1       | DOUBLER                                       |
| 6   | 10858-3       | COVERPLATE ASSY                               |
| 4   | ESK675-3      | STRAP   |
| 1   | 22520-1       | EXTERNAL STRAP INSTALLATION (L/H & R/H WINGS) |

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