

Service Bulletin No. SB-AG-16

April 01, 1984

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FUSELAGE UPPER LONGERON REPAIR

MODELS AFFECTED: Model S2R-R1820, S/N R1820-001DC
thru R1820-031DC

REASON FOR PUBLICATION: PREVENT POSSIBLE FATIGUE CRACKING OF THE LONGERON

COMPLIANCE: PART I: PRIOR TO NEXT FLIGHT AND EVERY 10 HOURS
THEREAFTER UP TO 100 HOURS.

PART II: PRIOR TO NEXT FLIGHT

BY WHOM WORK WILL
BE ACCOMPLISHED: A & P MECHANIC

APPROVAL: FAA APPROVED

ESTIMATE MAN HOURS: PART I: 15 MINUTES
PART II: 50 HOURS

SPECIAL TOOLS: NONE

ACCOMPLISHMENT INSTRUCTIONS:

PART I:

1. Remove the fuselage side skin located between the wing upper surface and the hopper. This will provide access to the upper longeron from the firewall to the cockpit.
2. Visually inspect the longeron paying particular attention to: (See Fig 1).
 1. Area around the upper engine mount attach points.
 2. Each vertical and diagonal tube intersection at the upper longeron.
 3. Each hopper attachment bracket.

3. If no cracks are found proceed to Record Compliance and return aircraft to service.

NOTE: THIS INSPECTION TO BE CONDUCTED EVERY 10 HOURS IN SERVICE

PART II:

1. If any cracks are found, remove hopper and attaching parts. Weld cracks closed in longerons.
2. Grind off the four 10866-1 Attach Brackets. See Figure 2.
3. Grind or nibble the ends of the sleeve tubes P/N CK-AG-19-1 & -2 to fit snugly within the original weld beads at the forward clusters/gussets at the firewall. See Fig. 3.
4. Clamp the split sleeves in position and weld as shown in Figure 2.
5. Grind the fiberglass in the hopper saddles as necessary to allow the hopper to be lowered onto the longerons in the original hopper location.
6. Locate and weld the forward attach brackets 2 inches aft of its original location. Locate and weld the aft attach brackets at its original location (plus or minus ½ inch). Use a straight edge resting on the remaining (aft) brackets to obtain lateral alignment of the replacement brackets.
7. Paint the repaired area.
8. Reinstall hopper and attaching parts.

ELECTRICAL LOAD: No Change

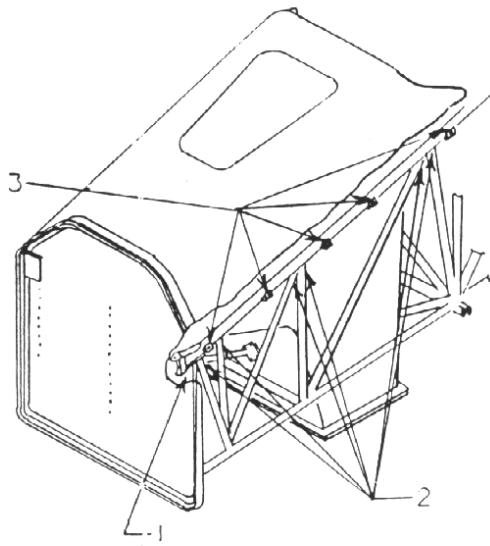
WEIGHT AND BALANCE: No Change

RECORD COMPLIANCE: Make appropriate entry in aircraft records as follows: Service Bulletin No. SB-AG-16, Dated April 1, 1984, titled "Fuselage Upper Longeron Repair", Accomplished Part I _____(Date)_____, Part II _____(Date)_____.

PARTS LIST:

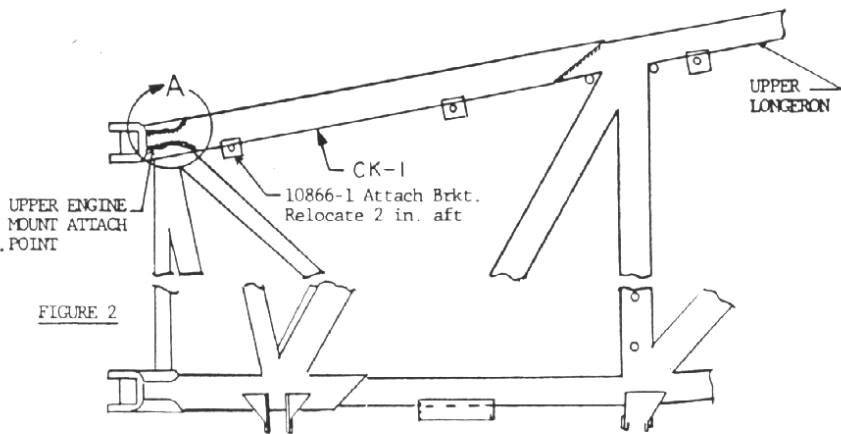
QTY.	P/N	DESCRIPTION
2 ea	CK-AG-19-1	Split sleeve
2 ea	CK-AG-19-2	Split Sleeve
4 ea	10866-1	Attach Brackets

FIGURE 1



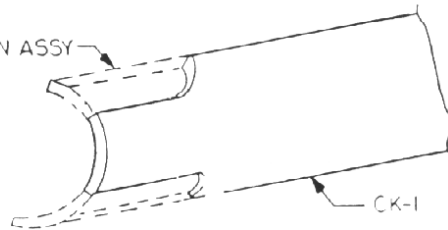
- 1. UPPER ENGINE MOUNT ATTACH POINT
- 2. VERTICAL AND DIAGONAL TUBE INTERSECTION
- 3. HOPPER ATTACHMENT BRACKETS

FIGURE 2



GRIND TO FIT ON ASSY

FIGURE 3



VIEW A