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## **SERVICE BULLETIN NO. 00-04**

### **Issue Date**

April 17, 2000

### **Subject/Purpose**

This Service Bulletin defines the requirements to perform a one-time visual inspection for the purpose of locating cracks in the firewall (part A), install repairs on cracked firewall area (part B), and strengthen the engine cowl strip retention (part C).

### **Affected Models**

The affected models are aircraft CH 2000 serial numbers 20-002 to 20-0047

### **Compliance Time**

Perform the instructions in this Service Bulletin at or before the next 100 hour inspection.

### **Material Information**

The following materials are required:

- Galvanized Steel Plate.\* Spec: General Low Carbon Steel. Thickness: 26 Gauge (.46mm)
- Stainless Steel Plate. Spec: AISI 321 or equivalent 18-8 chrome-nickel. Thickness: .035" (.89mm)
- Stiffeners (Quantity 4) Zenair Ltd. part number 20-F-9-6/1.
- Stainless Steel Rivets (Quantity 20) Type AS5, 5/32" diameter.
- Aluminum Rivets (Quantity 8) Type A4, 1/8" diameter.
- Zinc Chromate Primer. Spec. General zinc chromate primer (Zn-Cr primer to MIL P 8585)

\*For firewall crack(s) only.

#### **Part A – Visual Inspection**

Visually inspect the firewall, from the inside of the cabin, for cracks originating from the fastener holes for the rivets securing the engine cowl strip P/N 20-F-7-4 to the left-hand and right-hand firewall sides. Refer to Fig. 1. If cracks are found, perform Part B of this Bulletin

#### **Part B – Repairing of cracked firewall**

To repair cracks in the firewall sides, perform the following:

1. Remove the stainless steel rivets securing the cowl strip to the firewall, in the area of the cracks.
2. Move and retain the detached portion of the cowl strip away from the firewall in preparation for stop-drilling the ends of the cracks.

3. Stop-drill the cracks by using a #40 (2.5mm) drill bit to make holes at the ends of the cracks (crack tips) from inside the cabin.
4. From the galvanized steel material, manufacture a plate 80mm wide and long enough to extend 20mm past the ends of the cracked area. Bend the galvanized steel plate around firewall, similar to existing firewall.
5. Install the galvanized plate(s) over the cracked area on the front face of the firewall, under the cowl strip, and on the inside of the fuselage side skins. Refer to Fig. 2. Rivet the plate(s) in place from the engine side of the firewall, securing the cowl strip over the plate.
6. This completes the repair. Go to Part C.

#### Part C – Strengthening cowl strip retention.

To strengthen the retention of the cowl strip, stainless steel stiffeners are to be installed in the area of the two lower cowl nut-plates on the left-hand and right-hand sides of the aircraft. Refer to Fig. 2 and Fig 4.

1. Obtain four stiffeners P/N 20-F-9-6/1 or manufacture four stiffeners from stainless steel plate as per Fig. 3. Apply zinc chromate coating to both sides and edges of the stiffeners.
2. Remove existing stiffeners from the lower cowl nut-plate area on both sides of the aircraft.
3. Install the new stainless steel stiffeners by aligning them to the lower two nut-plates on both sides of the lower cowl strip. The stiffeners are to be installed to the inside of the fuselage and to the outside of the cowl strip. Rivet each stiffener in place using five (5) AS5 stainless steel rivets to the fuselage side and two A4 rivets, counter-sunk to the nut-plate.

For additional information contact Zenair Ltd.

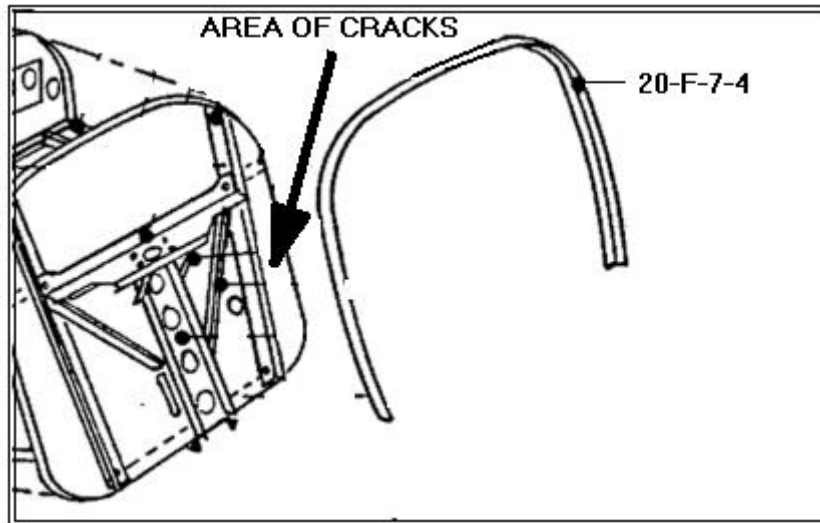


Fig. 1

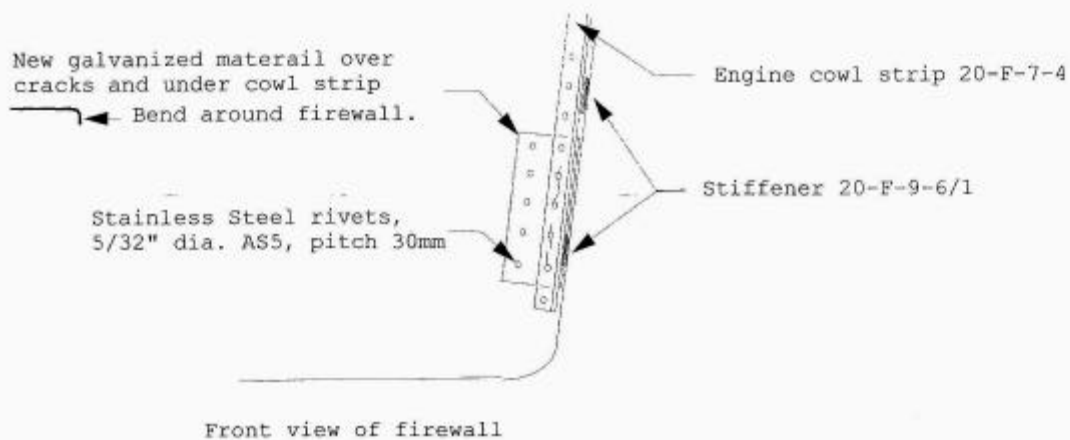


Fig. 2

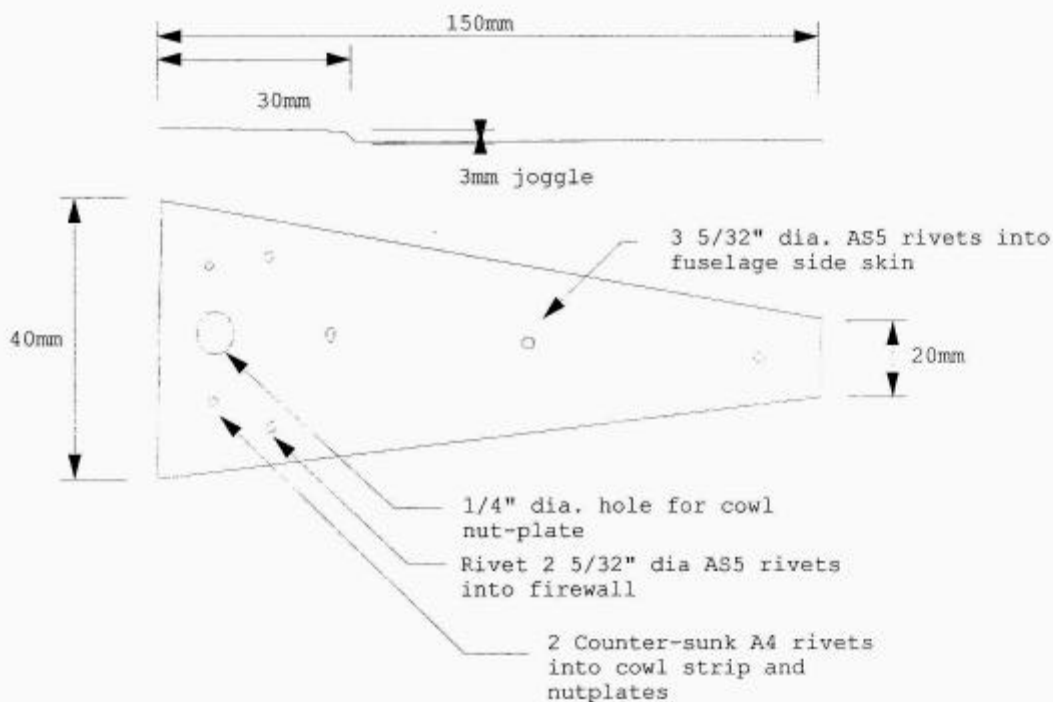
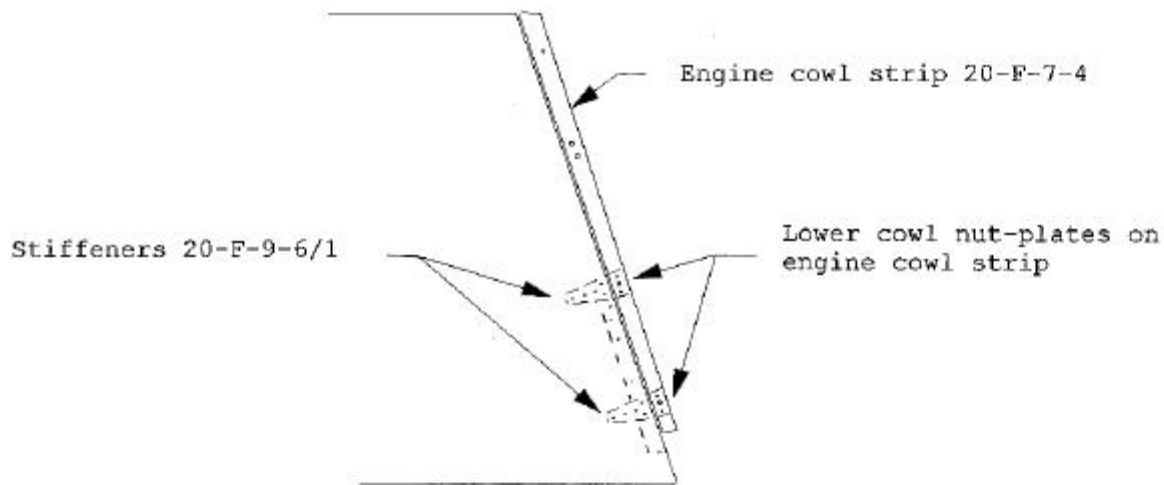


Fig. 3



Side view of firewall

Fig. 4

**Up-date Table 1 – ZENAIR INSPECTION FORM, of the Service Manual pages 3.4 and 3.6 for continued inspection of the firewall area. Contact Zenair Ltd for all the latest information, including the latest Service Manual and Flight Manual.**

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