

SERVICE BULLETIN

AA-SB-53-001

Harness Attach Bracket – Installation of fuel tank chafing protection

1. PLANNING INFORMATION

1.1. EFFECTIVITY

Alpha R2000 series S/N 160A-06001 to 160A-0018, and 120T-0001 & 120T-0002.

1.2. CONCURRENT REQUIREMENTS

Nil

1.3. REASON

A maintenance organization has reported an instance where seat belt attach brackets P/N 60-53-025-001 cut through the protective rubber and contacted the fuel tank. This could possibly chafe through the fuel tank skin.

As a precaution it is recommended to carry out the checks and inspection detailed in 1.4 below.

1.4. DESCRIPTION

The bracket attaching the harness to the fuselage behind the seats is installed between the baggage shelf and the fuel tank. Due to the close proximity of the fuel tank to the bracket, a rubber pad was installed to protect the fuel tank. The fuel tank has other retaining mechanisms preventing contact pressure between the fuel tank and the harness attach bracket. However, it appears in some individual cases the tank and bracket makes contact with sufficient pressure to cut through the rubber over a period of time. (See Figure 1.4 showing the harness bracket, rubber pad and fuel tank.)



Figure 1.4: Harness bracket, rubber pad and fuel tank.

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1.5. COMPLIANCE

On receipt of this SB inspect aircraft for compliance within the next 100 hours of operation.

Remove Fuselage Inspection Panel (Figure 2-3 in the Alpha R2000 service manual) to gain access to the rear of the fuel tank. Check for movement of the tank by applying an up and down load by hand to the fuel tank at the rear. Inspect gap between fuel tank rubber pad and harness attach bracket. There should be no signs of contact, scuffing or cutting into the rubber. The tank attachment should be firm and not possible to move relative to the fuselage by hand. If any movement is detected the tank attach hardware must be inspected and rectified.

- If no sign of contact is detected and the gap between the fuel tank and harness attach bracket is positive, no further action is required, and the aircraft can be returned to service.
- If contact between the fuel tank and harness bracket is detected: Fabricate and install an anti chafing U-channel described in §2.0.

Make a log book entry stating compliance with this Service Bulletin. The entry shall identify the action taken to satisfy this Service Bulletin.

1.6. APPROVAL

Alpha Aviation Design Organization DO65180

1.7. WEIGHT AND BALANCE

Nil affect on weight or balance

1.8. REFERENCES

R2000 Service Manual.

1.9. OTHER PUBLICATIONS AFFECTED

Nil

2. ACCOMPLISHMENT INSTRUCTIONS

To protect the fuel tank from scuffing and fretting against the harness attach bracket, a U-channel bracket may be fabricated, and installed between the harness attach bracket and the fuel tank. This bracket provides a larger contact surface and will prevent the harness bracket from cutting into the rubber pad protecting the fuel tank. The U-channel bracket may be fabricated from 300 series stainless steel or Alclad 2024 sheet 0.032" to 0.040" thick. Dimensions for the U-channel is given in figure 2.1 below: Install the U-channel over the harness attach bracket (P/N 60-53-025-001). Apply AMS-S-8802 PRC type adhesive sealant or Araldite Epoxy to the inside sides of the U-Channel ensuring it bonds securely to the harness attach bracket. (Install a temporary packer below the U-Channel to push it up against the harness attach bracket if necessary, until the adhesive is cured.) Figure 2.2 shows the installation of the U-channel bracket.

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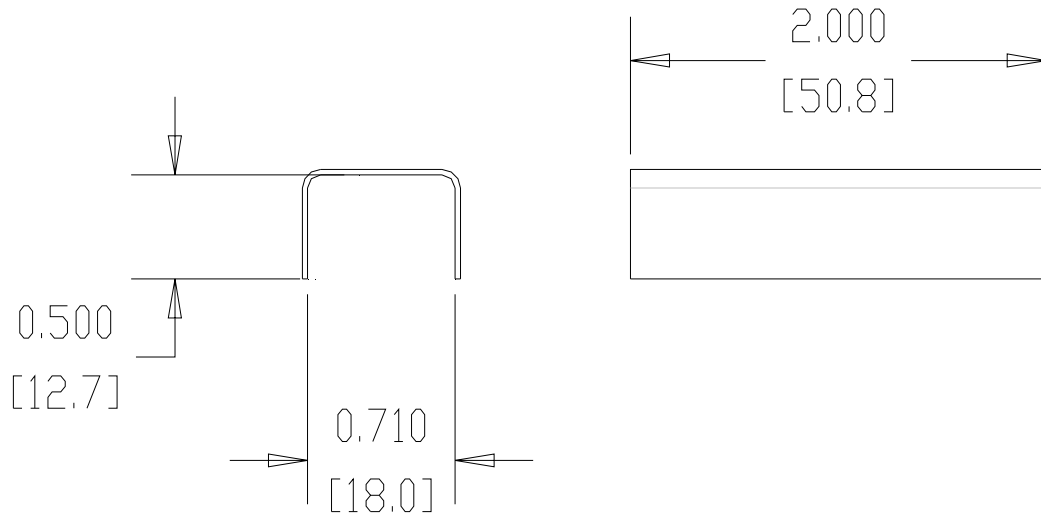


Figure 2.1: U Channel Bracket (Dimension in inch and mm in brackets)

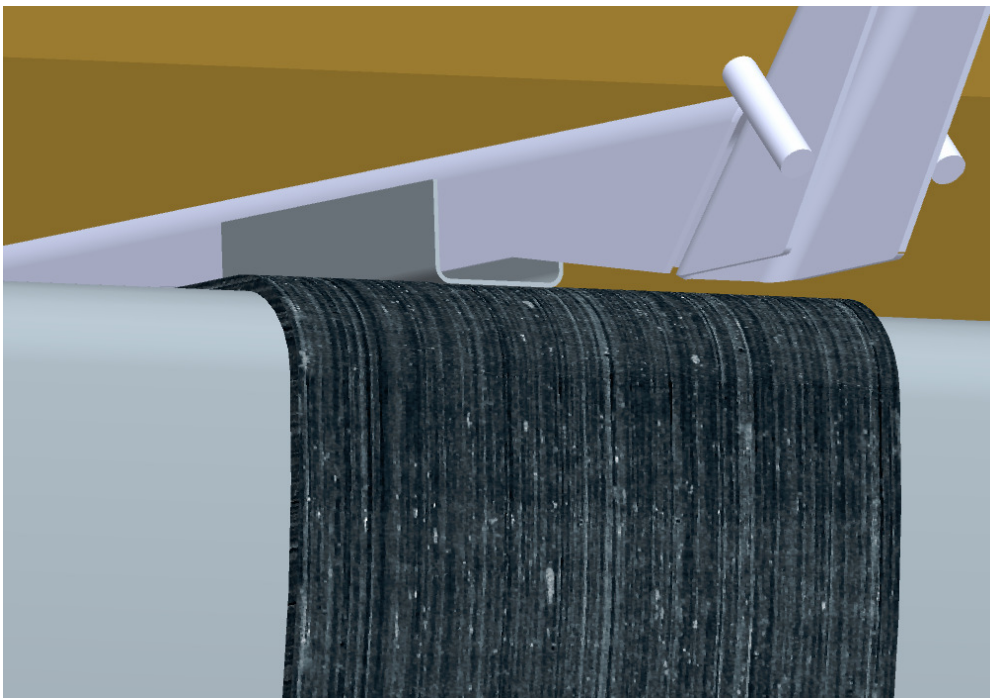


Figure 2.2: U-Channel Installation.



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3. FEED BACK

Maintenance organisations are requested to provide feedback on the results of the inspection. Please use Alpha form DES 22 (Design Feedback Form) for this purpose. A copy of the form and mailing details can be found in the Service Manual.

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