

ADDENDUM TO H-58-12-ASAM-04
LONGERON CRACKING
Upper Left and Right Side Longeron Inspection
Part Number (PN) 206-031-314-55/63

Personnel Required:

15S Scout Helicopter Technical Inspector (TI)
15S Scout Helicopter Repairer
15G Scout Aircraft Structural Repairer

Tools:

Borescope Kit
Flashlight
Inspection Mirror

References:

TM 1-1520-248-23
TM 1-1500-204-23

Equipment Condition:

Helicopter Safed (Task 1-6-7)

Note

This Addendum is required for use in conjunction with OH-58-12-AMAM-XX.

Note

All panel removal tasks shall be accomplished in accordance with TM 1-1520-248-23. For panel numbering reference, refer to chapter 2, "Cowlings, Fairings, Access Panels and Doors", sheets 1, 2 and 7. For removal/installation of panels (general) refer to task 12-1-12.

1. Remove fuselage inspection panels 13 (left and right side) and tailboom attachment point access panel 38.
2. Remove screws attaching air scoop and cabin heater fresh air intake vent to the fuselage. Slide hose out of the way to provide access for inspection. There is adhesive applied between hose and airframe. While separating the tube from the airframe, take care not to damage screen.

Note

Aircraft with the new heater MWO will only have a cover plate. There will not be a tube attached.

3. Remove fuel pressure switch access panel 33.
4. Remove small upper access panel that is located inside panel 33(see Figure 5).
5. Remove left and right side Aft Pylon Support strap access panels 57.

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6. Starting at left side fuselage station 120/130 bulkhead, insert Borescope probe into witness hole and inspect longeron area between FS 120 and 130 for presence of cracks. Pay particular attention to areas around fasteners, doublers and angles.

7. Utilize flashlight and mirror to look through left Pylon Support strap access panel 57 (see Figure 1). Inspect longeron area between FS 120 and 130 for presence of cracks. Pay particular attention to areas around fasteners, doublers and angles.

Note

Scratches may appear to be cracks. When in doubt, clarify with a closer look using a borescope



Figure 1: Removal of left side access panel

8. Slide heater tube aft to gain access for inspection. Utilize a flashlight and mirror to look through cabin heater fresh air intake opening; inspect aft side of FS 130 bulkhead/ left longeron for presence of cracks. Pay particular attention to areas around fasteners, doublers and angles. (For example of crack, refer to figures 2 and 3).

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Figure 2: Inspect for cracks along edge of angle and at rivet locations



Figure 3: Example crack at fastener location, angle removed.

9. Using flashlight and mirror inspect remaining area of left side longeron and visible portions of the right side longeron for presence of cracks. The aft portion of the left longeron will be inspected from right side panels 13 and 38.

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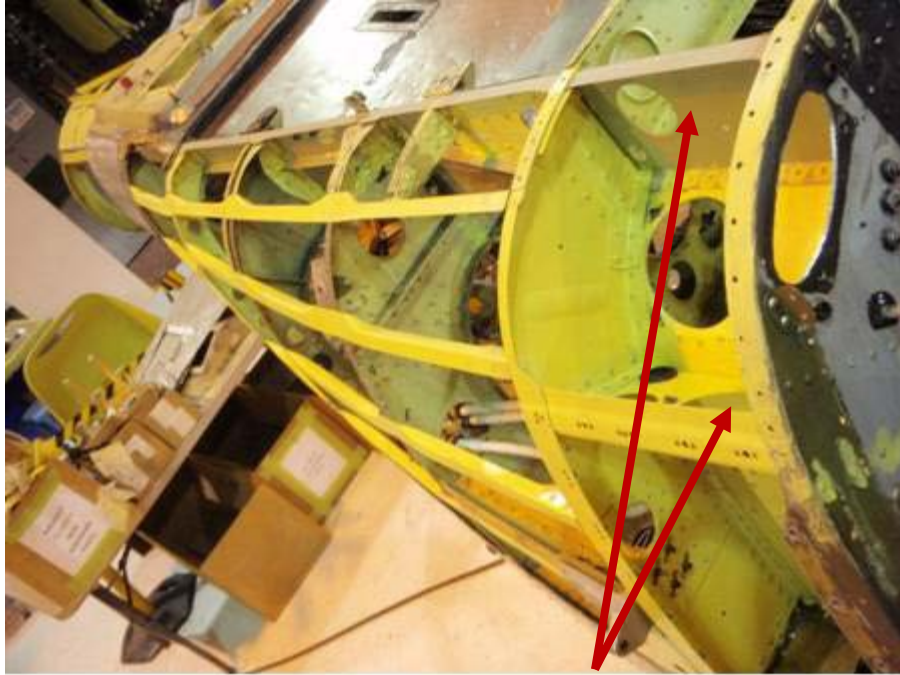
Figure 4: Left side cut away showing longeron from Station 130 bulkhead to tailboom fitting.



Figure 5: Cutaway left side longeron at FS 130 bulkhead
Longeron Inspection Right Side (PN 206-031-314-55)

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10. Starting at right side fuselage station 120/130 bulkhead, using a Borescope inspect longeron through access panel 33 (see Figure 6). Inspect longeron area between FS 120 and 130 for presence of cracks. Pay particular attention to areas around fasteners, doublers and angles.



**Figure 6: Cutaway view of the right longeron. Top arrow: FS120 to 130 longeron area.
Bottom arrow: Small access area inside panel 33.**

11. Insert Borescope probe through right side cabin sound proofing and up along side of the ECU wire harness. Inspect longeron area between FS 130 and 140 for presence of cracks. In order to inspect all of the longeron, the borescope will have to be manipulated around the engine wire harness bulk head connection. Pay particular attention to areas around fasteners, doublers and angles.

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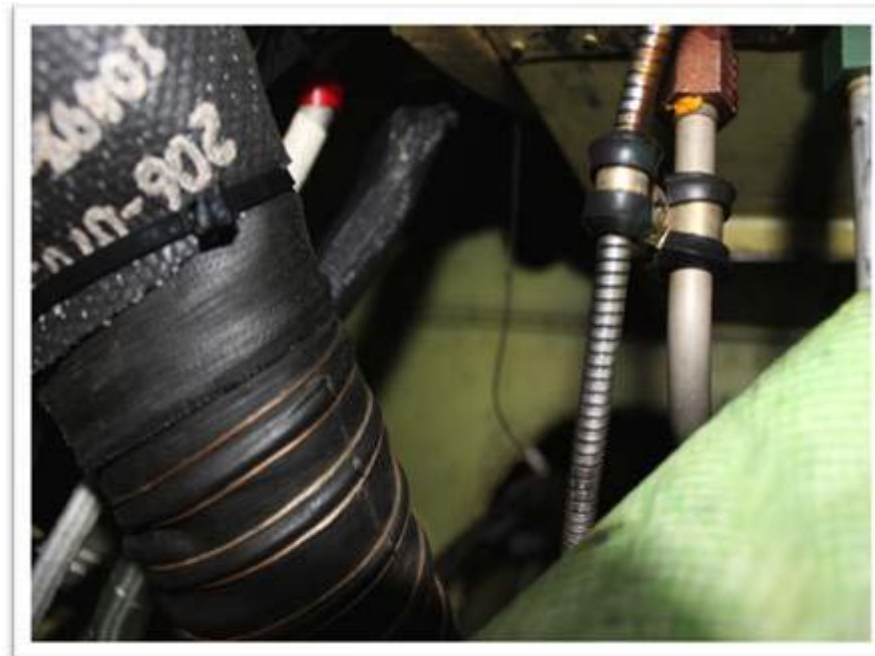


Figure 7: Access to right side station 130-140 through cabin soundproofing (follow wiring up to engine deck and scope fore and aft of wiring)

- 12.** Using a flashlight and mirror, perform visual inspection of right side Longeron, from the tailboom mount fitting to station 140, through fuselage access panel 13 and 38. Also inspect the aft portion of the left longeron that is not accessible from the left side. Pay particular attention to areas around fasteners and doublers and along upper flange area. Validate scratches with a bore scope.
- 13.** If cracks are suspected on the longeron, contact assigned AMCOM LAR/AED Liaison Engineer for disposition and or corrective action.
- 14.** End of inspection. Reinstall panels.