

Service Bulletin

S.B. No: 127

Title: INSPECTION OF ALUMINIUM FITTINGS FOR EXFOLIATION CORROSION

Classification: This Service Bulletin has been classified by the CAA as Mandatory

Compliance: One time inspection at the next annual

Applicability: T67A, T67B, T67C Series, T67M, T67M-MkII, T67M200, T67M260 and T67M260-T3A

This SB127 at Issue 2 now includes all Firefly variants, additional areas of aluminium alloy fittings to inspect, variant and work numbers applicability and repetitive inspection times re-iterated.


INTRODUCTION:

A case has been reported of exfoliation (layer corrosion) in the following positions on a T67A aircraft: forward tailplane attachment brackets, flap centre drive brackets and seat belt attachment brackets. This particular aircraft had been stood down for a period of time prior to re-activation.

An additional case has recently been reported of exfoliation on the tailplane mounted, fuselage to tailplane aft attachment brackets on a T67C aircraft.

ACTION:

1. Gain access to the following areas which contain aluminium fittings. Most positions will be visible externally. However for internal fittings the following will have to be removed: external access panels, frame 5 panel, tailplane, seats, centre console top, forward covers, glareshield, cowling and wing seals.
 - a. Aileron hinges and drive lever.
 - b. Aileron drive bellcrank assemblies two places within wing and pushrods.
 - c. Flap hinges, drive lever and flap drive shaft outer pivot bearing, visible through drive lever slot under wing.
 - d. Rudder hinge assemblies and drive horn.
 - e. Rudder pedal top slider and pedal pad. Not applicable T67A and T67M Works Number 1999.
 - f. Elevator hinges, drive plates, lever and trim tab hinge plate.

Approved by:  For and on behalf of SLINGSBY AVIATION LIMITED	Date: 19 th Dec 03	Issue 2
Kirkbymoorside, York. YO62 6EZ Tel: 01751 432474 Fax No: 01751 431173 E-mail: SAL5@Slingsby.co.uk	Page 1 of 3	

- g. Tailplane forward and aft attachments, plus fuselage to tailplane forward attachment. Examine with Tailplane removed.
 - h. Forward fin attachment. T67A only.
 - i. Elevator drive bellcranks assembly in fuselage and pushrods.
 - j. Elevator drive bellcranks assembly Frame 4.
 - k. Flap mechanism seat attachment side plates. Pre Mod M950, ie non-electric flap.
 - l. Control column/spar-mounting brackets.
 - m. Seat harness lap strap attachment brackets.
 - n. Throttle linkage pivot brackets under instrument panel on Frame 2.
 - o. Instrument panel mounting beam, T67A and T67M Works No. 1999 only. Instrument/avionics mounting brackets and trays.
 - p. Canopy mechanism pivot mounting blocks. Spigot blocks, Works Number 2266 and subsequent, ie Post Mod M957.
 - q. Wing mounting load spreader plates fore and aft, ref Frames 3 and 4.
 - r.
 - i. Pre Mod M129 (single piece canopy). Canopy rail, slider, radius arm lower pivot mountings and canopy lifting handles.
 - ii. Post Mod M129 (two piece canopy). Canopy rail, slider, radius arm lower pivot mountings and radius arms (Pre Mod M548 aircraft).
 - s. Hot air box cabin heating.
 - t. Oil filler access door and hinge on cowling. Hinge only applicable T67M260 and T67M260-T3A.
 - u. Carburettor/fuel injector air intake filter/box assy. Not applicable T67M, T67M-MkII Post Mod M595 and T67M260, T67M260-T3A.
 - v. Air intakes, exits and baffles.
 - w. Seat support rails – all aircraft - and T67A and T67M Works No. 1999 only, seat adjusting mechanism.
 - x. Nose undercarriage casting, torque links and fork. Main undercarriage (Post Mod M468 Fairey Hydraulic manufacture only) torque links and axle knuckle.
 - y. Throttle shaft mountings, selector mountings and driveshafts, parking brake mountings and hydraulic pipe mountings.
2. Should exfoliation be found please inform SAL Customer Service Department of the component affected and the extent of the exfoliation corrosion. Replace affected component.
3. Ensure the following Service Bulletins and Modifications have been implemented:
- i. SB17 T67A Aft Tailplane Location Brackets Mod M255. Applicable T67A aircraft only.

- ii. SB18 Inspection of Flap Centre Brackets Mod M268. Not applicable Post Mod M268 retrofitted aircraft and T67B Works Number 2037 and subsequent, T67C Series Works Numbers 2014, 2035 and subsequent, T67M-MkII Works Numbers 2017, 2021 and subsequent, T67M200 Works Number 2038 and subsequent, T67M260 and T67M260-T3A.
 - iii) SB34 Rudder Upper and Lower Hinge Support Angles - Inspection. Not applicable Post Mod retrofitted aircraft and aircraft Works Numbers 2079, 2080, 2084 – 2086, 2102 and subsequent.
4. i. Ensure maintenance inspections are adhered to regarding condition of aluminium alloy fittings. For T67A and T67M260-T3A every 100 flying hours, other variants 150 flying hours and annual as indicated by the Maintenance Manuals. In particular, should the fittings' external finish (eg paint, anodizing, clad) be damaged, clean and re-protect with alochrom and/or paint.
- When working with aluminium fittings, care should be taken not to damage the surface finish, if damage occurs re-protect as above.
- ii. If the aircraft, in the main, is not hangared then paragraphs 1 and 2 are to be applied within the next 10 flying hours. Only if Issue 1 of this Service Bulletin has not been complied with.
 - iii. Ensure when re-activating an aircraft that all aluminium fittings are inspected for exfoliation, bare metal and general condition. Re-protect or replace fittings.
5. Annotate aircraft Log Book "SB 127 Issue 2 complied with".

For any replacement parts or if in doubt, please contact SAL Customer Service Department.