

Service Bulletin

S.B. No: 179

Title: INSPECTION OF TAILPLANE ATTACHMENT BRACKETS

- Compliance:**
- a. Upon receipt of this Issue 4, if **Issue 3** of this SB has **not** been complied with, compliance is to be: **"Prior to next flight"**.
 - b. If Issue 3 of this SB has been complied with and the original brackets were not replaced, then compliance is to be: "at the next 150 flying hours, or next Annual, whichever is soonest, from receipt of Issue 4 of this SB".

In any case, inspection in accordance with this Service Bulletin shall be every Annual thereafter until the brackets are replaced by Mod M988A or B Titanium Brackets. Also refer to Action paragraph 8.

Applicability: T67A, T67B, T67C, T67M, T67M-MkII, T67M200, T67M260.

This Service Bulletin is the subject of an Airworthiness Directive.

CHANGES INCORPORATED BY THIS ISSUE 4:

Issue 4 amendments as follows: T67M260-T3A deleted from Applicability; references to aluminium and titanium brackets added; paragraph 6; Note 1 washers sizes clarified and Note 4 & 5 added; last paragraph page 3 now listing Post Mod M988 modification kits was: "Notification of....."

INTRODUCTION:

Cases have been reported of cracked in aluminium tailplane mounted attachment brackets – see Figure 1. This Service Bulletin details inspection of the aft tailplane brackets in order to discover similar cracks.

ACTION:

1. Check master switch, ignition switch and fuel are OFF. Disconnect external power and hangar aircraft, if required.
2. Remove tailplane and gain access to aft tailplane mounting brackets and remove from tailplane main spar. Ref. Figure 1.

NOTE 1: Pre Mod M520 aircraft Works Nos 1988 to 2108, 2111, 2112 have attachment brackets attached to tailplane spar with loose stiff nuts. Post Mod M520 aircraft, Nos 2109, 2110, 2113 and subsequent have anchor nuts.

NOTE 2: Should attachment bracket bolt distance tube withdraw with bolt re-fit IAW DOI T67B-404.

Signature  Compiled	Signature  Design CVE	Signature  Slingsby Approval
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Date 14-03-07.	Date 15-3-07.	Date 15-3-07
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3. Remove paint from bracket.
4. Perform dye penetrant (or similar) NDT crack detection on brackets and examine, paying particular attention to the region illustrated in Figure 1.
5. Should any crack be discovered, all four tailplane-mounted brackets from the subject aircraft shall be returned to SACL for investigation and disposal and new Pre Mod M988A or B, or Post Mod M988A or B brackets are to be fitted.

6.

6.1 Pre Mod M520 Aircraft (Tailplane brackets held on with stiff nuts at spar).

Tailplane brackets are to be re-fitted to tailplane "finger tight" initially. Then using a .25 inch (6.35mm) wide gap setting tool or tailplane attachment bracket T67B-11-521, to ascertain if there is going to be an additional gap. If gap apparent, establish the dimension and fit requisite washers following guidelines set out in Notes 1 and 2. When satisfied tighten attachment bracket bolts, against gap setting tool and requisite washers as applicable. Remove gap setting tool and re-fit tailplane to fuselage with/without washers as previously established. Torque main fuselage to tailplane fuselage bolts to 60 lbf in.

6.2 Post Mod M520 Aircraft (Tailplane brackets held on with anchor-nut plates at spar).

Tailplane attachment brackets are to be re-fitted to tailplane, bolts to be "finger tight". The tailplane is to be offered up to the aircraft and main tailplane to fuselage bolts fitted and torqued to 60 lbf in. Then tighten tailplane attachment bracket bolts.

NOTE 1 Prior to torquing main bolts; ensure there is either no gap or a gap of up to a maximum of .010" (.25mm) between fittings. If a gap greater than .010" (.25mm) does exist after taking up slack then it is permissible to fit washers as follows:

Washer/s of thicknesses; 0.016" (.4mm) (SACL Stores Code 126-23-763), or 0.018" (.46mm) (SACL Stores Code 126-23-754), or 0.032" (.81mm) (SACL Stores Code 126-23-750). Thinning of 0.032" washer is acceptable providing faces of washer remain parallel. Re-protect modified face, use Duralac or similar anti-fretting compound.

NOTE 2 Ensure that the brackets are not forced apart when fitted.

NOTE 3 If the requirements of Notes 1 and 2 cannot be satisfied inform SACL.

NOTE 4 Torque Tailplane Bracket Attachment Tailplane Spar bolts to 76.11 lb in. (8.6 Nm).

NOTE 5 When re-fitting aft bolt T67B-08-521 (Pre Mod M541) or T67B-08-527 (Post Mod M541), with washers, it is acceptable to drill another locking pin hole at 90° to the original and equi-distant from the end of the bolt and the nearest edge of the original locking pin hole. Nominally this will be 1.925 mm from the end of the bolt. The cut edges of the bolt should be re-protected using etch prime. Bolt only to have a maximum of 2 locking pin holes, if a 3rd hole is required then a new bolt T67B-08-527 is to be obtained.

7. If brackets found cracked, then inform SACL of the following:

Aircraft registration

Total hours

Total hours since Issue 3 inspection, or since brackets last replaced.

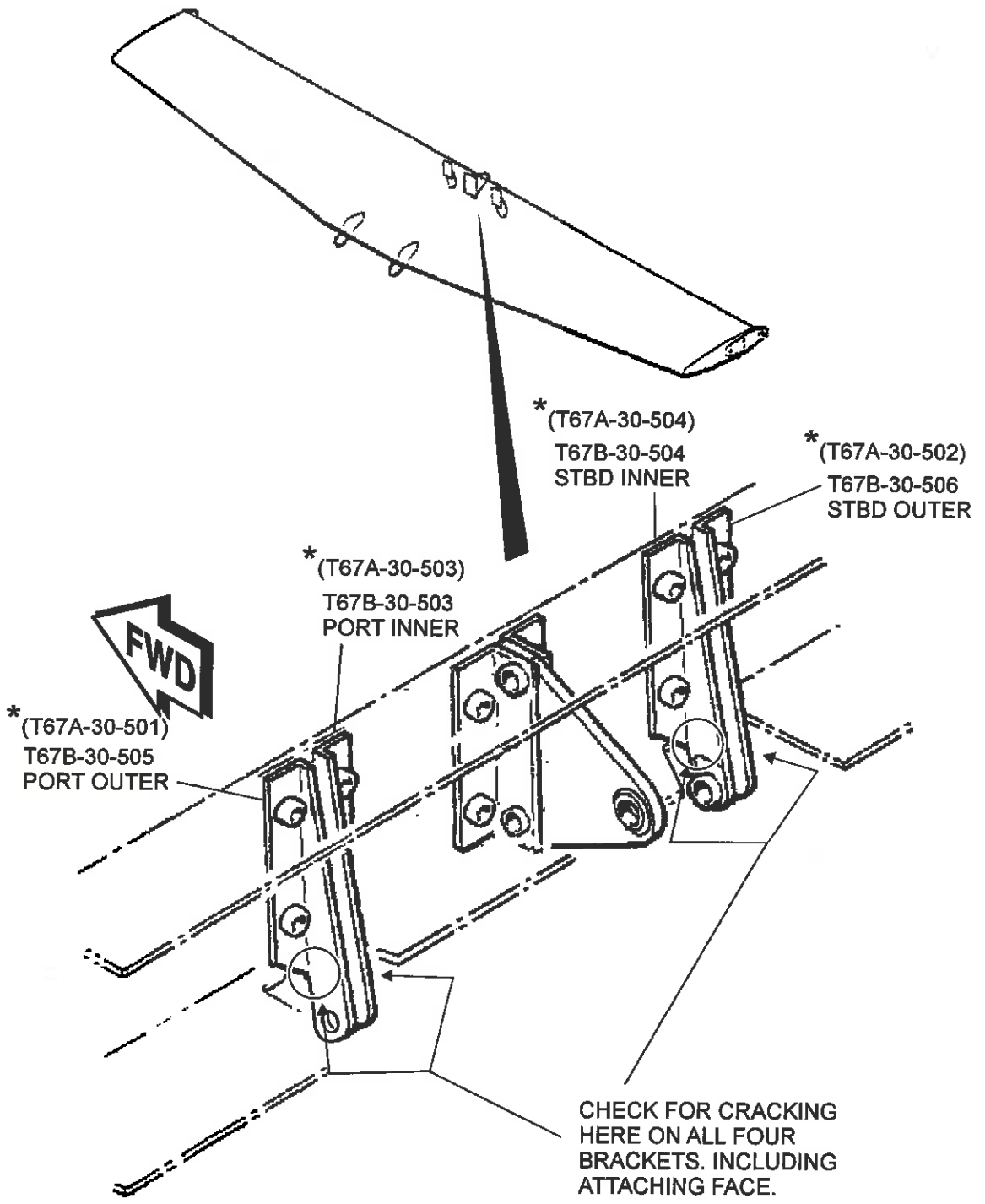
Which brackets are cracked, e.g. port outboard, stbd inboard etc?

8. For Pre Mod M988A or B aircraft (Titanium Tailplane Brackets), inspection in accordance with this Service Bulletin should be added to the annual check of the operators CAA or relevant NAA, approved Maintenance Programme/Schedule.

9. Annotate Logbook "SB 179 Issue 4 complied with", after each inspection until Mod M988A or B incorporated.

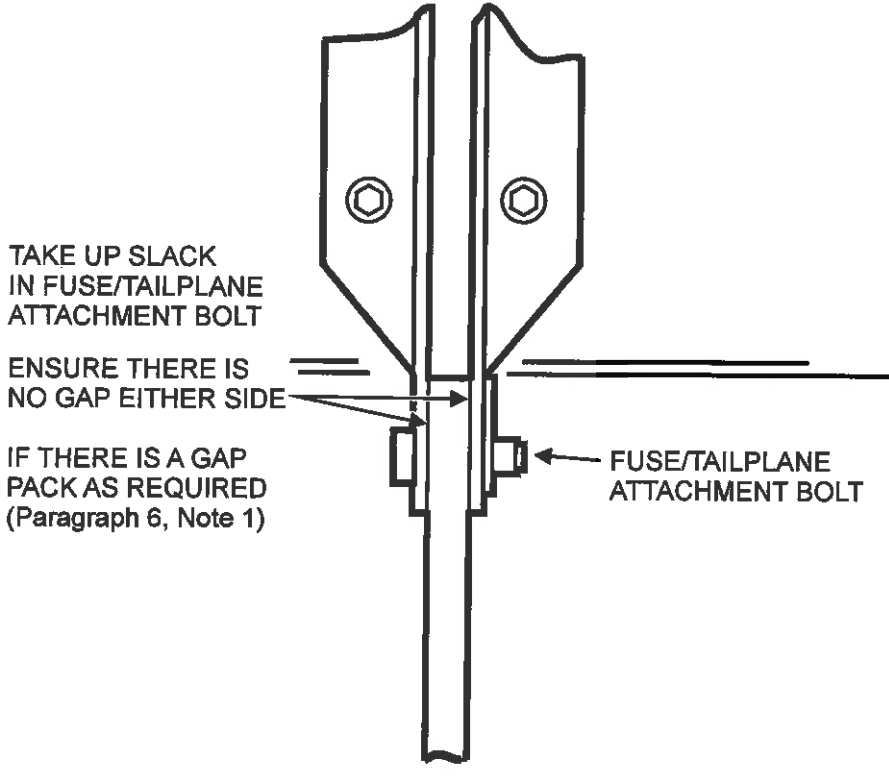
For technical queries contact mike.rutter@slingsby.co.uk for replacement aluminium brackets, please contact SACL Customer Support kathy.cooper@slingsby.co.uk.

For price and delivery of Post Mod M988A (T67A Titanium Tailplane Attachment Brackets) kit Part No. T67A-05-988A or Post Mod M988B (GRP series aircraft Titanium Tailplane Attachment Brackets) kit Part No. T67A-05-988B, contact SACL Customer Support Department.



*(APPLICABLE TO THE T67A ONLY)

FIGURE 1



PORT ATTACHMENT SHOWN
STARBOARD SIMILAR

FIGURE 2