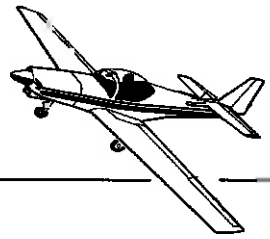
SLINGSBY
Advanced Composites Ltd



Service Bulletin

S.B. No: 163

Title: **INSPECTION OF FUEL VALVE TORQUE SHAFT UNIVERSALS**

Compliance: At next 150 flying hour check (or 100 flying hour check)* and then at every subsequent 150 flying hour check (or 100 flying hour check).

* As required by local National Authorities.

Applicability: T67C (Post Mod M156), T67M-MkII, T67M200, T67M260 (Pre Mod M945) and T67M260-T3A (Pre Mod M830). This inspection is not applicable to Aircraft works numbers 2267 thru to 2284.

This Issue 2 has been raised to incorporate the inspection at every 150 flying hours, (100 flying hours), previously one off inspection at 150 flying hours, (100 flying hours), this follows reports of further incidents of loose pivots. Additionally Mod M915 and M945 have been added to T67M200 and T67M260; plus aircraft 2267 to 2284 added as not applicable. Service Bulletin generally updated note marks in left hand margin indicating areas of change.

INTRODUCTION:

There have been several cases found of "worn" universal joints in the fuel selector valve torque shaft on the T67M260 type aircraft. There are 2 universal joints per shaft.

This universal joint is also used on the T67C Post Mod M156 (wing tank) T67M-MkII and T67M200 type aircraft. Though the torque shaft on these aircraft only uses one universal joint as opposed to two per shaft on the T67M260.

ACTION:

1. At the next 150 flying hour check (or 100 flying hour check) gain access to the fuel selector valve torque shaft situated behind the forward console fascia. Refer to Fig. 1 and Fig. 2.

2. i) Inspect the pivot area of the universal joint/s for wear; do not use excessive force.

   ii) Inspect the pivot area of the universal joint/s for physical damage e.g. splayed forks, hammer marks, pivot pin damage, use a torch and mirror.

3. If there is no evidence of wear or physical damage, annotate logbook "SB163 accomplished" and repeat inspection at next 150 flying hour check (or 100 flying hour check).

Signature M J Rutter Compiled	Signature J. Thorp Design CVE	Signature D W Goddard Slingsby Approval
Print Name : M. J. Rutter	Print Name N. THORP	Print Name D W GODDARD
Date 18-02-08.	Date 25-2-08	Date 26.2.08.
SLINGSBY ADVANCED COMPOSITES LIMITED Kirkbymoorside, York. YO62 6EZ Tel: 01751 432474 Fax No: 01751 433016 E-mail: mike.rutter@slingsby.co.uk	Page 1 of 4	Issue: 2

4. a. T67M200 (Post Mod M915), T67M260 (Pre Mod M945) and T67M260-T3A (Pre Mod M830), Figure 1:

If there is any evidence of wear or physical damage to the universal joint/s, then remove the torque shaft assembly T67G-57-232 and replace either the torque shaft assembly or the relevant universal joint (T67M-57-569) on the shaft. Reassemble torque shaft assembly back into the aircraft.

b. T67C Post Mod M156, T67M-MkII and T67M200 (Pre Mod M915) Figure 2:

If there is any evidence of wear or physical damage to the universal joint then remove the universal joint, (T67F-57-511 Pre Mod M300, T67M-57-569 Post Mod M300) from fuel selector valve and shaft adapter assembly. Reassemble back into aircraft new relevant universal joint.

Note: The universal joint should be treated as a line replaceable unit and should not be dismantled.

For shaft and universal joint removal and re-fitting, refer to paragraph 5 below.

5. Removal and Re-fitting:

i) Take note of shaft/universal joint orientation prior to removing shaft. Remove shaft or universal joint by pushing/squeezing out the tension pins. Do not hammer to remove pins. Ensure shaft is fully supported.

ii) T67M260 and T67M260-T3A only: Take note of universal joint orientation prior to removing from shaft. Adequately support the shaft assembly and drill out the 1/8" diameter steel rivets, SACL code 120-18-230.

iii) T67M260 and T67M260-T3A only: Replace old universal joint with new item. Ensure when riveting that the universal joint is fully supported, correctly positioned on the shaft and after assembly is seen to have full and free movement.

iv) Replace torque shaft assembly or universal joint back into the aircraft by using new tension pins (126-25-012). Ensure shaft is fully supported when pushing/squeezing tension pins into shaft. Do not hammer shaft assembly when replacing pins.

6. Should any work be undertaken in the vicinity of the fuel selector torque shaft, ensure shaft is not disturbed or if work is undertaken relevant to shaft having to be removed, observe dismantling and re-assembly requirements in paragraph 5.

Ensure that the fuel selector valve torque tube is not used as a "grab handle" or lent upon during course of any work undertaken in the forward cockpit area. If in any doubt, inspect universal joints in IAW paragraphs 2 and 3, rectify accordingly.

7. The assembly and reassembly cautions contained in paragraph 5 are to be added to the relevant aircrafts Maintenance Manual at next amendment.

8. T67C Post Mod M156, T67M-MkII and T67M200 only: IPC is incorrectly drawn ref universal joint. Figure 2 shows correct configuration. IPC will be amended in due course.

For replacement parts contact SACL Product Support Department.

Note: A modification is to be prepared using a universal joint with improved features. This Service Bulletin will be amended to reflect in due course.

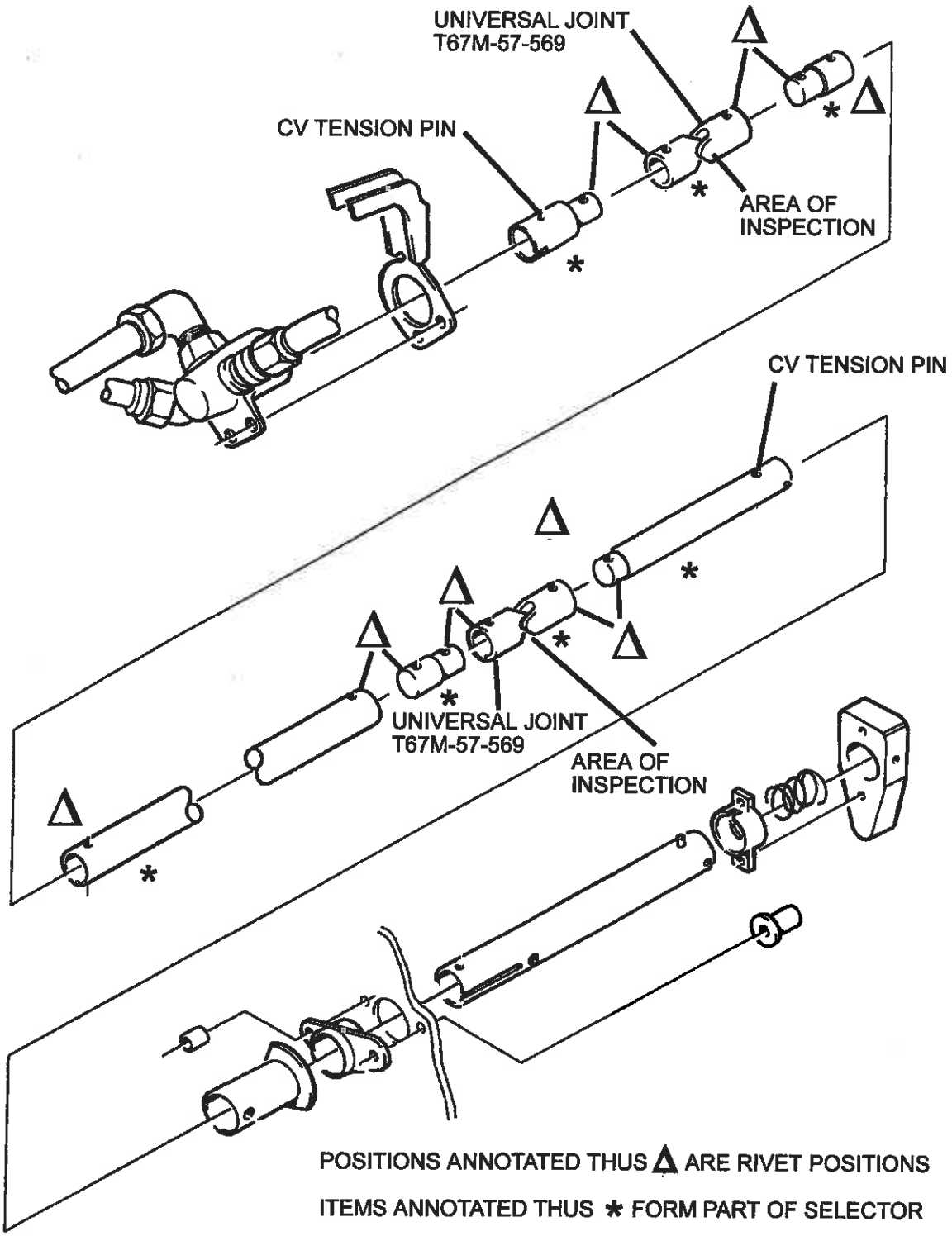


FIG. 1 FUEL SELECTOR VALVE SHAFT DETAIL
[T67M200 (Post Mod M915), T67M260 (Pre Mod M945), T67M260-T3A (Pre Mod M830)]

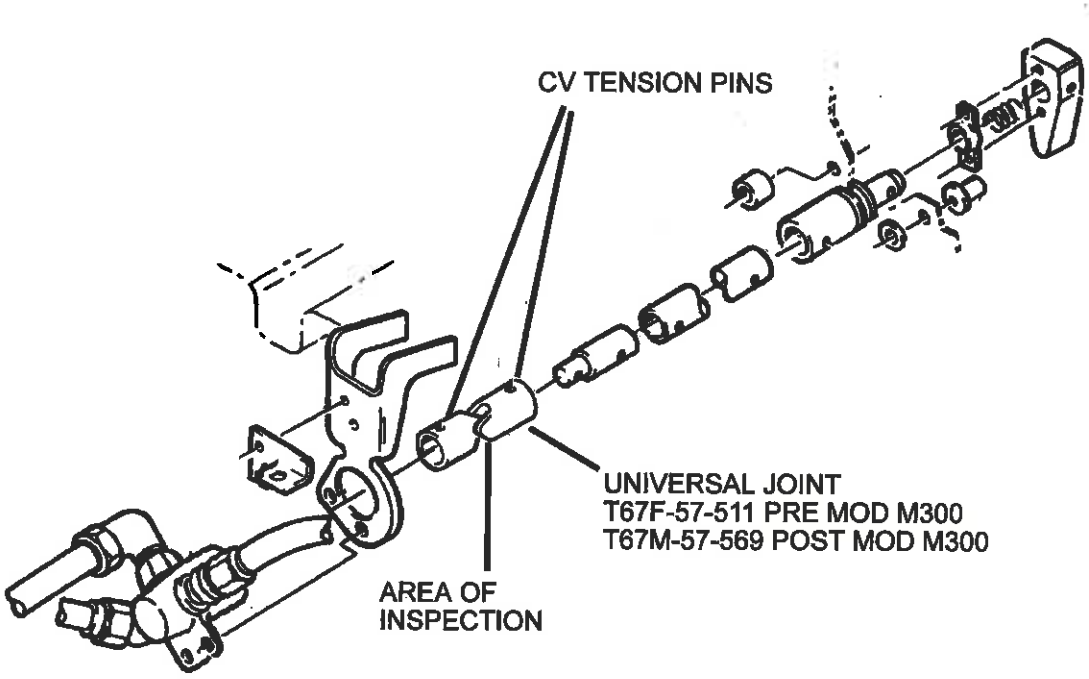


FIG. 2 FUEL SELECTOR VALVE SHAFT DETAIL
[T67C POST MOD M156, T67M-MKII, T67M200 (Pre Mod M915)]