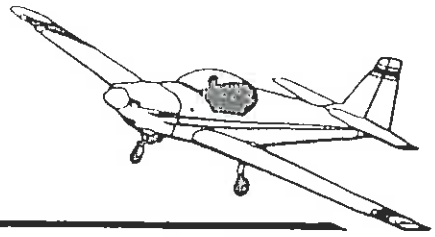
SLINGSBY AVIATION LTD



SERVICE BULLETIN

SB No. 98 Issue No. 1

TITLE **INSPECTION AND RECTIFICATION OF AIR CONDITIONING COMPRESSOR ALIGNMENT**

CLASSIFICATION

This Service Bulletin has been classified as Recommended by SAL

COMPLIANCE At next 50 hour check

APPLICABILITY:

T67M260-T3A Nos 2109, 2110, 2123 to 2158.

INTRODUCTION:

Reports have been received of air conditioning compressor belts showing varying degrees of mis-alignment which could cause belt wear. Upon investigation it was noted that the compressor mounting was subject to weld distortion. Fitting an angled shim behind the mounting bracket brings the belt back to an acceptable alignment.

ACTION

1. Prior to checking alignment of compressor, the belt tension and mounting bracket should be set up as follows. Set drive belt tension to give ½" deflection at mid span on top side of belt with a force of 15 to 17lb. Refer to paragraph 4 for tensioning instructions. Ref. Fig. 1.

2. Check behind compressor mounting bracket for shim Pt No. T67G-74-521. If fitted, record in log book SB 95 complied with. If no shim is fitted, proceed as paragraph 4 and subsequent.

3. Check compressor alignment as follows:

   With the belt correctly tensioned, Ref paragraph 1, measure the angular alignment of the compressor using straight edges, Ref. Fig. 2.

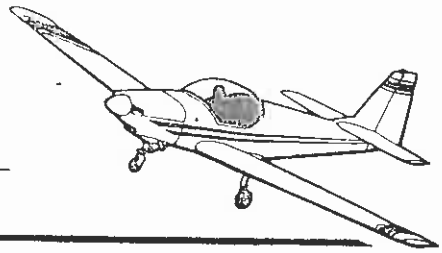
   It is recommended that the straight edges used should be made from aluminium box section (3/4" square) or angle (1" x 1") or other suitable section to give an accurate stable straight edge. The starter ring straight edge should be approx. 38" long.

ISSUED 29 FEB 1996

ISSUED BY: B Mellor

for and on behalf of SLINGSBY AVIATION LIMITED
Kirkbymoorside. York YO6 6EZ England Tel 0751 32474 Telex 57597

Date 29-Feb 96



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Ensure the straight edges are held firmly in position while taking measurements. The starter ring straight edge should span the full width of the ring locating on the fwd machined face.

The compressor straight edge should be held against the aft face of the fwd two upper mounting lugs. The compressor top baffle is not in place to take this measurement.

It is recommended the measurement be taken over 300mm but may be taken over a lesser dimension and the angle calculated accordingly.

The maximum compressor mis-alignment allowed is 1°-08' or D2-D1 = 6mm maximum. (D1 & D2 measured over 300mm). Ref. Fig. 2.

The above compressor mis-alignment is acceptable and will not give any undue belt wear in normal operation.

If the angle is greater than 1°-08' or dimension greater than 6mm then angled shim Part No. T67G-74-521 should be fitted as shown in Fig. 3.

After fitting shim, re-check alignment.*

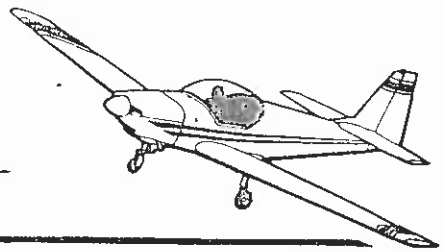
*If alignment is still incorrect after fitting shim, then the mounting bracket Pt No. T67G-74-203, should be replaced and returned to SAL for rework.

The alignment check is only required during initial installation of the air conditioning compressor or if the mounting bracket is replaced, it is not a regular maintenance check

4. Set the belt tension as follows:

Tighten the lower two pivot bolts on the compressor until they are just gripping the compressor and bracket but the compressor can still be rotated by exerting some force on the compressor body.

The tension arm bolts should be free to allow the compressor move.



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Insert a suitable size piece of wood between the compressor mounting bracket and the compressor body towards the front of the compressor. Lever the compressor outwards to tension the drive belt. When the correct tension is achieved fully tighten the lower two pivot bolts. While maintaining the tension with the wood lever, tighten the pivot arm bolt on the compressor. Check the tension on the belt and if adjustment is required re-tension as described above. Re-check tension and ensure all fasteners are secure. Ref. Fig. 4.

Note:

With the belt correctly tensioned, the compressor will be pulled approximately 0°-23' (2mm over 300mm) out of alignment in addition to any other mis-alignment.

5. Following actions 1, 3 and 4 annotate logbook SB 98 complied with.

For shim T67G-74-521 or replacement bracket T67G-74-203, contact SAL Product Support Department.

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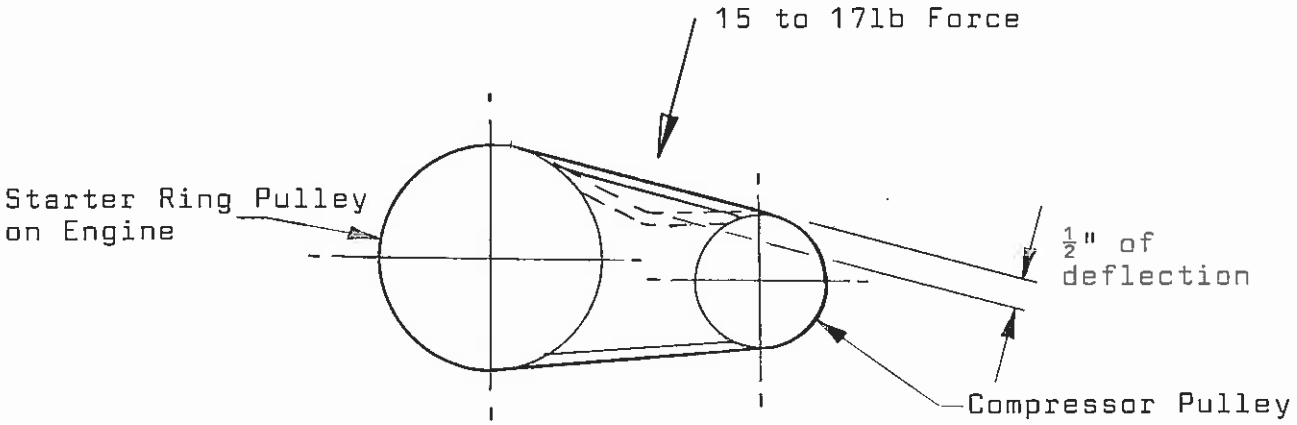


Fig 1
View on Front of Engine

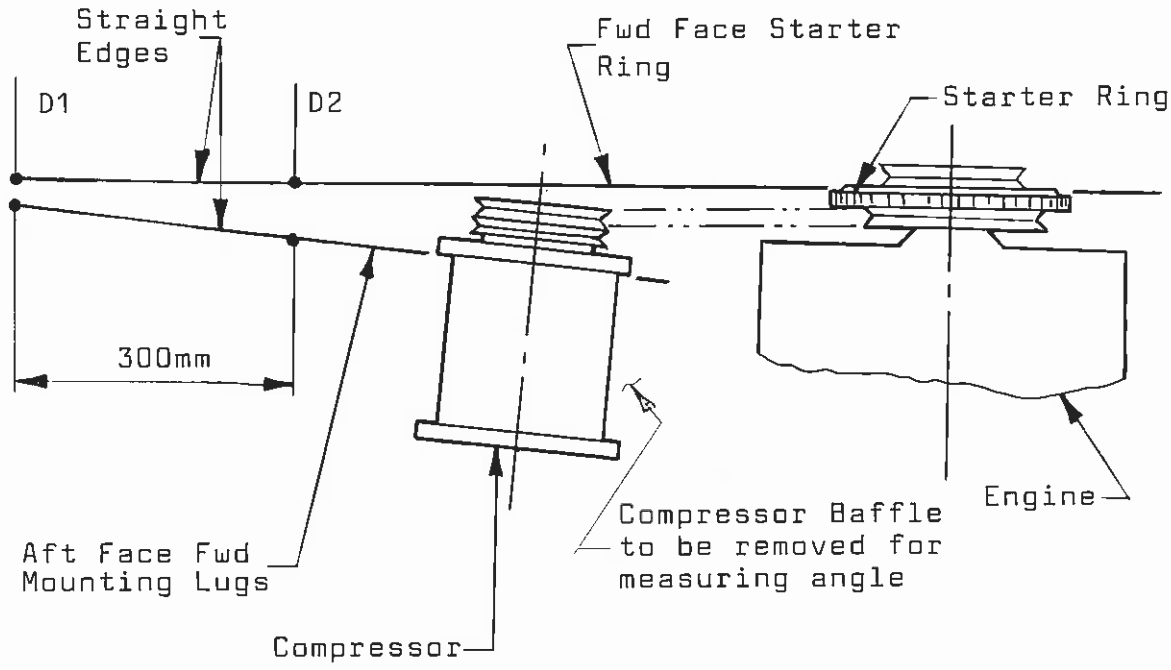
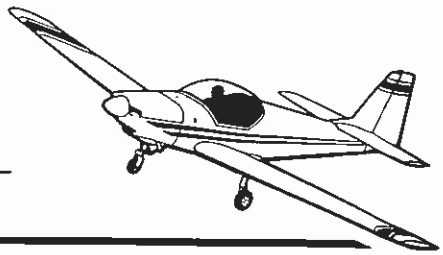


Fig 2
Plan View on Engine



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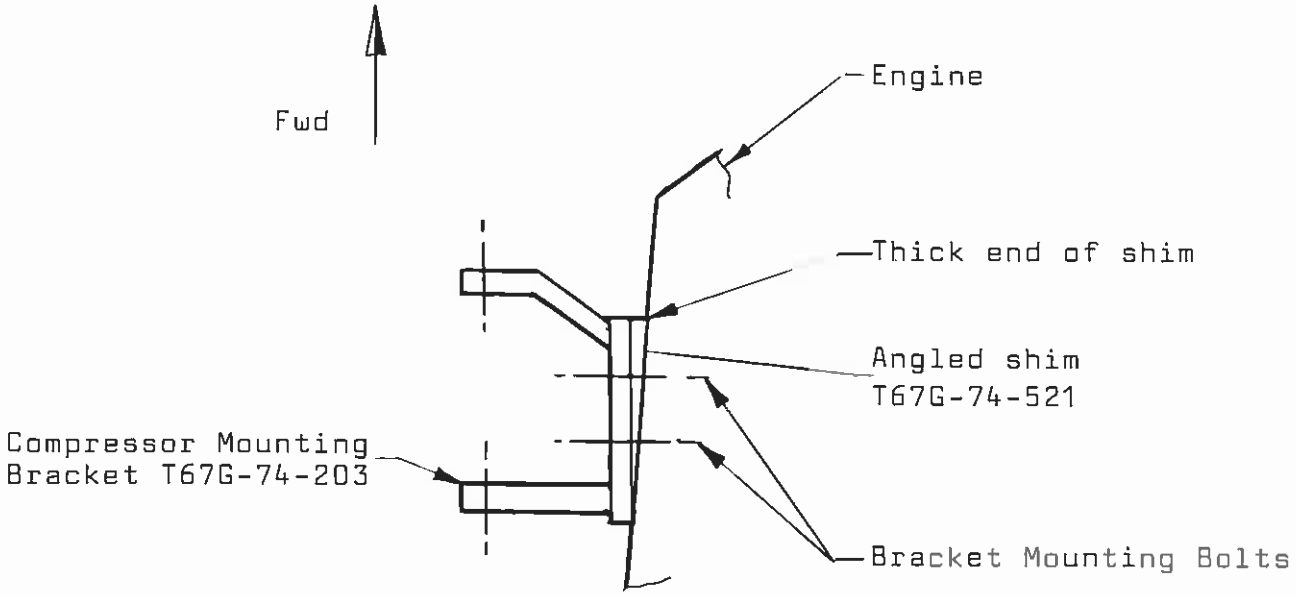

Fig 3

Plan View on Compressor Mounting Bracket

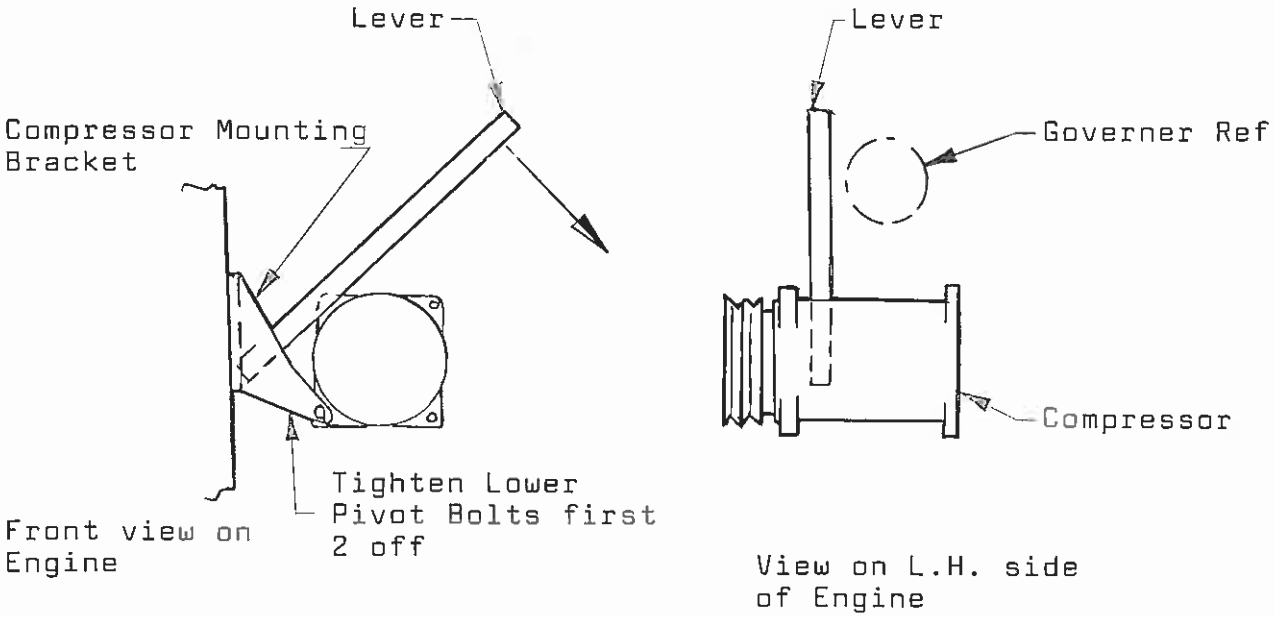

Fig 4

Showing Method of Tensioning