SLINGSBY SAILPLANES, KIRKBYMOORSIDE

YORK, YOG GEZ

TECHNICAL INSTRUCTION No. 65

SLINGSBY T 59 KESTREL - MODIFICATION No. 18

REPLACEMENT OF ELEVATOR ACTUATOR BRACKET

APPLICABILITY

This instruction is applicable to all marks of Slingsby T.59 Kestrel Gliders.

COMPLIANCE

The modification has been made mandatory by the Civil Aviation Authority and must be completed before the end of June, 1974. Until that time, the Daily Inspection called for in Technical Instruction No. 63 must be continued.

MODIFICATION

Modification No. 18 essentially replaces the welded steel elevator actuator bracket, Part No. 59A-30-11 with a machined aluminium bracket.

PROCEDURE

- 1. Remove the tailplane from the aircraft and the rudder from the fin.
- 2. Remove the six bolts in the elevator actuator bracket and remove bracket from the tailplane.
- 3. Check the diameter of the bolts removed at 2. These will be $\frac{1}{4}$ " dia. for aircraft with English fittings and 6 mm dia. for aircraft with German fittings. Check also that the spigot diameter matches with the new fitting supplied. That is 10 mm dia. for aircraft with German fittings and $\frac{3}{8}$ " for aircraft with English fittings. A list of aircraft is given at the end of this Instruction.
- * 4. Lie the fuselage on its side (to prevent nuts dropping to the base of the fin) and remove the rear tailplane attachment bracket from the fin by removing the four attachment bolts.
 - 5. The new actuator bracket must now be assembled together using the bracket removed at 4. above. Loosely assemble the two halves of the bracket, parts A, B, C, and fit on to the bracket removed at 4.
 - 6. Holding the two halves firmly, drill the rivet hole, letter D (.246") and ream to .25" + .002"
 .000"
 - 7. Remove the fittings and deburr the holes drilled at 6.

- 8. Reassemble the two halves of the fitting applying an jointing compound (Celoseal) and rivet the two halves together, preferrably with the fitting assembled to the tailplane rear attachment bracket as in 5.
- 9. Using a thin coat of Epoxy resin (Epikote 162, Epikure 113) replace the tailplane rear attachemnt bracket removed at 4. The resin will ensure a good fit of the bracket and its bolts, eliminating fretting at the bolt holes.
- 10. Fit the new bracket to the tailplane and fit the tailplane to the aircraft.
- 11. Check for full elevator movement and general freedom of controls. Elevator movement is; up 16.5 ± 1.5°; down 16.5 ± 1.5°.
- 12. Refit the rudder.
- 13. The aircraft should not be flown until the resin applied at 9. has cured, which should be after 12 hours at 65°F.
- * ALTERNATIVE (B.G.A.) METHOD FOR OPERATIONS 4 9.
- a) Degrease the new actuator bracket on its mating surfaces.
- b) Mix a small quantity of Araldite Epoxy resin (Araldite AY 105 + HY 953F is suitable) and smear this on the mating faces of the two halves of the new actuator bracket.
- c) Assemble the two halves of the bracket and assemble on to the two spigots of the rear tailplane attachment bracket.
- d) Allow the Araldite to cure, this will be about 8 hours at room temperature. Remove the bracket.
- e) Drill the rivet hole letter D. (.246") and ream the hole to .25" + .002" .000"
- f) Rivet the two halves together.

PARTS REQUIRED FOR AIRCRAFT WITH ENGLISH FITTINGS.

- 1. Elevator actuator bracket (Replacement kit, Part no. 59A-03-8A/B/C)
- 2. Bolt 2A 173 8E 2 off
- 3. Bolt 2A 173 2E 4 off
- 4. Drawing No. 59A-03-7
- 5. Celoseal 10 gms.
- 6. Epoxy Resin: Epikote 162 50 gms. Epikure 113 19 gms.

PARTS REQUIRED FOR AIRCRAFT WITH GERMAN FITTINGS.

- 1. Elevator Actuator bracket (Replacement kit, part no. 59A-03-9A/B/C)
- 2. Bolt, special 59A-30-47 2 off
- 3. Bolt, special 59A-30-48 4 off
- 4. Drawing No. 59A-03-10
- 5. Celoseal 10 gms.
- 6. Epoxy resin: Epikote 162 50 gms. Epikure 113 19 gms.

These parts may be obtained from Slingsby Sailplanes, Kirkbymoorside, York. Y06 6EZ. England.

AIRCRAFT FITTED WITH GERMAN ELEMATOR FITTINGS

T 59B. Glasflugel Works No.	19
T 59A. Slingsby Works No.	1722 1724 1727 1728 1729
T 59C. Slingsby Works No.	1739
T 59D. and F	
Slingsby Works No.	1745 1746 1748 1749 1761 1762 1763 1764 1765 1786 1790 1791 1792 1795 1797 1798 1801 1802

