

2nd DECEMBER, 1957.

TECHNICAL INSTRUCTION NO. 2. SKYLARK 2 and 3.

Part A. Special inspection and adjustment to trimmer control system.

Part B. Introduction of modified attachment for turn and slip batteries.

PART A.

An instance has been reported where backlash in the trimmer control system has induced undesirable and possibly dangerous flying characteristics in a Skylark 2 at high speed during aerobatics. On checking it was found that the backlash was due to slackness in the Bowden cables in the tailplane.

It is recommended that the following check be made on Skylark 2's and 3's and all aircraft with similar controls as soon as possible after the receipt of this instruction.

1. With the aircraft rigged, hold the elevator in the neutral position and set the trimmer to neutral by operating the control in the cockpit.
2. By means of a weight or spring balance apply a down load of 10 lb. to the trimmer trailing edge.
3. Measure the deflection of the trimmer from neutral at the outboard trailing edge. If this deflection is less than $1/8$ in. (3 m.m.) it can be considered satisfactory.
4. Without altering the trimmer setting, apply an up load of 10 lb. at the trimmer trailing edge.
5. Measure the deflection of the trimmer from neutral at the outboard trailing edge. If this deflection is less than $1/8$ in. (3 m.m.) it can be considered satisfactory.

ADJUSTMENT OF TRIMMER CONTROL SYSTEM.

It is recommended that the following adjustment be made on all aircraft which do not comply with the above requirements before any further flying is carried out. It is also recommended that the adjustments be made on other aircraft as soon as convenient and not later than the next C. of A.

With the tailplane removed adjust the Bowden fittings on frame 5 until no backlash is apparent when a reasonable load is applied by hand to the rear lever.

2. Check for backlash between the lever on the underside of the tailplane and the lever on the fuselage. Small amounts of movement can be taken up by closing the fork, if considerable wear is apparent the fittings should be replaced.

3. With tailplane and elevator removed from the machine adjust the Bowden cables in the tailplane until no backlash is apparent.

4. Check that the friction of the control in the tailplane is sufficient to hold a load of 5 lb. on the trailing edge of the trimmer.
5. Rig the tailplane and elevator onto fuselage. Carry out the check described above. If the requirements are not met increase the tension of the Bowden cables in the tailplane and fuselage.

DAILY INSPECTION.

It is recommended that a check for backlash in the trimmer control be made in all daily inspections.

PART B.

An instance has been reported where turn and slip batteries have come adrift from the mounting at the side of the fuselage during aerobatics. This matter is considered dangerous, as it could interfere with the movement of the aileron control.

It is recommended that no further flights be made until the modification shown below is incorporated in the aircraft, or alternatively the batteries have been removed from the aircraft or suitably secured.

MODIFICATION.

The modification for retrospective action consists of fixing commercial screw hooks and fitting additional elastic cord as shown below.

The parts are available from Slingsby Sailplanes Ltd. as a kit at a price of 9/- post paid.

3/16" Elastic Cord.

