

SLINGSBY SAILPLANES LTD., KIRBYMOORSIDE, YORK, ENGLAND.

TECHNICAL INSTRUCTION NO. 3.

Special Inspection on Cadet, Tutors and 3LB's  
(Cadet 1, 2 & 3).  
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We have recently received notification of damage to the wing spars of Tutors and Cadet 2 types, with particular reference to fractures in the leading edge plywood in the area close to the front lift strut position, and in some cases to the spar booms.

Spar failures or damage found in the spars are the result of overloading either by severe shock by a crash landing, wing tip touch-down landing or excessive loads imposed by improper launching methods, such as the practice of omitting the weak-link in the launching cable.

If winch launching or car launching methods are unrestricted, evidence of overloading may be indicated by fractures in the wing leading edge nose ply near the front lift strut position and indicate possible damage to the front spar.

When fractures are found as stated above, the nose ply, packing members, and any fabric in that area should be removed to permit a very thorough inspection of the spar booms and spar walls over an area of two rib bays outboard of the lift strut fitting, and one bay inboard of that fitting, for evidence of fracture, compression shakes or loose glue joints.

Any repair work required to be done to the spars, must be carried out by a competent ground engineer to a scheme approved by the Design Firm, or the work carried out by an approved firm.

In cases of overloading of the wing structures due to any cause either from launching, crash landings, wing-tip landings and the like, the internal torsion bracing members and their attachment gussets should be carefully examined for broken glue joints and damage to the woodwork. Unfortunately, extensive areas of fabric and ply must be disturbed for this inspection.

Damage to internal bracing members, in some cases, is shown by the slackening of wing fabric in the area affected. Nevertheless, a small fracture or broken glue joint in the system is not always detectable by external inspection.

Damage to leading edge plywood may be attributed to causes other than those stated above, such as improper handling and rough useage. When there is some doubt as to the cause of the damage the precautionary action should be taken, especially when it is known that unrestricted winch launching or car launching has been permitted at any time.

Lift struts and interstrut bracing should be inspected for sign of damage or bowing. Struts requiring attention should be returned to the manufacturers for reconditioning or replacement.

In the case of aircraft over ten years old and those built with casine glue reference should be made to Technical Instruction No. 4.

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TECHNICAL CIRCULARS ISSUED BY SLINGSBY SAILPLANES LTD. UP TO  
24th DECEMBER, 1957.  
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NUMBER 1. Tailplane attachments on Sky, Skylark Mk's. 1,2,3A,3B, 3C,3D.

NUMBER 2. Skylark 2 & 3.

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

Part B. Introduction of modified attachment for Turn and Slip batteries.

NUMBER 3. Special inspection on Cadet, Tutors and 31B's (Cadet 1,2 & 3).

NUMBER 4. Core and maintenance of Sailplanes manufactured prior to 1947.

24th December, 1957.