B.G.A. TECHNICAL COMMITTEE

TNS 8/9/82

PART 1 AIRWORTHINESS "AGGRO" (please add to the 1982 Blue Pages)

1.1. Cirrus and VTC Cirrus (All Serial No's) Tech. Note 265-6 (herewith) has been mailed to all owners and concerns flutter at airspeeds approaching Vne. Action as required.

1.2. "Vega" T65A/C/D Series Flutter and Canopy Jettison The attached Note was mailed to all owners by B.G.A. 20/8/82, and is made mandatory by C.A.A. Repair schemes, were necessary, should be obtained from Slingsby Engineering Limited.

1.3. T.61 Falke SEL/TI.103/T62 (herewith) Wing Root Fittings This TI amplifies previous C.A.A. Letters-To-Operators (LTO) on this subject.

1.4. SF25 Series Motor-Gliders (also SF28) Scheibe Tech. Note 653-42 (herewith) - Wing Root Fittings - further amplifies previous C.A.A. LTO's.

1.5. Kestrel Undercarriage Weld Failure of lever at retraction-shaft, starboard side of wheel box. Inspect/repair as required (Reported by Keith Mitchell).

1.6. Foreign Objects in Control Systems Two cases (at least) are on record of controls becoming jambed by Tools left in the cockpit area, and rear fuselage of gliders. Therefore, it is strongly recommended that a DUPLICATE INSPECTION is initiated for the removal of Foreign Objects, after the access has been gained to critical areas.

1.7. Extracts from C.A.A. Information 8/82

PA-18 Cubs - Rear Fuselage Cracking - (copy attached). Initiate additional inspections as required.

1.8. PA-18 Cubs - Undercarriage Hinge Bolts - Fatigue Failures Recurring failures may cause substantial damage. B.G.A. recommend REPLACEMENT at (say) every 100 hours.

1.9. DH Chipmunk - Fuel Cock - Failure of the Catch. Loss of power after take-off of military Chipmunk was attributed to partial closure of the fuel cock, due to failure of the lever safety catch.

1.10. Unsafe Propellors The attached Warning from H.Q. Air Cadets is self explanatory. Inspection of ignition switch circuits is an essential maintenance function.

PART 2 GENERAL MATTERS

2.1. C.A.I.P. Leaflets (from C.A.A.) are no longer available in selected packages. B.G.A. Shop is now selling FA-AC 43-13 "Acceptable Methods, TECHNIQUES, and PRACTICES - Aircraft Inspection and Repair - Aircraft Alterations". This F.A.A. (USA) Manual is acceptable to C.A.A. and includes guidance on Avionic installations etc. Price £8.95 inc. post from B.G.A. Shop.

B.G.A. Inspectors will be expected to have access either to C.A.I.P. Leaflets or AC 43-13, as well as "Standard Repairs to Gliders" (B.G.A. Shop £3.45 inc. post).

2.2. B.G.A. Inspector Renewals Enclosed herewith annual renewal notice. Please action as soon as possible, since your Personal Inspector Insurance Cover of £250,000 for Third Party/Products Liability is only valid to paid-up members.

2.3. C. of A. Charges Please note that the fee for issue or renewal of a B.G.A. glider C. of A. will rise to £14.95 (inc. £1.95 V.A.T.) on 1st October. Please ensure that the correct money is submitted with all applications.

2.4. Tugs - Tow Releases Yet another case of a Citabria with floor-mounted tow release has been discovered. Such release positions may be acceptable for BANNER TOWING but they are unacceptable for Glider Towing because glider pilots may inadvertently attempt to upset the tug!

2.5. Limbach Engines - Vibration/Crankcase Cracking. Limbach TI.No 14 (herewith) is self-explanatory - cracked crankcases can be very expensive!

R.B. Stratton
Chief Technical Officer

September 1982

To all owners —
TN's 8/9/82

SUBJECT :

1. Elevator drive.
2. Tail parachute.
3. Horizontal tailplane.
4. Amendments of the Flight and Service Manual.

AFFECTED SAILPLANE :

Sailplane Cirrus, FRG Type Certificate No. 265, Variants Cirrus and Cirrus VTC, all Serial Numbers.

COMPLIANCE :

Action 1 before the next flight.
Action 2 through 6 until 30th September 1982.

REASON :

At higher airspeeds approaching V_{NE} elevator and rudder flutter was observed on the Cirrus VTC.

ACTIONS :

Cirrus VTC only

1. The following placard is to be fixed onto the instrument panel :

Maximum permissible airspeed (IAS)
in calm and rough air 160 km/h (86 knots)
Cloud flying prohibited
(Techn. Note No. 265-6 of April 27, 1982)

Page 3a is to be added to the Flight Manual.

Cirrus and Cirrus VTC

2. Elevator drive

If not yet accomplished, the drive tube (dia 8 mm on the elevator drive lever must be replaced by a round bar in accordance with the drawing Cirrus No. 30.011/1 - Elevator drive axle. The maximum play of the elevators respectively of right and left elevator mutually is quoted on page 26 of the Service Manual (see Action 5).

3. Tail parachute

The tail parachute must be removed if the values for hinge moments and weights on page 27 of the Service Manual (see Action 5) are exceeded.

ACTIONS :

3. Tail parachute (continued)

If it is necessary to remove the tail parachute, proceed as follows :

a) Lock the operating handle for the tail chute in the cockpit as shown on the sketch, page 4 of this Note.

b) Screw off the blue ball knob.

c) Remove the reference placard for tail chute operation, if any.

d) Check the tail chute box for a drainage hole (dia 6 mm).

e) Amendments of the Flight and Service Manual:

Page 2 - Entry in the Amendment List :

Amendment	Page	Date
Tail parachute omitted, operating handle locked. (T.N. No. 265-6)	16 17 22 23	April 1982

Page 16
Page 17 - delete both pages

Page 22 - Check List - delete A) 6.

Page 23 - Check List - delete B) 5.

4. Horizontal tailplane

If the values for hinge moments and weights on page 27 of the Service Manual (see Action 5) are exceeded, a mass balance must be installed outboard on the elevator in accordance with the drawing

Cirrus No. 30.001/1 - Elevator mass balance

5. Amendments of the Service Manual

Page 26 - Play in the control systems
Play in the right and left elevator

Page 27 - Hinge moments and weights

Page 28 - Hinge moments and weights

Page 29 - Damper in the rudder control system

ACTIONS : 6. After accomplishment of actions 2 through 5, the action 1 for the Cirrus VTC can be cancelled.

MATERIAL : See drawings for specifications.

WEIGHT : Horizontal tailplane with mass balance approx. 0.5 kg heavier.
Rudder without tail parachute approx. 0.5 kg lighter.

C.G. POSITION : The empty weight and the corresponding C.G. position shall be determined by weighing the sailplane and a new weight and balance report be established.

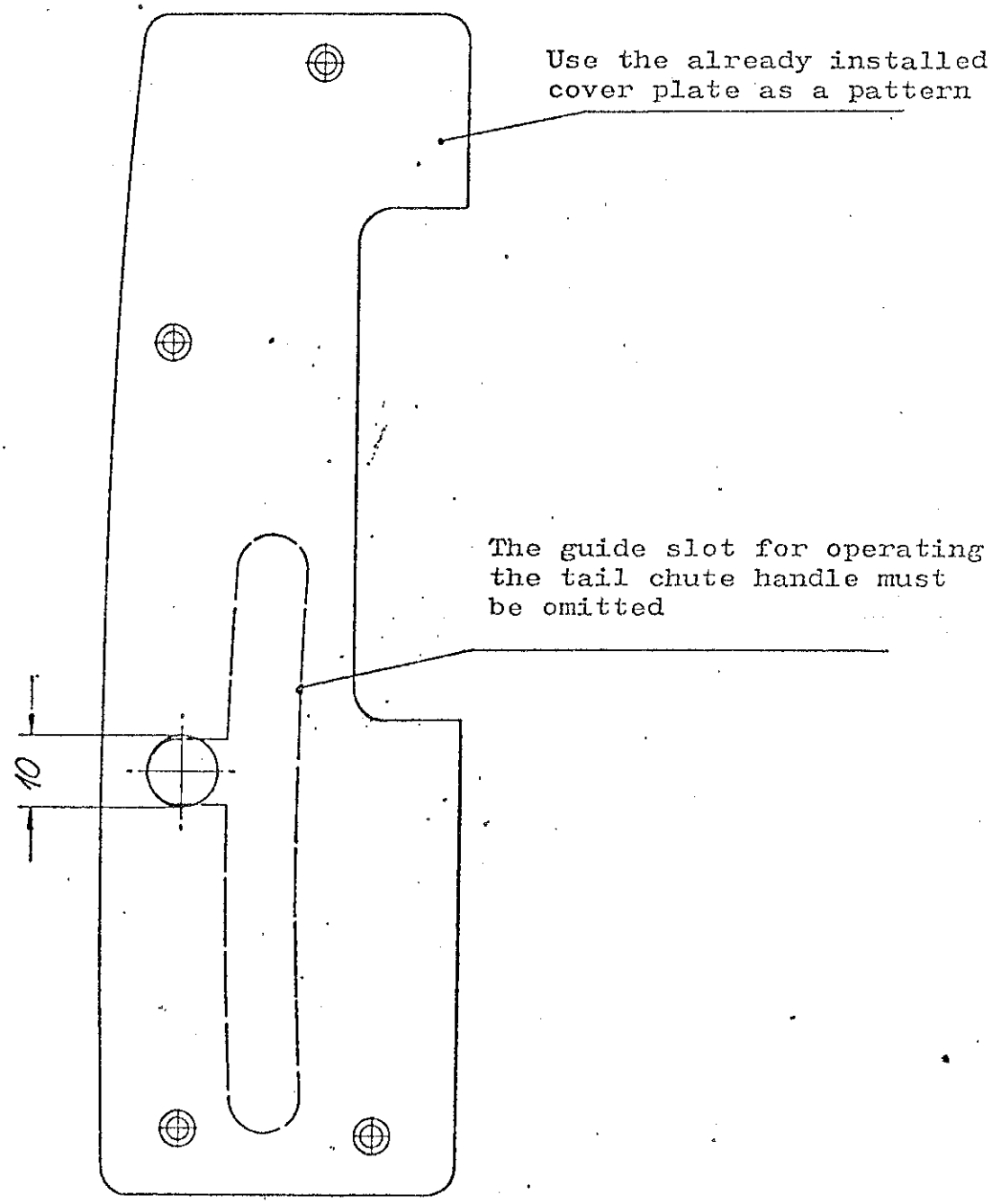
Kirchheim-Teck, 27th April, 1982

Signature : .....
(Treiber)

LBA - approved:

25. Juni 1982

Cover plate for locking the tail parachute operating handle



Material:

Aluminum alloy half-hard - hard AlMg1

sheet 1.5 mm thick

TWS/67/82
To all owners 22/2/82

SLINGSBY T65A, T65C, T65D

VEGA AIRCRAFT - ELEVATOR AND CANOPY JETTISON MECHANISM

1. Introduction

There have been a number of reported cases of tail surfaces vibrating, one of which at a speed below VNE was followed by a partial loss of elevator control. On the same flight a malfunction of the canopy emergency jettison mechanism prevented the pilot from abandoning the aircraft. As a result of this the C.A.A. have classified the following actions as mandatory for U.K. certificated gliders.

2. Action

On receipt of this document and before further flight accomplish the following:-

2.1. With the tail plane/elevator assembly removed from the aircraft examine the glass reinforced plastic operating tongue of the elevator which projects forwards into the tail plane. The lips of this channel shaped tongue must be unbroken and continuous to the point where it merges with the elevator proper. Check the tongue for lack of stiffness in the vertical sense by attempting to bend the tongue with the fingers. If any degree of flexibility is found it must be rectified before further flight in accordance with the repair scheme approved by Slingsby Engineering Limited.

The preceding action must be carried out following a heavy landing or ground loop in addition to any other required inspections.

2.2. Inspect the pivot bearings for the elevator rocker arm assembly on the top of the fin for wear. Any wear found must be rectified before further flight.

2.3. Inspect the tail plane centre hinge pin mounting rib at the junction between the rib and skin for cracks. If cracks are found a repair must be undertaken in accordance with the scheme approved by Slingsby Engineering Limited.

2.4. Inspect the canopy emergency jettison mechanism for correct and easy operation. If any difficulty is experienced in the ability to jettison the canopy the fault must be rectified before further flight.

Note Front, canopy retaining bolts, have been found slightly bent on some aircraft and could cause this malfunction.

It has been suggested that bolt distortion can occur as a result of attempting to pick up the front of the aircraft under the nose, which on the Vega is part of the canopy.

SLINGSBY ENGINEERING LIMITED
AIRCRAFT DIVISION

TECHNICAL INSTRUCTION

TITLE	T.I. No. 103/T61
T61 'FALKE' WING ROOT FITTINGS	
CLASSIFICATION CAA MANDATORY	
COMPLIANCE	Inspection to be carried out before next flight and at each subsequent re-rigging of the aircraft.
OBJECTIVE	To ensure flight safety by maintaining full bearing engagement between the rigging pin and the lower spar lugs.
JUSTIFICATION	A fatal accident which occurred in 1980 has recurred on a Scheibe Falke in May 1982 due to insufficient engagement between bottom lugs and pin.
APPLICABILITY	All T61A, B, C & D Slingsby Falke and Scheibe SF25, SF28 self launching motor gliders.

ACTIONS

Check part number of:

Rigging pin

Inspection to be carried out if CAA LTO514 has not already been actioned.

1. Before further flight after receipt of this TI

1.1 (a) With the main rigging pin pulled fully upwards by means of the Tee handle, such that the safety pin is hard against the lower face of the top boom lug fitting establish that the plain untapered portion of main pin shank protrudes below the port bottom boom lug fitting.

(b) If difficulty is encountered in establishing para 1.1 (a) inspection due to poor access the wings must be removed and port wing inspected in accordance with para 1.1 (a).

1.2 Should no plain untapered shank be visible protruding below the port bottom boom lug fitting the aircraft shall not fly until the cause has been established and rectified.

1.3 Establish whether more than one safety pin hole exists in the main pin. If more than one safety pin hole exists the aircraft must not be flown until the correct hole has been established by compliance with inspection to para. 1.1 (a) or 1.1 (b), and the redundant hole made unusable.

2. At Each Rigging

2.1 Accomplish the inspection contained in para. 1.1 (a) or 1.1 (b). Extreme care must be exercised when aligning the male/female lug fittings to

TITLE

T61 'FALKE' WING ROOT FITTINGS

T.I. No. 103/T61

ensure that female fittings are not splayed during mainplane rigging, following inspection to 1.1 (b).

2.2 Should no plain untapered shank be visible protruding below the port bottom boom lug the aircraft shall not fly until the cause has been established and rectified.

3. Inform SEL if any of the following conditions are found:

a) Pin fails to protrude through bottom lug.

b) An additional safety pin hole exists.

c) Any damage likely to have a detrimental effect upon the airworthiness of the aircraft.

CONSEQUENTIAL LIMITATIONS

1 Neither aerobatic flight nor winch launching are permitted on gliders fitted with:

a) Pins number 653B-51-S14 unless modified to have an end radii less than 3mm.

b) Pins having bottom end radii greater than 3mm.

c) Pins having more than one locking pin hole or locking pin holes greater than $\frac{1}{8}$" dia.

d) Locking pins constructed from less than 12G (.104) piano wire (spring steel).

2 Aerobatic flight is permitted with aircraft fitted with pins T61-20-66 Issue 3.

3 When aerobatic flight and winch launching are permitted it is strongly recommended that an accelerometer limited to 3.5g max be fitted.

PARTS

For SEL built aircraft replacement rigging pins Part No. T61-20-66 Issue 3 and and locking safety pin T61-10-174 are available from SEL. For other aircraft special pins which meet the requirements will be manufactured on request.

ISSUED BY:

for and on behalf of SLINGSBY ENGINEERING LIMITED
Kirkbymoorside, York YO6 6EZ, England. Tel.0751 31751 Telex 57911

Date 14th July 1982

Technical Note 653 - 42

Subject: Main wing assembly (fittings with main wing centre pin)

Effectivity: Motorglider SF 25 B "Falke" all serial numbers
Motorglider SF 25 C "Falke" all serial numbers
Motorglider SF 25 D "Falke" all serial numbers
Motorglider SF 25 E "Super-Falke" all serial numbers

Accomplishment: Before further flight, and upon each Wing assembly

Reason: Inspection of proper engagement of the main rigging pin in the main wing fittings

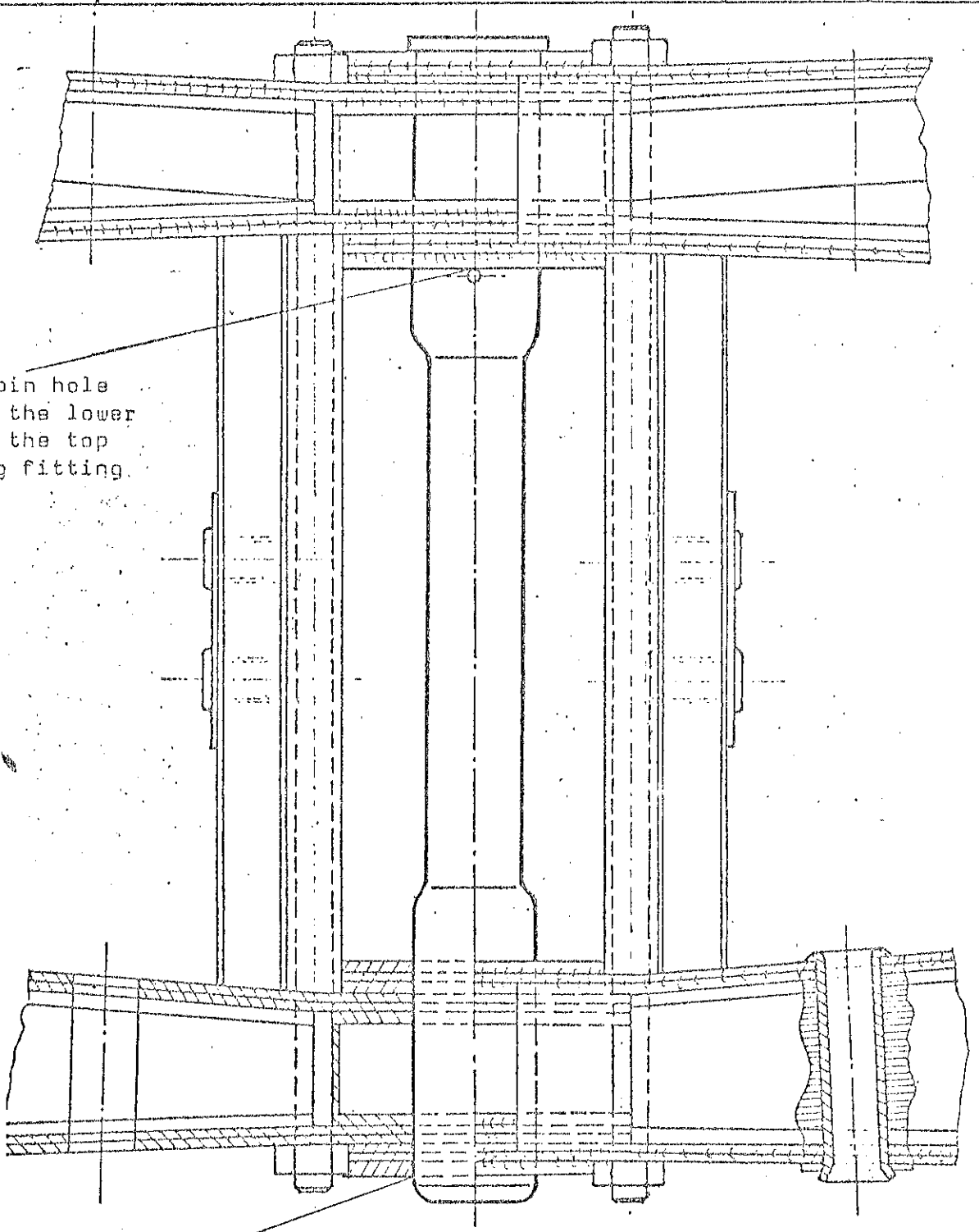
Instructions: Before further instructions the following must be checked:

1. It must be checked that the main rigging pin is fully through the bottom lug fitting. With the main rigging pin pulled fully upwards by means of the tee handle, such that the 2.5 mm safety pin is hard against the lower face of the top boom lug fitting, inspect the amount of plain portion of main pin shank protruding below the port bottom boom lug fitting (Wings imburdened). If difficulty in the inspection is encountered when the Motorglider is assembled due to poor acces, the wings must be removed and port wing inspected. Certainly upon the following assembly the inspection must be made again (when necessary, by help of a mirror and a handlamp).
   Should no plain shank be visible protruding below the port bottom lug fitting, according to 1., the aircraft shall not fly until the cause has been established, and rectified. For that, contact the manufacturer Fa. Scheibe Flugzeugbau.
2. Normally the main rigging pin has one safety pin hole. If more than one safety pin hole exsists the aircraft must not be flown until the correct hole has been established, and the redundant hole made unusable (flush rivet)

If the inspection according to 1., shows that the main rigging pin is not fully through the bottom lug fitting with the plain portion, the first thing is to check that, with the main rigging pin fully down, another safety pin hole could be made, so that the plain portion is through the bottom lug fitting. Another thing to check is that the female lug fittings has not been splayed through a wrong assembly. In case the fittings must be straightened and a new inspection according to 1., must be made, contact Fa. Scheibe Flugzeugbau.

Important notice: Extreme care must be exercised when aligning the male/female lug fittings to ensure that female fittings are not splayed during mainplane rigging and derigging.
Do not use force by bringing in the main rigging pin (for example by means of a hammer or similar), but carefully insert by hand with the wings imburdened.

When there is doubt about the correct assembly, or any damage is determined which is likely to have a detrimental effect upon the airworthiness of the aircraft, contact Fa. Scheibe Flugzeugbau.

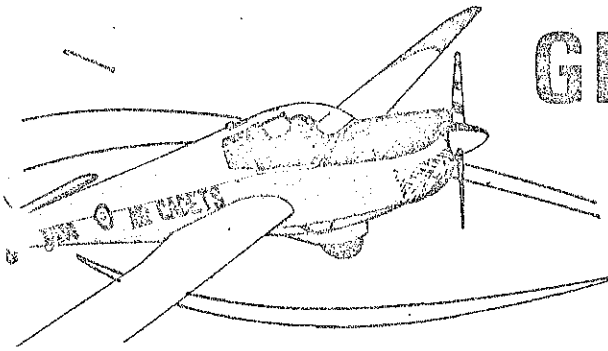


Safety pin hole against the lower face of the top boom lug fitting.

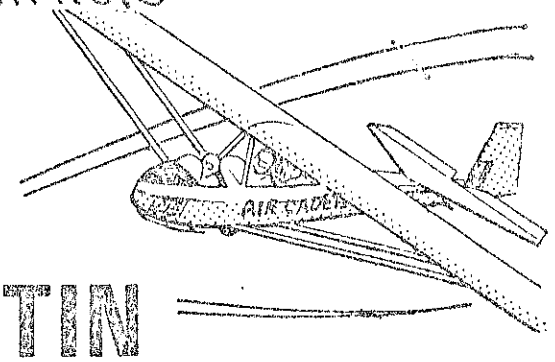
Plain portion of the main rigging pin must protude below port bottom boom lug fitting

SCHEIBE FLUGZEUGBAU GMBH
Dachau, Aug.-Pfalz-Str. 23
12. Juli 1982

BRITISH GLIDING ASSOCIATION



GLIDING SAFETY BULLETIN



PROPELLERS - PROPELLERS - PROPELLERS

BEWARE

Even when the switches are safe.

On 27 July 1982, the magneto switches on a Chipmunk were checked off and the propeller was turned to prime the engine prior to start up. The engine fired and continued to run; it was shut down using the cut out.

It was later found that a magneto switch cable was unserviceable.

BE WARNED

THIS FAULT COULD ALSO OCCUR IN THE VENTURE.

BE CAREFUL

ALWAYS TREAT PROPELLERS AS BEING LIVE.

Serial 3/82 (Aug)
(Venture)
AC/27426/1/TA

HQ AIR CADETS

Technical Information 14

LIMBACH ENGINES

Subject: Rough running engine and vibrations which can lead to cracking in the crank case.

Concerning: All engines of the construction series LIMBACH SL 1700 EA

Problem: Isolated cracks appearing in the crank case at bottom right, below the upper engine mounting.

These above-mentioned cracks were discovered by ourselves in engines which had been exchanged after an operating time of 1000 hours. It was also found in these engines that the propeller was not only seated on the propeller hub but also on the starter disc (spinner fixing ring). (See sketch).

Action: Within the next 25 hours of operating time, using a thickness gauge, check the distance between the propeller and the front edge of the starter disc. If this distance is less than 0.3 mm insert a 1 mm thick aluminium disc between the starter disc and the propeller.

LIMBACH - Part No. 17.03.036 B

Hint: Note this check in the log book.
Take note of the running propeller alignment.

ISSN 0308-067X

Safety Data Unit
Brabazon House
Redhill Surrey RH1 1SQ
Telephone Redhill 65966
Telex 27100 Telegrams & Cables Bordair Redhill

8/82

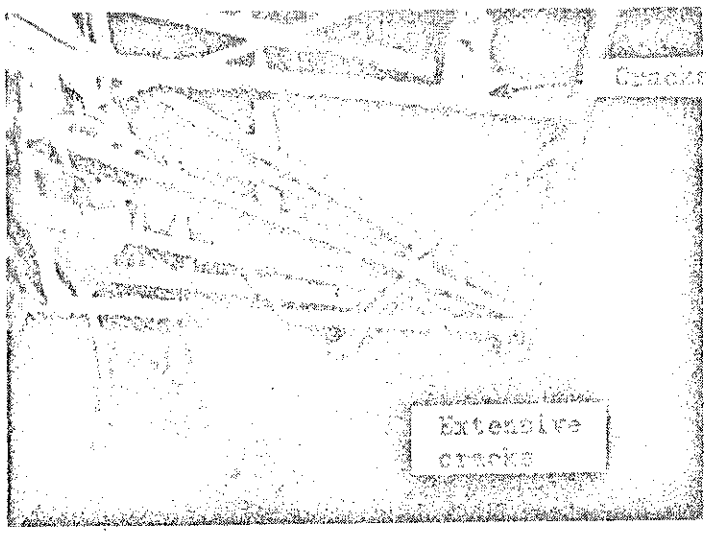
27 August 1982

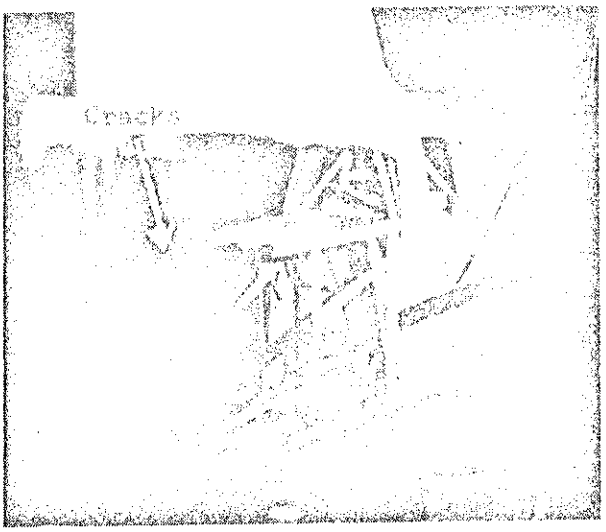
1. FUSELAGE CRACKING

E

Aircraft : Piper PA18-150 Super Cub
Date : July 1982

During a routine 50 hour check a crack was found around the top right hand longerons in the vicinity of the rear tailplane attachment bracket. Removal of the covering from the rear fuselage revealed further cracks at the junction of tubing running forward diagonally from the base of the fin post and at the lower longerons adjacent to the tailplane wire attachment brackets. The cracks were quite extensive. The aircraft had flown 5972 hours and had been extensively used for glider towing. It is fitted with a 180 hp engine.





CAA Comment:
Most glider towing aircraft need special structural inspection because of the extra loads imposed by the glider and by frequent take-offs and landings, often from fairly rough surfaces. This aircraft had been achieving 10 tows per flying hour, so was likely to have accumulated 50,000 to 60,000 take-offs and landings, most of the take-offs towing a glider, and mostly from a fairly smooth grass surface.