

BRITISH GLIDING ASSOCIATION

BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET    TNS 9/10/91

PART 1    Airworthiness "AGGRO" - Please add to the BGA 1991 Blue Pages.

- 1.1.    DG.400.    Tech/Note    826/24,    requires    special instructions of Hotellier control quick disconnectors, which suffer accelerated wear on S.L.M.G.'s due to vibration.    Tech/Note    826/24    introduces    several important Maintenance Manual revisions, including a 3 year life on fuel lines. Available from UK Agents. McLean Aviation, Rufforth Airfield, Yorks, YO2 3QA (0904 83653).
- 1.2.    SZD-30 "Pirat".    Bulletin BE-030/90 extends the life to 3200 hours. Beyond 2600 hours, the above bulletin restricts the Vne to 220 Km/h (118K) and removes the aerobatic clearance. Available from Anglo-Polish Sailplanes, Wycombe Air Park, Marlow, Bucks. (0628 39620).
- 1.3.    Mosquito (T/Note 303-18) Hornet (T/Note 206-16).    "Wear of the Mounting Studs on the canopy lifting/tilting frame, caused by the guide bracket on either side of the fuselage". This information supplements TNS 7/8/92 item 1.8 and requires Annual Inspection.
- 1.4.    T.21. Undemanded Aileron Disconnect - due to fracture of the rod-end between the two control sticks. First reported in TNS 6/83. Sketch herewith illustrates the failure, probably induced by treading on it? Why not paint it bright RED?
- 1.5.    Mosquito - elevator hinge bolts not secured, and migrated outwards! Reported by a competitor at Shenington Comps.
- 1.6.    SZD 50 "Junior" - could include all gliders from similar sources - split pins found to be very brittle, with one leg missing! Reported by Brian Weare, Dunkeswell, N. Devon.
- 1.7.    Slingsby Dart.    Defective Panel in the wing root - Sketch from Ian Hipkin - Highlands G.C. is self explanatory.
- 1.8.    OLY 2 - Cracks in Elevators & Ailerons.    Sketch from Ian Hipkin may have been omitted from TNS 7/8/91.
- 1.9.    Tailfun 17E.    AD 91-134 herewith draws attention to deformation in the air brake system torsion tube. Service Bulletin 24-818 refers.

- 1.10. Janus + B & C. Tech Note 295-11 and A/D 81-98/2 extends the approved life time to 12000 hours - copies from UK Agents.
- 1.11. Cirrus & VTC Cirrus - change of elevator drive tube-replaced to eliminate flutter. FAA A/D 91-15-07, herewith is a reminder to comply with Schempp-Hirth Tech/Note 256-6 (1982). Imported "Used" Sailplanes may not have been modified!
- 1.12. Turbo- Ventus - Decompressor Failure. The defect reported in TNS 7/8/91 item 2.5. is deemed to be unique to the glider in question, and in no way caused a recent accident.
- 1.13. Gap Sealing Tape Can Endanger Your Health. The elevator sealing tape lifted on an ASTIR CS77, and elevator control was seriously degraded. Tape had been less than adequately replaced after repair by previous owners. (Midlands G.C. Report).
- 1.14. Grob G.102 Astir Wing Spigot Replacements. The BGA Technical Committee will require compliance with Grob Service Bulletins TM 306-29 and TM 320-5 (issued 11/10/90), although the compliance date of 31/12/92 can be extended by negotiation with the BGA.
- 1.15. Extracts from CAA General Aviation Service Information Leaflets (G.A.S.I.L.S.).
- (a) "Uncertified and Unqualified Maintenance" is self explanatory.
  - (b) Worn clevis bolts - are dangerous.
  - (c) Corroded exhaust valves.
  - (d) G.R.P. Construction - disbonding.
  - (e) Compass Maintenance.
- 1.16. LS7 Mis-Rigging - Can cause an Aileron Foul. The attached Note was circulated to owners 24/9/91.
- 1.17. ASH 25/ASH 25E, LBA A/D's 9-147/91/46 herewith, require inspection of the ELEVATOR ENGAGING ACTUATOR.
- 1.18. ASW 22. LBA A/D 91-148 herewith, requires inspection of the ELEVATOR ENGAGING.
- 1.19. GROB G.109 S.L.M.G.'s. CARB HOT/COLD SHUTTERS.  
IMMEDIATE INSPECTION

Failure, due to fatigue, of the shutter plate valve, dramatically reduced the air mass-flow to one carburettor, and caused serious loss of power on take-off!

Previous failure modes in this component have included (a) badly worn bearings, and (b) fracturing of the roll-pins securing the shutter plate to the shaft.

An immediate, and periodic, inspections of this vital component should be made by removal of the air cleaners.

Reported by BGA to CAA following incident report by Oxford Sport Flying's G-BRCG at 1500 Hrs total time.

PART 2. General Matters.

- 2.1. Slingsby T.61(F) "Venture" - Civil Certification. BGA circular on how to proceed is repeated herewith, part of which may have been omitted from TNS 7/8/91.
- 2.2. Rollason RS1 Engines in T.61(F)'s. An Engine Manual is available from Rollason Aircraft & Engines Ltd, Shoreham Airport, Shoreham-by-Sea, W. Sussex. BN43 5FF (0273 46280) - who will also provide product support.
- 2.3. Energy Absorbing Cushions. Several recent accident reports to the BGA have specifically commented on the damage limitation of cushions. How well is your arse protected.
- 2.4. "Eagle" Ex Air Cadet Winches. These twin-drums are often good bargains at (say) £1,000.00, are are even better when re-engined with 7 litre VS.

BGA have a list of MOD/Disposal/Auctioneers, attached hereto.



AIRWORTHINESS DIRECTIVE

BEA TNS(9/16/91)

91-148 Schleicher

Date of issue:

SEP. 1991

ASW 22

Affected sailplane:

German Type Certificate No. 351

ASW 22

Serial no.s: 22001 thru 22022

22024 thru 22027

22029 thru 22033

22035 thru 22037

22039 and 22046

Subject:

Inspecting the elevator engaging (on the top of the fin) in accordance with the instructions given in the Flight and Maintenance Manuals.

Action and compliance:

Action to be accomplished in accordance with ASW 22 Technical Note No. 7 during next annual CofA inspection, but before or on January 1, 1992, at the latest. Where a glider has had rather long transports in its trailer, the action must be done prior to the next take-off. Thereafter during each annual CofA inspection.

Technical publication of the manufacturer:

Schleicher ASW 22 Technical Note No. 7 of June 28, 1991, which becomes herewith part of this AD and may be obtained from Messrs.

Alexander Schleicher

bH & Co.

Segelflugzeugbau

D-6416 Poppenhausen

Federal Republic of Germany

Accomplishment and log book entry:

Action to be accomplished by a skilled person or an approved service station and to be checked and entered in the sailplane's log by a licensed inspector.

AIRWORTHINESS DIRECTIVE

TNS 9/10/91  
TAIFUN

91-134 FFT

Date of issue:

22. JULI 1991

Affected motorglider:

German Type Certificate No. 818  
Type Taifun 17 E,  
all serial numbers up to and including 1100

Subject:

Air brake system / Air brake torsion tube

Reason:

Deformation of lever between master brake cylinder and torsion tube and/or fracturing of welded seam between lever and torsion tube.

Action and compliance:

Action to be accomplished in accordance with Service Bulletin No. 24-818,  
Measure 1: before the next flight  
Measure 2: during the next annual inspection but at the latest 31st December 1991

Technical publications of the manufacturer :

FFT Service Bulletin No. 24-818 of April 18th, 1991, which becomes herewith part of this AD and may be obtained from Messrs.  
FFT GmbH, Postfach 85, Flugplatz, D-7947 Mengen, Germany.

Accomplishment and log book entry:

Action to be accomplished by an approved service station and to be checked and entered in the motorglider's log by a licensed inspector.

AIRWORTHINESS DIRECTIVE

91-147 Schleicher

ASH 25

Date of issue:

SEP. 1991

Affected sailplane:

German Type Certificate No. 364

ASH 25 ✕ ✕

All serial no.s and "ASH 25 according to TN 1".

Subject:

1. Inspecting the elevator engaging actuator (on the top of the fin) in accordance with the instructions given in the manuals.
2. Revision to the Manuals on those paras covering the C.G. and the mass and balance.
3. Editorial corrections in the Flight and Maintenance Manuals.
4. Fitting a 24A-fuse into the battery cable for the optional battery in the baggage compartment in front of the spar.

Action and compliance:

Action to be accomplished in accordance with ASH 25 Technical Note No. 6 during next annual CofA inspection, but before or on September 30, 1991, at the latest. Where a glider has had rather long transports in its trailer, the action as per Point 1 must be done prior to the next take-off.

Technical publication of the manufacturer:

Schleicher ASH 25 Technical Note No. 6 of February 28, 1991,

which becomes herewith part of this AD and may be obtained from Messrs.

Alexander Schleicher GmbH & Co. Segelflugzeugbau, D-6416 Poppenhausen, Federal Republic of Germany.

Accomplishment and log book entry:

Action to be accomplished by a skilled person or an approved service station and to be checked and entered in the sailplane's log by a licensed inspector.

ASA/TNS/91/10/91

AIRWORTHINESS DIRECTIVE

91-146 Schleicher

ASH 25 E.

Date of issue:

2. SEP. 1991

Affected motor-glider:

German Type Certificate No. 858

ASH 25 E ~~AS~~ ASH 25.

All serial no.s

Except that Point 4 does not apply to the following nine serial no.s:  
25055, 25059, 25068, 25069, 25082, 25087, 25088, 25106, 25112.

Subject:

1. Inspecting the elevator engaging actuator (on the top of the fin) in accordance with the instructions given in the manuals.
2. Editorial corrections in the Flight and Maintenance Manuals.
3. Exchange of the Engine Manual.
4. Replacement of one hose sleeve in the flexible fuel tank system in the wing.

Action and compliance:

Action to be accomplished in accordance with ASH 25 E Technical Note No. 4 during next annual CofA inspection, but before or on September 30, 1991, at the latest. Where a glider has had rather long transport in its trailer, the action as per Point 1 must be done prior to the next take-off.

Technical publication of the manufacturer:

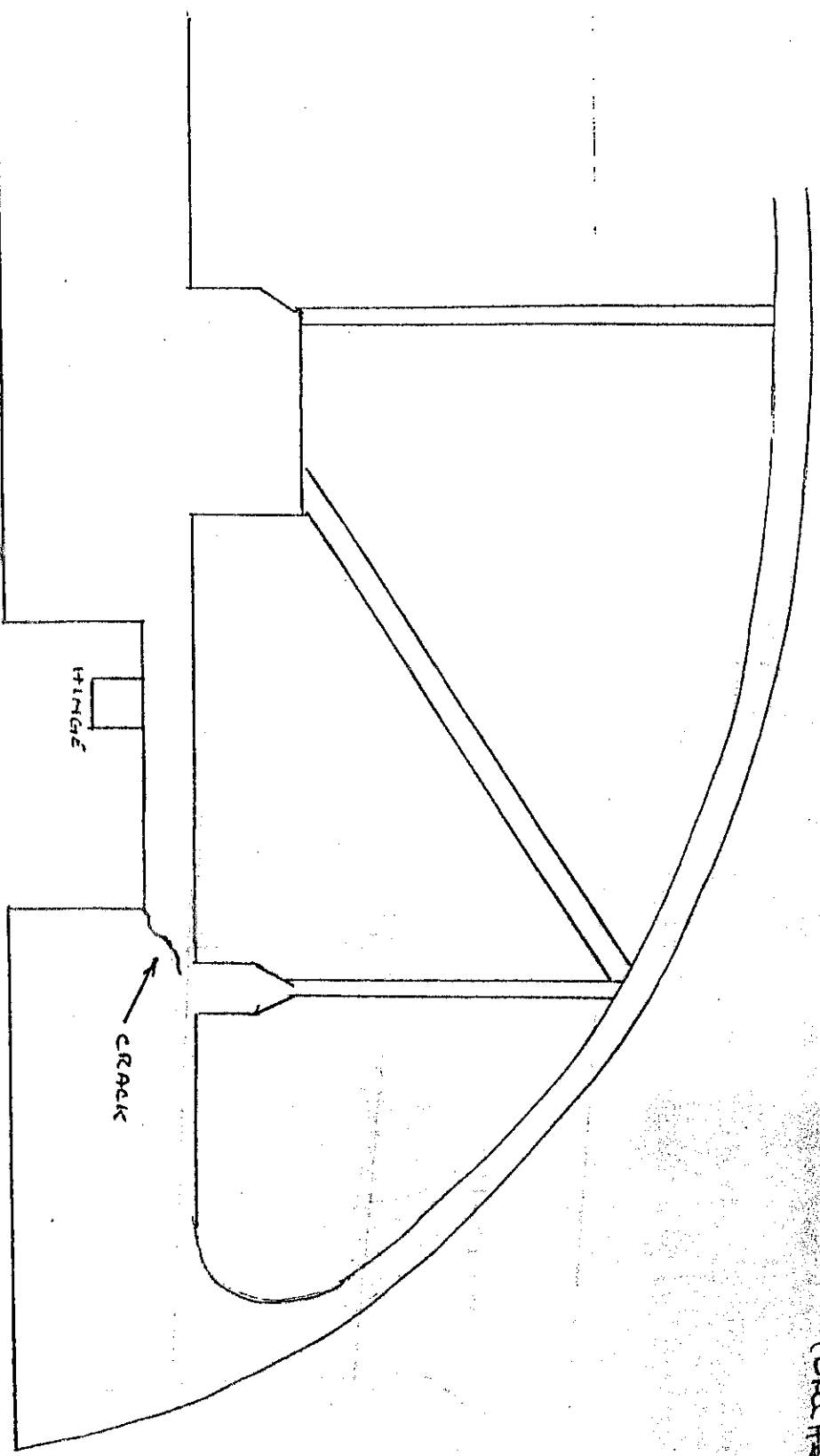
Schleicher ASH 25 E Technical Note No. 4 of February 28, 1991, which becomes herewith part of this AD and may be obtained from Messrs. Alexander Schleicher GmbH & Co. Segelflugzeugbau, D-6416 Poppenhausen, Federal Republic of Germany.

Accomplishment and log book entry:

Action to be accomplished by a skilled person or an approved service station and to be checked and entered in the motor-glider's log by a licensed inspector.



OLY 2  
TNS 7/8/91  
(DWH/ES)!!



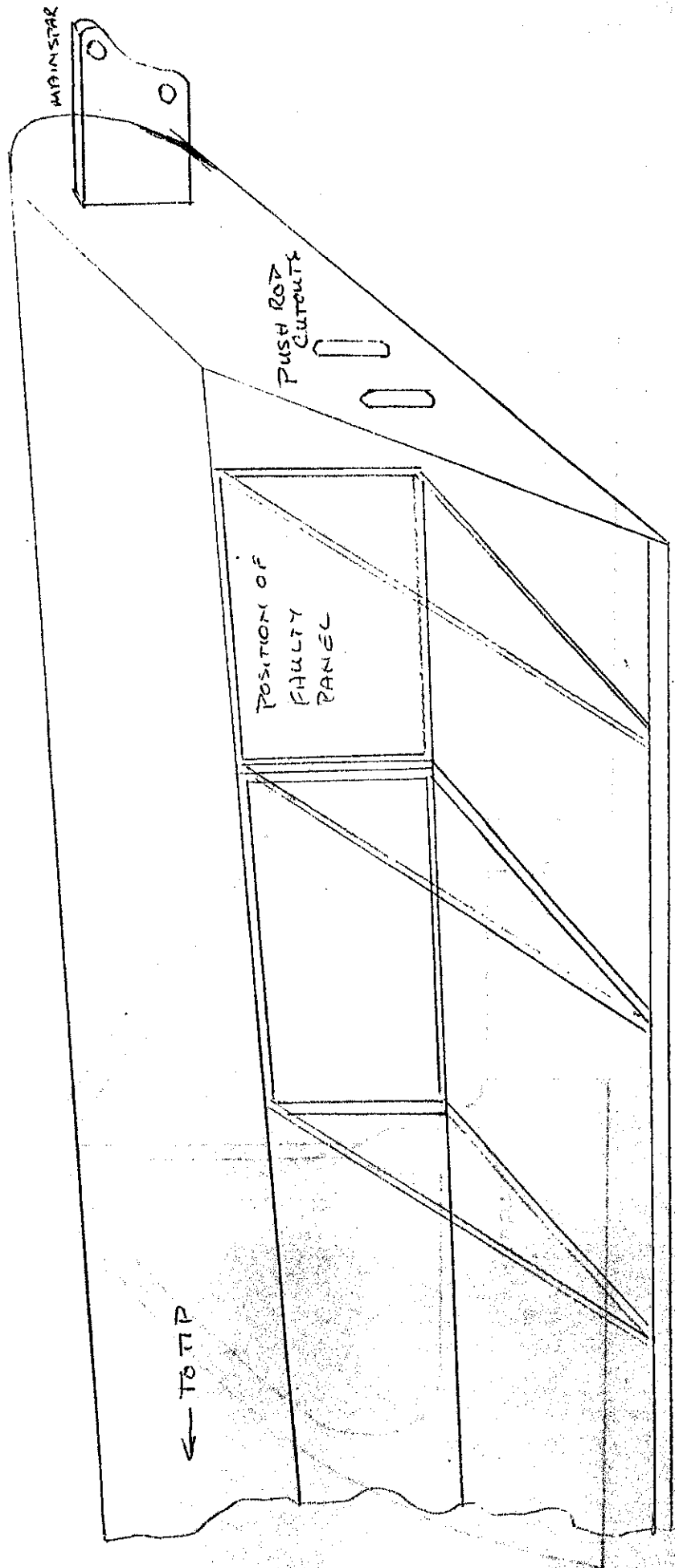
NOT TO SCALE

OLYMPIA 2B  
ELEVATORS / ALERONS  
CRACKS

for HIPKIN.  
HICKMAN'S (

1/12/91

DART 17-R



DART 17R WING ROOT

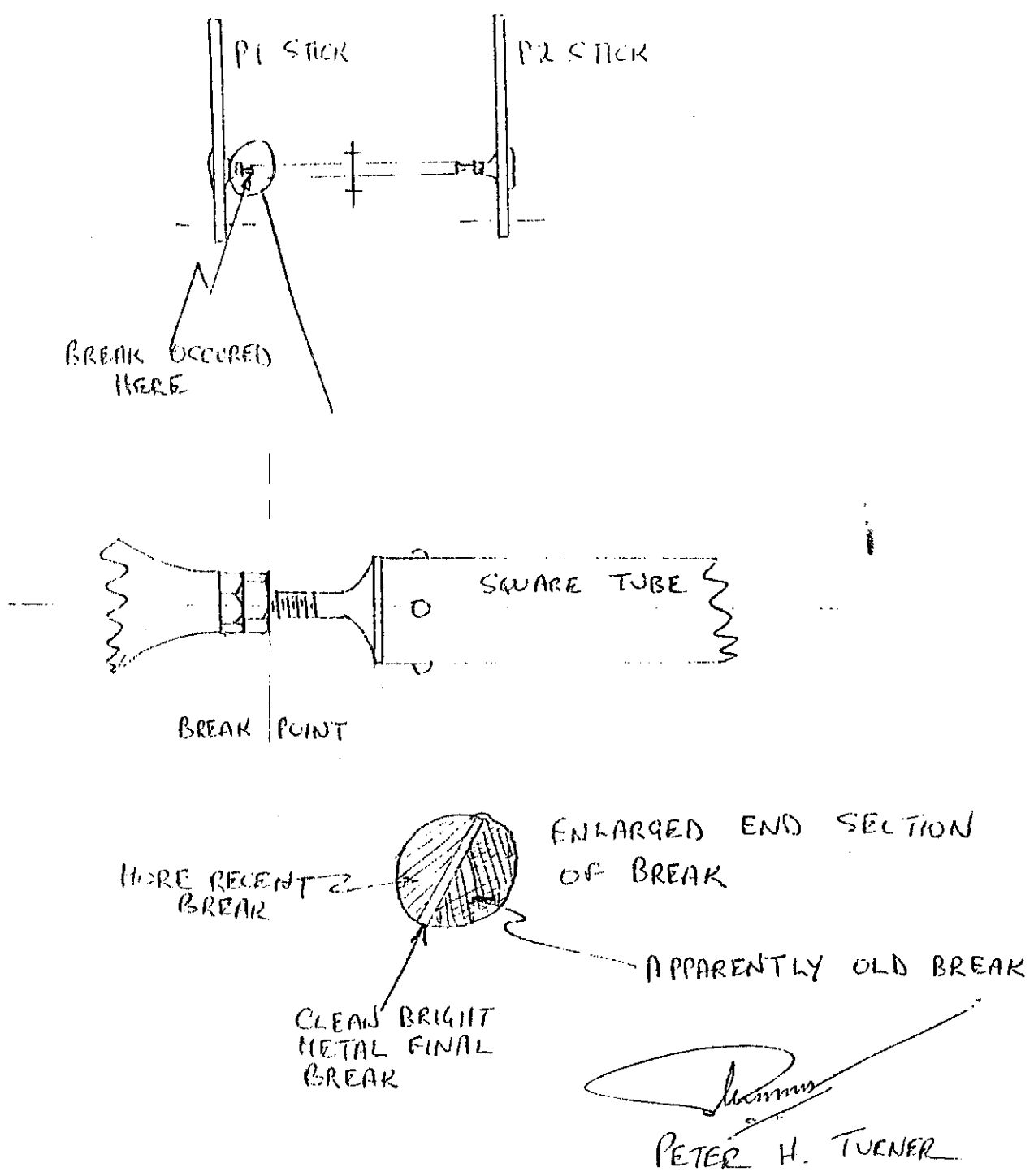
TNS 19/10/11  
TNS 16/83.

T.21  
BAMSTON

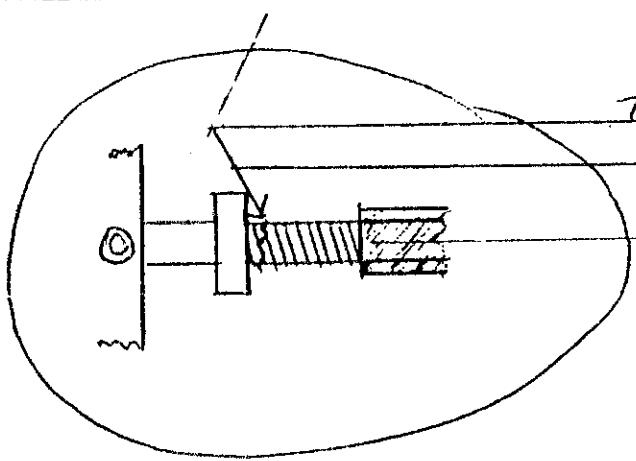
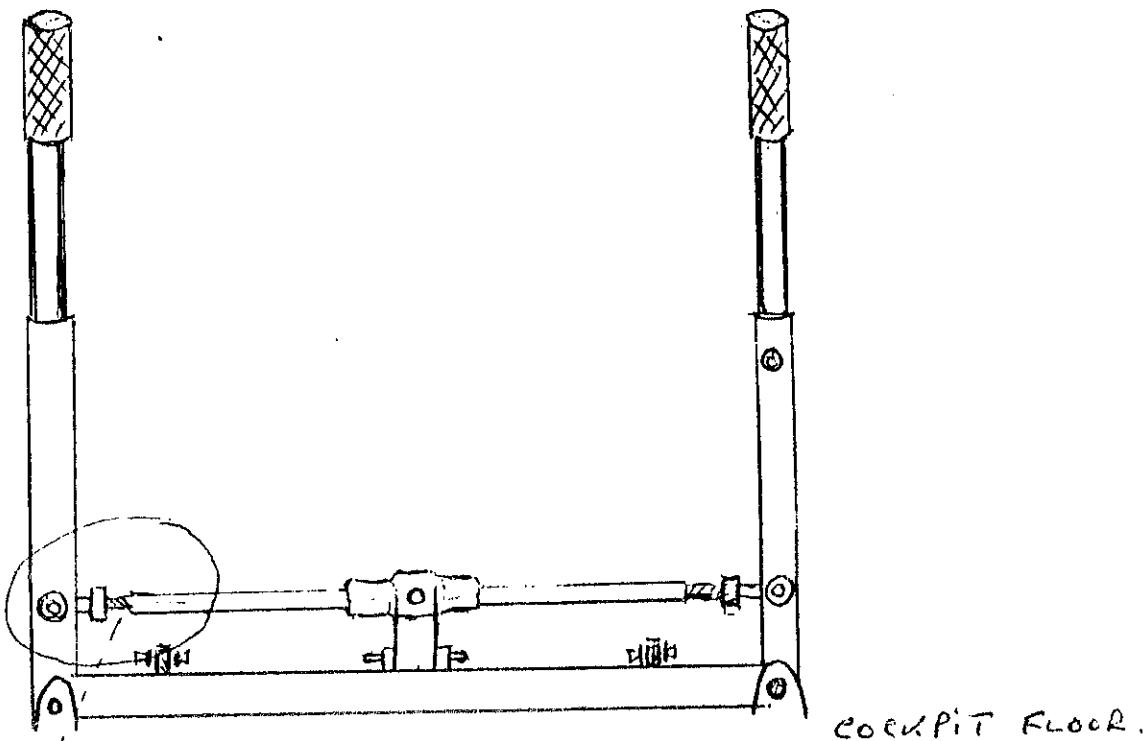
2

# T.21 AILERON ROD FAILURE.

I will, shortly, complete and return the Incident Report and will send the broken parts to yourselves for inspection if required. From visual in situ inspection there appears to be two separate previous cracks with the final break only about 1 mm wide. The crack has occurred at the maximum stress point where a thick section is suddenly reduced to a thin section and this thin section is also threaded at this point.



T216. DUKER CONTROL STICK.  
PORT SIDE CONTROL ROD.  
BROKE OFF - IN FLIGHT.



THREADED PART OF  
CONTROL ROD BROKE HERE.

DUKERIES G.C. SEPT. 1991

REPORTED BY  
C.E. MARSHALL. TECH.OF

Mr C Marshall  
Sherwood Lodge  
Grove Coach Road  
Retford  
Notts  
DN22 0PW



LS.7 Issued By BPA. 24/9/91

TNS 9/10/91

: Deflector at fuselage aileron automatic connectors

: Sailplane model LS7, all serial numbers

NT : Before next flight

: In one case the deflector was bent to the rear during careless rigging of the wings, that the aileron movement was blocked.

- : 1.) Check deflector for straightness. If bent, parts must be exchanged.
- : 2.) Enlarge fuselage cutout in connector region to upper rear according to included drawing 4I-86 to prevent jamming in case of inadvertently bent deflectors.

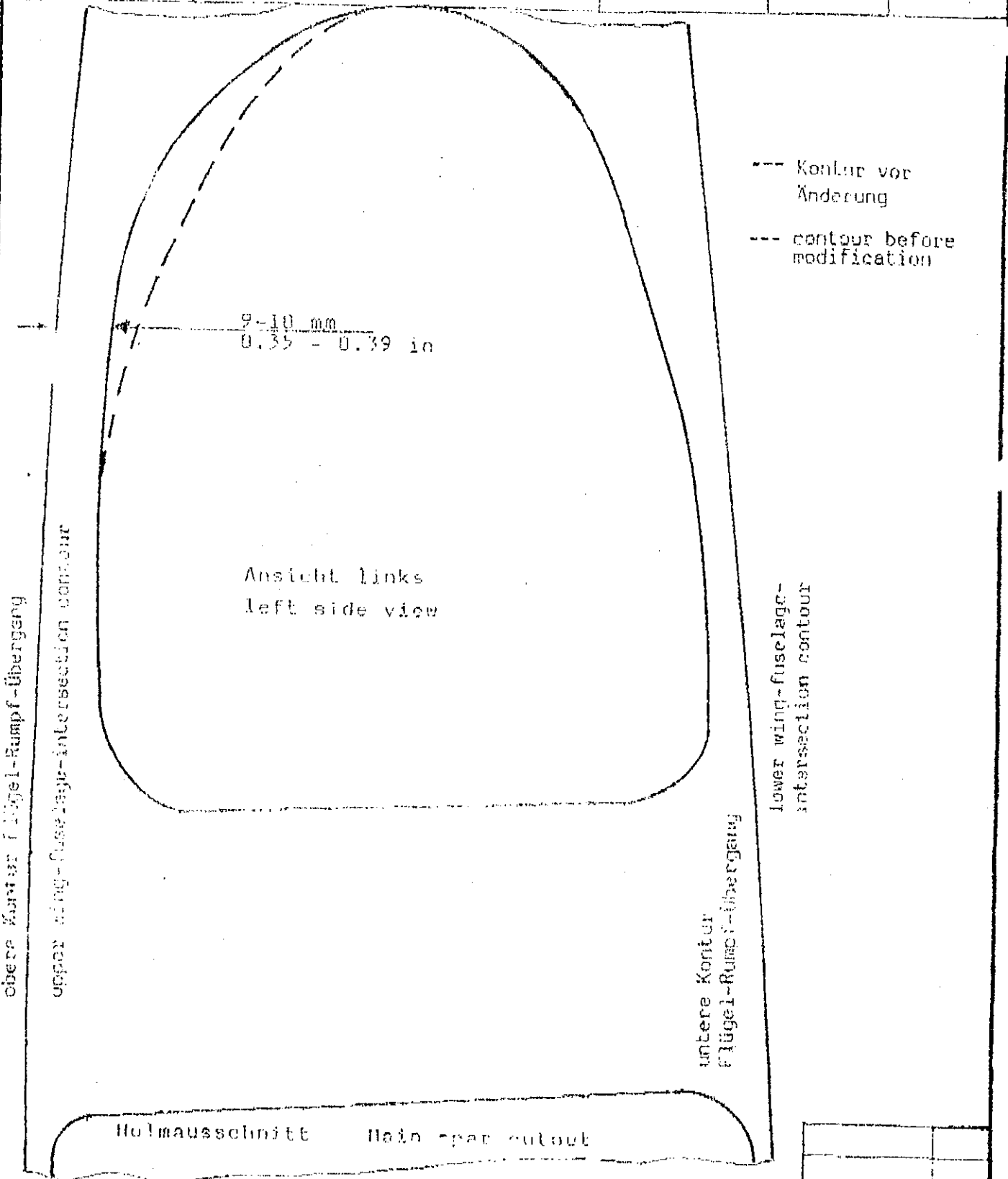
: not affected

: Accomplishment by skilled personnel of operator.  
Inspection and certification of accomplishment by licensed inspector in logbook and on TB-AD-Accomplishment List, page 14-1 of Instructions for Continued Airworthiness (Maintenance Manual).

LS.7.

P.T.O

Datum		Rolladen-Schneider Flugzeugbau GmbH		Maßstab: 1:1	
Ben		Benennung		Zeichn.-Nr.	
23.8.91		Hauptauschnitt Anlage cutout		41-86	
Gopr		IM/IB 7004			
23.8.91					
Oberflächenschicht:			Kontrollvor:		BZ-Nr.
Rißprüfung:			LS7		BZ-Nr.
Pos.	Stück	Benennung		DIN/LN	Werkstoff
					Zeichn.-Nr.




## 10. UNCERTIFICATED AND UNQUALIFIED MAINTENANCE

P/E

Aircraft Type : Auster 5  
Date : November 1990  
Engine : Lycoming O-290

The aircraft was taken to an M3 maintenance organisation for investigation of an engine power loss and excessively rich mixture. The aircraft had been returned to service some six months previously after an extended period out of use. The last flight prior to this had been in 1969. There was no log book history of the

engine being inhibited nor log-book evidence of major work prior to recertification.

Engineering examination showed that number 4 cylinder had been changed and an oversized cylinder fitted with a standard piston and a different valve train with no rotator cap fitted to the

exhaust valve. The inlet rocker arm foot was ground away completely and the exhaust rocker arm was a Lycoming O-235 adjustable type instead of the correct hydraulic tappet. Due to the incorrect rocker arm, the exhaust push rod was damaged and the push rod and rocker arm clearances were incorrect on both valves.

Cont ....

6

In addition, the carburettor was found to be different from that originally fitted at the recent C of A renewal.

CAA Comment:

The above is the likely conse-

quence of work on aircraft and engines being carried out by persons not qualified or experienced to do so. The extent of work which may be carried out by owners/operators of aircraft in Private Category C of A aircraft is clearly laid out in the Air Naviga-

tion General Regulations and any work outside that schedule must be carried out under the direct supervision of a licensed aircraft engineer.

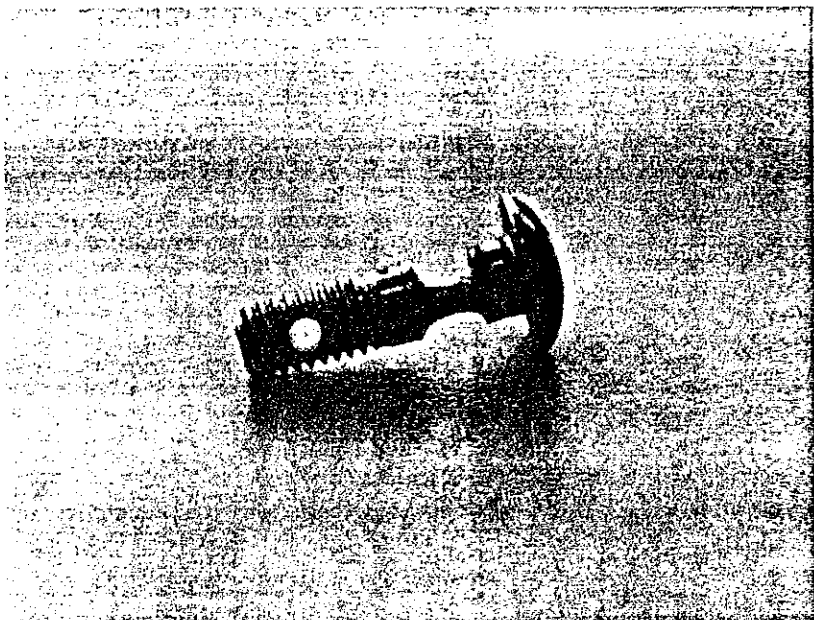
### E4. BADLY WORN CLEVIS BOLT

Aircraft Type : Piper PA28 Warrior  
Date : June 1991

During initial annual inspection for British Certification, excessive play was noted at the flap operating chain to lever connection. On removing the AN23-10 bolt it was found to have been worn to approximately 1/16 inch diameter. The operating lever was also slightly elongated at the attachment hole. There were no apparent signs of lubrication. The aircraft had recently completed an annual check in the United States and had been issued with an export C of A.

CAA Comment:

Several similar cases of excess wear of this bolt appear in the CAA database.



Cont ....

# Engineering Section

See also P/E items in main GASIL



GASIL

8/91

## E1. CORRODED EXHAUST VALVE

Aircraft Type : Piper PA28 Warrior  
Date : May 1991  
Engine : Lycoming O-320

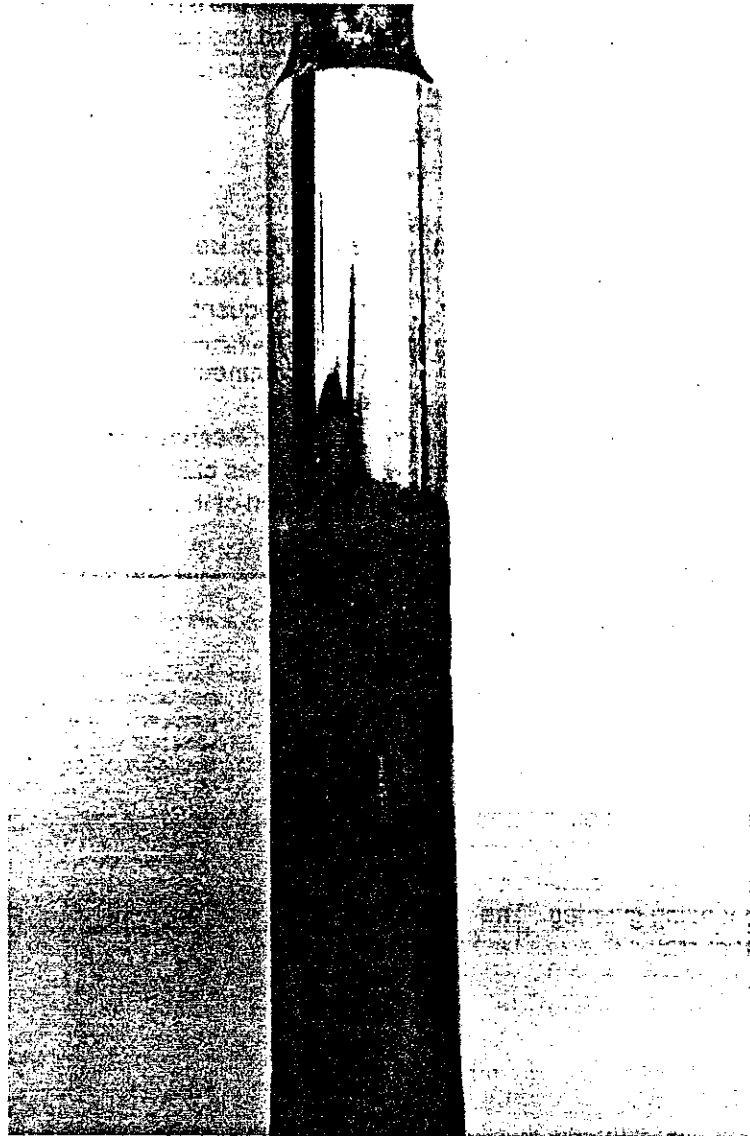
The aircraft had been out of use for some time and the engineer decided to remove one of the cylinders from the engine for inspection. Closer inspection revealed wear in one of the valves and upon removing the exhaust valve found the stem of the valve to be badly corroded in several places. The photograph illustrates this.

He then checked all of the exhaust valves and most of them were in a similar condition.

The engineer makes the comment that this situation could well occur on other aircraft which have limited utilisation or long periods when they are not flown.

CAA Comment:

Lycoming Service Letter L180A, dated 1 December 1978, details the measures to be taken to minimise such problems.



GRP<sup>E45</sup> →

Rutan  
Model Long-Ez  
Amateur Built

An on-site inspection revealed that the builder had failed to remove the dacron peel ply between buildups of the spar cap. The technical counsellor discovered the need to inspect the ends of the wing while doing peel strength tests on sample layups provided by the builder. The parts separated easily. When questioned, the builder was unable to explain why. Since the parts had been cut and trimmed, there was no edge frill to suggest an explanation. The clue to the cause was the texture of the surfaces which revealed a weave pattern too fine to be the 8oz glass called for in the plans. The builder thought that the peel ply was a part of the lamination.

E46

Alrpath Compass  
Model C-2200-L4-B

The compass could not be swung or calibrated properly and was found to be leaking. Disassembly of the compass disclosed that the compass face plate had been altered to install illumination provisions and a steel screw had been used to secure the light fixture in the top of the compass. Some unauthorised type of fluid had been used to fill the compass and the diaphragm was dissolved. According to the report, finding compasses in this similar condition is becoming more and more common. Part total time not reported.





The British Gliding Association Ltd.  
Registered No. 422605 England  
Registered Office as address

Administrator and Secretary: Barry Rolfe

Kimberley House, Vaughan Way,  
Leicester LE1 4SE  
Telephone 0533 531051  
Facsimile 0533 515939

## British Gliding Association

TNS 7/8/91

### B.G.A. TECHNICAL MEMO

#### SLINGSBY T61 (F) "VENTURES ACQUISITION & CERTIFICATION

#### NOTES FOR YOUR GUIDANCE

1. Two T61(F's) G-BSWL and G-BSWM have already been issued with Private Category Certificates of Airworthiness, so the CAA are familiar with this variant.

2. Check that you have a complete and serviceable aeroplane, by rigging it, and running the engine.

Record engine Max RPM, Oil Press at Max and Min RPM, Oil Temperature, Engine/Propeller vibrations, Fuel & Oil leaks and the absence of CO2 contamination.

3. Check the documentation received from M.O.D :-

(a) Original (Public Transport) Certificate of Airworthiness issued by CAA against the Serial Number of each aircraft prior to delivery.

(b) Log Books for records of hours flown on engine and airframe, and for any modifications.

(c) Pilots - Handbook.

4. Register with the CAA using CAA FORM 1. Apply the registration letters to wing and fuselage strictly in accordance with CAA instructions. (ANO Article 3 & Schedule 1).

5. Install a Steel Name Plate in the cockpit, with owners name and address. (ANO Schedule 1(B) 3).

6. Determine the condition of the paintwork and fabric, and rectify as required.

Patron HRH The Duke of Edinburgh KG  
Vice Presidents Air Chief Marshal Sir Theodore McEvoy KCB CBE  
Christopher R Simpson MA LL.M.  
Roger Q Barrett  
Tom Zealley BA PhD  
Ben Watson MA FCA

7. Re-weigh if necessary and prepare weight and balance report.
8. Complete detailed inspections of airframe and engine, recording the inspections on BGA FORMS 267, 267M.
9. Check compliance with Mandatory Modifications and Inspections. Ref BGA 1991 Compendium and latest TNS.
10. Flight test to BGA FORM 267 FT under "A" Conditions of the ANO.
11. Swing compass and fit correction cards.
12. Complete CAA FORM 202L and CAA FORM 3 (available from BGA office).
13. Apply for Radio Licences (if fitted).
14. Send to BGA cheque for £346.00, together with :-
  - (a) Original C.of.A. - photo copy
  - (b) BGA Form 267  
BGA Form 267M  
BGA Form 267FT
  - (c) Weight & Balance Report.
15. Obtain and make-up-to-date :-
 

Engine Log Book	CAP 339	} from CAA &
Airframe Log Book	CAP 398	} Aviation Shops
16. Product Support: Slingsby Aviation, Kirbymoorside, N. Yorks, (0751-32474) have agreed to provide support.
17. The Hoffmann Propeller Type HO-11-150-B-70L, is the only type certificated for the T.61 (F), as approved by Airworthiness Approval Notes (AAN's) 13928, 16605 and 16606.

R.B. STRATTON  
Chief Technical Officer

BGA TNS/9/10/91

REMINDER

BW 91-16

SCHEMPP-HIRTH KG.  
AIRWORTHINESS DIRECTIVE  
SMALL AIRCRAFT

CIRRUS

91-15-07 SCHEMPP-HIRTH: Amendment 39-7070. Docket No. 91-CE-17-AD.

Applicability: Cirrus and Cirrus VTC sailplanes (serial numbers 1 through 183, with or without a Y suffix), certificated in any category.

Compliance: Required within the next 30 calendar days after the effective date of this AD, unless already accomplished.

To prevent tail flutter that could result in complete loss of control of the sailplane, accomplish the following:

(a) Replace the 8mm diameter drive tube on the elevator drive lever with a round bar in accordance with drawing Cirrus No. 30.011/1 - Elevator Drive Axle of Schempp-Hirth Technical Note No. 265-6, dated April 27, 1982.

(b) Determine the elevator hinge moments and weights using the criteria on page 27 of the Cirrus service manual. If the moments and weights exceed the published criteria, prior to further flight, accomplish the following:

(1) Remove the tail parachute from operation and perform the requirements in Action 3, a) through d), of Schempp-Hirth Technical Note No. 265-6, dated April 27, 1982.

(2) Install a mass balance on the elevator in accordance with drawing Cirrus No. 30.001/1 - Elevator mass balance of Schempp-Hirth Technical Note No. 265-6, dated April 27, 1982.

NOTE: Although not required by this AD, the pages referenced by Action 3 e) and Action 5 of Schempp-Hirth Technical Note No. 265-6, dated April 27, 1982, should be incorporated into the service manual.

(c) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Brussels Aircraft Certification Office, Europe, Africa, Middle East office, FAA, c/o American Embassy, 1000 Brussels, Belgium. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Brussels Aircraft Certification Office.

VEHICLE AUCTIONEERS(EARLE WINCHE)

<u>REGION</u>	<u>COUNTIES COVERED</u>	<u>VEHICLES</u>	<u>AUCTION COMPANY</u>
1.	All of Scotland including the Islands	All types	Kinross Motor Auctions Bridgend, Kinross KY13 7RN Tel: 0577 62564
2.	Cheshire Cleveland Cumbria Durham Greater Manchester Humberside Lancashire Merseyside Northumberland North Yorkshire South Yorkshire Tyne & Wear West Yorkshire	All types	Motor Auction Leeds Hillidge Road Leeds LS10 1DE  Tel: 0532 772644
3.	Wales Hereford Worcester Shropshire Staffordshire Warwickshire West Midlands	All types	ADT MOD PE Aston Down Stroud Glos GL8 8HT  Tel: 061 223 9179
4.	Derbyshire Leicestershire Lincolnshire Northamptonshire Nottinghamshire Bedfordshire Cambridgeshire Essex Hertfordshire Norfolk Suffolk	HGV and Plant     Cars and Light Commercials	ADT Tamworth Road Measham Burton on Trent DE12 7DY  ADT Boongate Peterborough Cambridgeshire PE11 5AH Tel: 0733 68881
5.	Avon Cornwall Devon Gloucestershire Somerset Wiltshire	All types	ADT MOD PE Aston Down Stroud Glos GL8 8HT  Tel: 061 223 9179
6.	Berkshire Buckinghamshire East Sussex Greater London Hampshire Kent Oxfordshire Surrey West Sussex	All types	ADT MOD PE Aston Down Stroud Glos