B.G.A. TECHNICAL COMMITTEE

TECHNICAL NEWSHEET

TNS 5/6/84

PART 1 AIRWORTHINESS "AGGRO" (Please add to the 1984 "Yellow Pages"

1.1. T.21 (Sedbergh) Elevator Final Drive became disconnected in flight. All owners were alerted 1.5.84 to check for the security of the clevis pin and for the possibility of the Terry Safety-pin becoming detached if the clevis pin is too long and fouls in the slot in the tailplane. This item should be included in the D.I.

1.2. KA 21 Front Tow Release Cable failure Tech. Note 10 (TNS 3/4/84) has been made mandatory by LBA A/D 84/2. One case of failure has been reported in U.K. (A.T.C.). Whereas the Rear cockpit cable is connected directly to the hook, and the Front release takes a secondary role, it is highly desirable that the priority be changed, making the Front release cable the primary system.

1.3. GROB 109A (Motor Glider) Canopy Lock The spring retaining mechanism should be checked to ensure that the canopy cannot become inadvertently unlocked. A case of unlocked canopy on take-off has been reported by C.A.A.

1.4. VEGA - Debris in the wings fouls controls. Two cases have again been reported this year.

1.5. VEGA - Rudder Pedal/Rudder Travel Rudder travel may be reduced when the rudder pedals are adjusted. Check for correct operation. (Reported by Chris Batty, Cotswold G.C., to Slingsby's).

1.6. VEGA - Rudder Cables damaged at tailwheel retraction hinge point. A self-tapping screw had penetrated the rudder cable outer tube. (Reported by C. Batty to S.E.L.)

1.7 PIK 20 Series Rudder Travel constrained by rudder pedal adjustment.Pedal adjustment stops should be set to achieve full rudder travel. (Reported by Martyn Wells).

1.8. TWIN-ASTIR Rudder Cables damaged by "sawing" into the "S" tubes on the pedal assemblies. If pedals are stiff to adjust, damage as described is highly probable. Inspect on D.I.

1.9. ASW 19/19B Elevator Flutter L.B.A. AD/84/65 herewith, has been mailed to all registered owners (24.5.85), and imposes a VNE of 108 knots pending modification to elevator balance, as described therein. (Reported to B.G.A. by New Zealand Gliding Association) .

1.10. BOCIAN Spar Root Inspection Further to TNS 3/4/84 (item 1.11), a more specific diagram is attached herewith, kindly supplied by Lasham Gliding Society.

1.11. LIBELLE Trim Spring Cracked Sketch of this defect kindly supplied by A.W. Cox.

1.12. BLANIK Canopy Jettison found inoperative. Periodic jettison tests, and such maintenance as may be required, should be applied to all Blaniks a.s.a.p. (Reported by P. Wooller - Blackpool and Fylde G.C.).

1.13 BLANIK Undercarriage Lugs cracked As reported previously, assemblies should be inspected/repaired as necessary to avoid expensive damage. (Reported by P. Wooller - Blackpool and Fylde G.C.).

1.14. PIRAT Main Wheel Hub Plates cracked at bolt holes. (Recurring defect reported by P. Storey, South Wales G.C.).

1.15. PARACHUTES of U.S.A. Origin F.A.A. AD/84/06/05 may apply to parachutes (personal) circulating in the U.K. Copy attached.

1.16 GENERAL AVIATION SAFETY Information Leaflet (G.A.S.I.L 5/84). Extracts herewith.

(a) Rallye 180 T - Cracks in tailplane
(b) Robin (HR 100/200) - corrosion
(c) Dangers of tow ropes

1.17 MOGAS OPERATION (C.A.A. NOTICE No. 98)

Please display NOTICE BOARD copy attached as seperate sheet.

1.18 Propeller Blade Failure (Metal/Wood/Composite). A partial blade failure has occurred to a factory repaired blade on Grob 10) (A). INSPECT DAILY.

1.19 BOCIAN Elevator Horn attachment rivets sheared. Check a.s.a.p. for security of these attachments, failure of which could lead to serious airworthiness problems (Reported by Eric Rolph).

1.20 KA 2/KA 6/KA 7/KA 8 Cracks in Rudder Pedals (Re-enforcing modifications). Sketch attached herewith may be applied where defects are discovered by inspection (T.E. Macfadyen, Cotswold G.C.).

PART 2 GENERAL MATTERS

2.1. Extension of Service Life. The following have been extended from 3000 to 6000 hours subject to ½ life inspection:-

(a) Grob (all series) (TM 306/24 and 315/26 refer)
(b) Janus (TN 295/11 refers)
(c) Std. Cirrus (TN 278/28 refers)

2.2. KA 21 Product Improvements

(a) Automatic Elevator Connection is introduced by Tech/Note 11.

(b) Extension of Trim Ballast to 13 pieces, is introduced by T/Note 13. (Details from U.K. Agents).

2.3. NEW TYPES Certificated by B.G.A.

(a) D.G. 300
(b) Std. Jantar 3
(c) ASW 20BL/CL Series, subject to temporary speed limitations recommended by manufacturer pending full L.B.A. certification.

2.4. GROB 109B C.A.A. Airworthiness Approval Note 18396 grants U.K. certification in the Private Category, and details additional placarding, fuel gauge and tachometer calibration, and weight and balance data which must be displayed. (Copies from C.A.A. / B.G.A. / or Soaring Oxford Ltd.)

2.5. U.K. Registered Aeroplanes - Owners Name Plate Schedule 1 (B) of the Air Navigation Order requires an indestructible steel plate to be secured in the cockpit area, to assist identification in case of accident. Please check for compliance at L.A.M.S. inspections.

2.6. Daily Inspections (L.A.M.S.) The Air Navigation Order has been amended to make 'Check A' Daily Inspections, a legal requirement. (Repeated from TNS 3/4/84).

R.B. STRATTON,
CHIEF TECHNICAL OFFICER
5th June 1984

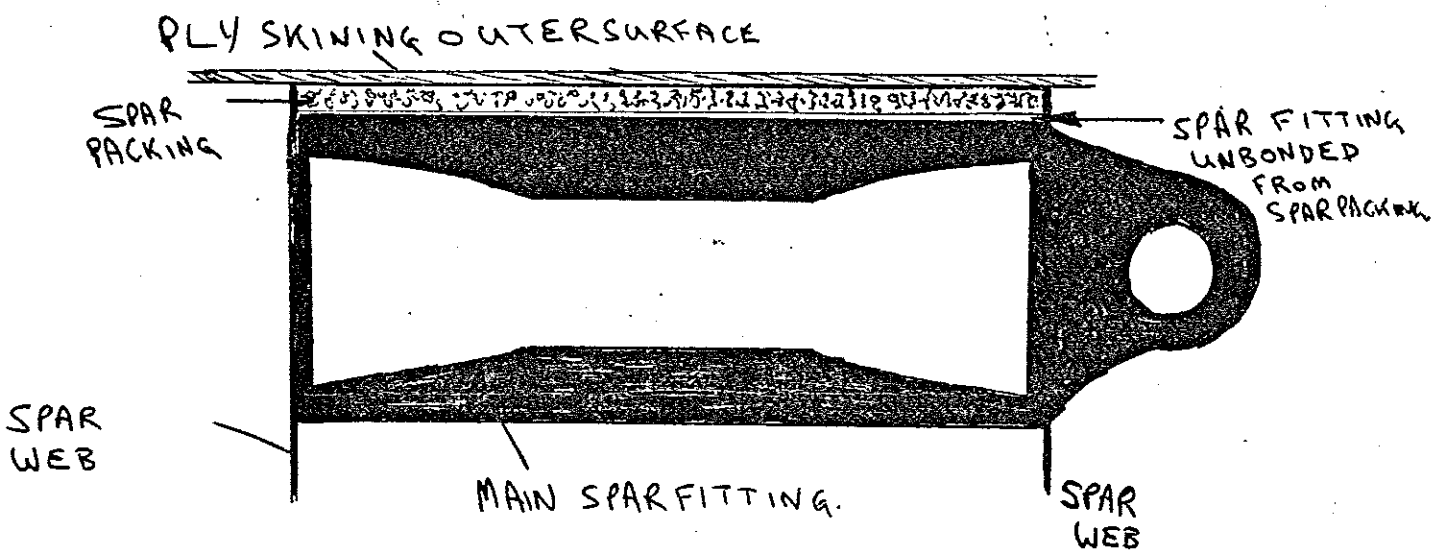
SKETCH.1.

BOCAN

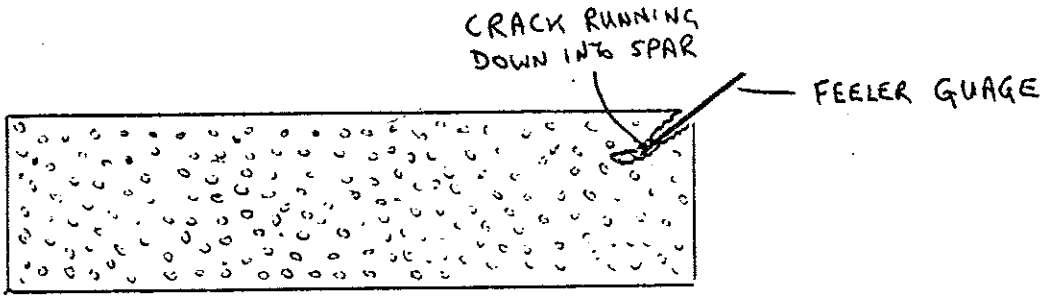
TNS/5/84

VIEW OF MAIN SPAR FITTING FROM ROOTEND.

BOCAN



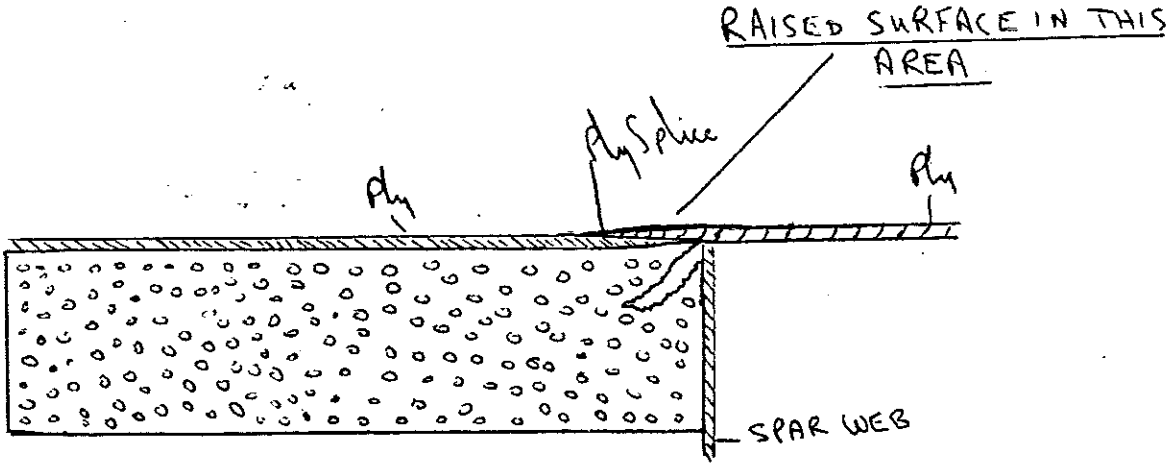
SKETCH 2.



X-SECTION VIEW OF SPAR

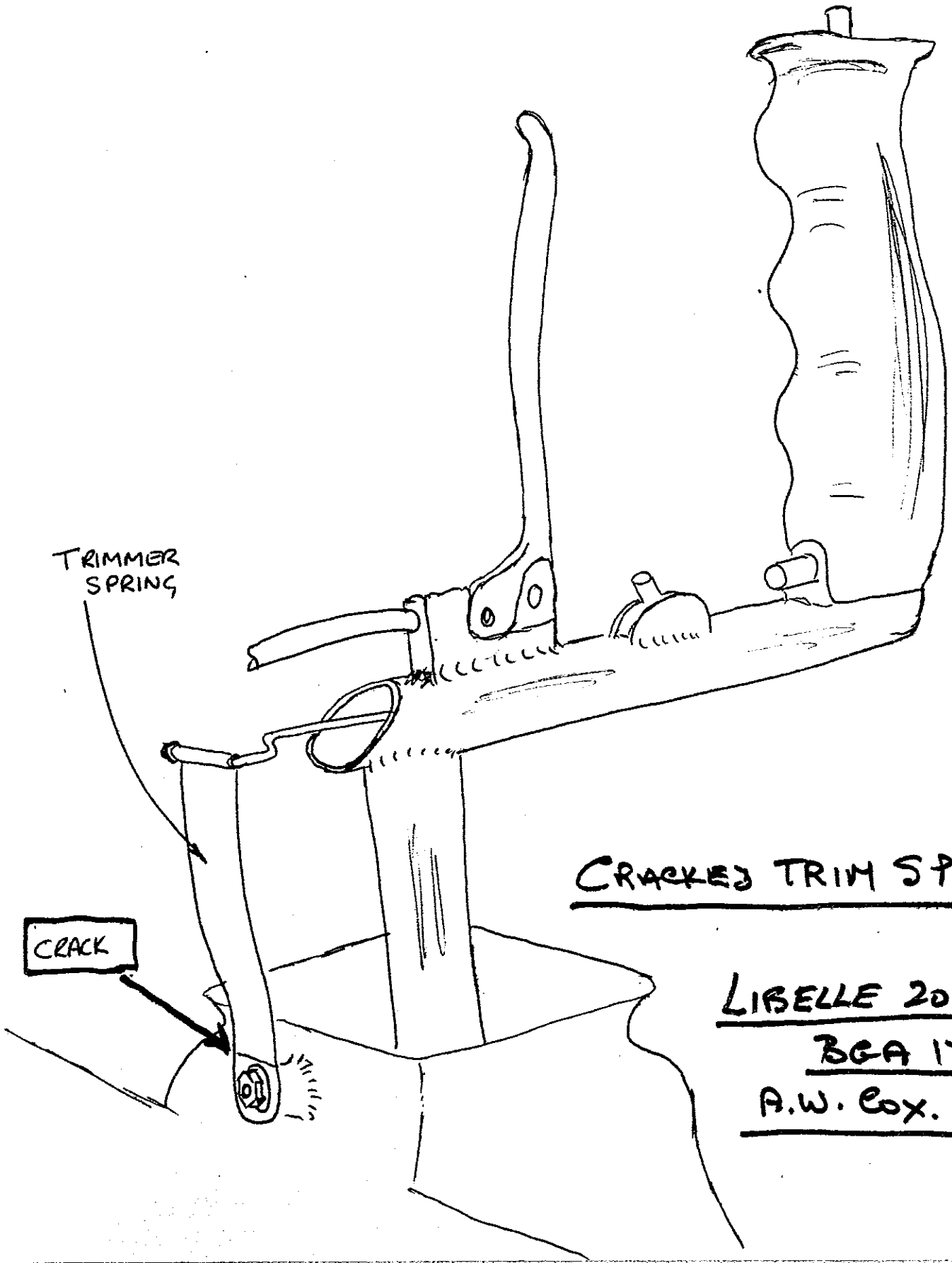
SKETCH 3.

X-SECTION VIEW OF SPAR SHOWING RAISED OUTER SURFACE



LASHAM. APRIL 1984

TNS 5/6/84.



CRACKED TRIM SPRING

LIBELLE 201B
BGA 1768.
A.W. Cox. May 84

TNS | 5/6/84

3-RING INCORPORATED
(Parachute Harnesses Manufactured Under TSO-C23B)
Airworthiness Directive
Volume I

84-06-05 PARACHUTE HARNESSES MANUFACTURED UNDER TSO-C23B: Amendment 39-4839. Applies to all of the following manufacturer's parachute harnesses using the 3-Ring Inc. release system:

Adventure Loft, Inc.
Altitude Shop
Bill Coe
The Chute Shop
Flying High
LLB Enterprise
National Parachute Supply, Inc.
Nytech Inc.
Para Flite, Inc.
Para Phernalia
Pioneer Parachute Co., Inc.
Reltny Parachute Service
Rogersport
SSK Industries Inc.
Thomas Sports Equipment LTD
Westgaard Parachute Enterprise
Aerotech Inc.
The Annex
Bureau of Land Management, Rec Whse
Embury Sky Systems
G.Q. Security Parachutes, Inc.
McLaughlin Para Center
North American Aerodynamics
Parachute Associates, Inc.
Para Gear Equipment Co.
Para Wing SA
Ray Hara C/O Cazer Para Loft
Relative Workshop, Inc.
Sky Supplies
Strong Enterprise, Inc.
Weckbecker
Westway Parachuting Enterprise

Compliance: Required prior to next jump, unless already accomplished.

To prevent possible fouling of a reserve parachute canopy by a main canopy which cannot be separated from the harness, accomplish the following:

(a) Visually inspect the harness to determine whether or not it incorporates a 3-Ring Inc. release system, and if incorporated, whether or not the large ring of this assembly is identified by either Part Number RW-1-82 or RW-1-83.

(b) If either finding of the inspection in paragraph (a) is negative, no further action is required.

(c) If both findings of the inspection in paragraph (a) are positive, replace or test the large rings in accordance with 3-Ring Safety Bulletin No. 3 dated February 15, 1984.

(1) Replace defective rings or identify acceptable rings in accordance with the instructions in this bulletin.

(d) Replacement and testing of the large rings must be accomplished by an FAA certified Parachute Rigger, an FAA certificated Parachute Loft or the manufacturer of the parachute harness involved.

BGA TNS/5/6/84

TO ALL OWNERS.
25/5/84

Airworthiness Directive

84-65 Schleicher

Date of issue:
May 4, 1984

ASW. 19 - 19B

Affected sailplane:
German Type Certificate No. 308
Schleicher ASW 19 und ASW 19B
Serial number 19001 until 19402, except 19019 and 19210.

Subject:
Horizontal Tail

Reason:
Tailplane flutter

Action:
Action 1: Immediate Reduction of V_{NE} to 200 km/h, installation of an appropriate placard and indication of the temporary speed limit by a radial red line on the airspeed indicator.

Action 2: Modification of tailplane shape according to the Technical note No. 17.

Compliance:
Action 1: Prior to the next flight
Action 2: Not later than July 1, 1984.

Technical publication of the manufacturer:
Schleicher Technical Note No. 17 of March 23, 1984 which becomes herewith part of this AD and may be obtained from Messrs. Alexander Schleicher, Segelflugzeugbau, D-6416 Poppenhausen, Federal Republic of Germany.

Accomplishment and log book entry:
Action 1 may be accomplished by a skilled person and stated in the sailplane's log book.
Action 2 is to be accomplished and checked by an approved service station and entered in the sailplane's log by a licensed inspector.

BRITISH GLIDING ASSOCIATION
KIMBERLEY HOUSE,
VAUGHAN WAY, LEICESTER.
TEL. LEICESTER (0533) 51051

Sheet 1 No. of sheets: 4	ASW 19 Technical Note No. 17	*Alexander Schleicher* *Segelflugzeugbau* *6416 Poppenhausen*

Subject: Continued airworthiness; precautions against elevator flutter.

Affected gliders: All ASW 19 and ASW 19 B; serial numbers 19001 thru 19402 with the exception of 19019 and 19210.

Compliance: Action 1 immediately.
Action 2 by June 1, 1984, at the latest.

Reason: Following a flutter case in New Zealand (crossing a competition start line at high speed) preventive measures against symmetric horizontal tailplane flutter are recommended, as the inspection procedures after belly, wingtip or crop landings according to Technical Note no.16 appear not to be sufficiently effective.

A flutter analysis for the horizontal tailplane of the ASW 19, using latest measuring and computer equipment, shows that flutter cases are possible, if a low elevator control circuit frequency (caused by hidden damages and/or high additional masses on the control stick and/or play in the control circuit) combined with an unfavorable spanwise mass distribution of the elevator matches with the horizontal tailplane bending frequency.

A further flutter calculation showed that a trimming of the elevator trailing edge mainly in the tip region (see sketch on sheet 4 and also corrected drawing 190.35.51) removes the possibility of above flutter cases within the approved speed limits, even if the elevator control circuit is weakened or partially damaged.

Action:

1. The maximum permissible speed immediately has to be limited to 200 km/h (108 kts). This speed limit is valid until action 2 is accomplished.
   The temporary speed limit has to be marked by a red radial line on the dial of the airspeed indicator and must be indicated by a placard "Maximum speed 200 km/h (108 kts)" next to the airspeed indicator.

BRITISH GLIDING ASSOCIATION
KIMBERLEY HOUSE,
VAUGHAN WAY, LEICESTER.
TEL. LEICESTER (0533) 51051

2. According to the sketch on sheet 4 of this TN, the elevator trailing edge is cut or grounded off and reshaped on the lower surface.

If you find when doing this job that the trailing edge glue joint between upper and lower surface of the elevator is no more sufficient, both surfaces have to be sanded and re-glued with the following glue mixture:
- 100 parts in weight of Epikote 162
- 38 parts in weight of Epikure 113 (= Laromin 260)

and the following filler mixture:
- 10 parts Aerosil
- 5 parts cotton flocks FL 1f
- 15 parts microballoons, white.

The glue joint must be at least 7 mm wide, but no more than 12 mm.

The width of the glue joint can be checked by means of a strong light in a dark room as well as by testing it by knocking with a metal piece of about 50 g (e.g. bolt M 8, ~ 80 mm long) on the trailing edge.

The mass reduction by trimming and reshaping the trailing edge has the same effect as a much heavier mass balance in front of the elevator hingeline. Therefore, it is important to remove as much weight as possible from the trailing edge and to reduce a necessary glue joint to a minimum.

For the same reason the reshaped lower surface should be smoothed by using only a minimum of filler. For preserving use white paint (original Lesonal 03-69469 with 10 % of hardener) or acrylic paint out of a spray can. Also here it is important to use as little material as possible.

After the modification of the trailing edge has been accomplished, the airspeed indicator marking at 200 km/h (108 kts) must be removed and so also the speed limit has to be cancelled.

Material: Glue mixture and paint; see above chapter "Action 2.".

ASW 19
Technical Note
No. 17

Alexander Schleicher
Segelflugzeugbau
6416 Poppenhausen

Weight & balance:

By the modification of the elevator its mass is reduced altogether by about 110 g. This change in mass is uncritical despite its long distance from the C.G. of the glider.

On the other hand, the tailheavy moment of the elevator is reduced by about 1,2 cmkg. As however the factory inspection records show that there is no elevator with a tailheavy moment of less than 7,2 cmkg, the minimum permissible tolerance can be exceeded in no case. (tolerance range for the tailheavy elevator moment: min. 6,0 cmkg; max. 9,0 cmkg). Therefore, a re-weighing of the tailheavy moment is not necessary.

Notes:

1. The modification according to this TN is included into the series production as of serial number 19403.
2. Action 1 according to this TN can be accomplished by the owner of the glider himself.
3. Action 2 (modification of the elevator) must be accomplished by a licensed aviation repair station and must be documented in the glider log book and in the inspection papers.

Drawings:

For this TN no.17 the drawing 190.35.S1 dated Oct.9, 1978, has been corrected and provided with the correction note "TM 17".

Poppenhausen, March 27, 1984

ALEXANDER SCHLEICHER
GmbH & Co.

(Gerhard Waibel.)

The German original of this TN has been approved by the LBA under the date of April 16, 1984, and is signed by Mr.SCHMALJOHANN. The translation into English has been done by best knowledge and judgement. In any case of doubt the German original is authoritative.

BRITISH GLIDING ASSOCIATION
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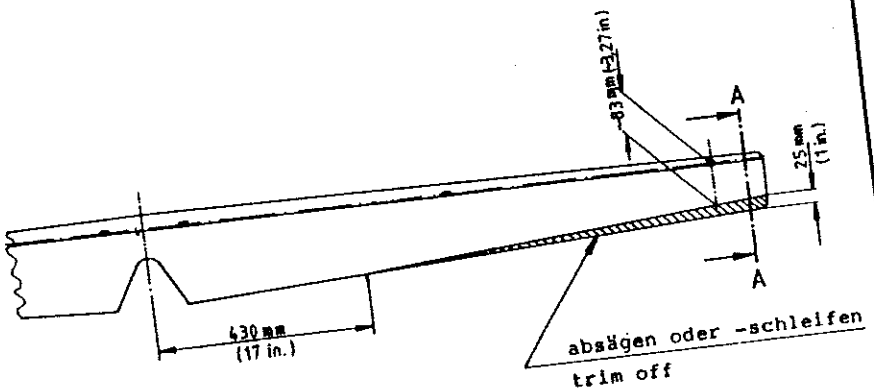
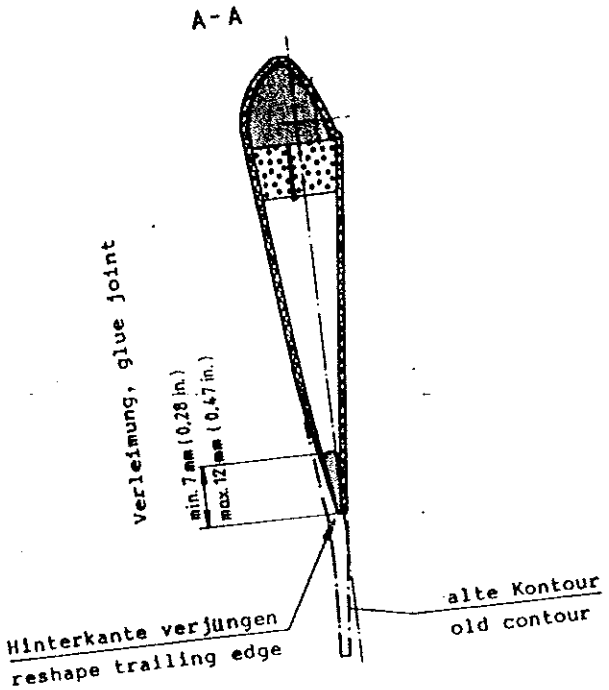
„Solo-Normdruck" 09 6181 83

ASW 19
Technical Note
No. 17

Alexander Schleicher
Segelflugzeugbau
6416 Poppenhausen





E Steinweller Fulda

to have coped very well with the situation.

GASIL 5/84 E
TNS 5/6/84

4. CRACKS IN TAILPLANE

Aircraft : SOCATA Rallye 180T
Date : March 1984

The aircraft was being inspected for its three year C of A renewal. It had flown 2503 hours as a glider tug with 1224 hours since the previous C of A. The right-hand tailplane lower attach bracket was found to have a ¼" crack at the bend radius (Part No. 880.33.106.2). There were signs of movement on the tailplane spar and packing plate, although the bolts were tight. This may have been due to lack of "pinch" on assembly.

The tailplane front spar was found to have a 1" crack adjacent to the top right-hand bracket bolt hole in the spar face and flange. A companion tug aircraft was inspected and no faults found.

The reporter noted that SOCATA Service Bulletin 12/1 applies only to MS 880, 885 and 886 aircraft. He suggests frequent inspection with a bright torch and mirror.

CAA Comment:
CAA are investigating in conjunction with the manufacturer.

Date : March 1984
Engine : Pratt & Whitney PT6A-21

While cruising at FL 190 with 800 lb torque each side, the right-hand engine torque rose to 1225 lb. Closure of the throttle had no effect, so the engine was shut down and the aircraft diverted to Amsterdam.

It was found that the coupling between the fuel control unit and the fuel pump was broken and the FCU drive was jammed. There were no external signs of fuel leakage. Further investigation revealed a leak through the fuel pump drive seal into the FCU chamber. This destroyed the lubrication of the spindle bearing which subsequently broke up, jamming the mechanism and shearing the drive.

The aircraft had flown a total of 2308 hours, but between September 1982 and October 1983 it flew only 47 hours, with a further 207 hours between October 1983 and the occurrence date.

a ~~Cessna 172, and found the~~

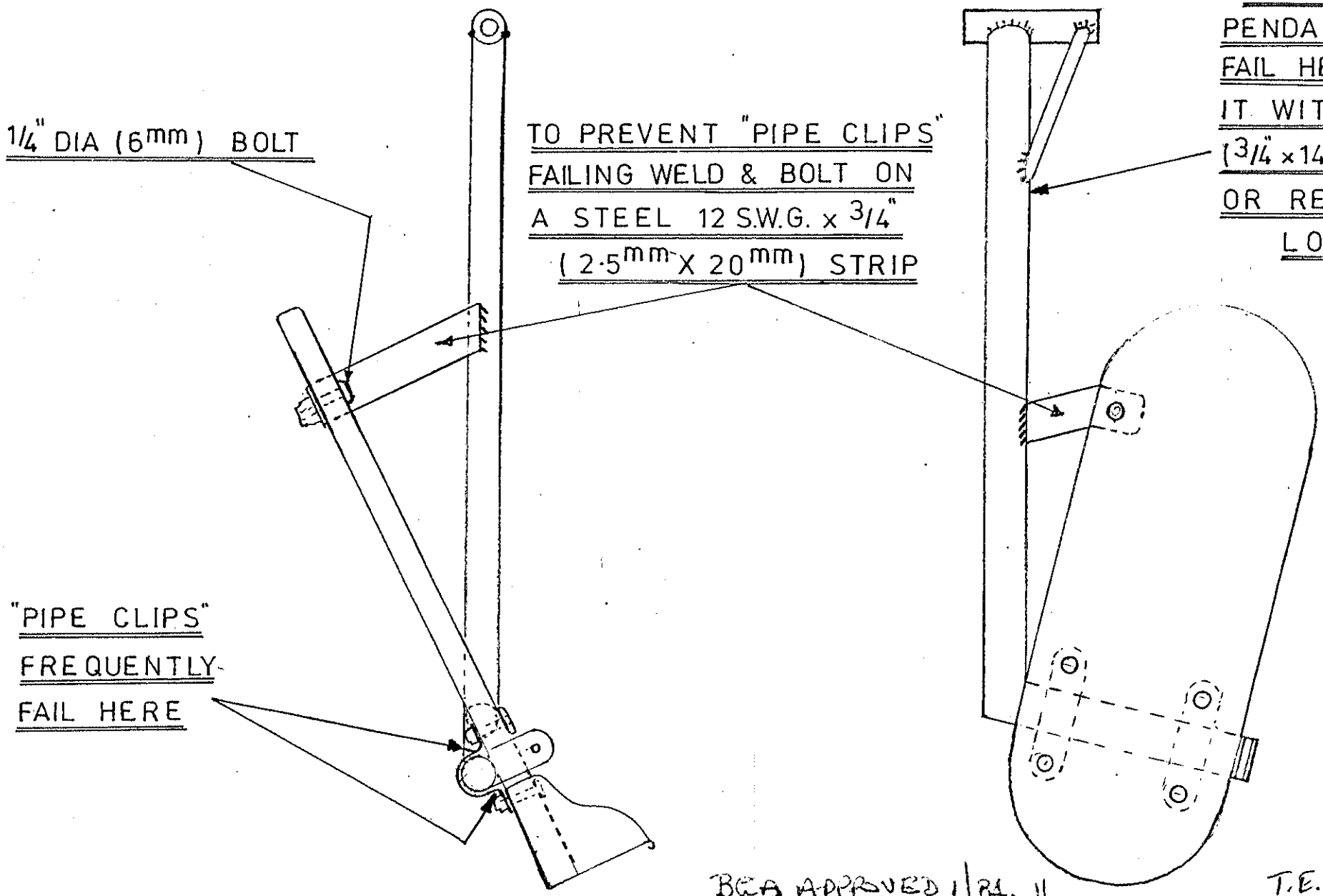
6. DANGERS FROM GLIDER TOW LINES P

A few years ago a serious incident occurred following a glider towing operation by a civil aircraft at a RAFGSA aerodrome. A coach windscreen was shattered by a glider tow-cable and a coach passenger received injuries from glass splinters. More recently a similar incident has occurred at another military aerodrome, when a landing civil tug-aircraft trailed a tow-cable low across the front of a coach at about windscreen height. The coach was on the nearside lane of a dual carriageway travelling north when the tow-cable passed about 10 feet ahead, then struck the central reservation and was subsequently dragged across both lanes of the southbound carriageway. Fortunately, no one was hurt, and no damage was caused to vehicles although at the time a large volume of traffic was passing in both directions.

These incidents serve to remind pilots engaged on glider towing operations of the need to maintain a safe clearance above obstacles, vehicles and persons when landing with the tow-cable attached, making due allowance for the length of cable trailing below the aircraft, and recognising that the vertical length of the cable will increase as the approach speed is reduced.

Ka 2 / Ka 6 / Ka 7 / Ka 8 RUDDER PEDAL MODS

TNS/5/6/84



BCAR APPROVED 1/84.

T.E. Macfadyen 1/6/

B.G.A. TNS 5/6/84 NOTICE BOARD

MOGAS OPERATION (C.A.A. NOTICE No. 98)

"HOT" OPERATION PRECAUTIONS

There is increasing evidence that recent deliveries of Mogas contain more volatile elements of propane etc., which may create rich mixture situations on start-up and pre-take-off, after "hot soaking".

C.A.A. Notice No.98 (Issue 4 April 1984), gives the following guidance, which should be brought to the attention of all operators of tugs and motor gliders.

"After any prolonged period of "heat soak" at low fuel flow (e.g. hot-day ground idling) establish the availability of full power before commencing take-off."

B.G.A. Note

This precaution applies particularly (but not exclusively) to aircraft fitted with engine driven fuel pumps. (Lycoming engines are more susceptible because of the rear mounted fuel pumps, and because the carb is bolted to the engine sump).

The pre-take-off power check should be prolonged enough to clear "hot" fuel out of the entire powerplant system.

JUNE 1984