BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 11/12/98

PART 1 Airworthiness "AGGRO"

Please refer to the 1998 BGA Yellow Pages.

1.1. GROB G.103 (Twin Astir/Accro) Gliders - Partial Disbonding of the mounting plate for the front cockpit rudder pedals has been reported on G.103's operated by the Air Cadets and RAFGSA. Inspect a.s.a.p. and repair as necessary.

1.2. BOCIAN TRIM TAB DRIVE ATTACHMENT. A BGA Approved Modification has been produced by Mr. J.P. Fisher, copied herewith. (Drive failure has caused flutter Ref TNS 04/89 & 04/97).

1.3. ASH 26E. A/D 1998 - 21 Concerns "Rotor Cooling Air Fan" and requires replacement thereof.

1.4. STEMME 10 SERIES. A/D 1998-400 requires "Redesign of Wastegate Control and Exchange of Oil Tubes".

1.5. STEMME 10 SERIES. A/D 1998-323-2 requires Inspection of the Elevator Control Coupling. (TNS 7/8/98 refers but the above A/D is raised to Issue 2).

1.6. MOSQUITO Rudder Assembly Failure. Sketch from Any Darlington requires inspection a.s.a.p.

1.7. ASTIR CS - Elevator Restriction (increase in friction) was caused by migration of the upper undercarriage pivot shaft. Washer and circlip required to locate the pivot shaft had become detached. Reported by Ian Tunstall - Syerston.

1.8. SCHEIBE SF28A SLMG. Service Bulletin 770-23 (herewith) identifies cracks in the combined Aileron/Elevator Control System.

1.9. DG 800A - Unleaded Fuel. TN 873/8 draws attention to potential unleaded fuel incompatibility problems. (Repeat of TNS 7/8/97). May effect other SLMG's?

1.10. WATER IN FUEL TANKS. Extract from GASIL illustrates the problem.

1.11. WINTER FLYING - FROST ON THE WINGS & FROZEN FUEL SYSTEM. (GASIL Refers).

1.12. COWLING CATCHES. SLMG Drag with Motor Idling, GPS Glitch and heavy landing due to loss of air speed, are included in GASIL extract.

1.13. PLACARDS IN GLIDERS, SLMG's & Tugs must be maintained in a legible condition. Likewise instrument limitation markings.

PART TWO GENERAL MATTERS

2.1. FAA AIRWORTHINESS DIRECTIVES are now available on the Internet. FAA A/D's apply to USA produced products such as Bendix and Slick Magnetos. (Details herein).

2.2. CAA AIRWORTHINESS NOTICES (Now at Issue 123) must be available to all persons operating Tugs and SLMG's. They are available free of charge to registered owners from Westward Digital, 37 Windsor Street, Cheltenham, Glos, GL52 2DG. (Tel: 01242 235151, Fax: 01242 584139). BGA Inspectors must check SLMG's for compliance with AWN's.

2.3. BGA INSPECTOR RENEWALS. (£18) should have been completed by now, otherwise you will not be included in the 1999 Register, and will no longer be covered by BGA Insurance nor will you receive Technical Newsheets!

2.4. CAA PROCEDURES for the renewal of Certificates of Airworthiness - BCAR A4-3 are copied herewith for action as required.

2.5. OTTFUR HOOKS - letter from CAIR Aviation Ltd explains the latest position.

2.6. BGA INSPECTOR LOG BOOKS. It has been suggested that Inspectors should keep a record of the work they do in a simple Log Book, such as the BGA Glider Pilots Log Book. **Strongly recommended by the BGA Technical Committee.**

A HAPPYCHRISTMAS AND NEW YEAR TO ALL OUR READERS FROM THE BGA TECHNICAL COMMITTEE

Dick Stratton
Chief Technical Officer

LBA

Airworthiness Directive
1998-323/2

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Stemme

Effective Date: October 08, 1998

Affected:

Kind of aeronautical product:	Powered Sailplanes
Manufacturer:	Stemme, Berlin, Germany
Type:	Stemme S 10
Models affected:	all
Serial numbers affected:	model S 10: 10-03 up to 10-63 model S 10-V: 14-002 up to 14-030 and converted A/C from 14-012M up to 14-063M model S 10-VT: 11-001, 11-004 up to 11-013 and 11-015
German Type Certificate No.:	846

Subject:
Flight Controls - Cracking in the elevator control coupling

Reason:
During a static load test on the elevator control, which was conducted for design purposes, cracks were found in the longitudinal control coupling where there is a welded joint with the drive-off lever. Since the cracks were already well advanced, the part concerned would in all likelihood have failed within the next few operating hours with disastrous consequences.

In addition to the defective part there are other parts in the control system with a similar force intersection design which, therefore, also harbor the risk of failure. These are the other coupling shafts in the control well (wing flap and airbrake ctrl coupling) and the flap drive rocker and the flap/aileron interference shaft in the mixing unit in the middle of the fuselage.

Action:
Inspection, dye penetration crack test and replacement of longitudinal control couplings in accordance with the Technical Notes.

Compliance:
Depending on its total time-in-service (TIS) at the effective date of the origin AD (No. 1998-323 dated July 01, 1998) the affected aircraft is assigned to one of the following groups:
Group 1: less than 100 hours TIS
Group 2: 100 hours TIS and more

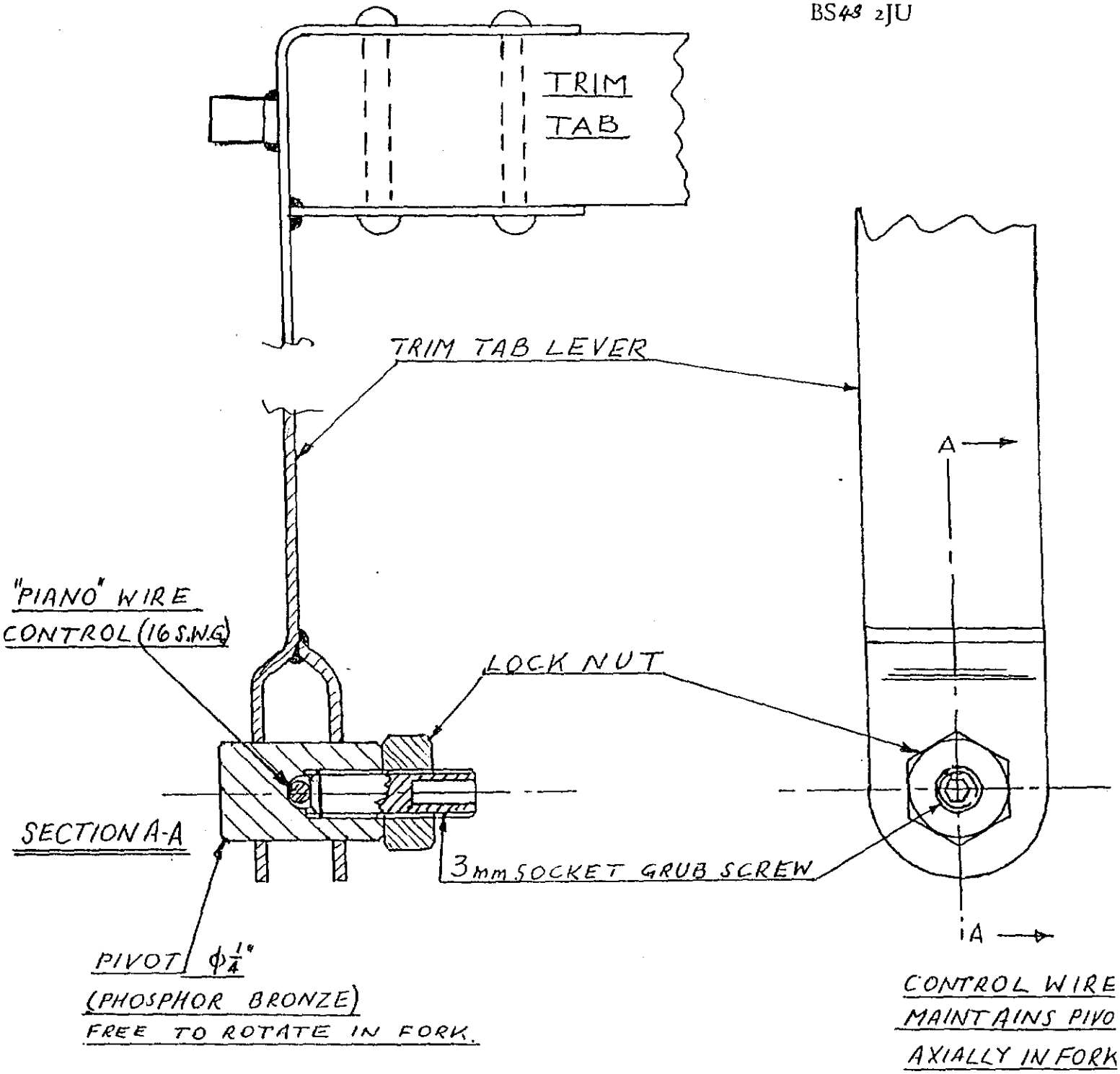
The required action may be performed in two steps with the following compliance times:

Inspection:
Group 1: not required
Group 2: before the next flight

Replacement:
Group 1: before reaching 100 hours TIS and
Group 2: within the next 100 hours TIS after the inspection has been performed, but not later than March 31, 1999.

Cartref
9 Barns Close
Nailsea
Bristol
BS48 2JU

TNS 11/12/98



TRIM TAB LEVER CONNECTION FOR BOCIAN 1E

MENDIP G.C.

BGA Approved Ref. BGA/Bocian/1/98.

M Fisher 20/10/'98

Airworthiness Directive 1998-391

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Schleicher

Effective Date: October 08, 1998

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	Schleicher, Poppenhausen, Germany
Type:	ASH 26 E
Models affected:	all
Serial numbers affected:	all up to 26133
German Type Certificate No.:	883

Subject:
Inspection and exchange of the „rotor cooling air fan according TN1", fitted at the engine AE 50 R made by Mid-West Engines LTD for the powered sailplanes which were modified prior to November 1997- Exchange of pages into the AFM.

Reason:
Contrary of the results of a 50 h test, it is possible that the white impellers according to TN 1 (Service Bulletin 001 issued by Mid-West) using a pulley wheel diameter of 32 mm can fail in operation due to cracks and breaking of the impeller blades. The failure can be favoured by engine operation with RPM above 6900.

Action:
Inspection and exchange of impellers and exchange of pages into the AFM in accordance with the Technical Note.

Compliance:
Inspection must be done before the next flight. Exchange of the impeller and the AFM-Pages in accordance with the instructions given in the Technical Note.

Technical publication of the manufacturer:
Alexander Schleicher ASH 26 E Technical Note No. 5 dated July 23, 1998 which becomes herewith part of this AD and must be obtained from Messrs.:

Alexander Schleicher GmbH & Co.
Segelflugzeugbau

D-36163 Poppenhausen

Federal Republik of Germany

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Airworthiness Directive 1998-400

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Stemme

Effective Date: October 22, 1998

Affected:

Kind of aeronautical product:	Powered Sailplanes
Manufacturer:	Stemme, Berlin, Germany
Type:	Stemme S 10
Models affected:	Stemme S 10-VT
Serial numbers affected:	11-004 up to 11-006 and 11-008 up to 11-013
German Type Certificate No.:	846

Subject:
ROTAX 914 F2/S1 Engine Controls - Redesign of Wastegate Control and exchange of oil tubes

Reason:
There have been found heat damages to the wastegate control cable with a malfunction of the wastegate control and damages in the turbocharger pressure oil tubes and their mountings.

Action:
Inspection/Replacement of the control cables with a reinforced outer cover and improved heat and inspection/replacement of the oil tubes and the mounting clamps in accordance with the Service Bulletin.

Compliance:
Action must be done until the next periodical inspection, but not later than the next 2 months after the effective date of this AD.

Technical publication of the manufacturer:
Stemme Service Bulletin No. A 31-10-034, Amendment-Index 01.a dated July 24, 1998 which becomes herewith part of this AD and may be obtained from Messrs.

Stemme GmbH & Co. KG
Gustav-Meyer-Allee 25

D-13355 Berlin
Federal Republic of Germany

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

TNs 11/12/98

DG *Flugzeugbau GmbH*
Postfach 4120, 76625 Bruchsal 4
Telefon 0 72 57 / 89 -0, Telefax 0 72 57 / 89 22
LBA anerkannter Herstellungsbetrieb IB 2
LBA anerkannter Luftfahrttechnischer Betrieb IIA 284
LBA anerkannter Entwicklungsbetrieb IEB 8

Technical note TN 873/8

Subject: Use of unleaded fuel, internal sealing of flaperon and rudder, manual revision

Effectivity: DG-800A, LA all serial numbers

Accomplishment: Instruction 1and 5: Prior to refuelling unleaded fuel, at latest by 01.10.97
Instructions 2,3 and 4: As desired

Reason:

1. Because leaded fuel will soon not be available, tests have been executed to find out whether it can be replaced by unleaded fuel. It was most important to check if the GFRP fuel tank would be damaged by some components added in high portions to the unleaded fuel, especially MTBE. In addition the drainer valve sealing ring designed for aviation gasoline may be affected. All other parts of the fuel system are from automotive origins and are therefore suitable for unleaded fuel.
   The tests showed that the GFRP fuel tank tolerates unleaded automotive fuel of present quality as well as leaded automotive fuel used in the past. AVGAS 100 LL was also tested and proved to be the least aggressive fuel.
   The drainer valve sealing ring is not resistant to automotive fuel and must be replaced.
   Moreover the Bombardier-Rotax company confirmed in the meantime that contrary to the manual, engines for motorgliders can be operated with unleaded automotive fuel with minimum 95 octane (RON).
2. To improve gliding performance installation of internal flaperon and rudder sealing is possible.
3. When securing with Loctite, some items must be considered, which have not previously been included in the maintenance manual.
4. Manual revision

Instructions:

1. Exchange of the drainer sealing ring for a sealing ring partno. 60504402.
   To accomplish this empty the fuel tank: Therefore use the separate electric fuel pump system and empty the tank through the tank filler opening.
   Note position of the drainer valve thread in the landing gear box, then remove the drainer valve using a 13 mm socket wrench. Press the drainer valve sleeve to direction „open" and dismantle the selaing ring using a pointed but not sharp edged tool. The new sealing ring can be installed without a tool: Put the ring over the flange edge, roll it down to the groove and check proper position of the sealing. Before reinstallation remove old sealing tape on the drainer's thread. Then roll up tightly minimum three windings with new sealing tape (winding direction clockwise when you look on the thread end). The sealing tape must not interfere with the sealing ring, after winding check operation of the drainer valve. When reinstalling the drainer valve take care to screw in deep enough to avoid interference with the landing gear. Refuel the fuel tank and check for leaks.

2. Instead of leaded automotive fuel with min. 96 octane (RON) as per flight manual leaded and unleaded fuel with min. 95 octane (RON), e.g. „EURO-Super", can also be used. Operating the engine with unleaded fuel „Super Plus" with 98 octane (RON) is not necessary and not recommended. If there is no unleaded fuel with 95 octane (RON) available (e.g. in USA) it is possible to mix unleaded fuel with min. 92 octane (RON) with AVGAS 100 LL, mixing ratio 50:50.

DG Flugzeugbau GmbH
Postfach 4120, 76625 Bruchsal 4
Telefon 0 72 57 / 89-0, Telefax 0 72 57 / 89 22
LBA anerkannter Herstellungsbetrieb IB 2
LBA anerkannter Luftfahrttechnischer Betrieb IIA 284
LBA anerkannter Entwicklungsbetrieb IEB 8

Empty the fuel tank for extended storage periods (more than 3 months). Don't use this fuel in the motorglider again.

3. Installation of internal sealing of flaperon and rudder: See maintenance manual p. 80.

4. Regard the new instructions for securing with Loctite. Check the lifetime of any Loctite in your posession

5. Exchange the following manual pages against the new pages dated march 1997, marked TN 826/35. Regard the marked changes.

Flight manual	Maintenance manual
0.1, 0.3, 0.4, 0.5, 2.6, 4.11, 4.16, 6.3, 7.7	1, 2, 3, 4, 21, 24, 53, 80, 92, 94

Material: Manual pages, s. instruction 5
Drainer valve sealing ring partno.6050 4402
Sealing tape for drainer valve thread 0,1x12mm DIN DVGW, partno. 7000 0370
Teflon-glassfabric for internal flaperon sealing part.no. 3000 3136
V-seal for internal rudder sealing part.no. 7000 0295
Talcum powder

Weight and Balance: Not affected

Bruchsal 4, den 10.04.1997

Swen Lehner

Author: Dipl. Ing. Swen Lehner

LBA approved:
The German original of this TN has been approved by the LBA under the date of 05. Juni 1997 and is signed by Mr. Fendt. The translation into english has been done by best knowledge and judgement.

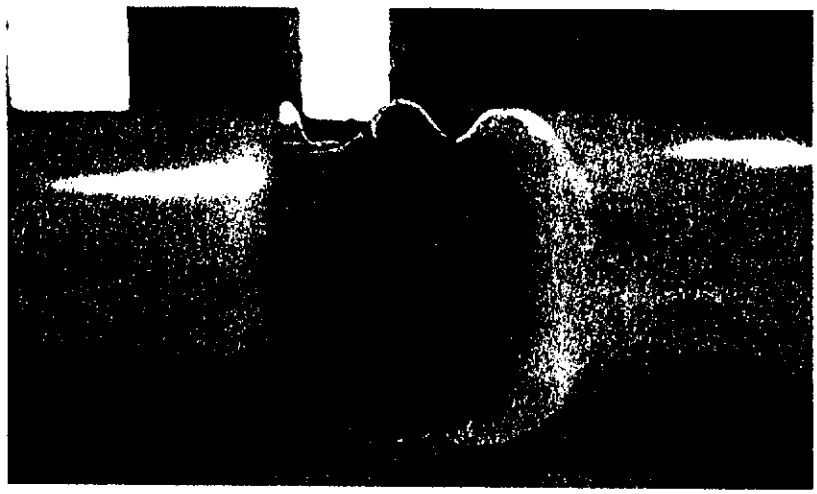
Wilhelm Dirks

Type certification inspector: Dipl. Ing. Wilhelm Dirks

TNS 11/12/98

PREFLIGHT PREFLIGHT PREFLIGHT

Type : Fournier RF5 (registration G-BAPA)
Date : September 1997 (from AAIB Bulletin 7/98)



Wing unfolded with lock engaged and wing locked

The pilot arrived at North Weald and recruited the assistance of two volunteers to pull the aircraft clear of the hangar. While parked, both wing sections had been folded and the two volunteers assisted in unfolding them. All appeared in order and the pilot then continued alone with the pre-flight checks, including the locking of the wings. An engineer who witnessed the take-off noticed the outer section of the right wing pivot upwards as the speed increased. Another witness saw the aircraft as it reached a height of about ten feet with the right wing fully folded. He reported that the aircraft climbed a further ten feet, flipped onto its back and struck the ground, bursting into flames. Several witnesses attempted to put out the fire with extinguishers but they were unsuccessful in their rescue attempts.

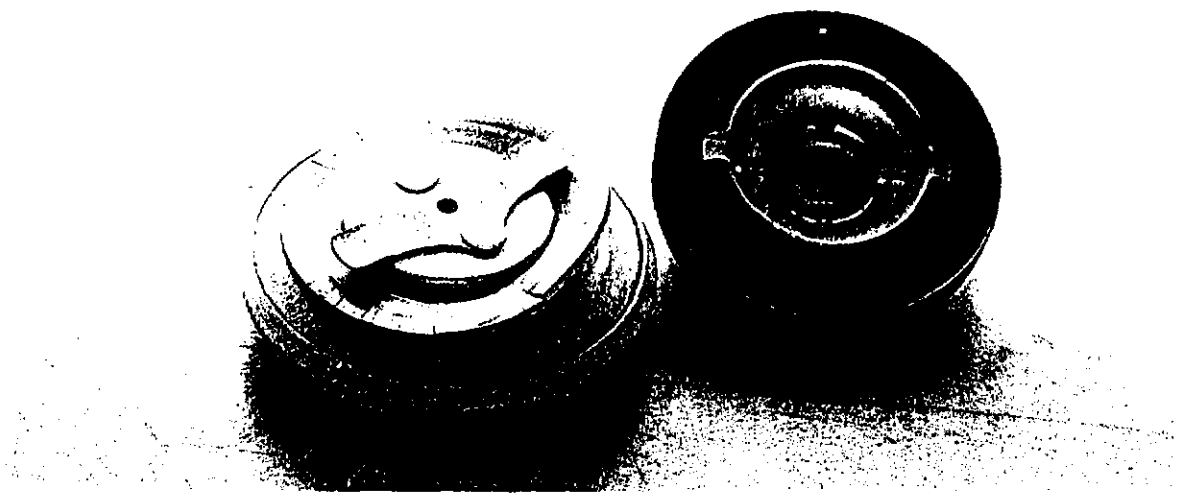
A later examination of the wreckage revealed that the right outer wing had not been locked to the main wing; however, the locking mechanism *was in the locked position* and the associated fairing in position over the joint. A similar type was examined and it was found that, as well as requiring two people to fold and unfold the wing, locking the outer wing section was difficult without a second person supporting the wing tip. It appeared impossible to fit the outer fairing with the locking mechanism in the unlocked position.
However, it was found that if the mechanism was in the locked position before the wing was unfolded, then the outer wing when unfolded, would not lie in alignment with the main wing and would adopt the appearance of a 'cranked wing'. In this position, it was virtually impossible to move the locking mechanism to the unlock position without a second person to support the weight of the outer section. It was possible to fit the outer fairing over the folding joint with the outer wing section in the 'cranked' position and the mechanism in the locked position although the wing outer section was not actually locked to the main wing. It was also discovered that the aileron on the outer wing section remained connected to the control column regardless of whether the outer wing section was folded, unfolded, locked or unlocked.

CAA Comment

A tragic event which reinforces the need for thorough pre-flight checks whenever we go flying. This is of course even more vital in aircraft such as the Fournier which fold for storage. The AAIB Bulletin also recalls a similar event in 1994 when the wing of an RF5 folded during take-off prior to lift off resulting in a ground loop and minor damage. In that case, as with G-BAPA, the outer wing had been fitted with the locking mechanism in the 'locked' position, but with the outer wing not locked to the main wing.

WATER IN FUEL

Aircraft Type : Fuji 200
Date : June 1998



The pre-flight checks and take off were normal until in the initial climb at 70 - 100, feet the engine coughed and lost power. Initially the pilot considered landing ahead but as some power was regained after pumping the throttle and realising that the remaining runway was too short, he continued in a climb. The pilot completed a tight circuit and landed.

The previous day the aircraft had undergone a 50 hour check and had been flown 40 minutes back to base without a problem. Investigation revealed that the right hand fuel tank contained water because the filler cap seal had perished. The aircraft had been left outside following its 50 hour check. All water was drained from the tank and 5 hours later was checked again. More water was found. The aircraft was parked in the hangar and checked yet again; even more water came to light. It was suspected that the water had been trapped by baffles in the tank and was slow to clear. A flight test was carried out using only the right hand tank after it had been ascertained that all water had been cleared. A new filler cap seal was fitted to the 2,270 hour aircraft.

CAA Comment

The consequences of worn or slack filler cap seals are very clear in this event, which fortunately had a happy ending. This is not an uncommon problem and where it is found that filler caps are easy to take off and on then it could be that the seal has deteriorated and a new one may need to be fitted. **If in doubt CHECK.**

COWL FLAP FAILURE

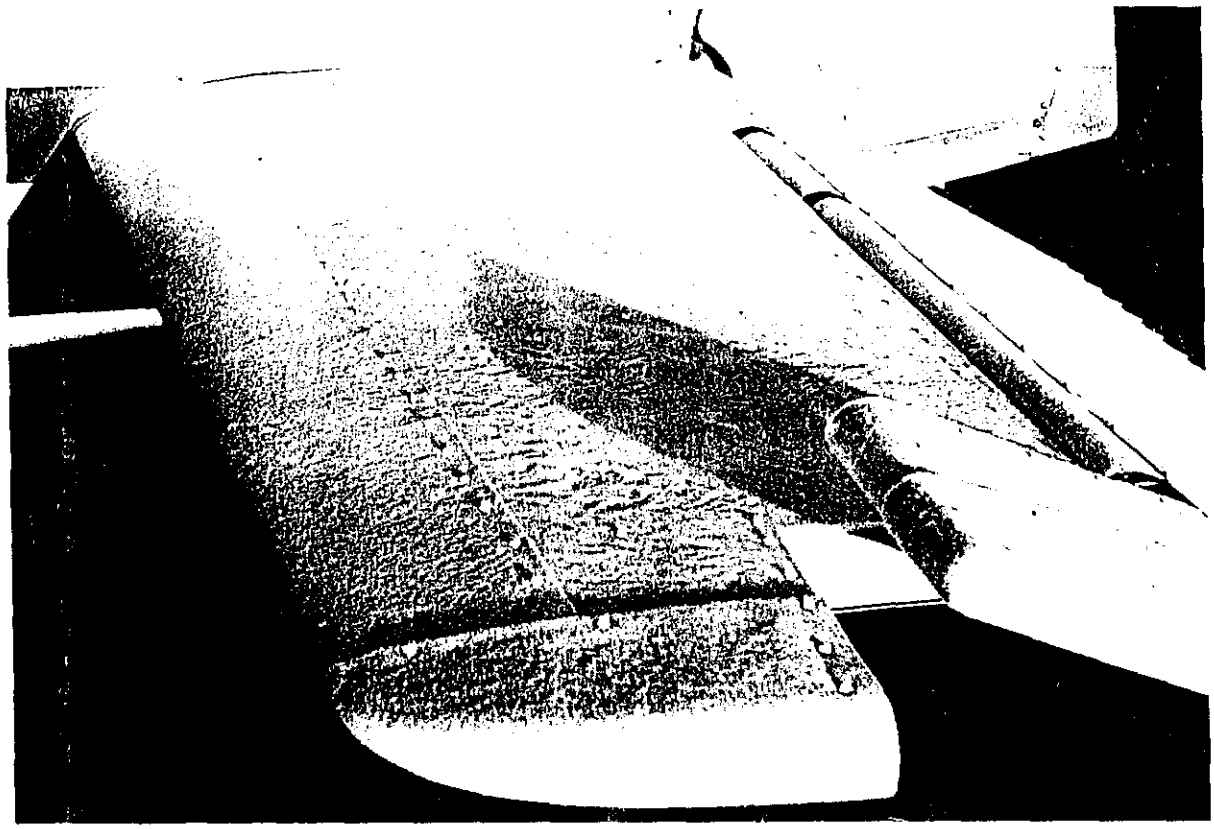
Aircraft Type : Piper PA34 Seneca
Date : June 1998

After approximately 30 minutes of cruise flight at low level the forward cowl flap raised itself by approximately 20 - 25 mm from normal. The pilot reduced speed to 85 knots; fortunately the cowl flap clips were still secure preventing further movement. The pilot decided to return to base, during which the gap increased slightly to about 40 millimetres prior to landing. While taxying, the normal cowling clips did not hold and the cowling rotated about 90 degrees to the rear, bending the forward hinge arm. The cowling however remained attached to the nacelle at all times.

TNS 11/0298

FROST ON WINGS

from the US Publication 'Aviation Safety' May and March 1998



'A Cessna 172k struck trees and crashed about one minute after taking off from Broxborough, Massachusetts airport at about 0900. The pilot was killed. A witness saw the nose 'bobbing up and down' before the airplane descended out of view. The report said that there was frost on airplanes parked outside. 'There were no holes in the snow' from a ladder or 'footprints in the snow' where the airplane was parked. 'There was no evidence that any anti-icing fluid had been applied to the top surface of the wings'.

At Mansfield, Mass. a Cessna 172 was destroyed when on take off it collided with a pole. The pilot was seriously injured and one of the two passengers suffered minor injuries. The pilot had been advised that the airport was closed for snow and ice removal, however witnesses saw the aircraft make one high speed taxi down the runway and then attempt to take off with snow and ice covering the airframe. An FAA inspector found half an inch of ice coating the top of the wings.

CAA Comment

These two items perfectly illustrate the need **to remove all ice, frost and snow from an aircraft** before flying. Even seemingly harmless frost can prove deadly as the 'roughness' destroys the smooth flow of air. Further advice is given in Safety Sense Leaflet No.3B "Winter Flying".

FIRE EXTINGUISHERS

Type : Avid Aerobat, Reg. G-BUDH
Date : January 1998 (from AAIB Bulletin 7/98)

The take-off was normal but immediately afterwards the pilot noticed a smell of petrol and decided to land straight ahead. After touchdown, however, the pilot realised that he was unable to stop before the end of the runway and therefore braked heavily causing the aircraft to come to rest vertically nose down. After switching off fuel and electrics, the pilot who was unhurt, vacated the aircraft taking the dry powder fire extinguisher with him. Shortly afterwards a fire started and spread rapidly to the cockpit. The pilot pulled the safety ring on the extinguisher but was unable to depress the trigger and thereby operate the extinguisher. The fire continued unchecked eventually burning out the fuselage and most of the wings.

The reason for the failure of the fire extinguisher was not established as it was disposed of. However, the pilot did note that it was about five years old and that the accident occurred within one month of its 'use by' date.

WINTER IS COMING

The days are drawing in. The temperatures are dropping and once more we are looking forward (or perhaps not) to the onset of winter and all its associated delights. In the meantime we are faced with the hazards of early frosts and the need for a variety of extra precautions before we go flying.

Fuel Icing?

A reader sent us the following account of a problem he experienced in winter conditions:

Type : Beech Duchess
Date : January 1995

'I had parked overnight at Birmingham Airport. The weather was very cold and when we arrived in the late afternoon the following day, the aircraft looked just like an icicle. The de-icing truck came out, sprayed the aircraft and we then prepared for our IFR flight to the Isle of Man. Everything was normal despite the outside air temperature of minus 5┐C. Climbing through FL50, the left engine started to run very roughly. Within 30 seconds it seemed as though it was going to quit altogether. We levelled the aircraft but despite our checks, we were unable to rectify the problem . Luckily the right engine maintained full power. At this time we were within 10 miles of Birmingham airport and asked for an immediate return. The engine continued to run but very roughly; any power it did deliver was in surges. By this time, the right engine had also begun to misfire. The landing was successfully completed but, on the ground, both engines ran as sweetly as though nothing had happened. The following day, with the aircraft in the hangar, tests were done to try to ascertain the cause of the problem. In the end it was felt that it had been the result of water particles having frozen in the fuel filter.'

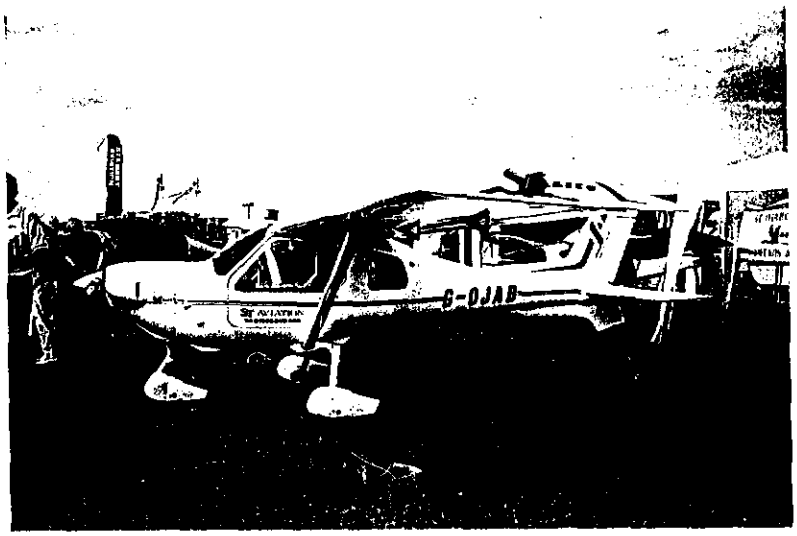
CAA Comment

This is one possible explanation.

TNS 11/12/98

COWLING CATCHES

Type : Jabiru SK Reg. G-BXAO
Date : May 1998 (from AAIB Bulletin 7/98)



After take-off from Shobdon, the right hand side of the top engine cowl became loose and lifted off its seating, remaining attached by the left hand side pin and clip.

As it lifted, it caught the propeller causing minor damage. The flapping cowl restricted the pilot's view and caused significant drag and affected control of the aircraft. It was not possible to climb and the aircraft remained at about 100 feet on the extended centreline. The pilot attempted a left hand turn but as the turn started, the left wing dropped and the aircraft appeared to stall, crashing into an orchard. The pilot of a following Robinson R22 witnessed the accident, landed in an adjoining field and, after running to the aircraft, turned off the battery master switch and fuel cock. Despite considerable damage to the fuselage, both occupants sustained relatively minor injuries and were able to walk from the aircraft to the ambulance.

The engine top cowl is a one piece construction, secured on either side by an overcentre latch to which an 'R' clip is fitted as a safety device. The cowl had been opened before flight and although after the accident the latch had been found closed with the clip fitted, there is a strong possibility that the latch had not been engaged over the corresponding attachment on the bottom cowl. In this configuration, the top cowl can appear to be flush when given a cursory inspection, but is in fact insecure.

CAA Comment

The manufacturer of this aircraft has produced a modification designed to protect the cowl from opening under these circumstances. It is hoped that this will resolve the situation. Many light aircraft, however, have cowling catches that can fool the unwary. Always take great care during the pre flight checks to ensure that the closing mechanisms have engaged with the inner lip and are indeed secure.

THERMALLING IN A MOTOR GLIDER

Aircraft Type : Scheibe Motor Falke
Date : September 1997

The pilot was flying his Motor Falke near West Malling in weak thermal activity remaining below 2,500 feet because of the London TMA. He did not turn the engine off, just throttled back to tick over. The motor glider was going up quite nicely and he kept easing back on the stick and eventually "fell out" of the thermal. The problem was that the prop at tick over acted like an airbrake and he lost about 500 feet before being able to resume normal straight and level flight. He commented that he had learnt a valuable lesson and now doesn't thermal below 1,500 feet with the engine at tick over.

GPS GLITCH

The Global Positioning System commenced transmissions on 6th January 1980 and it counts in weeks. It can count up to 1024 weeks (2^{10}) after which it has to be reset. This will happen at midnight UTC on the night of 21st/22nd August 1999. The latest GPS receivers have been programmed to take this change into account however, receivers more than two years old may not be suitably programmed and may as a consequence provide inaccurate data. Initial indication may be that the date is displayed as 6 Jan 1980 rather that 22 August 1999. Where GPS is electronically connected to other systems the effect could of course be much more significant.

CAA Comment

The owners of older GPS units would be well advised to contact their supplier to find out if their particular unit will be affected by this problem. On another tack, should you have been flying during the period 22-28 August, you will no doubt have seen the NOTAM referring to GPS anti-jamming trials. A consequence of these trials was the potential loss of the GPS signal to the aviation community over a substantial portion of England and Wales. Those using GPS to satisfy the B-RNAV requirements for flight on the ATS route system will be familiar with the contents of JAA Temporary Guidance Leaflet No 2 and the specific requirements to carry VOR/DME and ADF to enable pilots to revert to normal navigation should the GPS signal fail. The TGL also stipulates that pilots should monitor their GPS information and cross-check with other aids. There are, however, many more pilots using GPS in the open FIR and these jamming trials are a timely reminder of our much repeated message that **GPS is not infallible and must be treated with as much suspicion as any other aid.**

HEAVY LANDING

Type : Aeronca Champion 7FC, Reg. G-ARAS
Date : May 1998 (AAIB Bulletin 7/98)

Two members of the group which owned the aircraft flew from Clipgate to Lashenden in fine weather. The surface wind was westerly at about 12kts. After completing a normal circuit to land the aircraft was over the threshold of RW 29 when the pilot realised that he had allowed the airspeed to decay below stalling speed. His passenger noticed at the same time and called for corrective action but the aircraft touched down extremely heavily before the pilot reacted. After landing and taxiing to the normal parking area the full extent of the damage became apparent, the airframe had suffered structural deformation.

CAA Comment

As this particular incident illustrates the failure to nail the airspeed during the approach results in very severe consequences indeed. Why not recruit a friendly instructor to help reinforce the habits of flying the approach using correct power and attitude. It really does help!

Cair
Aviation Ltd.

Yewdown House,
7 Sharpthorne Close,
Ifield, Crawley, Sussex
England RH11 0LU
Tel: (01293) 543832
Fax: (01293) 513819

OTFUR Hooks

Date

4/11/1998.

Chief Technical Officer,
B.G.A.

Dear Nick

You may like to update BGA Inspectors via the next technical newsletter regarding the modification standard of the original OM Series "Ottfur" and the latest CW Series "Ottfur" releases.

All new and exchange units received for overhaul are despatched incorporating the attached modification standards..

The field trial "Ottfurs" are all still in place and giving good service with no problems reported. We have exchanged one of the trial units from the RNGSA at Lee on Solent, so we could do a routine examination to assess any wear characteristics. The unit was still in good condition and showed little sign of wear apart from the normal marking of the ring carriage. We have now introduced a case hardening modification to all "Ottfur" ring carriages to extend their service life still further.

At this time we are assisting John Edgley with the installation of the new "Ottfur" series in the "Optimists" and Eddie Gunner with replacing the existing "Bocian" hooks in the Bath & Wilts fleet.

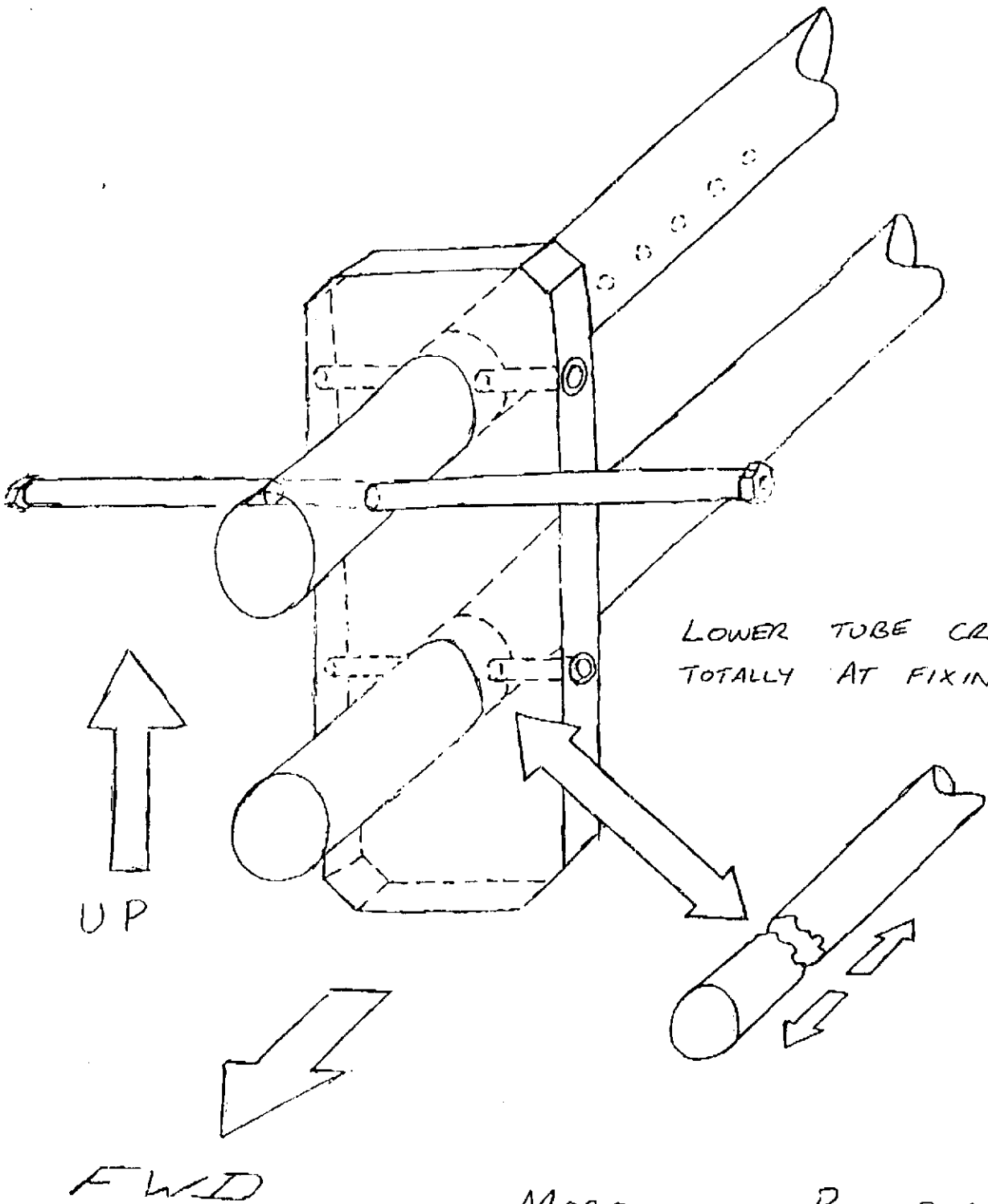
Sincerely,

PRODUCTION MODIFICATION STANDARD.

The following summarises the primary Pre-production alterations introduced to both OM and CW Series of QR Units during the development period and defines the initial production modification standards applicable, except where stated, to all units from Serial No. 49 inclusive. Units up to Serial No. 48 will be updated when returned for servicing.

Ref. No.	Description	Drg. Ref.	Applicability
A/01	Change in Release Lever Spring Dimensions to improve reliability	OM123 & SK7/24	All OM Series (except OM105D) & CW 400.
A/02	Deletion of twin bush lever to simplify fabrication	OM124, OM127/100 IP27 & 74	All Levers except CW300 levers.
A/03	Introduction of CNC Machined EN36 solid Beak	OM119 OM124	All Beaks
A/04	Deletion of Etch Prime & Paint. Introduction of Zinc Passivate Plating	A/R	All Units
A/05	Introduction of Adjuster on OM104C Units. To enable use of standard casing and eventual replacement of the OM105D.	OM104, OM121 OM125	Type OM104C Units only
A/06	Introduction of a new profile Beak to improve back release characteristics and spares commonality	CW301/11 & OM119 OM124	All OM & CW Series except OM106E and Capstan
A/07	Introduction of case hardened Ring Cage to extend service life	OM126	All OM & CW300 Units
A/08	Introduction of webs on OM105D Casings to improve lateral stiffness	OM125	OM105D only

MOSQUITO RUDDER ASSEMBLY FAILURE!



MOSQUITO B BGA 4054

1979, ≈ 4000 HOURS

FATIGUE FAILURE

LOWER TUBE OF RUDDER PEDAL ASSEMBLY

A Darlington
BGA I/C/1138
1/OCT/98

FAA

NOTICE

DID YOU KNOW???

ALL THE AIRWORTHINESS DIRECTIVES ISSUED SINCE JANUARY 1998 ARE AVAILABLE ON THE INTERNET @:

http://www.fedworld.gov/pub/faa-cai/faa-cai.htm

THE AD'S ARE POSTED ON THE INTERNET AS THEY ARE ISSUED.

4 PROCEDURE NO.2

4.1 The aircraft and its records shall be in a condition acceptable for such inspections as are considered necessary.

4.2 A Star Inspection and the coincident annual inspection shall be carried out, at the premises of an organisation approved in accordance with BCAR **A8-15** or JAR-145 as appropriate and certified by holders of UK-Aircraft Maintenance Engineers' Licences with Type Ratings valid for the particular aircraft type.

NOTE: In the case of the renewal being completed abroad at a place where an organisation is not specifically Approved for the purpose, the overseas organisation shall be one that is acceptable to the Authority. The renewal process is to be predicated upon an inspection report prepared at the agreed site by the **A8-15** nominated person. A copy of the report detailing the work required shall be sent to the CAA. In such cases, the Authority may decide that surveyor involvement is necessary (see 2.1).

4.2.1 In deciding the depth of the Star Inspection and the extent of the work to be undertaken to maintain the airworthiness of the aircraft and to enable the recommendation for the renwal of the Certificate of Airworthiness to be made, the Approved Organisation shall take account of (a) to (g).

(a) The age, areas and types of operation, and conditions of storage of the aircraft.

(b) Compliance with the requirements of the Approved Maintenance Schedule.

(c) Work already certified in the relevant records.

(d) The periods between overhauls, prescribed or approved by the CAA, in respect of the aircraft and its parts.

(e) Such other requirements or instructions approved by the CAA (e.g mandatory modifications and inspections) relating to the maintenance of airworthiness.

(f) Foreign airworthiness directives adopted by the CAA, and CAA Additional Directives, where appropriate, in respect of aircraft parts.

(g) The manufacturer's recommendations in Service Bulletins, or equivalent documents.

4.2.2 Following the Star Inspection, an Inspection Report, in which any work which has been undertaken is detailed, shall be prepared, certified, and included in the aircraft records.

4.3 All work undertaken in connection with the renewal of the Certificate of Airworthiness of the aircraft shall be supervised by an organisation approved in accordance with **A8-15** or JAR-145 as appropriate. Before the work is finally certified, the Approved Organisation shall be satisfied that the work has been carried out, inspected, and tested where necessary, for conformity with the specifications, drawings and instructions relating to the Approved design, and with the requirements for the continuing airworthiness of the aircraft and its equipment.

4.4 The recommendation for the renewal of the Certificate of Airworthiness shall be given by the Approved Organisation on Form AD 202NR. When completed, two copies shall be forwarded to the appropriate CAA office. The original Certificate of Airworthiness should be returned to the CAA on expiry. A copy of Form AD 202NR shall be included in the aircraft records and a copy shall be retained by the Approved Organisation.

4.5 The CAA may agree at the request of the Applicant, to survey an aircraft during the Star inspection. The CAA may then decide on the extent of the investigation and on any additional work requried to permit renewal of the Certificate of Airworthiness. The cost of any such additional survey shall be met by the Applicant.

4.6 The Certificate of Airworthiness renewal recommendation may be anticipated by a maximum of 62 days from the date of expiry without loss of validity. If the Certificate of Airworthiness has expired the validity shall take effect from the date the submission is received and accepted by the Authority.

4.7 The aircraft shall have been tested in flight, in accordance with **A3-5**. Where a flight test is necessary and the Certificate of Airworthiness has expired, a Certificate of Fitness for Flight (see **A3-8**) shall have issued.

5 RE-WEIGHING OF AIRCRAFT

5.1 Re-weighing of aircraft at the time of renewal of the Certificate of Airworthiness will be dependent on the date of the last weighing, and on the history of the aircraft.

NOTE: Aircraft are, normally, weighed when all manufacturing processes are completed.

5.1.1 Aircraft of more than 5700 kg MTWA shall be re-weighed within two years after the date of manufacture, and subsequent check weighing shall be carried out at intervals not exceeding five years, and at such other times as the CAA may require.

5.1.2 Aircraft of 5700 kg MTWA or less, shall be re-weighed at such times as the CAA may require.

5.1.3 The CAA shall be consulted if there is any doubt as to whether the aircraft ought to be re-weighed.

5.1.4 When re-weighing is necessary, an amended Weight and Centre of Gravity Schedule, or its equivalent as prescribed in **A5-4**, shall be prepared. During the course of any re-weighing procedures the accuracy of all data previously recorded, for example lever arms, shall be checked e.g. against the appropriate manufacturer's current data.

5.1.5 At the time of a re-weighing or when a revised Weight and Centre of Gravity Schedule is raised following the addition, removal or relocation of equipment, a copy of the Weight and Centre of Gravity Schedule shall be submitted to the Authority for record purposes.

6 RECORDS AND LOG BOOKS

6.1 Aircraft records in the form of log books, separate maintenance records forming part of log books, or maintenance records kept by any other method approved by the CAA, shall be made available to the CAA, if specifically requested by the CAA.

NOTE: The Air Navigation Order requires that log books, and other documents which are identified and referred to in the log books (therefore, forming part of the log books), shall be preserved until a date two years after the aircraft, engine or variable pitch propeller has been destroyed or permanently withdrawn from use.

6.2 All relevant inspections records shall be made available to the CAA, if specifically requested by the CAA.

6.2.1 Inspection records shall not be destroyed without authorisation from the CAA.

6.3 Full particulars of the work done relating to the renewal of the Certificate of Airworthiness shall be entered in the appropriate log book(s) or other Approved maintenance records, and a Certificate of Release to Service shall be completed and shall be attached or included, as appropriate (see **A6-7**).

6.3.1 When it is more convenient, particulars of the work done may be entered in a separate maintenance record which shall be certified in the same manner as that required for entries in the log books. The reference number of this record, and the place where it may be examined, shall be entered in the log books under a brief description of the particular work.

7 MANUALS

7.1 A check shall be made by the Approved organisation to ensure that the Flight Manual is up to date, and any necessary action to bring it up to date shall be taken. Confirmation of the correct Flight Manual Amendment status shall be provided to the CAA: the Flight Manual shall be made available to the CAA, if specifically requested by the CAA.

NOTE: The term 'Flight Manual' includes any document accepted in place of a Flight Manual.

7.2 Maintenance, Overhaul and Repair Manuals used shall be up to date, and where necessary they shall be amended in accordance with the procedures set out in **A7-4** in order to incorporate such amendments as may be necessary to cover the physical state of the aircraft.

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CIVIL AVIATION AUTHORITY

Our ref 9/97/CtAw/184

9 November 1998

LBA AIRWORTHINESS DIRECTIVE 1998-435
SCHEIBE SF28A TANDEM-FALKE MOTOR GLIDERS
FLIGHT CONTROLS - CRACKS ON THE COMBINED AILERON AND ELEVATOR-BELLCRANK OF CONTROLS BEHIND THE FUSELAGE MAINFRAME/UNDER THE REAR SEAT

This letter transmits a copy of the above referenced Airworthiness Directive for your attention.

The provisions of Article 9(7) of the Air Navigation Order (1995) as amended, are such that a Certificate of Airworthiness in respect of an aircraft registered in the United Kingdom will cease to be in force until any modification or inspection, being a modification or inspection required by the CAA is completed.

In accordance with Article 9(7) and Airworthiness Notice No. 36 the modification or inspection required by this Airworthiness Directive is mandatory for applicable aircraft on the UK Register.

IT IS RECOMMENDED THAT YOU FORWARD A COPY OF THIS AIRWORTHINESS DIRECTIVE TO THE ORGANISATION THAT MAINTAINS YOUR AIRCRAFT.

R J TEW
Applications and Certification Section

TWS 11/12/98

G-BARZ

Airworthiness Directive 1998-435

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Scheibe

Effective Date: November 05, 1998

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	Scheibe Flugzeugbau GmbH, Dachau, Germany
Type:	SF 28 A „Tandem-Falke"
Models affected:	SF 28 A „Tandem-Falke"
Serial numbers affected:	all
German Type Certificate No.:	770

Subject:
Flight Controls - Cracks on the combined aileron and elevator-bellcrank of controls behind the fuselage mainframe/under the rear seat

Reason:
Some cracks were detected on the combined bellcrank. Probably one reason for the detected cracks are defective ball bearings of the controls in the fuselage and also not tightened control sticks while the aircraft is taxiing on the ground.

Action:
Inspection of the bellcrank/ball bearings and modification of bellcrank in accordance with Scheibe Service Bulletin.

Compliance:
Action must be performed before next flight.

Technical publication of the manufacturer:
Scheibe Service Bulletin No. 770-23 dated September 28, 1998, which becomes herewith part of this AD and must be obtained from Messrs.:

Scheibe-Flugzeugbau GmbH
August-Pfaltz-Str. 23

D-85221 Dachau
Federal Republik of Germany

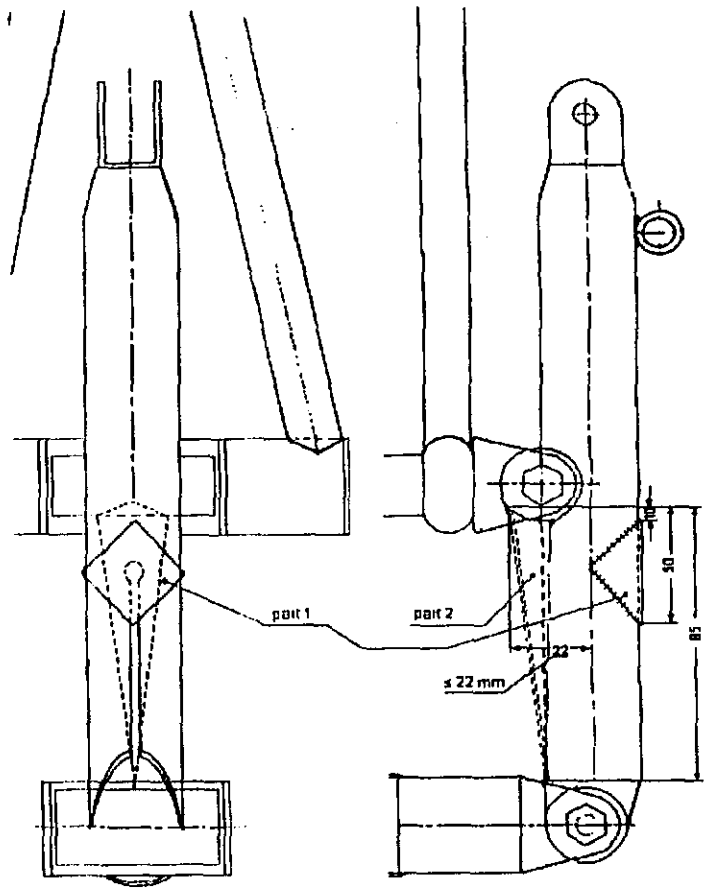
Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

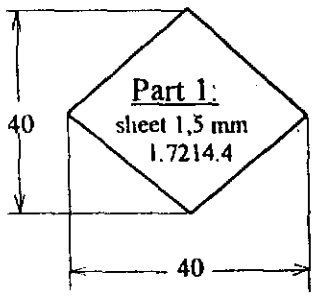
Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Part 2:
Steel Pipe segment
18x1 mm
(Material ST 35 bk)





View in flight
flightdirection

flight direction

Part 1 and 2 are complete autogen- gas welded together with welding wire 1.7324.0 or WIG welded (DIN 1912) together with welding wire 1.7734.2.

This service bulletin was originally written in German and approved by the German LBA.
The translation has been accomplished to best of our knowledge and judgement. In case of doubt the German original is authoritative.

TNS 11/12498.

Scheibe- Flugzeugbau GmbH August- Pfaltz- Str. 23 85221 Dachau LBA- approvall- B 3 LBA- approval I- EB 2	**Service Bulletin 770- 23**	**SF 28 A** **Tandemfalke** TCDS 770

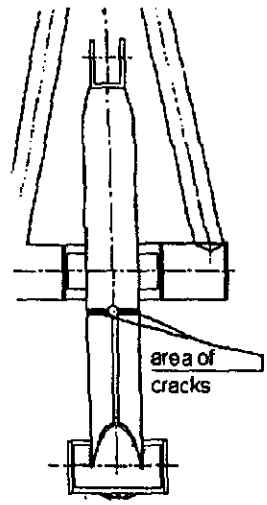
Subject: Cracks on the combined aileron and elevator - bellcrank of controls behind the fuselage mainframe under the rear seat.

Affected : Motorglider of Scheibe Flugzeugbau GmbH of following types:
SF 28 A Tandemfalke: Gerätenr. 770: all serial numbers.

Urgency: **Before next flight.**

Reason: At some inspections of the controls cracks on the combined bellcrank like the following sketch must be stated. Probably one reason for the detected cracks are defective ball bearings of the controls in the fuselage and also not tightened controlsticks while aircraft is taxiing on the ground.
In case of inflight malfunction of aileron and elevator -- if this bellcrank is complete cracked -- **urgent** actions are necessary.

Actions: 1. **Before next Flight** a thorough crack inspection of the bellcrank is to carry out. Cracks are possible in the area of the hole and slit on the backside of the bellcrank.(see sketch on the right side). If the bellcrank is installed cracks are very hard to see if they arise.
The bellcrank is located under the rear seat of the motorglider behind the fuselage mainframe.
Therefor it is necessary to disassemble the bellcrank.
The bellcrank is to depaint and to inspect for possible cracks with a 10- times magnifier. The crack inspection is also possible by Dy- check penatration.



2. All ball bearings of the controls in the fuselage must be checked for proper function.Therefore it is necessary to remove the complete controls in the fuselage.
Defective ball bearings must be changed against new ball bearings.
3. **Before next flight** a reinforcement of the combined bellcrank like the additional sketch on page 2 is to carry out.
4. If the complete controls in the fuselage are installed after repair all deflections of aileron and elevator must be checked, if necessary they must be adjusted (see page 16 of the „SF 28 A Flight- and Maintenance handbook"). All conecting points of push rods with control sticks or bellcranks in connection with ball bearings could be protected for opening with DIN 985 self secure hex nuts.

Weight and Balance: N/A

Remarks: Actions are to be accomplished at the manufacturer of the motorglider or in a service station, authorized by the manufacturer.
A logbook entry is to make.

Scheibe Flugzeugbau GmbH
Dachau, 28. September 1998

Musterprüfleitstelle
(Haferkorn)

LBA- approved: