BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 5/6/96

PART 1 Airworthiness "AGGRO" Please add to the BGA's 1996 Compendium.

1.1. ASW 20 - Elevator Control. Restricted by interference between bolts in the centre section control system. When full flap and speed-brake deployed. Check for correction insertion of bolts to provide clearance, after disassembly.

1.2. LS4 - Incorrect Assembly and Locking of Aileron Controls. After rigging, Aileron disconnected in flight. (Reported by Bristol & Glos G.C). Check carefully before you fly!

1.3. D.G. 400. Inadvertent Undercarriage Retraction can be eliminated by the installation of a plastic block. Service Information 6-1 copied herewith.

1.4. KA6CR, Corroded and Worn Tailplane attachment fittings also loose bolts and severe corrosion. Reported by Colin Sanders. Inspect A.S.A.P.

1.5. Libelle TNS 201-33 (TNS 3/4/96). Aileron Drive. If no cracks are found in the aileron operating levers, no further action is required, other than repeated inspections. (Request from Ian Busby).

1.6. G.103 Series Twin Astirs Extention of Service Life beyond 3000 HRS. S.B. 315-45/2 supersedes 315/45/1, copied herewith.

1.7. Astir Series - Extention of Service Life beyond 3000 HRS - S.B. 306/30/2 supersedes 306-30 is copied herewith.

1.8. T61 Series SLMG's. Coupling between the Magneto and the Crankshaft failed, resulting in forced landing. Coupling may have been of an unusual type without peripheral re-enforcing metal ring?

May also apply to other Magneto installations.

1.9. G.103 Grob Accro II. Speed brake jammed by Gel-Coat repairs at brake cut-outs. Check for adequate clearances after such repairs. (Reported by Derby & Lancs G.C.).

1.10. G.103 Accro Twin 3 Rudder Pedal Assembly, Failure of Pedal Assembly Slide-Rod. Sketch from Lasham herewith.

1.11. G.103 - Canopy Jettison & Emergency Exit. Placard introduced by Air Cadets arises from actual experience in a fatal collision accident.

STRONGLY RECOMMENDED - COPY HEREWITH

1.12. KA8 Speed Brake System Failure as indicated in attached sketch from Dukeries G.C.

1.13. Control Connections. The S&G article by Bill Scull in repeated herewith for NOTICE BOARD DISPLAY.

1.14. CARB-ICING has caused two SLMG accidents in recent months. The GASIL leaflet is circulated yet again!

1.15. Cable Launching Strops must never be made from "ELASTIC" materials such as Polyethylene rope. (Some clubs use shrouded winch cable from parachute to glider). Damage reported to the tailplane of a KA13 after cable failure at 1300ft. (Burn G.C. report).

1.16. KA7 - Fracture of the Speed Brake Handle through the pivot hole. A well known failure. Similar failures reported on KA8's etc. - See sketch (Wold G.C.).

PART 2 GENERAL MATTERS

2.1. CAA FORM 202NR (as illustrated) must be used for SLMG & Tug Renewal Submissions. (Please destroy pervious issue),

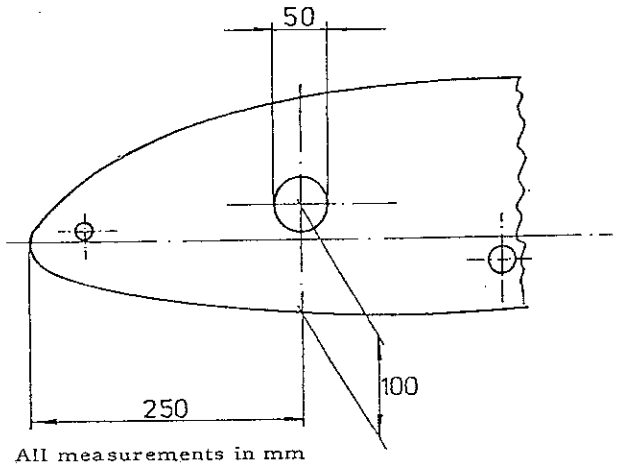
2.2. SLMG Flight Tests must be recorded on the latest BGA Form (sample herewith) - approved by CAA.

2.3. PA18 Undercarriage Damper Failure. Sketch herewith from AAIB draws attention to a potentially costly failure on a Glider Tug!

Dick Stratton
Chief Technical Officer

TNS / 5/6/96

2. Installation of an inspection hole in the root rib, (if Service Bulletin TM 315-15 or TM 315-26 are not performed)



All measurements in mm

3. Exchange of the elevator lever No.103-3523 according to Repair Instructions No.315-45/1.

4. Exchange of the airbrake over-centre lever No.103-4123/4124 and installation of inspection holes according to Repair Instructions No.315-45/2.

5. Inspection according to the Inspection Record "Extension of Life Time".

6. The following inspections (visual inspection, tapping) must be performed:

   a. wing root external:
      - wing/ fuselage attachment fittings secure in laminate
      - wing connecting bolts: wear, corrosion, deformation

   b. spar stub:
      - main spar spigot
      - spar pin fitting tight in laminate

GROB LUFT- UND RAUMFAHRT | Service Bulletin 315-45/2 | GROB G 103

This Service Bulletin substitutes Service Bulletin 315-45 dated October 11, 1991. Both Repair Instructions No. 315-45/1 and 315-45/2 form still part of this revised Service Bulletin.

Subject: **Extension of service life** TWIN ASTRS

Concerned:

TWIN ASTIR	S/N: 3000 - 3291
TWIN ASTIR TRAINER	S/N: 3000 - 3291 (with "T")
G 103 TWIN II	S/N: 3501 - 3729 3730 - 3878 33879 - 34078
G 103A TWIN II ACRO	S/N: 3544 - 34078 (with "K")
G 103C TWIN III ACRO	S/N: as of 34101
G 103C TWIN III	S/N: 36001 - 36014

Urgency:

1. Action 1 immediately
2. Before reaching a service time of 3000 flight hours: actions 2, 3 + 4 (only TWIN ASTIR and TWIN ASTIR TRAINER)
3. Before reaching 3000, 6000, 7000, 8000, 9000, 10000, 11000 flight hours: action 5
4. Before reaching 9500, 10500, 11500 flight hours: action 6

Procedure: The results of performed fatigue tests have shown, that the service life of GRP/CRP-sailplanes can be increased to a maximum of 12000 flight hours.

Actions: The airworthiness has to be demonstrated for each sailplane according to an established Inspection Record.

1. The following revisions must be performed in the Maintenance Manuals:

   TWIN ASTIR /TWIN ASTIR TRAINER:
   WHB (german issue): revision 6
   MM (english issue): revision 4

   G 103 TWIN II / G 103A TWIN II ACRO:
   WHB (german issue): revision 5
   MM (english issue): revision 6
   MM for Canada: up to S/N 3878: revision 5
   as of S/N 33897: revision 6
   MM for Italy: up to S/N 3878: revision 5

   G 103C TWIN III ACRO:
   WHB (german issue): revision 3
   MM (english issue): revision 2

GROB LUFT- UND RAUMFAHRT	Service Bulletin 315-45/2	GROB G 103

Material: The material (only for actions 3 and 4) incl. Repair Instructions and Inspection Record (action 5) can be obtained from the manufacturer with the attached Purchase Order (please note the number of flight hours).

Weight and balance: Empty weight and the center of gravity have to be checked after execution of the actions.

Remarks:

1. The execution of the actions must be carried out by an authorized aviation workshop and has to be certified in the log book by an authorized inspector.
2. After inspection the completed Inspection Record (action 5) must be filed in the airplane logbook, and a copy sent to GROB for evaluation.
3. If in the meantime you have sold your motor-glider, we would ask that you kindly pass this information directly to the new owner and forward his address and aircraft s/n to us.

Mattsies, December 21, 1995

LBA approved
The German original of this Service Bulletin has been approved by the LBA on the ~~December 1995~~ 03. January 1996 and is signed by Mr. Skov...
The translation has been accomplished to our best knowledge and judgement. ~~In case of doubt, the Corman original is authoritative.~~

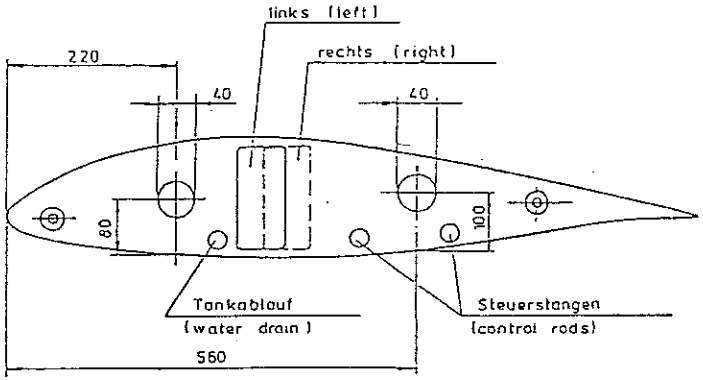
Dipl.-Ing. Jürgen R. Altmann

Manager
Airworthiness/Certification

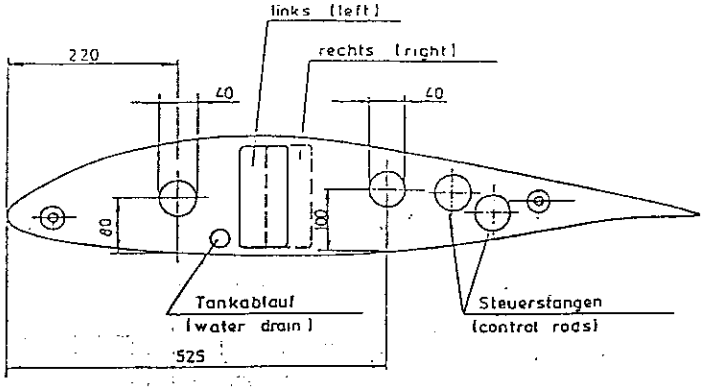
DATUM/DATE	AUSGABE/ISSUE STATUS	BEARBEITET/PREPARED BY	GEPRÜFT/APPROVED BY	SEITE/PAGE

2. Installation of inspection holes in the root rib (if Service Bulletins TM 306-18, TM 306-23 or TM 306-24 are not performed)

ASTIR CS, ASTIR CS 77, ASTIR CS Jeans



STANDARD ASTIR II, CLUB ASTIR II



Caution: The inspection hole in front of the spar must not be cut in wings containing water ballast tanks. Such wings should be inspected through the water drain tube.

3. Exchange of the elevator lever No. 102-3543 according to Repair Instructions No. 306-30/1.

GROB LUFT- UND RAUMFAHRT | Service Bulletin 306-30/2 | GROB G 102

This Service Bulletin substitutes the Service Bulletin 306-30 dated September 9, 1992.

Subject: Extension of service life SINGLE ASTIRS

Concerned:

ASTIR CS	S/N 1001 - 1536
ASTIR CS 77	S/N 1601 - 1844
ASTIR CS JEANS	S/N 2001 - 2248
STANDARD ASTIR II	S/N 5001 - 5061 (suffix "S")
CLUB ASTIR II	S/N 5001 - 5061 (suffix "C")
STANDARD ASTIR III	S/N 5501 - 5652 (suffix "S")
CLUB ASTIR III	S/N 5501 - 5652 (suffix "C")
CLUB ASTIR IIIb	S/N 5501 - 5652 (suffix "Cb")

Urgency:

1. Before reaching a service time of 3000 flight hours:
   - ASTIR CS, CS 77, Jeans: actions 2, 3, 4
   - STANDARD ASTIR II, CLUB ASTIR II: actions 2, 4
   - STANDARD/ CLUB III, CLUB III b: action 5
2. Before reaching a service time of 3000, 6000, 7000, 8000, 9000, 10000, 11000 flight hours:

   all models: action 6
3. Before reaching 9500, 10500, 11500 flight hours:

   all models: action 7

Procedure: The results of performed fatigue tests have shown, that the service life of GRP/CRP-sailplanes can be increased to a maximum of 12000 flight hours.

Actions: The airworthiness has to be demonstrated for each sailplane according to the established Inspection Record.

1. A revision of the Manuals will be performed during a new issue of the Flight and Maintenance Manuals.

4. Check, if Service Bulletin TM 306-26 action 4 has been performed.
   If action 4 has been not performed, the airbrake over-centre levers must be exchanged according to the Repair Instructions No. 306-26/2.

5. Installation of an inspection hole according to Repair Instructions No. 306-30/2.

6. Inspection according to the Inspection Record "Extension of Life Time".

7. The following inspections (visual inspection, tapping) must be performed:

   a. wing root external:
      - wing/ fuselage attachment fittings secure in laminate
      - wing connecting bolts: wear, corrosion, deformation
   b. spar stub:
      - main spar spigot
      - spar pin fitting tight in laminate

Material: The Inspection Record and the material (for action 3) incl. Repair Instructions can be obtained from the manufacturer with the attached Purchase Order (please note the number of flight hours).

Weight and balance: Empty weight and the center of gravity must be determined newly (refer to Inspection Record)

Remarks:

1. The actions must be carried out by an authorized aviation workshop and have to be certified in the log book by an authorized inspector.

2. After inspection the completed Inspection Record must be filed in the airplane logbook, and a copy sent to GROB for evaluation.

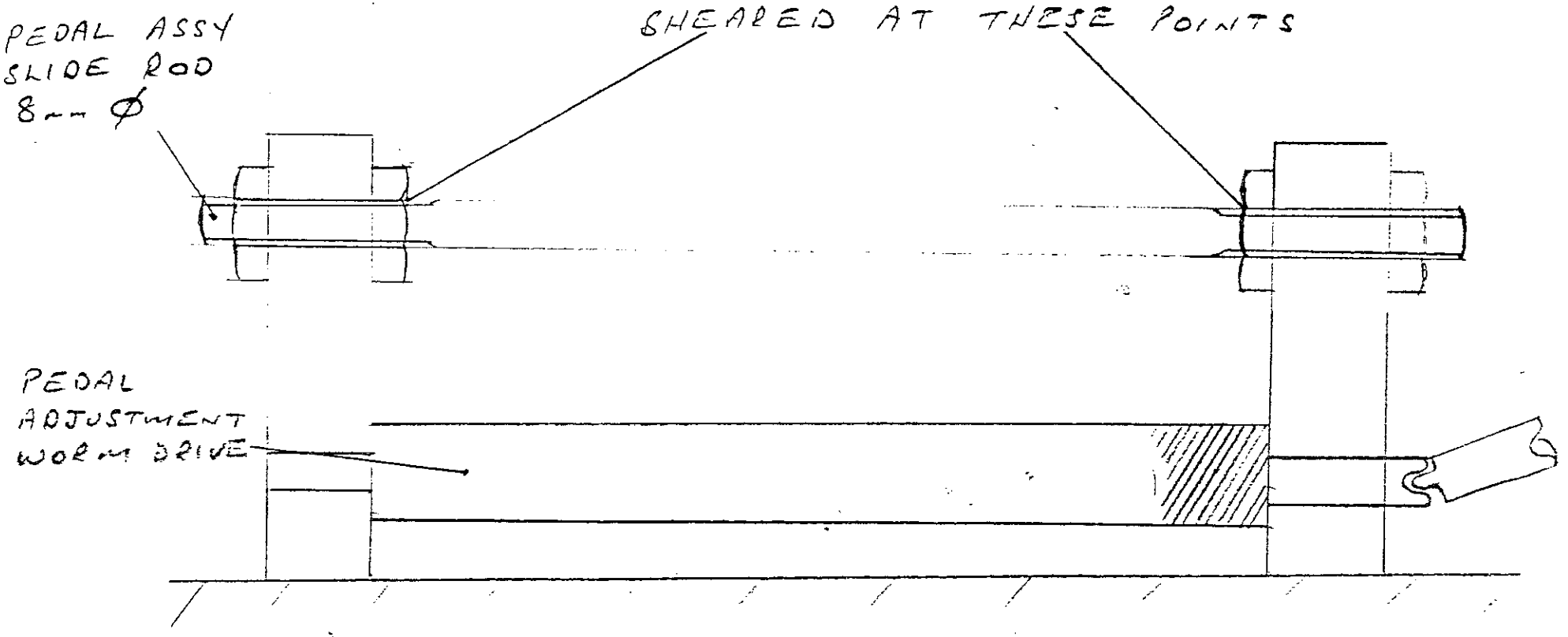
3. If you have sold your sailplane in the meantime would you kindly pass this information directly to the new owner and forward his name and address and aircraft S/N to us.

Mattsies, 6 December 1995

Dipl.Ing. J. Altmann
Manager
Airworthiness/Certification

LBA approved
The German original of this Service Bulletin has been approved by the LBA on the 11 December 1995 and is signed by Mr. .SKOV.
The translation has been accomplished to our best knowledge and judgement.

GROB 103 ACRO TWIN III



SIDE VIEW SKETCH OF FRONT RUDDER PEDAL MOUNTING ASSY.

PEDALS OMMITTED FOR CLARITY

(LASHAM)

GROB. G.103's

CANOPY JETTISON AND EMERGENCY EXIT

- Pull both red handles fully back simultaneously
- Holding the right red handle back against spring load, push the canopy up and clear of the aircraft with the left hand
- Release the seat harness
- Stand up and bale out over the cockpit side
- Once clear of the aircraft, pull out the ripcord handle to its full extent

STI/.KING/07. NEW REVISED PLACARDS GROB. G.103's.

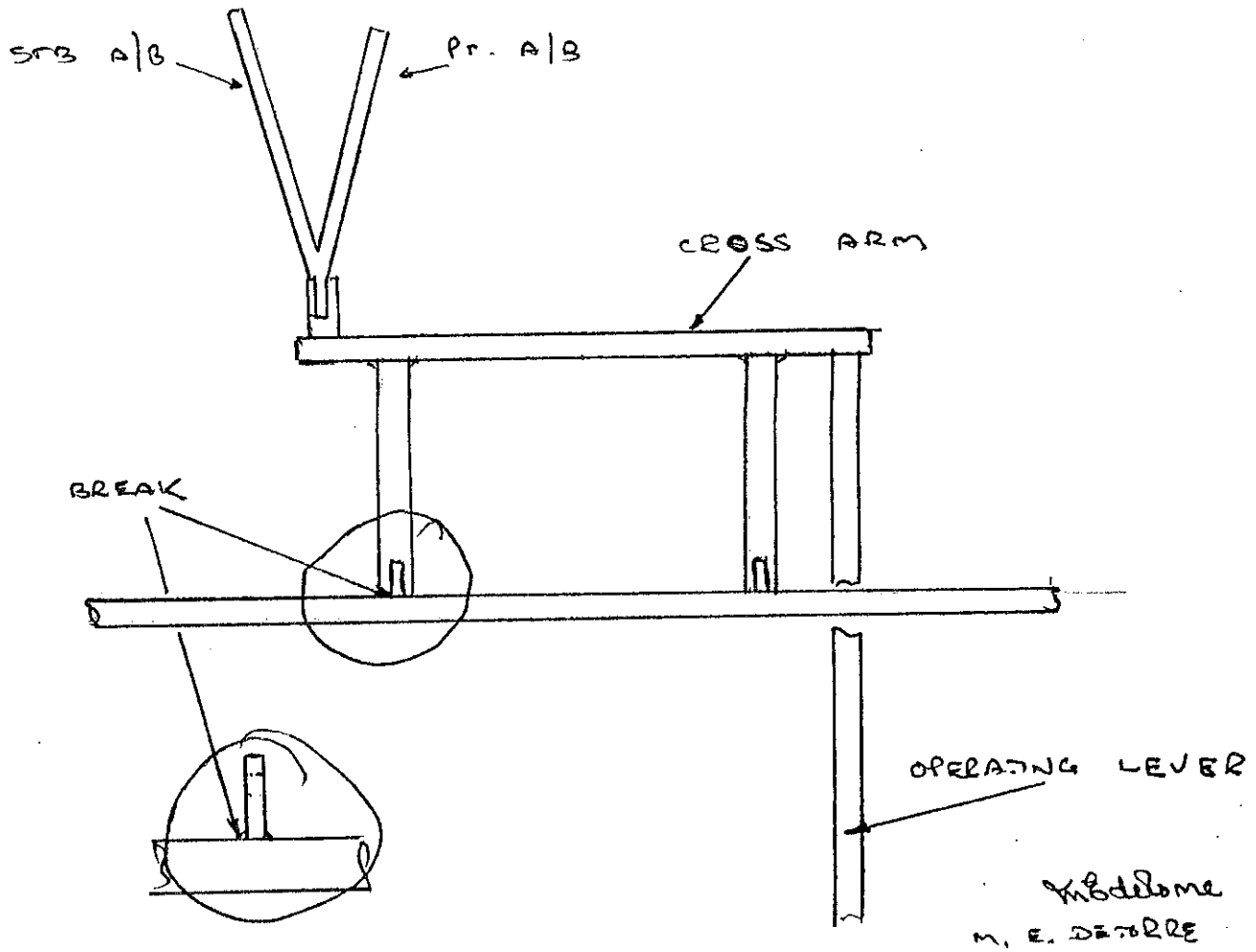
MR. M. E. DETORRE
99 PRINCE CHARLES ROAD
WORKSOP
NOTTS
S81 7EZ.

31.03.96

K8 BGA NO 3582.

Sir.

After a flying incident at Cranwell airfield (to be covered by a separate report) an inspection of the Air Brake control circuit revealed a broken link. This link is attached to the cross arm (normally) Sketch shows details.

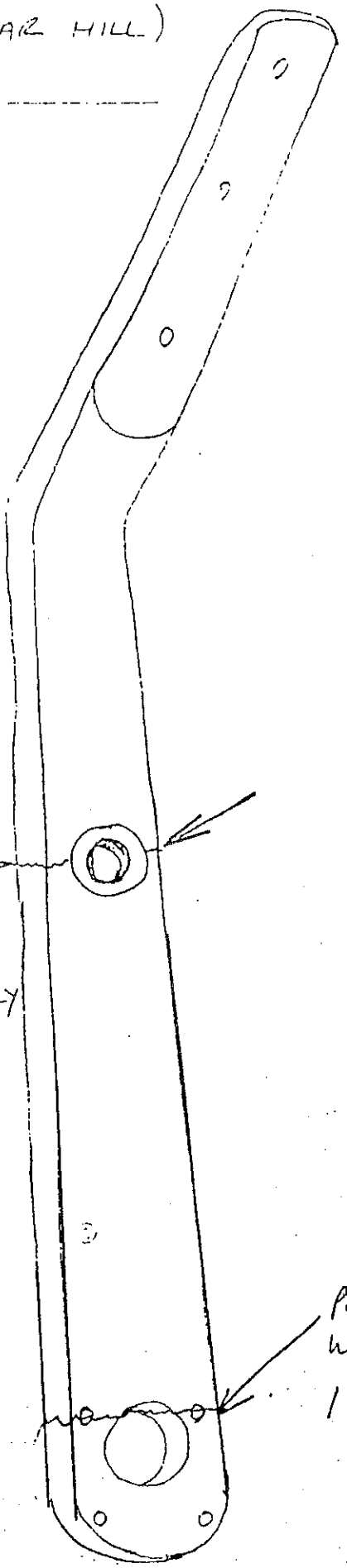


M Bodelone
M. E. DETORRE

K8 BRAKE LEVER FAILURE REPORTED BY SHALBOURNE SOARING SOCIETY (RIVAR HILL)

A BRIND 28/8/95.

K7 | K13 | K8



POINT OF FAILURE THROUGH LEVER AT BEARING HOLE. IN FLIGHT FAILURE UNDER NORMAL USE LEVER BROKE COMPLETELY OFF AT THIS POINT.

SECOND CLUB K8 INSPECTED AND FOUND TO HAVE A SMALL CRACK STARTING AT AN IDENTICAL POSITION.

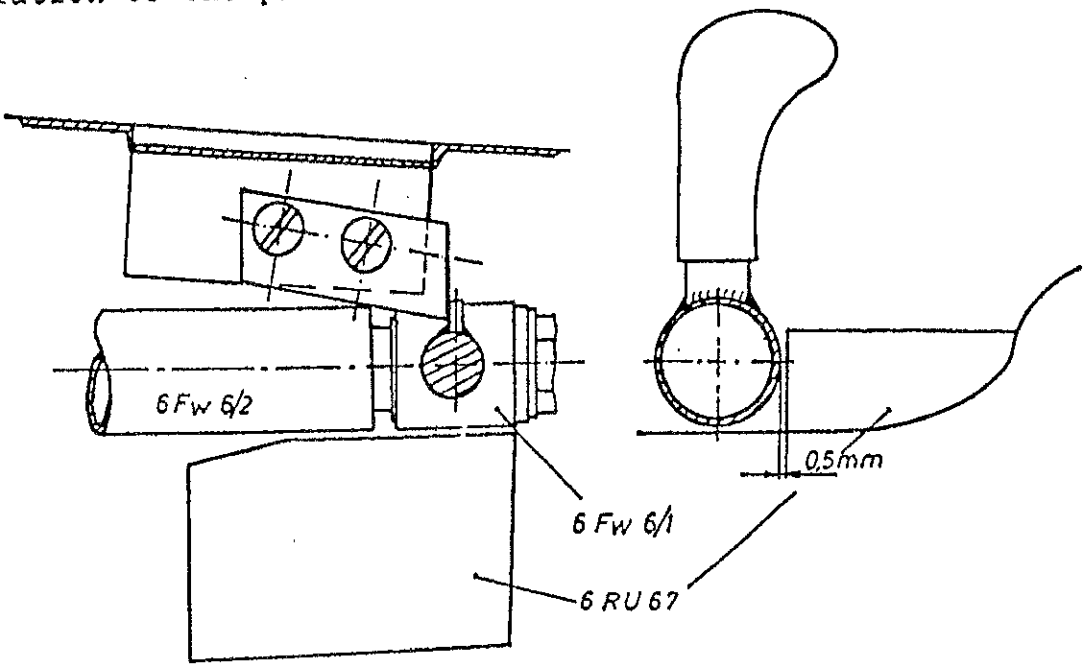
SUGGESTED THAT LEVERS ARE REMOVED ANY PAINT CLEANED OFF AND CAREFULLY INSPECTED.

POINT OF FRACTURE WORDS K7/13 17.5.96.

TNS 9/10/95.

SERVICE - INFORMATION 6 - 1 D.G.400

Installation of the plastic block 6 RU 67.



view from the top

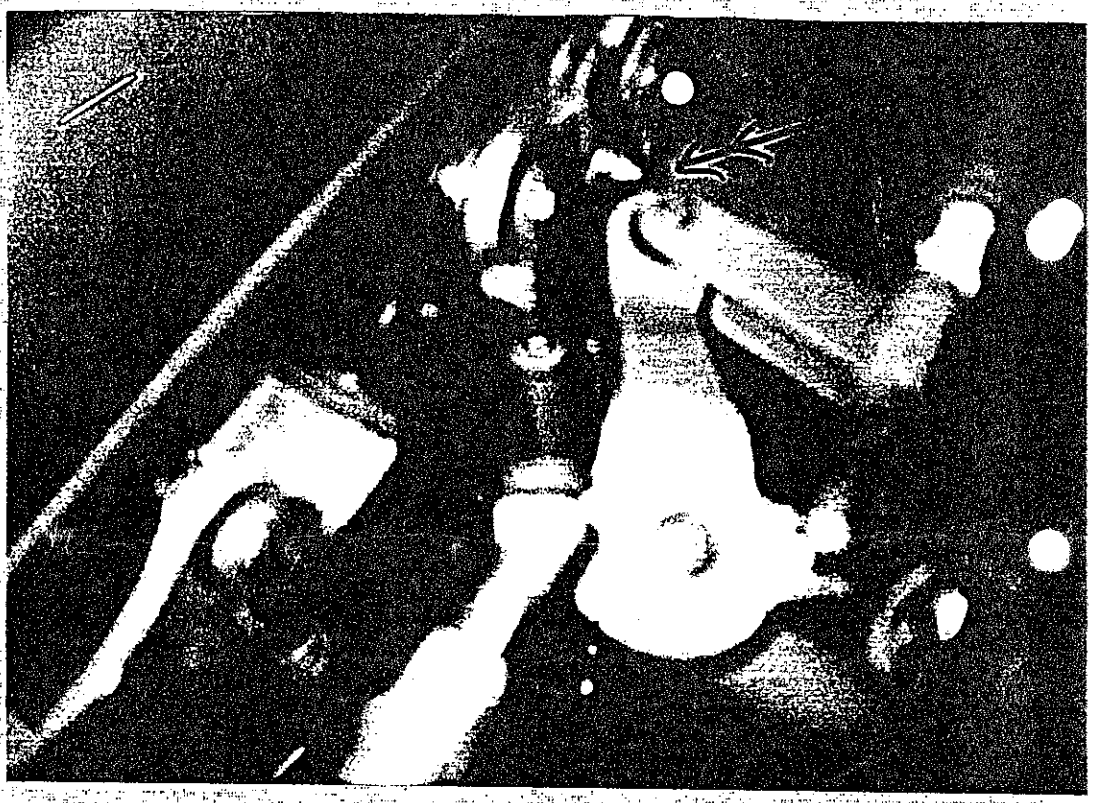
view from the rear

1. Remove left cockpit side cover.
2. Roughen the seat shell in the area for block 6 RU 67 (see sketch) thoroughly with sandpaper.
3. Roughen the glue area of block 6 RU 67.
4. Glue block 6 RU 67 onto the seat shell.
   Therefore extend the landing gear and place a thin piece of cardboard between the landing gear control pushrod and the block to ensure the free play of appr. 0.5 mm.
   Press the block to the seat shell and secure it for curing with tape or with ballast.
   Remove excessive glue material.

   Suitable glue material: Epoxyresin see repair manual or polyester resin both thickened with cotton flocks.
5. After curing.
   Function check of the landing gear control.
6. Reinstall the cockpit side cover.

DG.400 Undercarriage Lock.

ASW 20 CONTROL JAM



ASW 20. CONTROL JAM

BILL SCULL

CONTROL CONNECTIONS

From time to time there are incidents and accidents, some fatal, because the pilot has failed to connect a control properly or, maybe, not at all. In this article Bill covers rigging, daily inspection, control checks and the policy, or philosophy, of whether to lock the control connections with some suitable device. He forces home his message with a collection of grim panels showing what can happen when absolute care isn't taken

Rigging the modern glider could hardly be simpler. In the latest designs the controls connect automatically; the slightly older gliders may have separate connections for ailerons, flaps and airbrake. Even if one has to make control connections, rigging seldom takes more than a few minutes which is in marked contrast to the old, strutted gliders.

Perhaps this simplicity results in the failure to connect the control. In essence, rigging the glider becomes the DI. It shouldn't but it does. One way to combat this lackadaisical attitude is of course to complete the rigging, walk away and then do a DI as if you had just got the glider out of the hangar. But we don't need to be that pedantic do we? But the accidents tell another story.

Accidents

The accidents show the potential problem:

The V-tailed glider had been rigged that day and already flown once. On the second winch launch, at about 800ft, the left tailplane was seen to rotate through 90° causing the glider to pitch up and enter a spin from which recovery was not possible. The locking pin was not correctly installed allowing the tailplane to move.

The technical aspect in this case was that the locking pin could be through the tailplane without engaging the mounting/drive shaft. Not exactly a fail-safe design. In this accident the pilot had no chance at all. The positive check for this design would be to try and pull each tailplane half off its mounting to establish that the pin was actually locking it in place. Since a visual check is virtually impossible the importance of the positive check is paramount.

In some cases the lapse may not have serious consequences. I've talked to some very experienced pilots who have coped with a disconnected aileron and even continued with a cross-country flight, However, the outcome can be fatal.

The glider had been rigged on the day of the accident and the appropriate pre-flight checks carried out, including a positive check. On take-off the left aileron connection in the fuselage became detached. The aileron vibrated and set up a wing oscillation. The pilot abandoned the aerotow and turned to get back to the airfield. During the turn the glider spun and crashed into trees.

It is a matter for speculation as to whether, if the pilot had not turned or turned more gently, he could have controlled the glider and landed in a field. The tragic thing about the accident is that there was definitely a positive control check. It is also evident from bench tests that if the L'Hotellier connection had been properly assembled then it would not have come off. **We know that a partial connection is possible.** Incidentally, the glider was a Std Cirrus and there weren't any locking pins. More on this point later.

If the elevator is not connected the outcome will be serious and sometimes fatal:

After a shallow winch launch the glider flew unusually fast and low along the ridge (which was working) with occasional pull-ups before diving into trees at the bottom of the ridge. The locking pin for the elevator was found on its string and had not been fitted. The elevator was not connected.

Some pilots who make the same mistake get enough height to bale out, even from a winch launch. On aerotow there is the risk of a towplane upset but usually the glider climbs steeply before the tug is airborne and either the glider pilot or the tug pilot releases. The glider's attitude when it strikes the ground is a matter of luck - usually the pilot is not injured.

So there aren't too many variations on the basic theme. While the mind may boggle at anyone making such a mistake, failure to connect the controls happens with monotonous regularity. So what's **your** policy, or even philosophy, regarding the locking of control connections?

A policy or philosophy

It is relatively easy in the context of club gliders to have a system which seems satisfactory. Most gliders are kept rigged and although the practice may include a positive control check, the situation is hypothetical if the glider was already rigged.

So do you lock the L'Hotellier connections on your glider? No? You wouldn't make such a stupid mistake, would you? Yet very experienced people do. For example:

The glider was rigged but no independent positive control checks were made as it was not to be flown. However, later in the day the pilot decided to fly and on aerotow found there was no elevator control. After considerable difficulty (having released from tow at 2500ft) the pilot jettisoned the canopy and struggled out of the cockpit to make a safe parachute descent.

This was a combination of luck (that the glider towed satisfactorily without elevator control) and presence of mind in baling out, despite the difficulties.

The message

So there are three clear lessons to be learned:

1. Walk away after rigging. Come back and do a DI.
2. Carry out a positive control check.
3. Fit locking/safety pins to all connections.

Locking L'Hotellier connectors

If there is provision for locking a connection then why not use it? It is interesting that in Germany locking L'Hotellier connections is mandatory, required by an Airworthiness Directive.

Some people will argue that it's difficult in certain gliders, like the ailerons on a Std Cirrus. I was almost convinced that it was until I talked to a syndicate at Lasham. "No problem" they said, and it isn't. All right, you do it by feel but one must surely be reassured by knowing a locking pin is in place.

The method

So what are the problems? To some extent the answer depends on the configuration - whether the control run, including the connection, is straight or involves a change of direction. For the in-line control run, the simple plastic clip shown on the opposite page is a good option.

Fig 1 shows the clip in the connect position. The ball end can be inserted in the socket.

Fig 2 shows the clip rotated through 180°. In this position it serves as an additional lock.

This is a Glaser-Dirks design and available from the agent, as are the other options.

The safety pin comes in more than one form. The simple D clip is best attached by a cord to the body of the connector, thus avoiding dropping it. See Fig 3 for the pin hanging free and Fig 4 with it in place. It's worth noting that in some older gliders there may not be a hole drilled in the locking lever or wedge of the L'Hotellier. If you are going to modify the connectors on your glider then the locking hole should be drilled with the connector assembled, *ie* the ball in the socket. If you drill the hole with it disassembled then it may not be possible to get a pin through the hole, which rather defeats the object of the exercise.

A variation on the locking arrangement is with a clip which is fastened to the body of the

Fig 1.

Fig 2.

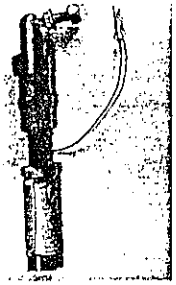


Fig 3.

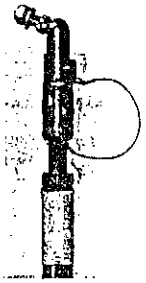


Fig 4.

Fig 5.

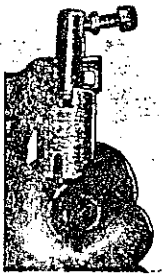


Fig 6.

Fig 7.

L'Hotellier as in Fig 5. This arrangement helps to locate the pin in the hole.

The final option is designed by Klaus Wedekind. The locking sleeve is spring-loaded; it has to be pushed back against the spring to engage the ball and socket (Fig 6). Once released it covers the wedge, thus immobilising it (Fig 7). The sleeve will not spring back if the ball is not properly engaged in the socket.

Other possibilities

So far only two possible "failure cases" have been considered - failing to make the connection at all or a partial connection. The DI and the positive control check guard against the former and the locking device against both.

The third case is when the connection is properly made but not locked. Apparently the connection can disengage under load. I have never been convinced about this until told about a positive control check on a K-21 elevator.

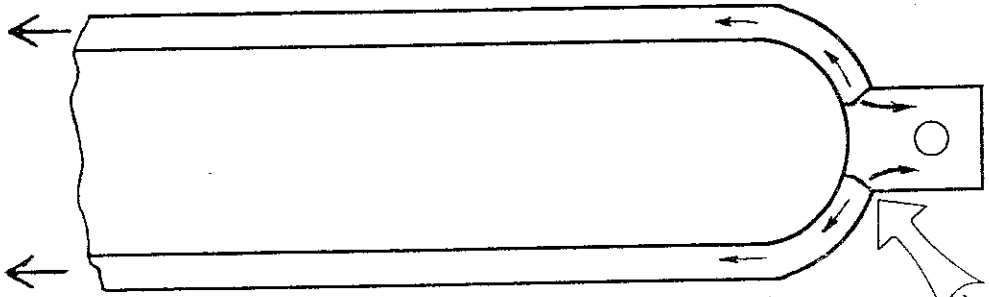
Seemingly when the control circuit is loaded the wedge will move. While it may be difficult to achieve similar loads in flight there is some evidence to suggest that a disconnection under load is possible. Yet another good reason for using one or other of the locking methods.

Finally

Are you convinced? If not then evidently you're prepared to accept the risk, however unlikely the possibility of **you** making a mistake. This psychological state is known as: "invulnerability". On the other hand you might decide that locking the L'Hotellier connections on your glider is a good idea.

There may be something behind the Luftfahrt Bundesamt making the requirement to lock them mandatory.

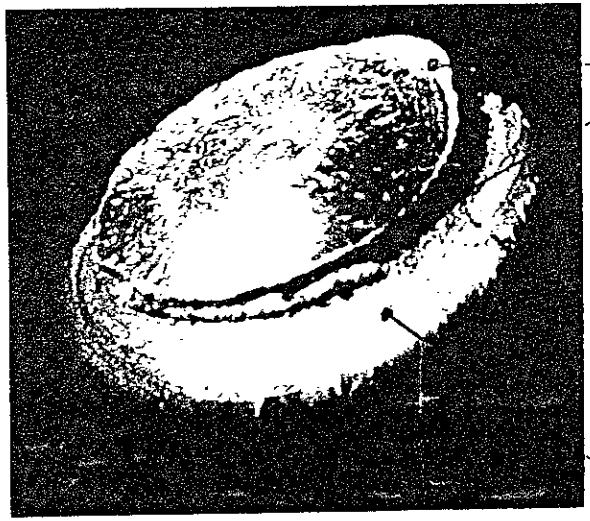
PA-18 Undercarriage Damper Body Failure, G-BAFT



Tension load

Crack origin at change of section

Final overload region, mostly in shear



Fatigue region

Crack initiated at multiple sites

Note surface pitting corrosion and rough machining marks

PA18 - CAB - TWC

14. CARBURETTOR ICING

P

Aircraft type	:	Cessna 152
Date	:	December 1995
Engine type	:	Lycoming O-235 L2C

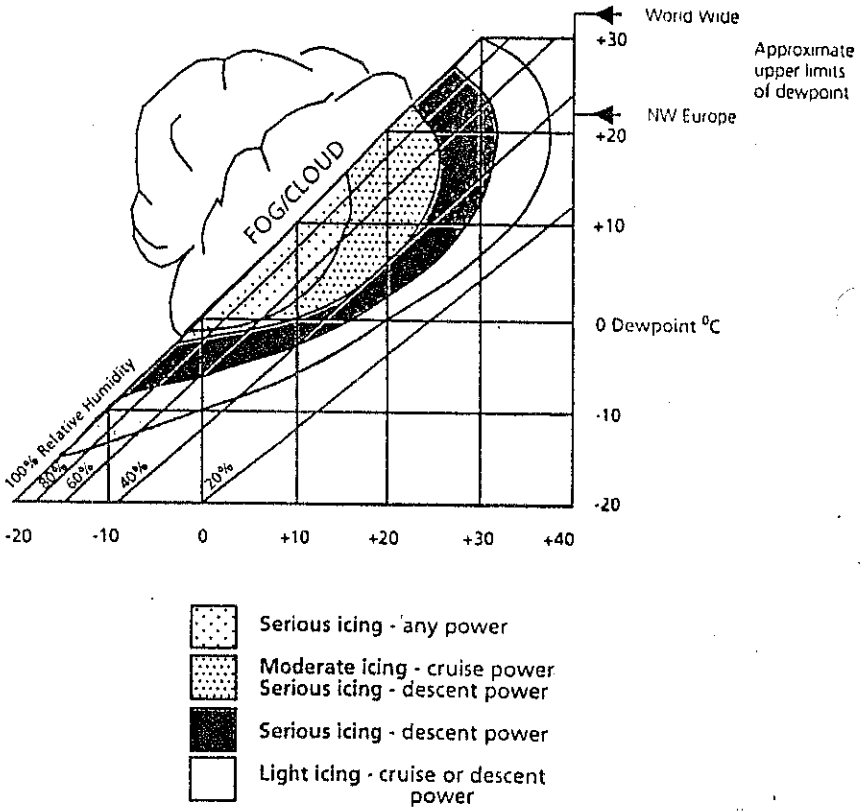
The aircraft was on a cross-country flight in Scotland, the proposed route being Edinburgh - Oban - Fort William - Perth - Edinburgh. The weather for the whole route was cloudless and at a planned altitude of 5000ft, the outside air temperature was -15°C. The pilot selected carburettor heat, and left it on throughout the entire flight, although he did slightly reduce the mixture in order to make it slightly leaner. After some time, the engine started running roughly with the rpm suddenly falling. The aircraft was unable to sustain height and despite pushing the mixture back to the fully rich setting and applying full power, the engine would only achieve 1500 rpm. Returning the carburettor heat to the cold position resulted in the engine running down further, so the pilot quickly went back to the full hot position and secured some burst of power. They were able to land safely at Perth and since no faults were found with the engine, the conclusion was formation of carburettor ice.

CAA COMMENT:

It seems likely that the continuous use of carburettor heat caused the temperature in the venturi of the carburettor to rise such that it was now in one of the icing ranges as shown in the chart shown.

The pilot pointed out that various publications do actually discuss the use of permanent selection of carburettor heat in flight and suggest that the mixture be leaned slightly if this is done.

Generally, the only occasion the carburettor heater should be left set continuously in the hot position is if the aircraft is flying in conditions which the chart shows are conducive to carburettor icing. Even then, the manual for the aircraft and engines should be consulted, because many do not encourage this practice. Copies of Safety Sense Leaflet 14A, Piston Engine Icing, are available from CAA Printing and Publications Section at Cheltenham, address as on page 2 of this GASIL.



S.L.M.G's

APPENDIX 6 B.G.A. FLIGHT TEST REPORT TYPE.....

B.G.A. INSP 267 FT REGISTRATION.....

PART 7 M-G PERFORMANCE AND HANDLING (Weather)..... Location.....

7.1 Engine Ground Starting..... Max Static RPM.....

Idle RPM..... Oil/Press.....

Gen/alternator output..... Oil Temp:.....

Carb Heat RPM Drop..... At Full Power.....

7.2 **T/O and Climb Performance** (Set 1013 mb, Record G/L Temp .....

Record T/O Weight..... C.G. at..... Fuel Load.....

TIME	HEIGHT	RPM	IAS	OIL/TEMP	OIL PRESS
0 MIN					
1 MIN					
2 MIN					
3 MIN					
4 MIN					
5 MIN					

Mean R/C.....

Handling at T/O and Climb..... Trim.....

7.3 **Engine RPM at V_{NE} Throttle Closed** IAS..... RPM.....

(handling at V_{NE}).....

7.4 **Feathering/Unfeathering in Flight**

7.5 **Restarting** (a) Starter motor/unfeather.....

(b) Unfeather/dive to IAS..... Height Loss.....

7.6 **Stalls** - Clean and Gear/flaps down (Record IAS/BUFFET)

7.7 **Stability Assessment** (Engine-on/Engine-off)

7.8 **Handling** - Airbrakes, flaps - Gear Down - (approach and landing).

7.9 **Aerobatic Manoeuvres and Spinning**

7.10 **Overshoot and Climb Out** Trim.....

7.11 **Landings - Power Off**

7.12 **Landings - Power On**

7.13 **Ground Handling** - (Taxi-ing, manoeuvring, brakes)

7.14 **Cockpit Layout** - Placards.

7.15 **General Remarks**
(Verification of Flight Manual)

7.16 **Post Flight Performance Analysis**

Measured Rate of Climb from 7.2	.....ft/min
Scheduled Rate of Climb from Manual for test altitude, weight and temperature	.....ft/min
Difference (Measured - Scheduled)	.....ft/min
Performance result acceptable	YES/NO
Other Flight Test Results acceptable	YES/NO
Recorded defects	1. .....
	2. .....
	3. .....

Signed for B.G.A. ..... Date.....

PPL Number.....

BGA Note To correct climb performance for temperatures varying from ISA. 15°C
For temperatures above 15° subtract 4ft/min.
For temperatures below 15° add 4ft/min

CAA FORM 202NR

CIVIL AVIATION AUTHORITY

Safety Regulation Group

SURVEY REPORT AND RECOMMENDATION FOR THE RENEWAL OF A CERTIFICATE OF AIRWORTHINESS IN ACCORDANCE WITH BCAR A/B 3–4.

DISTRIBUTION: **White** – CAA **Pink** – CAA **Blue** – Approved Organisation

1 AIRCRAFT DETAILS

Registration	Type	Serial No	Category

Total hours flown since manufacture to 31 December prior to this renewal ..... associated flight cycles/landings* .....

Type of Engine: Type of Propeller: APU Type:

The current Aircraft Weight and Centre of Gravity Schedule dated ..... accurately reflects the present weight of the aircraft.

The aircraft was last weighed on .....

Flight Manual/POH/Owners Manual* amendment status report dated.....

Aircraft tested to AFTS No: Issue No: Date of Test:

The aircraft has been flight tested in accordance with the agreed Fleet Test Programme YES/NO*

2 COMPLIANCE STATEMENT

I confirm that compliance with the following is properly entered and certified in the aircraft technical records:-

Airworthiness Notices, Contents Issue: (latest Issue ?)

Mandatory Aircraft Modifications and Inspections Summary, Contents and Check List of Pages, Issue:

FAA Summary of Airworthiness Directives Large Aircraft/Small Aircraft and Rotorcraft at bi-weekly listing No:

Foreign Airworthiness Directives Vols I and II - CAA Additional Airworthiness Directives, Contents and List of Pages, Issue:

Foreign Airworthiness Directives Vol III Contents and Check List of Pages, Issue:

Scheduled Maintenance and Component Life Limits satisfactory: YES/NO* Schedule ref. MS:

BCA 199? list + latest TNS

All modifications and repairs revealed during this inspection and carried out since last C of A renewal have been assessed and are adequately recorded and certified in the appropriate Log Books.

The last Maintenance Review is dated

Radio equipment in accordance with AC968NR YES/NO*

3 CERTIFICATION

Certified that the appropriate requirements of BCAR, Section A/B Chapter A/B 3–4 have been complied with and the particulars contained herein are correct.
It is recommended that the Certificate of Airworthiness be renewed for a period of 36 months, in the following category: ~~Transport Category (Passenger)/ Transport Category (Cargo)/Aerial Work~~/Private/~~Special~~*

Organisation: BCA

Company Approval No: DAI/8378/73

Signature (CTO) Date

Name in block capitals:

(for CAA use only)

The previous Certificate of Airworthiness has been replaced by Certificate No:
which is effective as follows:

DATE OF VALIDITY: .....

DATE OF EXPIRY: .....

Surveyor's/Administrator's Name:

Signature:

Date of Issue: Regional Office:

The following documents are attached:- Flight Test Report/Flight Manual Status Report/Weight and C of G Schedule/Previous C of A