

BRITISH GLIDING ASSOCIATION

TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 5/6/89

PART 1 AIRWORTHINESS "AGGRO"

1.1 Seat Back Adjusters, Securing Devices Required!

Several cases have now been reported of seat backs becoming unsecured in flight, leading to potentially hazzardous situations.

These reports include gliders with retracting gear on which the gear retraction handle is adjacent to the seat back adjusting device. The extra effort required to retract the undercarriage coupled with dislodging the seat back retainer with one's elbow, resulted in the gear up and the seat all the way back, at the same time! Owners/operators may wish to make these devices more secure, on a whole variety of glider types.

- 1.2 Bellanca (Tugs) Type 7ECA / 7GCAA / 7GCBC / 7KCAB / 8GCBC and 8KCAB. Failure of the pilots seat backrest frame at the pivot point. Notwithstanding compliance with AD/76-22-01, which addressed failures elsewhere on the pilots seat, seat back failures continue to occur, and may have contributed to a fatal wing spar failure in USA and Canada, due to the sudden application of excessive "g" as the pilot disappears rearwards on to the 2nd pilot's control stick. (Seat failures have also been seen on PA18 Cubs).

Magnetic particle or dye penetrant NDT is strongly recommended on all critical seat structural areas. (Extract from NTSB Report).

- 1.3 Glider "Technical" Accidents 1987. Extracts from the BGA Report:-

a) KA8 Broken frontskid mounting caused control restriction.

b) Skylark 4. Assymetric speed brake one side not connected!

Glider "Technical" Accidents. (Extracts from the 1988 BGA Report:-

c) ASW 19 Elevator not connected. Yet again!

- d) DAK1 15 Centre section rairing not secured - came off in flight.
- e) Bocian - Trim Tab Drive Failure (TNS 3/4/89).
- f) Kestrel 20 Port aileron not connected.
- g) Kestrel 19 Main wing pin omitted!
- h) KA6CR Canopy lock failed to secure - opened in flight.
- 1.4 T.65 Vega Aileron Drive Covers (secured by bungee), came adrift in high speed flight, and have jammed the controls recommend such wing inspection covers be taped over.
- 1.5 DG300 Levers and bearings in the wing root found to be severly corroded. (Reported by Southdown Aero Services).
- 1.6 Tost Hooks, extention of LBA approved overhaul period to 4 years. LBA AD 89-18 (herewith) is self explanatory. However the airworthiness condition of tow hooks must be checked on Daily Inspections and at C of A renewal inspections, regardless of this directive.
- 1.7 RF3 Series Motor Gliders. Mandatory Airworthiness Directives. Issue 8 of Foreign AD's is attached herewith.
- 1.8 SF34 Front Wheel Mounting - Re-enforcement The attached sketch by courtesy of Tim Macfadyen, Cotswold G.C, may be of interest to other operators?.
- 1.9 Slick Magnetos - Cracking of Magneto Coil. Potting Compound. SB1 - 81B (1985) may be relevant to malfunctions experienced on motor gliders and tugs?
- 1.10 Extracts From CAA General Aviation Safety Information Leaflets (GASILS)
 - a) Aspartame (sweetener) "Nutrasweet" can blurr your vision!
 - b) Leaded Motor Fuel (BS4040). A reminder
 - c) Beware of SHELL Mogas, it can damage your motor glider engine!!
 - d) Curtis Drain Valves, if jammed open, can damage your health.
 - e) Chipmunks - corrosion of walkways can let you down!

PART 2 GENERAL MATTERS

2.1 Change of Ownership & Registration. Aircraft and Gliders

Aeronautical Information Circular 57/1989 explains the airworthiness implications of maintaining correct ownership details on the CAA's registration computer.

Likewise for gliders, BGA need to know the correct details of ownership in case we need to distribute Airworthiness Directives.

2.2 Birds in The Works The attached photo of a 7 day birds nestin marathon in a Grob 109 Powerplant at Shobdon, is worthy of attention by those who park inide or out?

2.3 Aspiring CAA Licenced Engineers should obtain a free copy of CAA document No 429, from CAA offices.

R. B. STRATTON.

CHIEF TECHNICAL OFFICER

AIRWORTHINESS DIRECTIVE

89-18 Tost

TOST Hooks

Date of issue:

February 23, 1989

Affected Glider Towing Equipment:

German Type Certificate No. 60.230/2

Release Type Sicherheitskupplung "Europa G 72", "Europa G 73"

Subject:

Increase of time between two overhauls (TBO) from 3 up to 4 years

Reason:

Due to product improvement to the spring material, and after having finished the fatigue tests there are no objections to increase the time between two overhauls from 3 years up to 4 years. Due to modifications of material and heat treatment to the "hook bushing", the case hardness and resistance against fit corrosion has been improved.

Action and compliance:

Exchange of the affected parts and of the Operating and Maintenance Instructions will be done within the overhaul procedure by the manufacturer.

Modification of the Operating and Maintenance Instructions, issue May 1975.

These instructions will be replaced by new "Operations Manual", issue January 1989.

Technical publication of the manufacturer:

Tost Service Bulletin No. 60.230/2-4/88 of November 30, 1988.

which becomes herewith part of this AD and may be obtained from Messrs. Tost GmbH, Flugzeuggerätekabau, Thalkirchner Str. 62, D-8000 München 2, Federal Republic of Germany

Accomplishment and log book entry:

Action to be accomplished by an approved service station and to be entered in the airplane's log.

Civil Aviation Authority

FOREIGN AIRWORTHINESS DIRECTIVES

Volume III

BSI TNS 5/6/89

Issue 8
March 1989

FOURNIER RF3 SERIES MOTOR GLIDERS AND FOURNIER RF6 SERIES AIRCRAFT

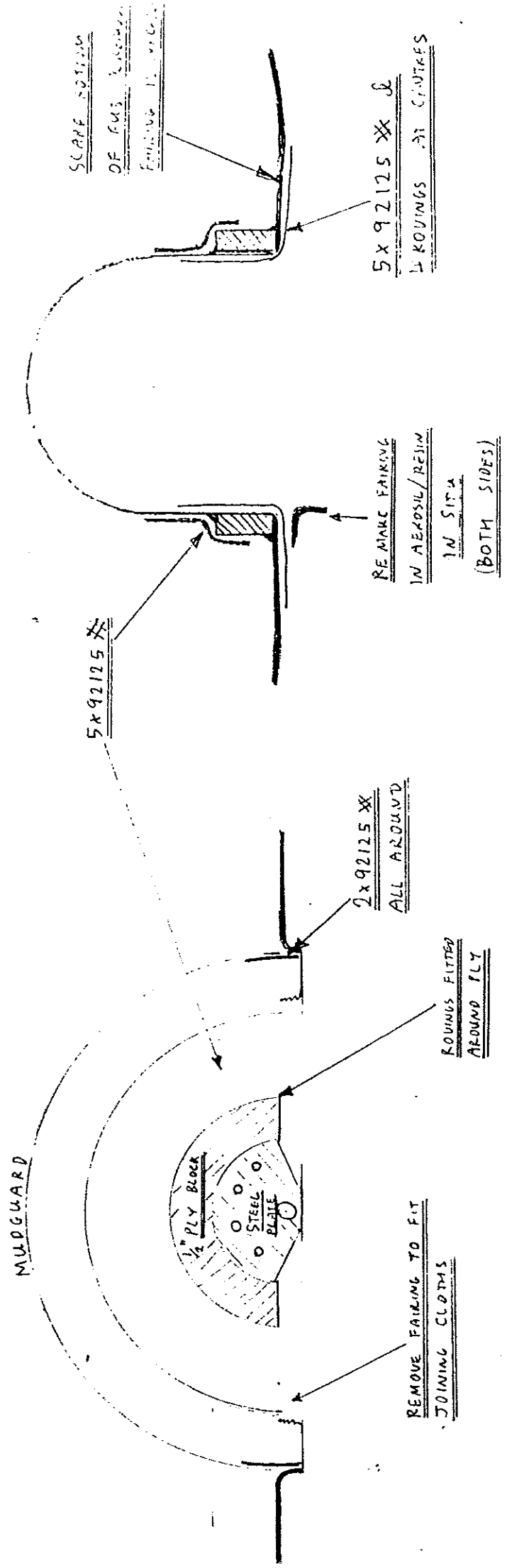
<u>CAA AD No</u>	<u>Associated Material</u>	<u>Description</u>	<u>Applicability - Compliance - Requirement</u>
		<u>PART 1 - DIRECTION GENERALE DE L'AVIATION CIVILE AIRWORTHINESS DIRECTIVES</u>	
67-39-1		Wing Skin - Inspection for cracks and deterioration of glued joints.	Applicable to all RF3 Series aircraft. INSPECT the critical zone every 30 flight hours until modified in accordance with Service Bulletin Alpavia No 2.
79-234		Fuselage - Modification to the fireproof bulkhead - Inspection of a seal supporting plate.	Applicable to all RF6B-100 aircraft. Compliance required as detailed in AD. Fournier Aviation Service Bulletin No 3 also refers.
79-235		Flight Controls - Inspection and replacement of aileron control coupling rod.	Applicable to all RF6B-100 aircraft. Compliance required as detailed in AD. Fournier Aviation Service Bulletin No 2 also refers.
86-031 R1		Structure and Flight Controls - Inspection for corrosion of metal parts.	Applicable to all RF6B-100 and RF6B-120 aircraft. Compliance required as detailed in AD. Fournier circular dated 10.01.1986 also refers.
75-76		Operating Limitations - Normal category certification only.	Applicable to all RF3 Series aircraft. Install a plate in the cockpit on the wheel well with the following notice no later than 15 May 1975: U category operation and spins prohibited.

1/25 5/16/89

SF. 34

"X" SECTIONS THROUGH FRONT WHEEL MOUNTINGS
SHOWING REINFORCEMENTS

(60A 3325)
BGA/TNS/5/6/89



T. Des-Forges

BGA 7/25/81/5/6/87



SLICK

SB 1-81B

Service Bulletin

Possible Magneto Malfunction Due to Cracking of the Coil Potting Compound

BACKGROUND: There have been magneto malfunctions reported recently that have resulted from a crack in the orange potting compound of the magneto coil. The crack is observable as emanating from the high voltage output post of the coil, on the ends near the corners of the bridge, or across the rear of the coil.

EQUIPMENT

AFFECTED: Only the following magneto model numbers are affected:

4201, 4201R	4252, 4252R	4216, 4216R
4230, 4230R	4281, 4281R	6210, 6210R
4251, 4251R	4250, 4250R	6214, 6214R

The serial number range of these magnetos includes:

<u>Serial Number</u>	<u>Month of Manufacture</u>
8100000 - 8109999	October, 1978
8110000 - 8119999	November, 1978
8120000 - 8129999	December, 1978
9010000 - 9019999	January, 1979
9020000 - 9029999	February, 1979
9030000 - 9039999	March, 1979
9040000 - 9049999	April, 1979
9050000 - 9059999	May, 1979
9060000 - 9069999	June, 1979
9070000 - 9079999	July, 1979
9080000 - 9089999	August, 1979
9090000 - 9099999	September, 1979
9100000 - 9109999	October, 1979
9110000 - 9119999	November, 1979
9120000 - 9129999	December, 1979
0010000 - 0019999	January, 1980
0020000 - 0029999	February, 1980
0030000 - 0039999	March, 1980
0040000 - 0049999	April, 1980

THIS REVISION IS A REPRINT OF ORIGINAL BULLETIN INDICATED. TECHNICAL INFORMATION REMAINS UNCHANGED.

ISSUED			REVISED			Slick Aircraft Products A Division of Unison Industries, Inc. 530 Blackhawk Park Avenue Rockford, Illinois, U.S.A. 61108	PAGE NO.	REVISION
MO	DAY	YR	MO	DAY	YEAR		1 OF 8	B
4	26	81	10	10	85			

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SLICK Service Bulletin

SB 1-81B

It also includes all coils that have been field-installed (in magneto models listed above) as replacements between October 1, 1978, and today's date. Coil manufacturing dates are stamped on each coil and agree with magneto manufacturing date. Only coils manufactured between October 1, 1978, and April 30, 1980, are affected.

COMPLIANCE: For engine model numbers affected, please refer to Teledyne-Continental Service Bulletin #M-81-13 (Rev. 1) and Avco Lycoming Service Bulletin #457A.

The coil must be visually inspected within the next 25 hours of service, or no later than August 31, 1981. No material and/or labor claims will be honored if submitted later than September 30, 1981, for domestic claims, or November 30, 1981, for international claims.

Coils should be re-inspected for cracks as a routine matter at each 500-hour service interval. Our service manual currently recommends that our magneto be opened at 500-hour intervals as normal procedure.

To check the coil for cracks, remove the magneto from the engine, and remove the coil from the magneto. This must be done in accordance with our Detailed Instructions in this Service Bulletin.

The labor allowance will be:

Coil Inspection, Replacement if necessary,
and Reassembly ...1.5 hrs./magneto

- at current posted shop rate -

Claims are to be handled by any Slick distributor listed in the back of this Bulletin. All claims for labor for coil inspection must be accompanied by our Pro Rata Form #1030, filled out completely with magneto model number, serial number, total hours, date stamped on coil, and the shop labor rate. All claims for parts submitted with the old coil and Form #1030, filled out as noted above.

All 4200 series magnetos use Slick Coil part number M-3114.
All 6200 series magnetos use Slick Coil part number M-3009.

ISSUED			REVISED			Slick Aircraft Products A Division of Unison Industries, Inc. 530 Blackhawk Park Avenue Rockford, Illinois, U.S.A. 61108	PAGE NO.	REVISION
DAY	YR	MO	DAY	YEAR				
26	81	10	10	85	2 OF 8	B		

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Engineers Supplement

SEE ALSO P/E ITEMS IN MAIN GASIL

E1. WING WALKWAY PANEL CORROSION

Aircraft : DHC1 Chipmunk

Date : 1989

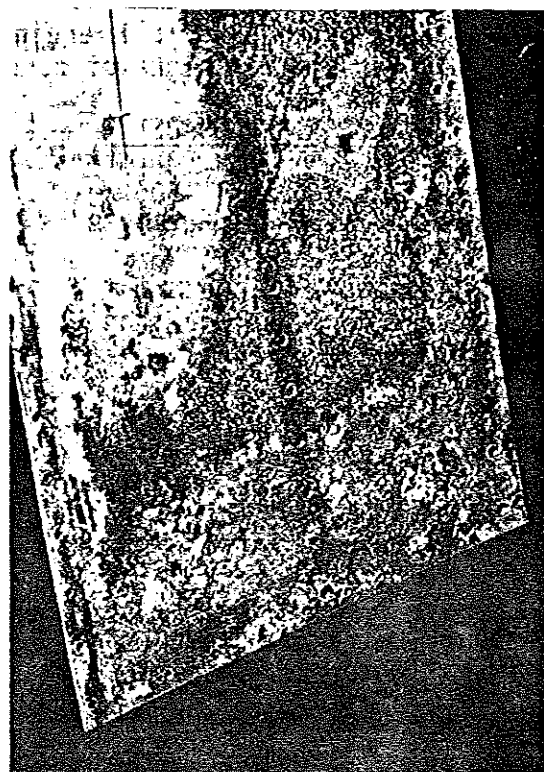
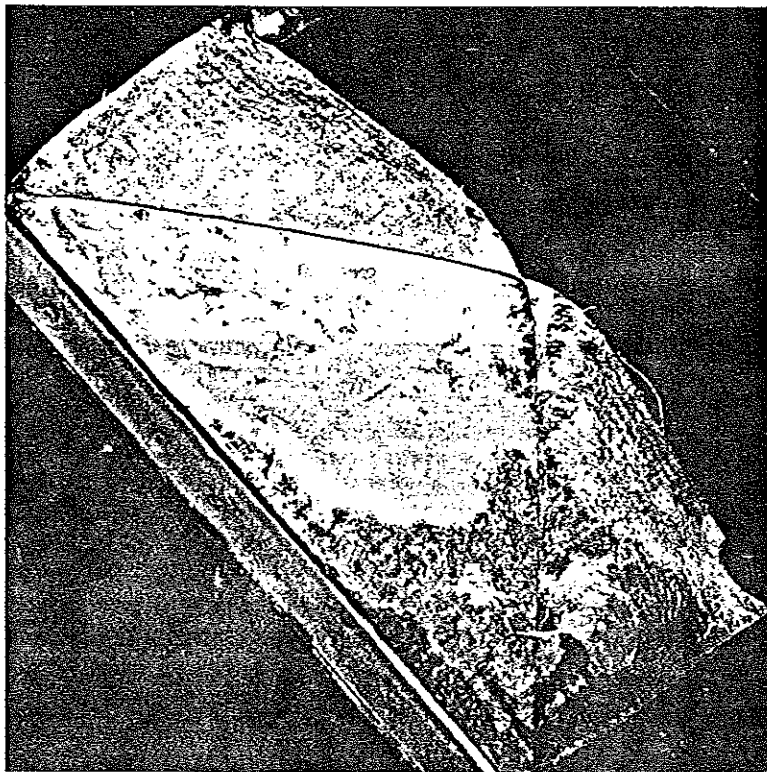
During routine inspection, it was noticed that "bubbles" had appeared in the main plane walkway matting.

Following removal of the matting, significant corrosion was found to have occurred to the walkway panel.

The entire panel was replaced and it was noticed that the replacement panel should have a "joggle" running the width of the panel and situated 1" away from the top and bottom of the panel. This facilitates the proper fitting around the ribs.

CAA Comment:

If all of the "bubbles" found in a single walkway area can be depressed by hand and returned to normal skin contour, little or no skin corrosion is found when the rubber matting is removed. If one or more of the bubbles cannot be depressed, and a hard lump is found underneath, it generally indicates that oxidised aluminium powder has collected underneath and subsequent removal of the matting reveals skin corrosion in various stages. Although useful as a guide, this method of detection cannot be guaranteed.

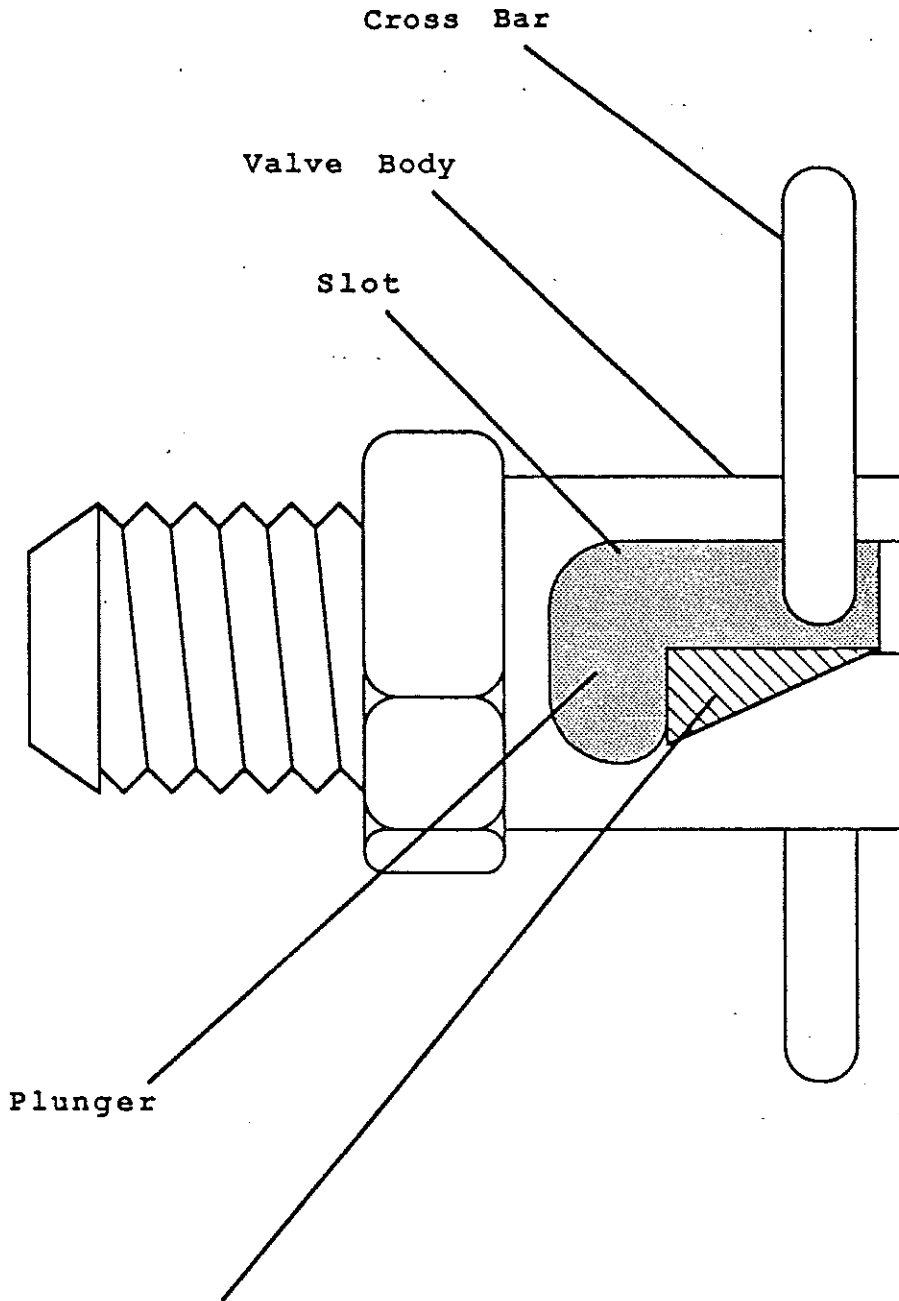


In some cases, it was apparent that no surface preparation/priming had been applied to the skin prior to bonding of the walkway materials.

It is suggested that pilots and engineers inspect this area of the aircraft prior to next flight.

SCHEMATIC OF CURTISS DRAIN VALVE

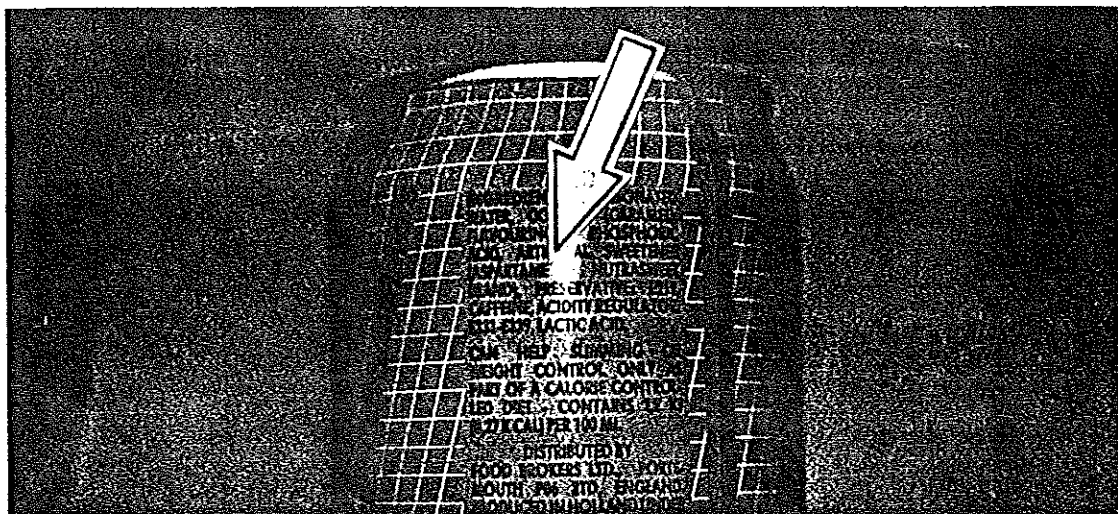
Modification to prevent loss of fuel
after water checks. Drain Valve
modified to prevent it remaining 'OPEN'



Shaded area of slot for filing off in accordance with
CSE Service Bulletin 6/75 (schematic only)

FIG 1

Over the last few months, several articles from American aviation magazines have reached the Editor's desk suggesting possible serious side effects of a substance called Aspartame-which is better known as Nutrasweet. This is the principle sweetener used in a whole range of diet colas and other drinks.



In most cases, the symptoms described included headaches, nausea, blurred vision, dizziness and numbness or swelling of bodily extremities. In addition, depression, memory loss and other mood swings were cited.

Numerous case histories are quoted including one disturbing instance of a 22 year old woman who suffered these unexplained symptoms of headaches, blurred vision, loss of consciousness and who finally died in 1988. The woman's mother hired a lawyer and a private investigator who determined that the likely cause might have been the woman's addiction to diet drinks.

In most cases, when the affected person stopped using drinks and sweeteners containing Aspartame and used other artificial sweeteners they felt an almost immediate improvement.

There is currently in the United States a national campaign based in Texas to try to get the substance banned.

CAA Comment:

Whilst none of the above represents any form of scientific evaluation, nonetheless low calorie diet colas are very popular because of their possible slimming application. It must also be said, that diet colas contain a significant amount of caffeine which, if taken to excess, can also cause similar problems to those outlined above.

If any pilots have been suffering such unexplained symptoms, perhaps they should review their own intake of Aspartame.

Have any pilots or their families suffered from such problems in the UK?

5. SELF LAUNCHING MOTOR GLIDERS - WARNING PLACARDS

P/E

The Design and Manufacturing Standards Division of the Civil Aviation Authority have for some time been discussing the continuing need, if any, of the placard that is required to be displayed in the cockpit of SLMG's advising the pilot that:

"The aircraft must not be operated in conditions such that engine failure could result in a hazard".

It has now been decided that the placard is no longer required and that this condition of the Certificate of Airworthiness will be deleted at next renewal. Owners of SLMG's will be notified shortly by their supervising Approved Organisations, BGA or PFA that the placard in question has to be removed, the CAA will amend the Certificate of Airworthiness Renewal."

number.

9. LEADED MOTOR FUEL

P/E

In view of the current environmental interest in the use of unleaded motor fuel as opposed to a four star leaded motor fuel, it is important to remind pilots once again that if an aircraft is cleared to use motor fuel, then the only motor fuel that can be used is leaded motor fuel to British Standard BS4040.

It is also worth remembering that the Supplementary Type Certificates (STC's) which are available to aircraft in the United States of America are for the use of unleaded motor fuel that is the norm in the United States and are not relevant to the leaded motor fuel that exists here in the UK.

All motor fuel which is uplifted by an aircraft should be in compliance with Airworthiness Notice 98 which requires that motor fuel be obtained from an approved aerodrome installation or have been laboratory tested. This supplies fuel only to BS4040 and must be alcohol free.

STOP PRESS

BEWARE OF SHELL!!

SHELL MORGAS

P

We have just been informed that Shell are to introduce a secret detergent based additive into their 4 star leaded fuel. It makes the fuel UNSUITABLE FOR AVIATION USE. Shell plan to place warnings at their service stations.

YOU HAVE BEEN WARNED

SHELL MORGAS MAY WRECK THE VW engine
in your MOTOR-GLIDER?

Civil Aviation Authority

AERONAUTICAL INFORMATION CIRCULAR UNITED KINGDOM

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57/1989
(White 333)
4 May

Aircraft Registration

7L6/30/26

AIRCRAFT OWNERS: REGISTRATION INFORMATION

1 Change of address

- 1.1 The UK Register of Civil Aircraft contains the names and addresses of owners or charterers of aircraft. This information is used to contact owners for a variety of reasons, all connected with safety.
- 1.2 The first named owner or charterer receives Airworthiness Notices and, where appropriate, Light Aircraft Maintenance Schedule amendments. Most owners also receive copies of General Aviation Safety Information Leaflets (GASIL) and the Flight Safety Bulletin.
- 1.3 The Register is used, by the CAA and other authorities, to contact the owner's address in the case of safety, emergencies or accidents.
- 1.4 In a significant number of recent cases letters sent to aircraft owners have been returned to the CAA endorsed 'Gone Away'. In such cases it is impossible to contact the owners to make them aware of necessary modifications to their aircraft or to send current safety information.
- 1.5 Registered owners and charterers of aircraft are reminded that Article 4(11) of the Air Navigation Order 1985, obliges them to inform the CAA forthwith of any changes made in the particulars (including the address) supplied at the time of registration.



- 1.6 Where an address change has occurred, the Certificate of Registration should be returned to the following address for amendment:

Aircraft Registration
Central Library
Civil Aviation Authority
CAA House
45-59 Kingsway
London WC2B 6TE

Tel: 01-832 6299

- 1.7 Where the Certificate has been destroyed or mislaid a letter giving the new details should be sent instead. A new Certificate will be issued without charge.
- 1.8 Apart from the legal obligation to inform the CAA of address changes, it is obviously in the interests of owners, who are urged to check their Certificates at the earliest opportunity.

2 Change of Ownership

- 2.1 Any person who becomes the owner of an aircraft registered in the United Kingdom must inform the Authority in writing within 28 days (ANO 1985 Article 4 (12)). They should obtain a form CA1 from the address given in para 1.6 and apply to register the aircraft. The former owner must notify the Authority immediately the aircraft is sold, this should be done by returning the Certificate of Registration to the Authority with Section 1 on the reverse of the Certificate duly completed, or, in the case of an aircraft sold abroad, Section 2. The Authority has the power under Article 4 (13) of the ANO 1985 to cancel a registration if it is satisfied that there has been a change in the ownership of the aircraft. If the Certificate has been mislaid, a letter confirming that fact, and giving details of the sale, will suffice.

3 Aircraft Destroyed or Permanently Withdrawn from Use

- 3.1 If an aircraft is destroyed or is to be permanently withdrawn from use, the registered aircraft owner must notify the Authority immediately. This should be done by returning the Certificate of Registration to the Authority with Section 3 on the reverse of the form completed. Where the Certificate has also been lost or destroyed, a letter certifying this and the fact that the aircraft has been destroyed or withdrawn should be sent to the address in para 1.6.

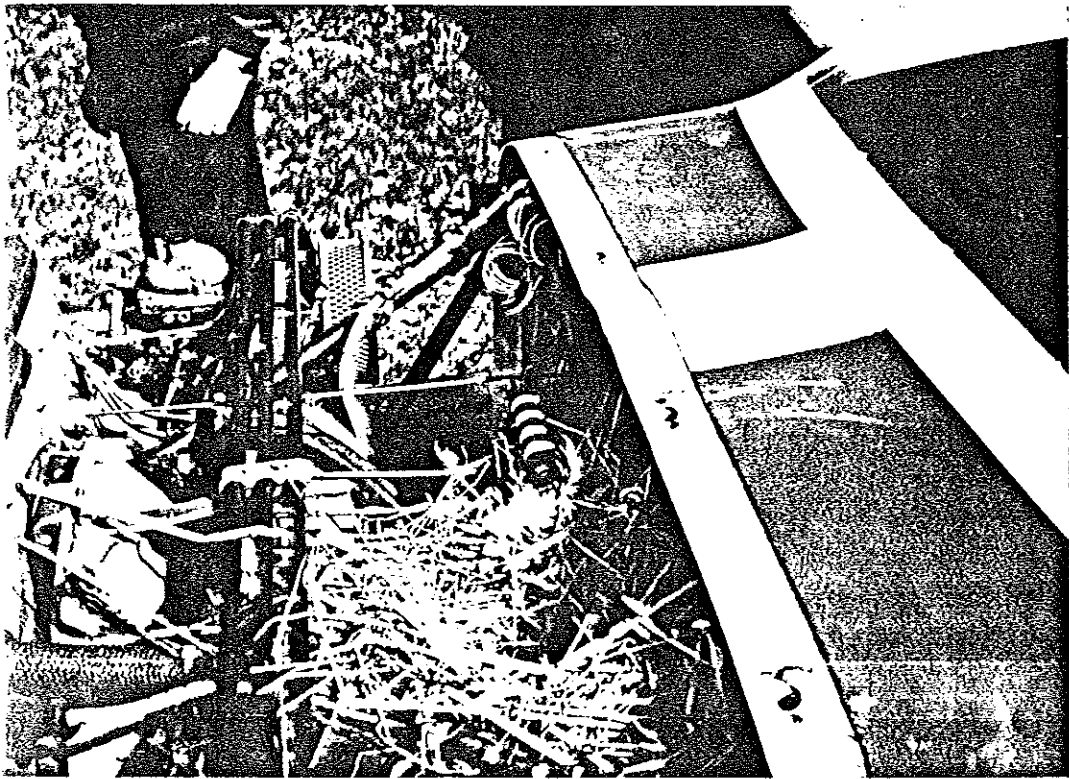
4 AIC 18/1985 (White 155) is cancelled.

This Circular is issued for information, guidance and necessary action.

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PROB. PLOVER. Q-ROBE.

SHORDON.



BIRD'S NEST BUILT IN 7 DAYS!

Civil Aviation Authority



Introduction to the licensing
of Aircraft Maintenance Engineers