BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 9/10/85

PART 1 AIRWORTHINESS "AGGRO" (Please add to the 1985 Green Pages)

1.1 Slingsby T65 "VEGA" - Locked Ailerons, after repairs to retracting undercarriage. The attached letter has been mailed to owners, and is self-explanatory.

1.2 SZ 45A "OGAR" (Motor Glider) Cracks leading to separation of the Pilot's speed-brake control lever (Port side). Inspection is advised asap of the entire system within the cockpit area.

1.3 KA 21 Rear Canopy Locks. Manufacturer's modification to reduce the probability of unlocked canopies. Eight canopy incidents in the UK have so far cost of the order of £14,000, and some KA 21's have yet to be fitted with new type locks, costing about £170!

1.4 Hoffman "DIMONA" (Motor Glider) - Elevator Control system connection. CAA Emergency Airworthiness Directive 010-85-05 dated 23/7/85 (herewith) draws attention to failure of the automatic connector after re-rigging.

1.5 Hoffman "DIMONA" (Motor Glider) - Tailplane (FWD) Attachment Rod-end cracked. CAA Emergency Airworthiness Directive 002-08-85 (herewith) requires inspection at 50 hr intervals. LAMS (Issue 2) Section 10 should be amended to include this recurring inspection.

1.6 DG 300 - Tailplane Attachment Bracket. Cracks in GRP structure reported by RAFGSA (Germany) and referred to the Manufacturer. Inspect asap.

1.7 Slingsby T 21. Cracks in FRAME 4. (Sketch Attached). Inspect as required. Reported by RAF GC Cyprus and referred to Slingsby Aircraft Limited.

1.8 "Mosquito" - Crack in "U" shaped bracket on tailplane attachment. Following a ground-loop incident, the weld was found to be cracked. Inspect asap. Reported by A Reid, Essex GC.

1.9 "Mogas" Operation - Possible Alcohol Content. The attached circular from the CAA is drawn to the attention of all concerned. Presumably automotive components are unlikely to be affected? (NOTICE BOARD?)

1.10 Kestrel - Vibration of flaps or ailerons. Backlash in the drive systems will induce vibration, as reported many times over the years. A definitive tolerance for backlash never seems to have been determined, but should probably not exceed .25"?

/ Contd ....

1.11 Propeller Blade Failures (Tugs and Motor Gliders). Extract from GASIL 6/85 (herewith) draws urgent attention to damage to the REAR FACE of propeller blades. INSPECT DAILY.

1.12 Tail Skid Modifications to fit replaceable "shoes" should be engineered for minimum weight. A block weighing 2½lbs has recently been removed from a KA 8B!

PART II GENERAL

2.1 PA 25 - Pawnee Clearance on "Mogas". Although not listed in CAA Notice No 98, because they were cleared by individual applicants seeking CAA Major Modification Approval by the issue of Airworthiness Approval Notes (AAN), PA-25's may be operated on "Mogas", provided they comply as follows:

a) Wing Tank Fuel Systems, to AAN available from Farm Aviation Ltd, Little Staughton Airfield, Nr Colmworth, Bedfordshire.

b) Gravity Fed Fuel Systems, to AAN No 18559, from the Southdown Gliding Club, Parham, W Sussex.

2.2 PA 18 - Cubs - Certification of FAA Airworthiness Directives at 50 hr inspections. The attached CAA "Authorisation" should be entered in Log Books to show compliance with the following AD's:

60-10-08 - Fuel Cock Selector (Detent)

68-05-01 - Exhaust Mufflers (Cracking)

2.3 Schweitzer Type Tug (BANNER) Tow Hooks - Roller-bearing modification to improve safety of operation. The product improvement modification offered in TNS/3/85 is strongly recommended to all operators, few of whom have so far called the BGA Office for details!

2.4 New Types Approved by the BGA

"Discus"

2.5 Tug (Field Retrieve) Accident Extract from AIB Bulletin 8/85 is self-explanatory and should be displayed on NOTICE BOARD.

.....

R. B. STRATTON
Chief Technical Officer

BGA INSPECTION RENEWAL 85/86

Please complete your renewal asap to ensure that the BGA Liability Insurance does not become invalid. Proforma enclosed herewith.

BGA TECHNICAL COMMITTEE

NOTICE TO T.65 "VEGA" OWNERS Ref TNS/8/9/85

JAMMING OF AILERON CONTROLS

INTERFERENCE BETWEEN UNDERCARRIAGE RETRACTION SYSTEM

AND THE AILERON CONTROLS, IN THE CENTRE SECTION

Following repairs to the undercarriage, it is possible to replace a bolt in the mechanism such that a foul will occur when the gear is retracted jamming the aileron controls.

Therefore, following any repairs, replacements and adjustments in the area of the Centre Section, a check for full and free movement of the ailerons, flaps and undercarriage must be made in all configurations of each system. Concurrently, an inspection should be made for clearance between mechanisms. Two cases have been reported following repairs. In each case, a bolt had been reversed, diminishing the clearance.

.....

R. B. STRATTON
Chief Technical Officer
1/9/85.

cc: CAA (Airworthiness Division)
Slingsby Aircraft Limited

INS/1695

Civil Aviation Authority
Brabazon House
Redhill
Surrey RH1 1SQ
Telephone Redhill 65966
Telex 27100 Telegrams & Cables Bordair Redhill

Airworthiness Division

9/97/CtAw/119

31 JULY 1985.

SIC
6 AUG 1985
B1/2/3. Confirmation
File

CAA EMERGENCY AIRWORTHINESS DIRECTIVE NO.002-08-85
HOFFMANN H36 DIMONA
INSPECTION OF THE FORWARD TAILPLANE ATTACHMENT ROD END

A. Applicability

HOFFMANN H36 DIMONA

B. Background

During a preflight inspection of the forward tailplane attachment rod end a crack was found at the end of the threaded portion.

C. Associated material

Austrian Authority (BAZ) Telex dated 85-07-26 advance warning of an airworthiness directive.

D. Description

A rod end attaches the front end of the tailplane to the fin. This must be disassembled and checked for cracks.

E. Compliance

Before further flight accomplish inspection in Section F Requirement.

F. Requirement

Inspect tailplane attachment rod end for cracks at the end of the threaded portion with a x 10 magnifying glass or using a suitable dye penetrant system. If a crack is found replace the rod with a new item before further flight. Check tailplane rigging incidence afterwards. Where a crack is not present and when a new part is installed repeat the above inspection at intervals not exceeding 50 flight hours. Record the action in the aircraft log book.

Any queries regarding this Airworthiness Directive should be referred to the General Aviation Section at the above address.

R J TEW
Aircraft Maintenance & Approvals.

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TNS/10/85

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Airworthiness Division

9/97/CtAw/119

Circulate Pgs 1
7.028

23 August 1985.

CAA EMERGENCY AIRWORTHINESS DIRECTIVE NO.010-08-85
HOFFMANN H36 DIMONA
CHECK OF THE ELEVATOR CONTROL SYSTEM FOR CORRECT CONNECTION

A. Applicability

HOFFMANN H36 DIMONA

B. Background

Two incidents have occurred during rigging of the tailplane whereby the elevator was found to be incorrectly connected resulting in aircraft damage. Investigations indicate that there is a real possibility of difficulty in pitch control of the aircraft.

C. Associated Material

None.

D. Description

Removing and refitting wings and tailplane can be accomplished by the pilot, to F.M. instructions, for hangarage etc, the elevator connection being automatic when the tailplane is fitted.

E. Compliance

Before further flight and at each rigging of the tailplane.

F. Requirement

A full and free check of the pitch control system must be carried out, by moving the pilot's control in both directions against a hard resistive force at the elevator control surface trailing edge. If any slippage in the system is detected the tailplane must be removed and the cause determined.

PTO

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G. Authorisation

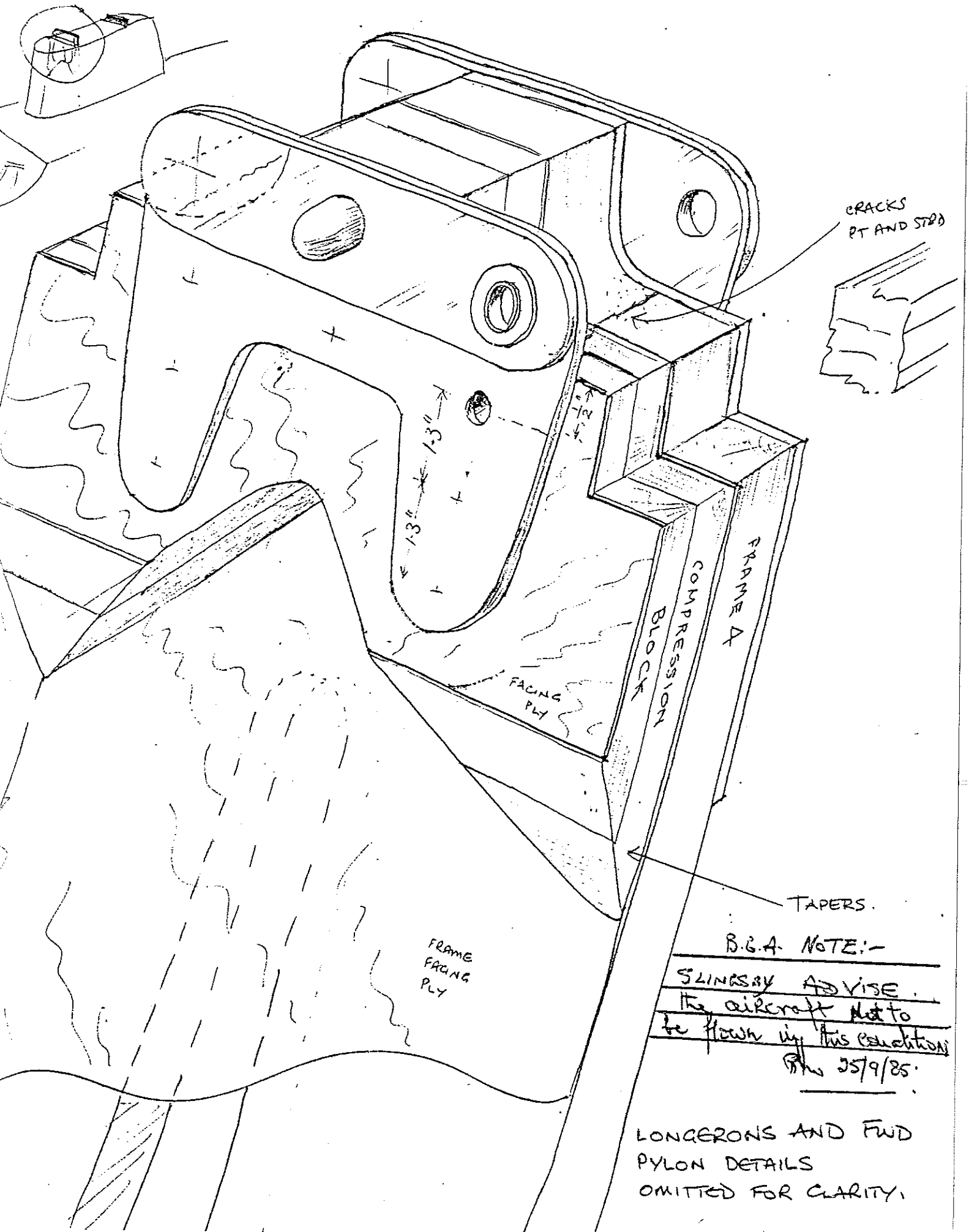
The Civil Aviation Authority in exercise of its powers under Article 10(b)(d) of the Air Navigation Order 1980 hereby authorises the pilot owner/Operator of the subject aircraft to issue a Certificate of Release to Service in respect of this emergency airworthiness directive. The reference number of this directive should be quoted in the associated log book entry.

Any queries regarding this Airworthiness Directive should be referred to the General Aviation Section at the above address.

R. C. WILLIAMS
Aircraft Maintenance & Approvals.

TIG 1 FRAME 4 AND COMPRESSION BLOCK. I.21.
(PRESENT CONDITION) N.T.S.

ND VIEW



B.C.A. NOTE:-
SLINGSBY ADVISE.
The aircraft Not to
be flown in this condition
RW 25/9/85.

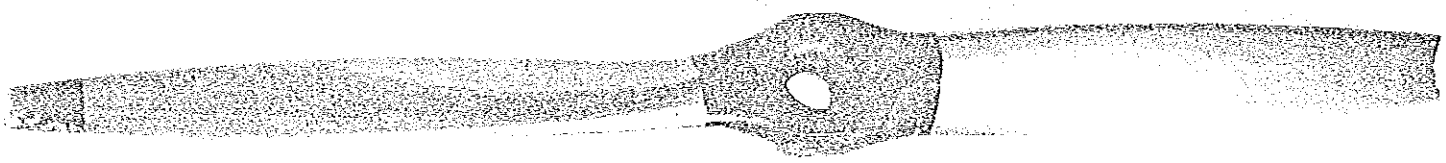
LONGERONS AND FWD PYLON DETAILS OMITTED FOR CLARITY.

TNS 1d/85

UPADATED INFORMATION (C.A.S.I.L). P/E

15. Issue 6/85 - Item 16 Fuji 200-160 Propeller Failure from Stone Damage

The photos below show in close up the stone damage to the REAR face of the propeller. The front face was newly polished and lacquered following overhaul, however the rear face contained a large number of surface blemishes any one of which could have led to fatigue fracture (and did). Pilots and engineers should note that it is the rear face of the propeller which is more critical than the easily inspected front face.



The World's first fatal aeroplane accident occurred in 1908 when Orville Wright's passenger Lieutenant Selfridge was killed in a crash following propeller failure. The broken propeller is on display at the Wright Patterson Air Force Museum in Dayton Ohio.

16. Issue 11/83 - Item 19 - Socata Rallye Cracked Engine Mount E

Yet another case has occurred of cracking of the engine mounting at the data plate attachment, the tube having cracked around 180°. The mounting had been in service for 961 hours, the aircraft being used for glider towing at about seven cycles per hour. The mount had been inspected at 50 hour intervals in accordance with CAA AD006-11-82 and had been checked 35 hours previously. The reporters other aircraft has experienced similar problems so a check at 10 hour intervals is being instituted.

Civil Aviation Authority

BGA/TNS/9/10/85

MOTOR GASOLINE (MOGAS) FOR AVIATION PURPOSES - POSSIBLE ALCOHOL CONTENT

Airworthiness Notice No 98 prohibits alcohol in Mogas that is used for aviation purposes, because it has at least two undesirable effects. The first is the alcohol gasoline phase separation which occurs when the water tolerance is exceeded. This results in a water/alcohol mixture in the tank bottom and a reduction in the octane rating of the fuel. The second undesirable effect is that the fuel is incompatible with some metals and with some rubbers, plastics and adhesives which are used in seals and sealants, pipelines, gaskets etc. There is also a possibility that composite materials may be affected by contact with alcohol in Mogas.

We have been alerted to the likely use of alcohol in Mogas to maintain the octane rating of the fuel following reduction of the Tetra Ethyl lead content for environmental reasons. Alcohol is likely to be used in UK-produced fuels by the end of 1985. Fuels imported into UK may already contain alcohol as a substitute for lead. Not all Mogas will have a proportion of alcohol immediately but its use will increase as the use of lead decreases. Until airworthiness problems have been overcome there is no alternative but to continue to prohibit the use for aviation purposes of Mogas containing alcohol.

A simple method for determining the presence of alcohol in fuel is to shake thoroughly a test cylinder containing 100 ml of the fuel being tested and 10 ml of ethylene glycol. If, after settling the fuel volume has decreased, alcohol is probably present in the fuel and it is unsuitable for aviation use.

CIVIL AVIATION AUTHORITY
September 1985

ASW TWS 11/85

No: 8/85 Ref: EW/G85/06/08

Aircraft type and registration:	Piper PA 18 Super Cub G-ATRG (light singe engined fixed wing aircraft)
Year of Manufacture:	1966
Date and time (GMT):	23 June 1985 at 1530 hrs
Location:	The Gallops, Kingsclere, Berkshire
Type of flight:	Glider Towing
Persons on board:	Crew — 1 Passengers — None
Injuries:	Crew — None Passengers — None
Nature of damage:	Substantial
Commander's Licence:	Private Pilot's Licence
Commander's Age:	53 years
Commander's Total Flying Experience:	920 hours (of which 190 were on type)
Information Source:	Aircraft Accident Report Form submitted by the pilot.

The aircraft was retrieving a glider, which had landed away in a field.

The field provided a take-off run of about 1000 yards of cut grass 4 to 6 inches high and sloped downwards towards the east. The wind was estimated as 200°/5 kt on the surface and 250°/5—10 kt in the local area but the tug pilot elected to accept a slight tailwind component from the right and take off down the slope.

As the aircraft became airborne, the pilot was unable to correct a drift to the left towards an earth bank which bounded the field. At this point the field also sloped away to the left, which the pilot believes added to the problem. The main wheels hit the bank and the aircraft came to rest lying on its underside. The glider sustained only minor damage.

9/97/268A

PA18 - Cubs
TNS/10/85.

CIVIL AVIATION AUTHORITY

AUTHORISATION

The Civil Aviation Authority, in exercise of its powers under Article 10(6) of the Air Navigation Order(1980), as amended, hereby authorises:-

Holders of appropriately type rated Pilots Licenses

to issue Certificates of Release to Service (C.R.S.) in respect of F.A.A. Airworthiness Directives 60-10-08 and 68-05-01 concerning Piper PA 18 Series aircraft,subject to the following conditions:-

1. The signatories for C.R.S. shall be nominated by the Chief Technical Officer of the British Gliding Association (B.G.A.) and shall be the owners or operators of the subject aircraft engaged in glider towing for the B.G.A.

2. Copies of the Airworthiness Directives shall be available to the individuals authorised.

3. The signatories for C.R.S. shall quote their Pilots Licence number followed by the reference of this Authorisation, 9/97/268A at each certification.

4. The Airworthiness Directives shall be re-certified by a Licenced or Approved engineer at each 150 hour Check.

This Authorisation shall have effect from 28th August 1985.

Signed: .....
R C WILLIAMS

for the Civil Aviation Authority

Date: 28 AUGUST 1985