

BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 11/12/99

PART 1 AIRWORTHINESS "AGGRO" Please refer to the BGA 1999 Red Pages .

- 1.1. SF25 B/C SLMG's LBA A/D 1999-340 & SB 653-73, requires inspection for cracks in the aileron steel pipe spar.
- 1.2. DG500 ELAN, DG500M, DG500MB T/Note 348/12 and 843/12 requires action to secure the PUSH ROD GUIDE to the ELEVATOR. LBA A/D 1999-341 refers.
- 1.3. PIK 20 / PIK 20E - Lower Rudder Hinge cracked. Inspect asap. (Photo herewith).
- 1.4. CENTRAIR SB 101-20 requires inspection for cracks in Pegase fixed undercarriages.
- 1.5. KA7 RUDDER CABLES - May become misrouted after adjustment. (Sketch from Dick Short - Welland G.C.)
- 1.6. STAMO ENGINES - UNLEADED MOGAS. Letter from Carl Pieper (in German) is translated on the reverse !

(For Limbach Engines refer to TNS 9/10/99)
- 1.7. UNLEADED MOGAS. CAA Airworthiness Notice No. 98C is copied herewith.

Advice from ESSO is also included!
- 1.8. KESTREL 20. Water ingress at root rib caused disbonding over area 12" x 6". (Martin Carolan - Severn Valley Sailplanes).
- 2.0. GENRAL MATTERS
- 2.1. DG HAVE FORMED A NEW COMPANY - Notice herewith.
- 2.2. CAA AIRWORTHINESS NOTICES are now at Issue 125. All registered owners of SLMG's etc should receive a free copy from Westward Digital, 37 Windsor Street, Cheltenham, Glos, GL52 2DG. Tel: 01242 235151

This will be the last TNS for 1999.

A VERY HAPPY CHRISTMAS AND A PROSPEROUS MILLENIUM TO
ALL OUR READERS FROM THE BGA.

Dick Stratton
Chief Technical officer



**Airworthiness
Directive
1999-340**

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

Scheibe

Effective Date: November 04, 1999

Affected:

Kind of aeronautical product:
Manufacturer:
Type:
Models affected:
Serial numbers affected:

Powered Sailplane
Scheibe Flugzeugbau, Dachau, Germany
SF 25
SF 25 B and SF 25 C
SF 25 B:

1. all S/N beginning with 46... from the production of SCHEIBE Flugzeugbau GmbH
2. all S/N beginning with 48... from the production of Pützer (production under Licence)
3. all S/N beginning with AU-... from the production of Aeronautica Umbra (production under Licence)
4. Conversions from SF 25 B to SF 25 D: see S/N listed under 1. to 3. with an additional letter D behind the numbers
5. Conversions from SF 25 B to SF 25 C: see S/N listed under 1. to 3. with an additional letter C behind the numbers

SF 25 C:

1. S/N 4403, 4418, 4423, 4428, 4430, 4432, 4436, 4437, 4446 up to 4448, 4450, 4451, 4454 up to 4456, 4458, 4460, 4461, 4464, 4466 up to 4468, 4471, 4472, 4475 up to 4477, 4480 and 44178 from the production of SCHEIBE Flugzeugbau GmbH
2. all S/N beginning with 42... from the production of Pützer (production under Licence)

German Type Certificate No.: 653

Subject:

Flight Controls - Cracks in the aileron steel pipe spar around the welded in hinge bushings

Reason:

During inspection of a motorglider one aileron hinge was found to be broken out of the aileron steel pipe spar. On one aileron hinge bushing of another motorglider cracks have been detected around the hinge bushing weld seam.

Action:

Inspection of the welded seams of the aileron hinges for cracks. If cracks are detected around an aileron hinge bushing or if a hinge bushing is worn out, corrosion inspection of the inside of the aileron spar steel pipe is requested, because moisture may have appeared in period of time.

Complete and take notice of part 6a of manufacturers check list SF 25 (from issue 09/99).

The actions must be done in accordance with the Service Bulletin of SCHEIBE Flugzeugbau GmbH.

Compliance:

Action must be done within the next 5 flight hours.

Technical publication of the manufacturer:

SCHEIBE Flugzeugbau SF 25 B/C Service Bulletin No. 653-73 dated September 20, 1999 which becomes herewith part of this AD and may be obtained from Messrs.:

SAFETY REGULATION GROUP

Aviation House
Gatwick Airport South
West Sussex
RH6 0YR
UNITED KINGDOM

Direct Dial +44(0)1293 573149
Direct Fax +44(0)1293 573993

Switchboard +44(0)1293 567171
Fax +44(0)1293 573999
Telex 878753
Internet Email ad.unit@srg.caa.co.uk



CIVIL AVIATION
AUTHORITY

Our ref 9/97/CtAw/184

11 October 1999

**LBA AIRWORTHINESS DIRECTIVE 1999-340
SCHEIBE SF 25 B AND SF 25 C MOTOR GLIDERS
FLIGHT CONTROLS - CRACKS IN THE AILERON STEEL PIPE SPAR
AROUND THE WELDED IN HINGE BUSHINGS**

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

The provisions of Article 9(7) of the Air Navigation (No.2) 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

SF 25 B/C

TSS 11/1999

Subject: Cracks in the aileron steel pipe around the welded in hinge bushings (3 at each aileron)

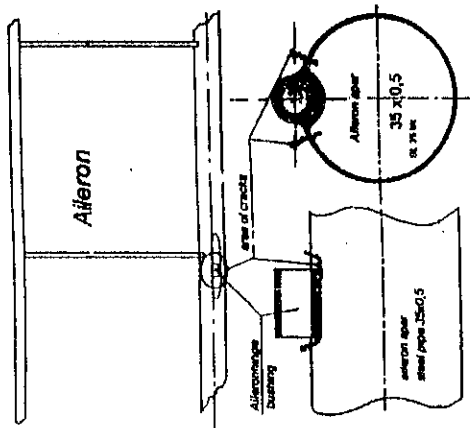
Affected: Motorglider of Scheibe Flugzeugbau GmbH of the following types:

- a) SF 25 B, TCDS 653: all serial numbers out of the production of 46...
- ii) SCHEIBE Flugzeugbau GmbH= all serial numbers, beginning with 48...
- iii) construction under Licence of Pützer= all serial numbers with AU...
- iii) construction under Licence of Aeronautica Umbra= all serial numbers beginning with AU...
- iii) Conversions from SF25 B to SF25 C= see serial numbers under i) to iii) with an additional letter D behind the numbers
- iii) Conversions from SF25 B to SF25 C= see serial numbers under i) to iii) with an additional Letter C behind the numbers

- b) SF 25 C, TCDS 653 with following serial numbers out of the production of SCHEIBE Flugzeugbau GmbH:
4403, 4418, 4423, 4428, 4430, 4432, 4436, 4437, 4446 - 4448,
4450, 4451, 4454 - 4456, 4458, 4460, 4461, 4464, 4466 - 4468,
4471, 4472, 4475 - 4477, 4480 und 44178,
construction under license of Pützer = all serial numbers beginning with 42, are affected.

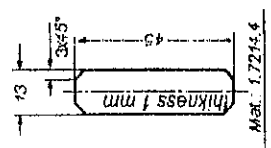
Urgency: Within the next 5 flight hours.

Reason: During inspection of a motorglider one aileron hinge was found to be broken out of the aileron steel pipe spar. On one aileron hinge bushing of another motorglider cracks have been detected around the hinge bushing weld seam (see following sketch)



- 1. Ailerons of affected motorgliders must be removed. Inspection of the welded seams of the aileron hinges and of the areas around the hinges is to be made with a ten-times magnifying glass. Therefore fabric and painting are to be removed 50 mm around the aileron hinge bushings on the aileron spar. If no cracks are found, paint the aileron spar steel pipe and repair the removed fabric. Following this inspection pay special attention during each maintenance inspection to point 6a of the manufacturer's check list SF 25 last edition.

- 2. If cracks are found aileron hinge bushings must be reinforced in accordance with the following sketch.
If cracks are detected around an aileron hinge bushing or if a hinge bushing is worn out, corrosion inspection of the inside of the aileron spar steel pipe is requested, because moisture may have appeared in period of time.
If corrosion is detected inside the aileron spar steel pipe please contact SCHEIBE Flugzeugbau GmbH for special repair instructions.
If one aileron hinge bushing must be reinforced all three hinge bushings on both ailerons of the motorglider must be reinforced. After reinforcing of the hinge bushings by a steel sheet joint (see the following sketch) special inspections according to point 6a of the manufacturer's maintenance checklist last edition will no longer be necessary.



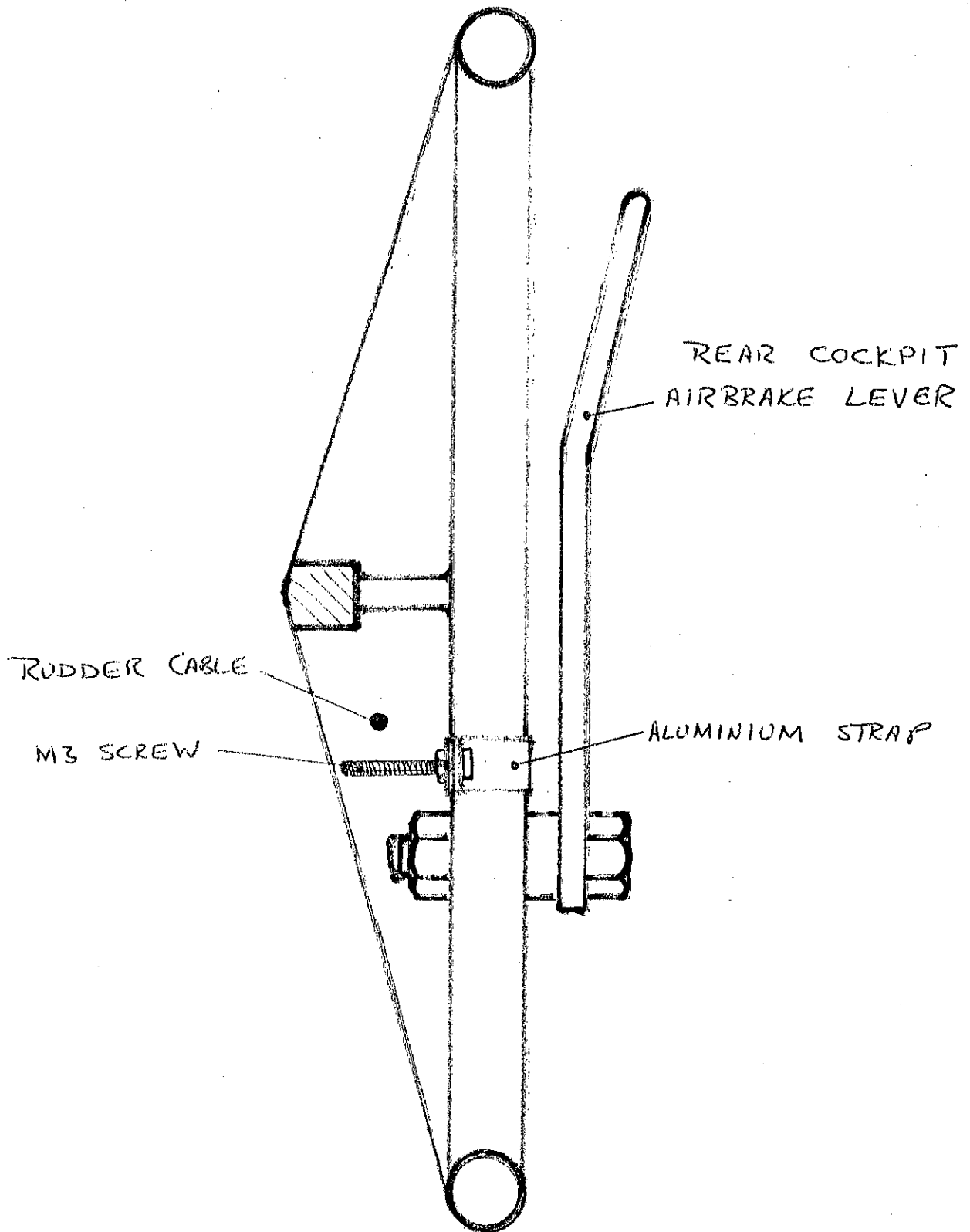
Reinforcement sheet joint

WARNING AND PRECAUTIONS: is to neglect.

Remarks: Take care for a correct alignment of the welded in aileron hinge bushings with the wingside hinge bolts.
Actions to be accomplished by an approved aeronautical workshop, an approved JAR 145 organisation or by the manufacturer, provided licenced aviation welding personnel is available.

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.

KA 7. RUDDER CABLE. Potential Foul.



PART SECTION THROUGH FUSELAGE (FROM REAR)

- Subject : Elevator control in the vertical fin
- Effectivity : DG-500 ELAN all models up to ser. no. 5E203
DG-500M, DG-500MB up to ser. no. 5E203
- Accomplishment : Instruction 1 prior to next flight
Instruction 2 latest December 31. 1999
- Reason : On one DG-500 the push rod guide of the elevator control rod in mid-point of the vertical fin came loose. If the guide slips up or downwards this may cause hard movement of the elevator control.
The reason that the guide may come loose is that the foam core of it's stand may be compressed by a very high load. To prevent such problems the foam core must be stiffened using resin thickened with cottonflocks.
- Instructions : 1. Visual inspection of the push rod guide: Loosen the rubber boot from the rear upper rib of the fin, be careful not to damage the boot. Hold tight the upper end of the pushrod while a second person applies loads as high as possible at the control stick in forward and rearward directions. Move the control system several times between both stops under these loads. If the outer aluminium tube of the guide doesn't move, you may reinstall the rubber boot using Pattex as glue or proceed with instruction 2. If the tube moves a detailed repair is necessary.
2. Stiffen the stand using resin thickened with cottonflocks according to working instruction No. 1 for this TN. If instruction 2 was not executed directly after instruction 1, instruction 1 has to be repeated.
- Material : Pattex contact glue
Glassfibre fabric Style 92125 50x70mm
Epoxy resin with hardener: allowable types listed in the repair manual
Cottonflocks
2 split pins 1.5x12 DIN94 zn (zinc plated)
1 split pin 2x20 DIN94 zn
Working instruction no. 1 for TN 348/12
Drawing 5L36
- Weight and balance : influence negligible
- Remarks : Instruction No. 1 may be executed by the owner and is to be entered in the aircraft logs.
Instruction No. 2 is to be executed by the manufacturer or by a licensed workshop and to be inspected and entered in the aircraft logs by a licensed inspector.

Bruchsal, date:
Oct. 6., 1999

LBA - approved:

15. OKT. 1999

Author:
Dipl. Ing. Wilhelm Dirks



The German original of this TN has been approved by the LBA under the date of _____ and is signed by Mr. Fendt. The translation into English has been done by best knowledge and judgement.

Type certification
inspector:
Dipl. Ing. Swen Lehner



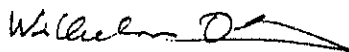
Working instruction No. 1 for TN 348/12 (843/12)

Stiffening of the stand for the elevator control pushrod guide in the vertical fin

Details see drawing 5L36

1. Remove the rudder.
2. a) Gliders with fin battery installed: In the centre of the fin trailing edge shear web you will find the end of the battery box drain line. Make a mark 15mm below the centre of the drain line on the centre line of the shear web.
b) Powered sailplanes: Measure from the lower edge of the upper rudder stand 555 mm (21.9 in.) downwards to make the mark.
3. Cover and tape the Mylar seals on both sides each with a piece of cardboard or similar in the working area to protect the seals and to secure your hands from being injured by the sharp ends of the seals.
4. Use a dia. 10mm drill. Wrap some layers of tape around the drill 16mm away from its tip.
5. Carefully drill a hole into the shear web at the marking until the tape touches the shear web.
6. Prepare a dia. 2mm pianowire according to the sketch on drawing 5L36.
7. Scratch out the foam 6mm (.24in.) around the hole, from both the shear web and the stand. Enlarge this hole up to the aluminium tube of the push rod guide. No foam shall remain at the tube in the area of the hole.
8. Roughen the shear web over its whole width 30mm above and below the hole.
9. Apply mixture of resin and hardener to the roughened surface and the inside of the hole including the aluminium tube.
10. Mix cottonflocks to the resin and fill the prepared hole completely.
11. Cover the hole with a piece of glassfibre fabric style 92125 laid up diagonally 70mm (2.8 in.) wide and 50mm (2 in.) high.
Gliders with fin battery installed: cut off the edge of this fabric at the drain hole so as not close the hole.
12. Allow to cure at room temperature. Then postcure for min. 18 hours with 54°C. Use a hot air gun, direct the hot air from behind onto the repaired area. Take care to give sufficient distance between the gun and the surface and check the temperature at the repaired surface.
We recommend to protect the inside of the fin trailing edge with a heat resistant insulating fabric (e.g. as used for soldering or welding) to prevent deformation of the material.
13. Execute a control check of the elevator control.
14. Reinstall the rudder using new split pins.

September 28. 1999



Dipl. Ing. Wilhelm Dirks
DG Flugzeugbau GmbH

Material:

Glasfibre fabric Style 92125 50x70mm

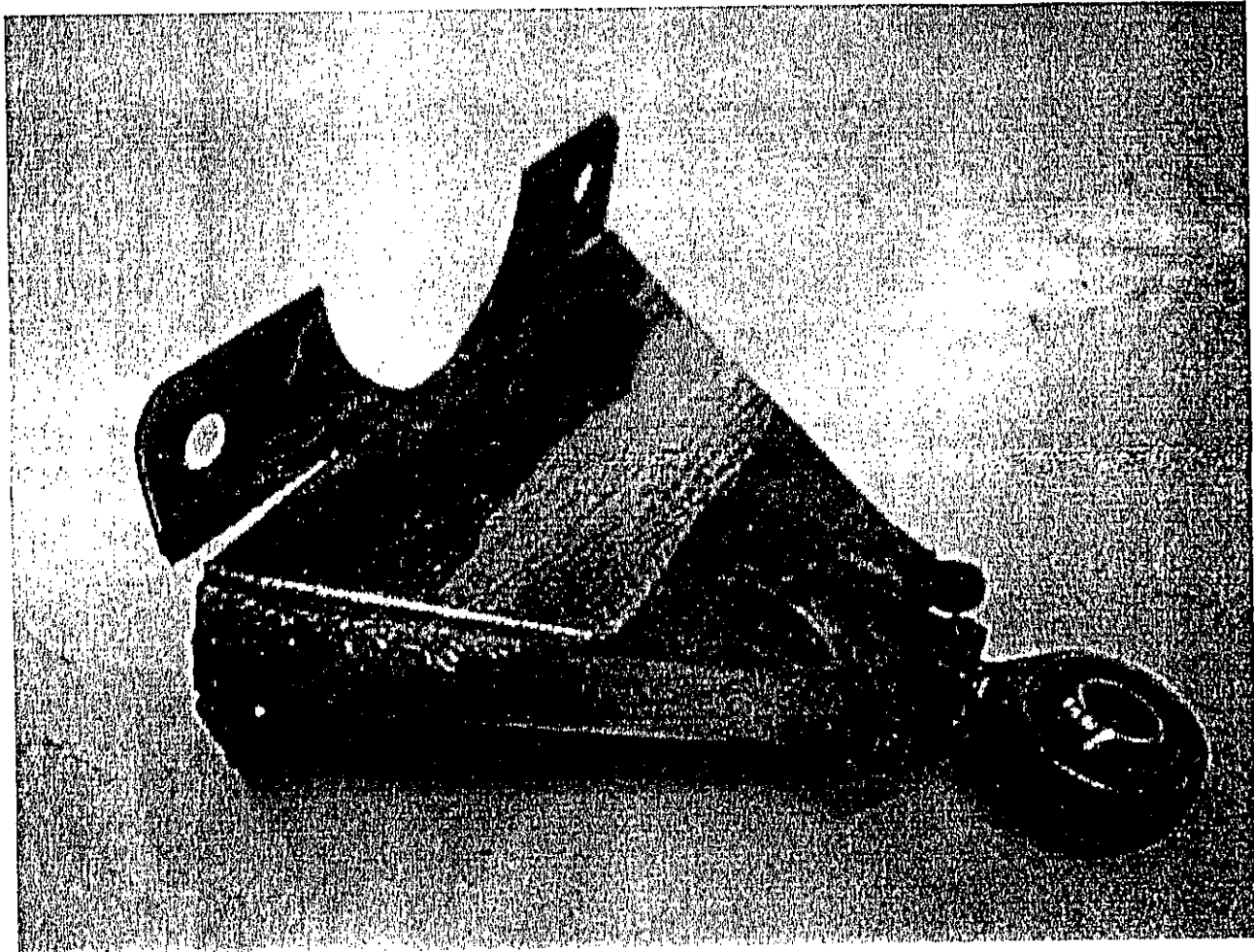
Epoxy resin with hardener: allowable types listed in the repair manual

Cottonflocks

2 split pins 1.5x12 DIM94 zn (zinc plated)

1 split pin 2x20 DIN94 zn

Drawing 5L36



PK 20 Lower Rudder Hinge

SERVICE BULLETIN No 101-20
13 September 1999 Page 1 of 1

French classification: **Imperative**

Object: Pegase with fixed undercarriage

Validity: All serial number Pegase with fixed undercarriage without minor modification 101-14.

Purpose: To avoid possible cracking of undercarriage when operating the glider on rough terrain.

Application: Next annual check or within six months of the date of this service bulletin.

Description: Cracks have appeared on the undercarriage that are difficult to see. These cracks are thought to be the result of operating the glider on rough ground.

Replace undercarriage fittings \$Y123A(2 of) with modified \$Y123C to avoid missing any undetected cracks.

When completed, 101-14 Reinforced fitting must be entered in the glider log book.

\$Y123C minor modification kit will be available from SN CENTRAIR from 30 September 1999.

This service bulletin 101-20 has been translated from the original, and to the best of my knowledge is correct. If there is any doubt concerning this translation, please refer to the original.

T.Akerman
BGA IC946MET

KARL PIEPER GMBH & CO. KG

Fahrzeug- und Schiffsmotoren · Zylinder- und Kurbelwellenschleiferei

Instandsetzungsbetrieb für Benzin- und Dieselmotoren · Mechanische Bearbeitung für den Maschinenbau

Karl Pieper GmbH & Co. KG · Postfach 1116 · D-32374 Minden

British Gliding Association
c/o Dick Stratton
Kimberley House, Vaughan Way
Leicester LE1 4SE
Großbritannien

STAMO - MORGAS.

PTO → TRANSLATION !!

Motorenbau

Austausch-Motoren

Großhandel: Kolben - Gleitlager - Kugellager

Dichtungen - Filter - Schrauben

Schiffsmotoren-Instandsetzung

Mak - Henschel - Farymann - Hatz

Briggs & Stratton - Aspera

Tecumseh - Kohler

Maschinenbau - Dreherei - Schleiferei

Viktoriastraße 50

D-32423 Minden (Westf.)

Ihre Zeichen

Ihre Nachricht vom

Unsere Zeichen

Datum

Hartlieb/h

05.10.1999

Sehr geehrter Herr Stratton,

1. der Flugmotor für Motorsegler STARK STAMO MS 1500 soll mit Super-Kraftstoff "verbleit" betrieben werden.
2. Für Super-Kraftstoff "bleifrei" werden Autausch-Zylinderköpfe angeboten.
3. Grundüberholte Motoren werden grundsätzlich mit Zylinderköpfen für "bleifrei" Betrieb ausgeliefert.

4. Alternativ können die Flugmotoren -STAMO MS 1500 auch mit Superkraftstoff "bleifrei" betrieben werden. Es müssen jedoch entsprechende Additive dem Kraftstoff beigefügt werden.

5. Es ist dabei das Ventilspiel zu kontrollieren. Sollte sich das Ventilspiel ändern, müssen die Zylinderköpfe ausgetauscht werden.

Mit freundlichem Gruß

KARL PIEPER GmbH & CO. KG
Motorenbau

PTO →

Telefon
Nr. (05 71) 340 8000

Telefax
(05 71) 344 54

Bankkonten
Sparkasse Minden-Lübberke (BLZ 49050103) 50001197

Postgirokonto
Hannover 874 54 306

KG 517 Minden, HR Minden 1639 prax. haft. Ges. Karl Pieper Verw. GmbH Sitz Minden HR Minden 1180, Geschäftsführerin Helga Liebing

1. The engine for the motor glider STARK SAMO MS1500 should be used with "Super" - leaded.
2. For "Super" - lead-free exchange cylinder heads are on offer.
3. Overhauled engines are always delivered with cylinder heads for lead-free.
4. Alternatively these engines could be used with "Super"-lead free. However, appropriate additives have to be added to the fuel.
5. For this the valve movement has to be checked, should the valve movement alter the cylinder heads have to be exchanged.

**AIRWORTHINESS NOTICE**

No. 98C
Issue 1
20 October 1999

USE OF FILLING STATION FORECOURT UNLEADED MOTOR GASOLINE IN CERTAIN LIGHT AIRCRAFT**1 Introduction**

Airworthiness Notice Nos. 98 and 98A permit the use of leaded Motor Gasoline (MOGAS) to Specification BS4040. It is well known that the supplies of this fuel will become very limited after the year 2000. Consideration has been given to the possibility of using unleaded MOGAS to specification BS EN228:1995 and BS7070 in aircraft powered by piston engines (including rotary piston engines). Although some engines are type approved to operate on this fuel, MOGAS supplies may not be obtainable in accordance with Article 101 of the Air Navigation Order. Accordingly, this Airworthiness Notice No. 98C by means of the attached Exemption to Article 101 of the Air Navigation Order, permits the operation of certain light aircraft using unleaded motor gasoline obtained from a filling station forecourt, subject to the conditions stated in this Notice. (Airworthiness Notice No. 98B provides a similar Exemption for certain Microlight aeroplanes.)

2 General

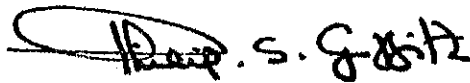
It should be noted that although the CAA is satisfied that the qualifying aircraft/engines may be operated with adequate safety on filling station forecourt fuel, subject to the conditions stated in this Notice, the CAA takes no responsibility for infringement of manufacturer's warranty, accelerated deterioration of the engine or airframe components, or any other long term deleterious effects.

3 Conditions for using Unleaded Motor Gasoline obtained from a filling station forecourt

- (a) The aircraft is a single engine aeroplane or rotorcraft (not exceeding 2730 kg MTWA), excluding aircraft contained in the Schedules to AN 98B.
- (b) The engine/aircraft combination is CAA approved to use unleaded fuel complying with Specification BS EN228:1995 or BS7070.
- (c) Records of fuel supply must be maintained (date, location of purchase, quantity purchased, method of storage).

4 Precautions

- (a) The fuel must not be rendered unfit by storage, contamination etc.
- (b) Use only freshly obtained supplies; avoid long storage in the aircraft fuel tank.
- (c) The fuel must be checked for the presence of water if the aircraft has been standing for 24 hours or longer.
- (d) During the daily check and other routine inspections, pay particular attention to non metallic fuel pipes and seals for signs of leaks or deterioration.
- (e) The ability to maintain Take-Off power must be verified before the aircraft is committed to completing a take-off.

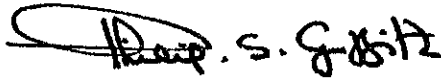


for the Civil Aviation Authority

Safety Regulation Group
Aviation House
Gatwick Airport South
West Sussex RH6 0YR

(f) Records detailing the source and dates of fuel procurement and use must be maintained.

3 This exemption shall have effect from the date hereof until revoked.



Signed for the Civil Aviation Authority
Dated 20 October 1999

SCHEDULE 1 TO NOTICE NO. 98C

20 October 1999

- 1 Motor gasoline to specification BS EN228:1995 or BS7070 may be obtained directly from a filling station forecourt for use in aircraft which meet the following three conditions:
- (a) The engine/aircraft combination is CAA approved to use unleaded motor gasoline to specification BS EN228:1995 or BS7070.
 - (b) The aircraft is the subject of a Permit to Fly, a private category Certificate of Airworthiness, A or B Conditions, or an individual Exemption.
 - (c) The aircraft is a single engine aeroplane or rotorcraft (not exceeding 2730 kg MTWA), excluding aircraft contained in the Schedules to AN 98B.

**AIRWORTHINESS NOTICE No. 98C
APPENDIX No. 1**

Issue 1

20 October 1999

Air Navigation Order (1995) Exemption

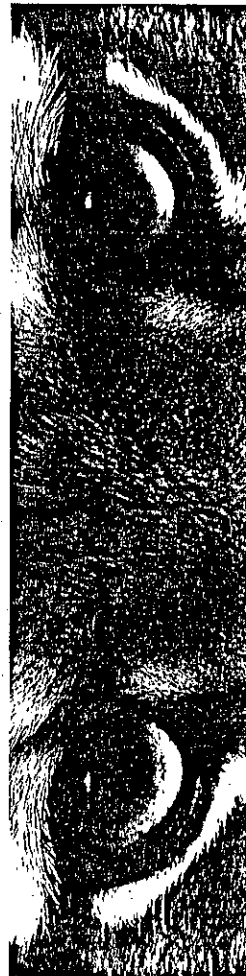
- 1** The Civil Aviation Authority in exercise of its powers under the Article 116 of the Air Navigation Order (No. 2) 1995 ("the Order") hereby exempts any person from the requirements of Article 101(1)(a)(iii), 101(1)(b) and 101(3)(b) of the said order subject to the following conditions.
- 2** This exemption shall only be relied upon when the following conditions are complied with:
 - (a) The person relying on this exemption shall be causing or permitting unleaded motor gasoline fuel to be delivered to an aircraft specified in Schedule 1 hereto which fuel complies with specification BS EN228:1995 or BS7070;
 - (b) If the said fuel has not been obtained directly from a filling station forecourt pump carrying the appropriate fuel specification markings, the person shall comply with the requirements of Article 101(1)(a)(iii);
 - (c) The person who has caused or permitted the fuel to be delivered to the aircraft, shall take all reasonable steps to ensure that for every flight made by that aircraft on which unleaded fuel delivered pursuant to this exemption has been consumed, there is endorsed in the aircraft log book maintained in respect of the aircraft, a statement that the flight was undertaken in connection with this exemption. Block records must be transferred to the engine log book at appropriate intervals.
 - (d) The person who has caused or permitted the fuel to be delivered to the aircraft, shall take all reasonable steps to ensure that any unsatisfactory engine operation or failure which may be attributed to the use of unleaded motor gasoline shall be immediately reported to the CAA, Powerplant Department, Safety Regulation Group, Aviation House, Gatwick;
 - (e) No unleaded motor gasoline fuel shall be used for flight unless it complies with specification BS EN228:1995 or BS7070.

A FEW MORE QUESTIONS ANSWERED

In this leaflet we have briefly covered the advantages, to both your car and the environment, of changing to Esso Lead Replacement Petrol.

Here are the answers to a few more questions you may want to ask.

- Q. Once I have started to use Esso LRP, can I still fill up with leaded petrol?**
- A.** Yes, but once you switch to LRP we recommend that you continue using it, if available. Leaded 4 Star will be progressively withdrawn by 31/12/99.
- Q. What can I do if my car is used mostly for motorway driving or towing?**
- A.** You should consider having it modified, if necessary, to use unleaded petrol. This means fitting hard valve seats to the cylinder head. The cost will depend upon your model of car. Ask the vehicle manufacturer or your local dealer for advice.
- Q. If my car currently uses unleaded petrol, will using Esso LRP provide additional protection to it?**
- A.** No. If your car is designed to use unleaded petrol you must continue to use it. LRP must not be used in catalyst cars and for this reason will be available from wide 'leaded style' pump nozzles.
- Q. Will using bottled additive give similar protection to my car's engine as Esso LRP?**
- A.** Using bottled additives to protect your engine can be as good as Esso LRP, provided the additive is specially designed to protect valve seats and is used exactly as recommended. Bottled additives are a good alternative where LRP is not available.
- Q. How much will Esso LRP cost?**
- A.** When it is introduced, Esso LRP is not expected to cost any more than 4 Star. And, because of our Esso Pricewatch* commitment, you can be confident that the price will usually be among the lowest locally.
- Q. I only occasionally use leaded petrol, every fourth tankful for example, should I do the same with Esso LRP?**
- A.** No. If the manufacturer of your car has recommended intermittent fuelling with leaded petrol, you should use LRP continually once leaded petrol is no longer available.

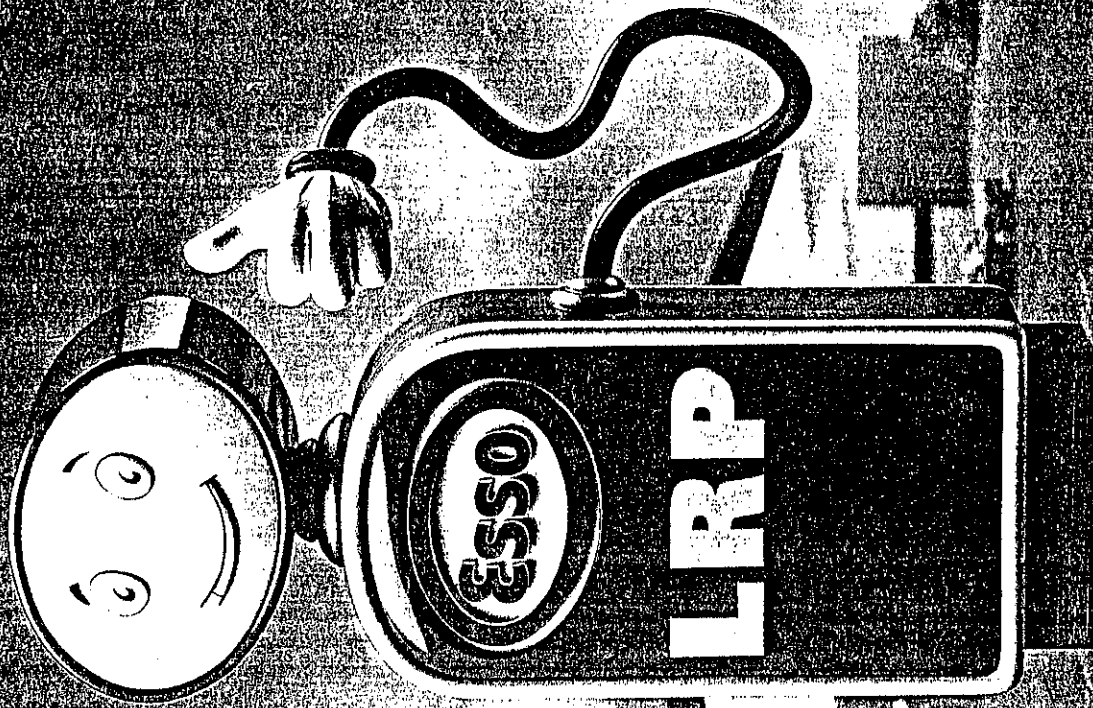


PRICEWATCH

We keep watching so you keep saving

*Esso normally monitors fuel prices of supermarkets within 3 miles and other service stations within 1 mile of participating Esso Service Stations. Prices will usually be among the lowest of those monitored.

WHEN FOUR STAR GOES



TRUST ESSO TO KEEP YOU GOING

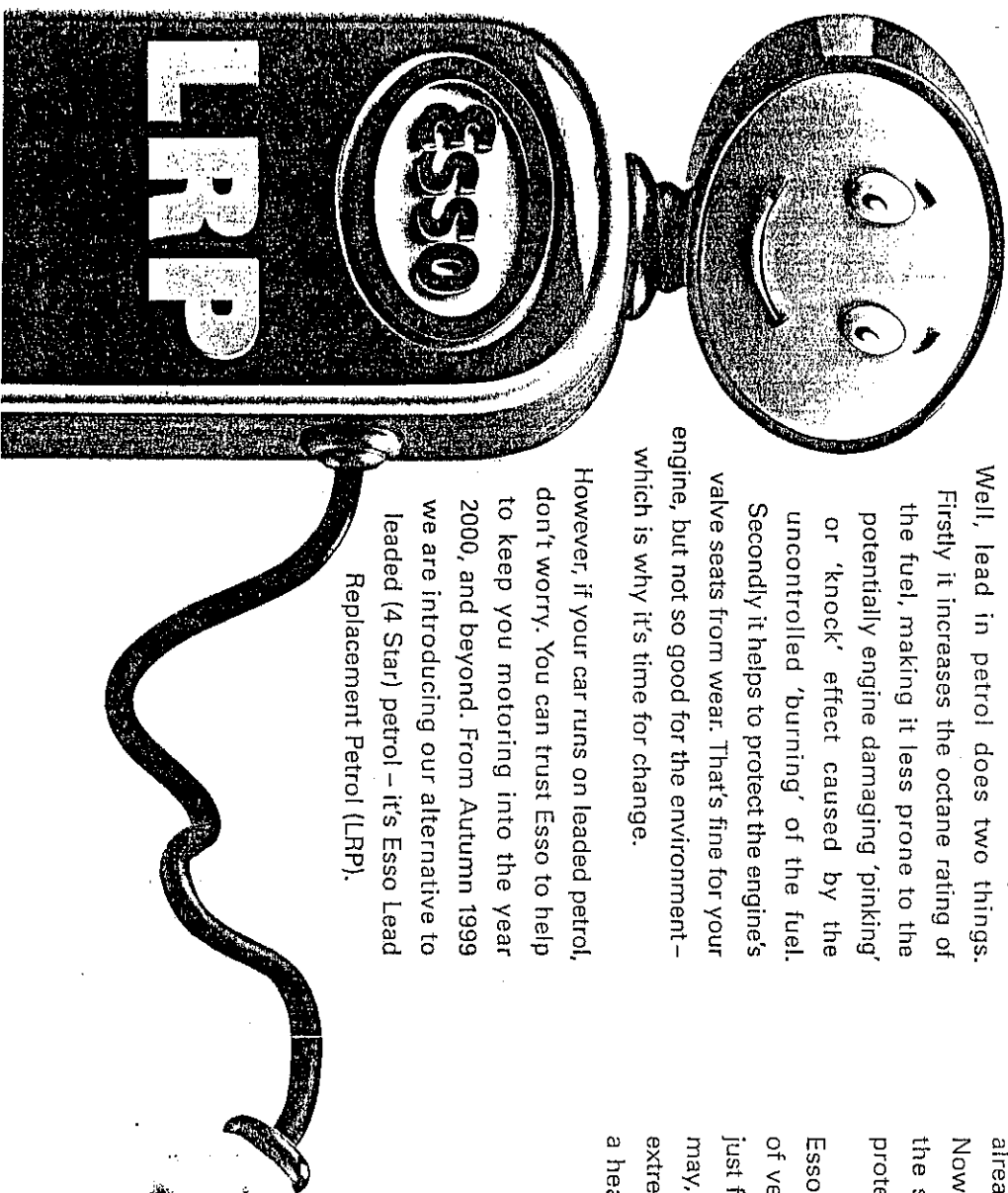
MOTORING TO A CLEANER MILLENNIUM

From 1st January 2000 leaded petrol (4 Star) is being withdrawn and will no longer be available on general sale in the UK due to new legislation. The withdrawal of leaded petrol is part of the Government's strategy to improve the quality of the air we breathe. At Esso, we too are totally committed to achieving that same goal.

But why do some cars need leaded petrol?

Well, lead in petrol does two things. Firstly it increases the octane rating of the fuel, making it less prone to the potentially engine damaging 'pinkish' or 'knock' effect caused by the uncontrolled 'burning' of the fuel. Secondly it helps to protect the engine's valve seats from wear. That's fine for your engine, but not so good for the environment - which is why it's time for change.

However, if your car runs on leaded petrol, don't worry. You can trust Esso to help to keep you motoring into the year 2000, and beyond. From Autumn 1999 we are introducing our alternative to leaded (4 Star) petrol - it's Esso Lead Replacement Petrol (LRP).



ESSO LEAD REPLACEMENT PETROL (LRP) WILL HELP TO KEEP YOU GOING

As you would expect from a world leader in automotive fuel technology, Esso Lead Replacement Petrol is a top quality, tried and tested product, having already been successfully marketed in 14 other countries around the world. Now we are bringing this experience and expertise to the UK. Esso LRP has the same octane rating as 4 star and has alternative additives to help protect older engines under normal driving conditions.

Esso LRP is a straight replacement for 4 Star petrol. For the vast majority of vehicles currently using 4 Star you do not need to make any adjustment, just fill up as normal - and away you go. Only a very small number of vehicles may, in the absence of lead, need modifications if their engines are used under extreme conditions such as prolonged driving at motorway speeds, or towing a heavy trailer or caravan over long distances. (See Q & A at back of leaflet).

ESSO LEAD REPLACEMENT PETROL AT YOUR SERVICE

From Autumn 1999, it will be simple to switch to Esso LRP as it will be available at Esso Service Stations across the UK. All you have to do to motor into the millennium is drive in and fill up straight from the pump with Esso Lead Replacement Petrol...

...don't forget, 4 Star will no longer
be available on general sale from

DG

Flugzeugbau GmbH



DG Info 10/99

AMS-Flight takes over ELAN-Flight

As you might know we have had a successful co-operation arrangement with the Slovenian company ELAN for more than 20 years. At present the DG-300 and DG-500 series are produced for us in Slovenia.

ELAN has decided to concentrate on their main business which is presently the production of skis and boats.

The Slovenian entrepreneur, Matjaz Slana, and the former manager of the ELAN-Flight division, Ales Cebavs, have founded a new company called AMS-Flight.

Mr. Slana already has a company which specializes in the production of composite parts and kayaks. AMS-Flight took over the ELAN-Flight division on September 1, 1999 to continue all their activities.

Mr. Cebavs and nearly all of the former ELAN production workers are continuing with the production of gliders in the same workshop.

The designation of the gliders will not be changed to avoid any certification problems. The German LBA has already amended the type certification data sheets and entered the new manufacturer AMS-Flight.

What consequences might result from the new ownership to the glider production and the relationship with DG?

First of all, none, but we expect improvements of the commercial procedures as a smaller company can act with much more flexibility.

DG Flugzeugbau GmbH

October 1999

