

BRITISH GLIDING ASSOCIATION

BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET TNS 3/4/94

- PART 1** Airworthiness "AGGRO". Please refer to the BGA 1994 Red Pages.
- 1.1. KA21 Front Canopy Jettison made inoperative by the tightening and positioning of the nuts adjacent to the release mechanism. Should be periodically tested. (Reported by RAFGSA Bannerdown G.C.- RAF Keevil).
 - 1.2. Extention of Service Life to 12000 hours. Subject to multi-stage inspections. LBA AD's (herewith) applies to Nimbus 2 series and Discus series sailplanes.
 - 1.3. L'Hotellier Connectors with Locking Cams. LBA AD 94-001 dated 03-02-94 herewith - requires action.
 - 1.4. Grob G.109 Wheel Brake Pulleys (Nylon) Cracked. Replaced in aluminium. (Photo herewith).
 - 1.5. Gadringer Harnesses must be installed with the straps orientated as illustrated. Incorrect assembly will cause the straps to let go under negative loadings. (London Sailplanes).
 - 1.6. KA7 Failure of the Speed Brake Handle at the pivot point, probably due to damage/overload by cockpit occupants! Inspect for cracks or replace in steel. (Dartmoor G.C.).
 - 1.7. ASK21's - Extention of Service Life to 12000 Hrs. LBA AD-026 requires multi-step inspection.
 - 1.8. Grob 109 Series - Main undercarriage inspection. LBA AD-004 - requires action, as per Bulletin TM 817-39.
 - 1.9. PIRAT. Inspection of Glued Joints. S.B. 033/93 has been circulated by BGA to those serial numbers involved.
 - 1.10. Bendix Magnetos (all engine types) AD 94-01-03 requires inspection of ignition coils.
 - 1.11. Rotax 912A Series - Corrosion of ignition components. AD 75 refers.
 - 1.12. "JUNIOR" Tailplane FIXING SLEEVE in the Fin Wall. BE-009/93 refers.
 - 1.13. "JUNIOR" TRIM SPRING Failure may be induced by the BOBBIN fixing for the centre of the spring. (S.R. Wilkinson).
 - 1.14. PEGASUS (101A) Rudder control restricted by cables, pipes etc from the instrument panel, being unsecured. (Mike Brook).

- 1.15. PUCHATEK. Replacement of tailplane fittings is made MANDATORY by Service Bulletin BE-29/KR03A/93.

PART 2 GENERAL INFORMATION

- 2.1. CAA Charges for C.of.A. Renewals increase to £52 per 500 Kgs or part thereof, per year with effect 1/4/94. Please refer to Airworthiness Notice No. 25, Issue 20. Typically, a Falke is now £312 for three years, payable to BGA.
- 2.2. Airworthiness Notices are now at issue 112, when completing CAA FORMS 202L.
- Do you, as a Registered Owner, have your free copy of Airworthiness Notices.
- If not, apply to CAA Publications , 37 Gratton Road, Cheltenham, GL50 2BN
- 2.3. Extract from GASIL 2/94 refers to NDT Techniques for Piper Lift Struts.
- 2.4. Beware of Cockpit "CLUTTER" - Cameras, Hand-held Radios, GPS's etc which may make ESCAPE IMPOSSIBLE!

Dick Stratton
Chief Technical Officer



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

94-031 Schempp-Hirth

Date of issue: 01. Feb. 1994

Affected sailplanes:

German Type Certificate No.: 360

SCHEMPP-HIRTH

Discus a and Discus b

- S/No's.: 1 up to 499

Discus CS

- S/No's.: 1 up to 159

Subject:

Extension of the service time

Reason:

The results of fatigue tests (subsequently carried out on wing spar sections) have demonstrated that the time in service of GFRP/CFRP sailplanes and powered sailplanes may be extended to 12000 hours, provided the airworthiness of each individual aircraft is evidenced by a special multi-stage inspection program, which is then to be incorporated into the Maintenance Manual of the model concerned.

Actions:

Insert revised pages of the Maintenance Manual and of the Instructions for Continued Airworthiness.

Compliance:

On reaching a service time of 6000 flight hours, but not later than April 30, 1994.

Technical publication of the manufacturer:

Schempp-Hirth Technical Note No.: 360-11, dated January 12, 1994 which becomes herewith part of this AD and may be obtained from Messrs.

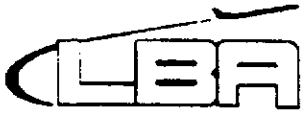
Schempp-Hirth Flugzeugbau GmbH
Postbox 14 43

D-73222 Kirchheim unter Teck
Federal Republic of Germany

Accomplishment and log book entry:

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

i pag
in the
ector



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

86-036/2 Schempp-Hirth

Date of issue: 01.02.1994

Affected sailplanes:

German Type Certificate No.: 286

SCHEMPP-HIRTH

Nimbus-2, Nimbus-2B and Nimbus-2C

- S/No's.: all

Subject:

Extension of the service time

Reason:

The results of fatigue tests (subsequently carried out on wing spar sections) have demonstrated that the time in service of GFRP/CFRP sailplanes and powered sailplanes may be extended to 12000 hours, provided the airworthiness of each individual aircraft is evidenced by a special multi-stage inspection program, which is then to be incorporated into the Maintenance Manual of the sailplanes concerned.

Actions:

Insert revised pages of the Service Manual.

Compliance:

On reaching a service time of 6000 flight hours, but not later than April 30, 1994.

Technical publication of the manufacturer:

Schempp-Hirth Technical Note No.: 286-22, dated January 14, 1994 which becomes herewith part of this AD and may be obtained from Messrs.

Schempp-Hirth Flugzeugbau GmbH
Postbox 14 43

D-73222 Kirchheim unter Teck
Federal Republic of Germany

Accomplishment and log book entry:

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

Note:

This Airworthiness Directive supersedes AD-No. 86-036 dated February 12, 1986.



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

94-026 Schleicher

Date of issue: 01.02.1994

Affected gliders:

German Type Certificate No. 339

Schleicher

- A) all ASK 21
- S/N's 21001 up to 21554
- B) all ASK 21
- S/N 21001 and up

Subjekt:

- A) Amendment of the Maintenance Manual
- B) Inspection Program to increase the service life

Reason:

The results of fatigue tests on fiber composite wings and wing spars have demonstrated that a service life of 12000 hours can be reached for these structural components. As the fatigue tests did not cover the entire (fiber composite) glider, the service life of 12000 hours can be granted only if the airworthiness of each individual glider (beyond the obligatory annual C. of A. inspections) is demonstrated in a special multi-step inspection program for the purpose of increasing the service life.

Actions:

Change Maintenance Manual pages in accordance with Alexander Schleicher ASK 21 Technical Note-No. 24 dated May 04, 1992.
Perform a inspection program to increase the service life.

Compliance:

- A) By the next annual C. of A. inspection, but not later than December 31, 1994.
- B) Prior to reaching a service life of 3000 hours.

Technical publication of the manufacturer:

Alexander Schleicher Technical Note-No. 24 of May 04, 1992 which becomes herewith part of this AD and may be obtained from Messrs.

Alexander Schleicher GmbH & Co.
Segelflugzeugbau

D-36163 Poppenhausen
Federal Republic of Germany

Accomplishment and log book entry:

The change of Maintenance Manual pages can be accomplished by an approved service station, an authorized person or the holder and to be checked and entered in the glider's log by a licensed inspector.

The inspection to increase the service life must only be accomplished by the manufacturer or by an approved service station and to be checked and entered in the gliders log by a licensed inspector.



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

94-004 Grob

Date of issue: 09. Dez. 1993

Affected powered sailplanes:

German Type Certificate No.: 817

GROB

G 109 and G 109 B

- S/No's.: all

Subject:

Main undercarriage legs inspection

Reason:

Three cases have been reported to Grob, where the main undercarriage legs failed during landing. Two of these incidents occurred to motorgliders subjected to very hard flight training and operated with increased take off weight. The number of landings has been approx. 2500 to 3000. Origin for the failure seems to be incorrectly retaining bars and corrosion pitting.

As a precautionary measure an inspection of the main undercarriage legs and the retaining bars, a modification of the retaining bars and, if necessary, an exchange of the retaining bars and undercarriage legs is mandatory.

Action:

A): Inspection and modification of retaining bars and

B): Inspection of the undercarriage legs in accordance with Grob Service Bulletin.

Compliance:

A): Not later than March 31, 1994

B): At first after 2000 landings, then every 1000 landings until exchange of main undercarriage legs

Technical publication of the manufacturer:

Grob Service Bulletin TM 817-39 dated October 18, 1993 which becomes herewith part of this AD and may be obtained from Messrs.

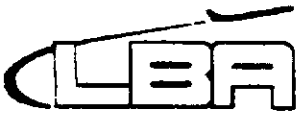
Burkhart Grob Luft- und Raumfahrt

D-86874 Mattsies

Federal Republic of Germany

Accomplishment and log book entry:

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



Luftfahrt-Bundesamt
-AD-Department-

Airworthiness Directive

*In case of any difficulty, reference should be made
to the German original issue*

94-001 L'Hotellier

Date of issue: 03.02.1994

Affected aeronautical equipment:

L'Hotellier ball and swivel joints with locking cams (-Type 45 -/ Ratchet)

- all sailplanes and powered sailplanes equipped with L'Hotellier ball and swivel joints with locking cams.

Subject:

Inspection and Modification of L'Hotellier quick release attachment

Reason:

New evaluations of reported incidents involving L'Hotellier ball and swivel joints with locking cams have prompted the LBA to have these joints as well incorporated into the investigations as to the operational safety of L'Hotellier ball and swivel joints.

The results are similar to those obtained with the ball and swivel joints with lock plates.

As has been demonstrated in the tests, even normal operating conditions are sufficient under unfavourable circumstances to surmount the static friction (i.e. even the locking cams may open).

Action and compliance:

Compliance: following actions must be accomplished not later than April 30, 1994

The ball and swivel joints with locking cams must be secured. For this purpose, the following actions are to be accomplished:

- 1) Safety pins (e.g. L'H 140-31 made by Hotellier) have to be retrofitted. In case the locking cams have not already been fitted with holes (\emptyset 1,3 mm) these holes are to be drilled within the framework of this AD.

Insertion of a safety pin is not applicable for L'Hotellier ball and swivel joints which are already equipped with other approved locking systems (e.g. Uerlings sleeve), or if such systems are newly installed.

Uerlings sleeves (specification number SE-001/78) can only be installed for straight joints and transmissions, but cannot be used for 90° joints.

2) Flight Manual

a) Section "Rigging"

The recommendation in several Flight Manuals: the lock plate of L'Hotellier ball and swivel joints "should be secured"... given in this or in a similar form is to be deleted and to be replaced by the following sentence:

"The L'Hotellier ball and swivel joint must be secured."

- b) If older Flight Manuals do not contain information on L'Hotellier ball and swivel joints, the following paragraph (probably on a new page) is to be included in the Flight Manual under the Section "Rigging", if the Hotellier joint is or is to be secured by means of a safety pin:

Hotellier Ball and Swivel Joints

Prior to installation everyone should familiarize with the functioning of L'Hotellier ball and swivel joints.

The swivel is to be slid completely over the ball on the rod with the locking cam pulled back. During locking the locking cam moves back slightly so that in a correct joint the hole on the averted edge of the locking cam becomes visible.

The safety pin is to be inserted in this hole thus securing the ball and swivel joint.



Warning !

Unsecured ball and swivel joints may open automatically in flight !

These entries in the Flight Manual can be made in writing or as a copy indicating this AD-No.: 94-001.

An entry in the list of effective pages or an update of the amendment no. is to be made indicating the AD-No.: 94-001, if such a list exists.

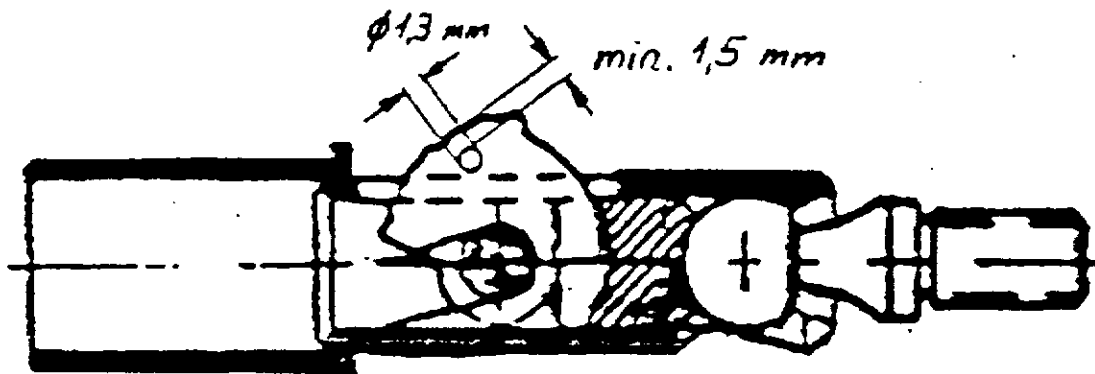
Information:

Type-related technical information already published by the manufacturer or by the product support organisation for L'Hotellier ball and swivel joints become part of this AD.

Working Instruction for Action 1:

For fitting the hole proceed as follows:

Drill the hole \emptyset 1,3 mm with the ball correctly inserted so that one edge of the hole is level with the main body of the joint and on the other side at least 1,5 mm of material is left (see also the following sketch).



Warning: When working on the joint please see to it that no borings get in between the ball and the socket.

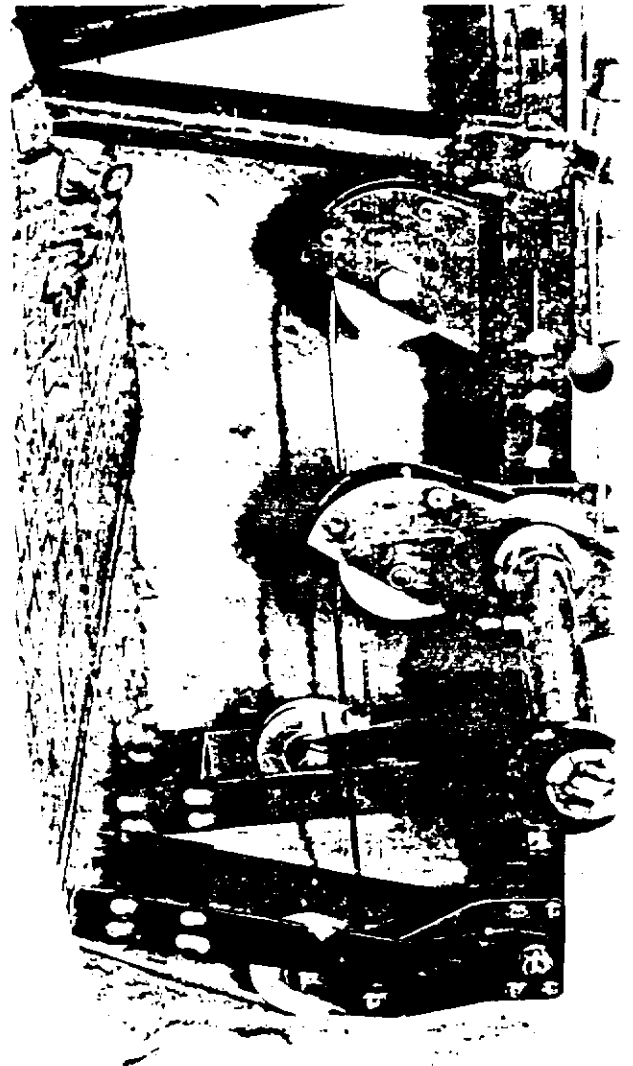
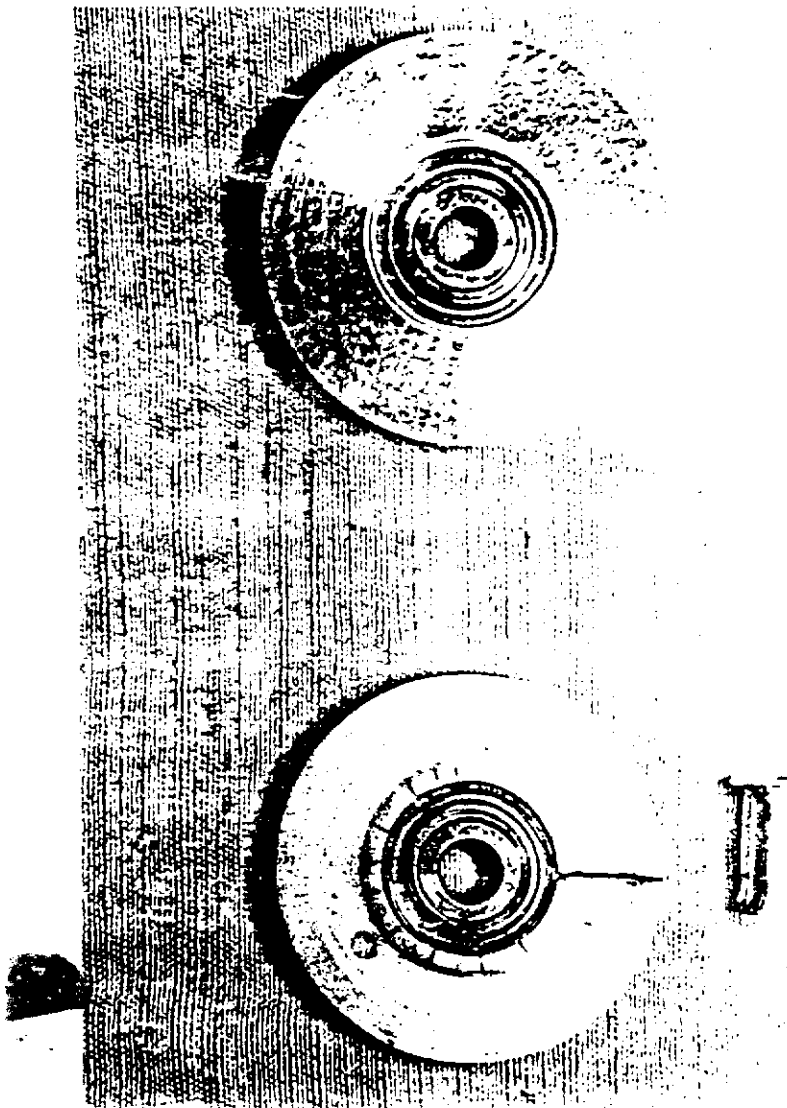
The safety pins are available from:

- L'Hotellier: safety pin reference No. L'H 140-31
- manufacturers or product support organisations for the sailplane or powered sailplane types concerned
- others: safety pin \emptyset 1,2 mm
Ford reference No. 1473 931 (worldwide)

Accomplishment and log book entry:

Actions under No's.: 1 and 2 may be accomplished by a competent person or by an approved service station and to be checked and entered in the log by a licensed inspector.

PROB G. 109.
WHEEL BRAKE PULLEYS (NYLON)
CRACKED.



PIRAT

Jan. 11 1994 9:42AM

From : ANGL-O-POLISH AIRPLINES LTD. PHONE No. : 0628 39690

1. REASONS FOR INTRODUCING THIS BULLETIN

Due to the accident of SZD-30 "PIRAT" glider, Fact. No W-321 (having 2650 flying hours completed) the uncertain glue joints condition has been suggested. The gliders of W-seria have been glued with fenol-formaldehyde AG adhesive. (The gliders of series: B, S and P have been glued with urethane-formaldehyde Aerolite 306 adhesive). The characteristic feature of AG adhesive is the red-brown colour of the joints. This Bulletin requires the inspection to be done to find the actual condition of the glue joints on the rectangular portion of wings of "PIRAT" gliders of the above mentioned W-seria.

2. LIST OF GLIDER FACT.NOS COVERED WITH THIS BULLETIN

This Bulletin covers the SZD-30 "PIRAT" gliders having the following Fact. Nos:
From W-314 to W-328 incl., and
from W-389 to W-413 incl.

3. DESCRIPTION OF CHANGES INTRODUCED WITH THIS BULLETIN

Till the inspections are performed and conclusions taken no changes are introduced (except of required by the previously issued Bulletins).

4. LIST OF ENCLOSURES

No enclosures

5. PROCEDURES OF GLUE JOINTS INSPECTION

- 5.1. Measurement of specific wing bending frequency
- 5.1.1. The rigged glider should be supported on the keel-board between the front skid and wheel (e.g on Frame No 9) in such a way that the wheel does not touch the ground. Moving the wing tip with hand induce the vibrations till the specific wing frequency appears. This frequency should range 64 cycles per minute. The considerably lower frequency may suggest the disgluing.

5.2. Performing of inspection holes

5.2.1. Make the inspection holes in the lower skin of rectangular wing portion (due to the lower longerons density) in its centre part in inner side of main ribs (between wing/fuselage-fittings). The best would be one hole near the leading edge e.g. next to righthand rib and the second one near the rear wall e.g. next to lefthand rib. Before the cutting of these holes the longeron location should be found by means of "knocking" to avoid the damage of longerons.

Additionally make the small holes in the upper covering outside the main ribs with opposite location in respect to the holes in lower skin (near the lower hole next to trailing part the upper small one should be made next to the leading edge and vice-versa). The small holes are provided to introduce the source of light inside the wing.

5.2.2. Tear-off the fabric "plugs" out of the main ribs of wing rectangular portion.

5.3. Inspection of glue joints

5.3.1. Through the small upper holes insert the light source. Through the lower holes inspect the glue joint condition in rib to upper covering connection and the glueing laps of longerons to main ribs connection. (due to the assembling procedure the glueing of ribs to lower covering can be estimated as of secondary importance). Applying a moderate pressure check the lack of slot between the glueing laps and longerons using the feeler gauge and the lack of light penetration through the glued areas when the pressure is applied.

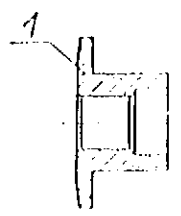
5.3.2. Check the condition of glue joints of the main ribs to upper covering through the holes in the main ribs.

6. FINAL STATEMENTS

6.1. The inspection of the glue joints quality should be performed by the Authority representant experienced in the wooden structures.

From: ANGIO-POLISH SAULPLANES LTD. PHONE No.: 0628 39690 Jan. 11 1994 9:41AM P02

SET OF PARTS:



Sleeve
511.45.10.01

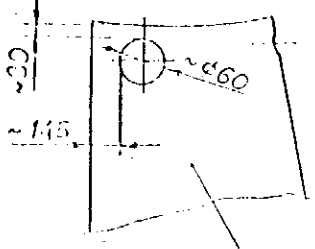


Washer
511.45.10.02



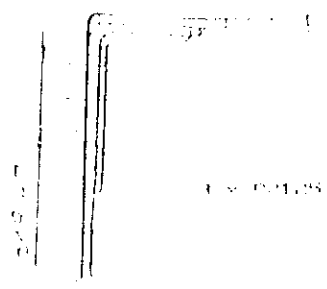
Nut
511.45.10.03

AUXILIARY OPENING:

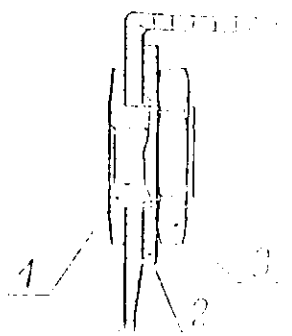


Covering structure:
1 x 02125
2 x 02145

STRENGTHENING OF THE FILM WALL:



ASSEMBLY:



Total film from
place

JUNIOR

BULLETIN No. BE-0002/03 "JUNIOR"

Ref: Replacement of the sleeve fixing the tailplane in the film wall.

Way of introducing: Obligatory for gliders in which the fitting play of the above sleeve appeared.
On other gliders acc. to user's decision.

Elaborated in FDPG-TKS, on Sept. 21st, 1993.

Director of "TZL-BIELSKO"

J. Zulauf
Józef Zulauf, M.Sc. Eng.

This is the translation of the original Polish text approved by the Airworthiness Authority.

Translated by:

W. Staffel
Włodław Staffel, D.Sc. Eng.

REASONS FOR INTRODUCING THIS BULLETIN

On the first production series of the SZD-51 "JUNIOR" gliders, the premature appearance of the play on the fitting of dove-shaped sleeve has been found. This Bulletin allows to remove this fault.

LIST OF GLIDER FACTS NOT COVERED WITH THIS BULLETIN

SZD-51 gliders: X-119
SZD-51-1 gliders: X-116, X-117,
W-Call numbers),
B-Call numbers up to B-1110 (incl.)

Except of those gliders, on which this sleeve replacement has been done.

DESCRIPTION OF THE CHANGES INTRODUCED WITH THIS BULLETIN

The substitution provided by sleeve should be executed. The tin wall strengthened and the sleeve fixed with nut installed.

LIST OF ENCLOSURES

Enclosure No. 1.

The scheme of the replacement of tailplane fitting sleeves in "JUNIOR" gliders of the first production series.

FINAL STATEMENTS

Introduction of this Bulletin requires all the aircraft and aircraft of the gliders. It is recommended to be introduced on the gliders, on which this fault has not yet appeared too.

The parts necessary for the replacement are available in producer's factory.

The completed replacement should be recorded in the Glider Log Book.

THE END

PROCEDURE
for replacement of tailplane fitting sleeve
on SZD-51-1 "JUNIOR" gliders of the first production series.

RESERVED:

- To perform this procedures the licensed repair mechanics are allowed.
- For laminating the INTERGLAS fabrics and Ep-52 + Z1 resin composition or other allowed for aeronautical production by the National Authority should be used.
- The initiation of the work should be applied to the Authority. The condition of repaired area before laminating the auxiliary opening and after laminating (before painting) should be accepted by the Authority Inspector.

PROCEDURES:

1. Put the fuselage on the supports on its left side, the plane of glider symmetry should be horizontal.
2. Cut the auxiliary opening of about 60 mm diameter in the righthand covering.
3. Using the speed rotation milling-cutter inserted through the auxiliary opening remove the sleeve position securing indentations inside the sleeve. Remove the washer and sleeve.
4. Clean the tin wall around the hole for the sleeve together with the inner ledge folded on the rib. Take care the hole to be not damaged. In case the external layers of the composite are torn off remove this failure.
5. Complete the eventual wall diminations, put the inside strengthening of 3 x 92125 "X" fabric about 60 x 70 mm folded on the ledge.
6. After the initial curing drill the ϕ 14 hole and then ream for ϕ 10 H7 axial with the old hole.
7. Wash the sleeve, washer and nut with the extraction gasoline. Insert the sleeve into the wall using the composition thicked with screw 11, put on the washer, screw in the nut and secure it by potting in four places.
8. Clean the tin inside, glue in the auxiliary opening in the covering area to the Repair Manual. Apply the local post-curing proper to the resin used (for Ep-52 in 60 °C temperature during 10 hours).

GADRINGER
HARNESSES

Operation

Seat Belt: Bagu V-A / 5100, Bagu V-B / 5200, Bagu V-BB / 5300,
Bagu V-C / 5400, Bagu V-CC / 5500

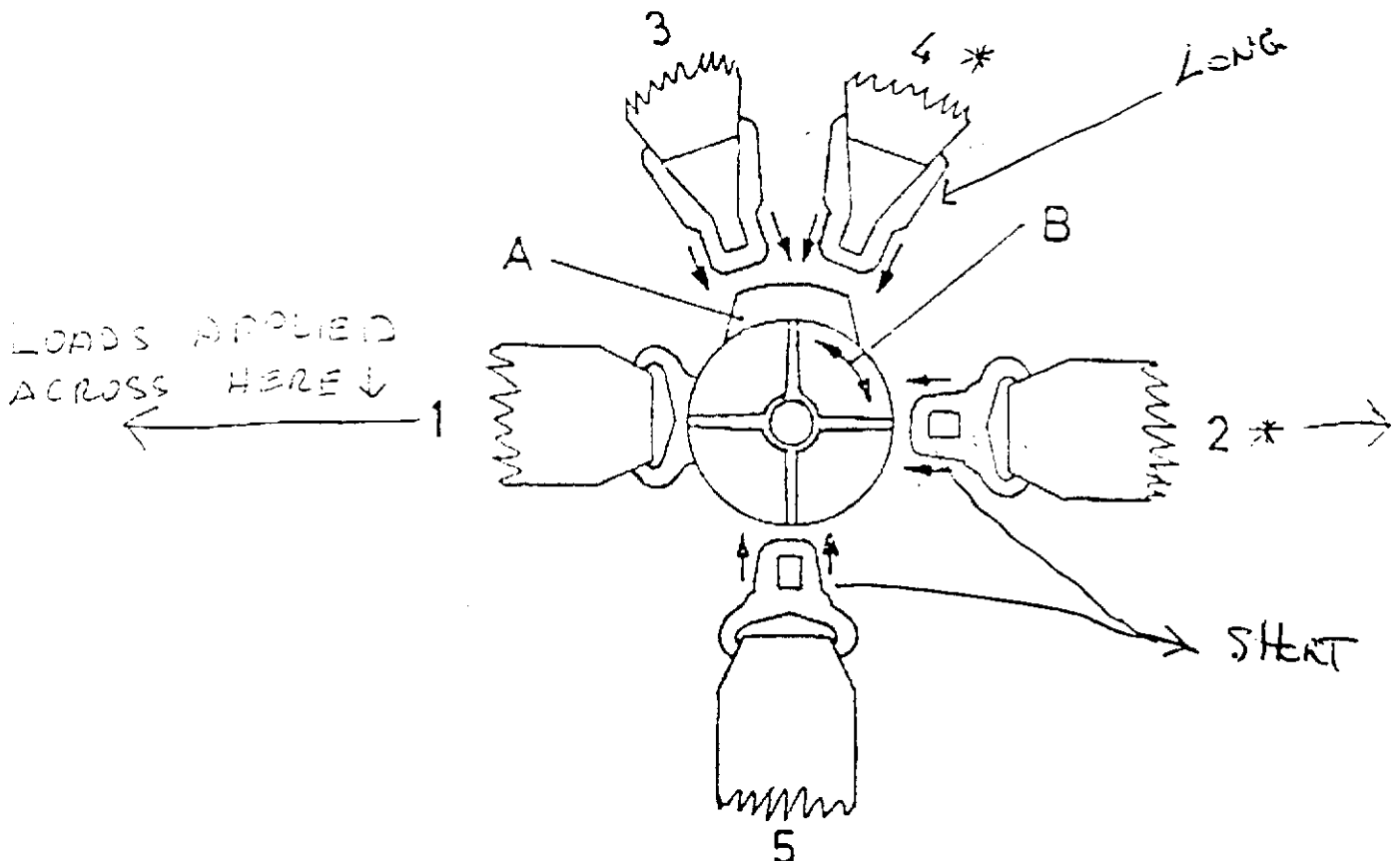
Approv. No.: 40.070/32

The rotary buckle is an all metal device consisting of a housing with 5 slotted sockets to accommodate end fittings of two lap belts (1 + 2), two shoulder harness (3 + 4) and one crotch strap (5). Regularly the right hand lap belt (1) is attached to the buckle.

Release of the four remaining end fittings is accomplished by rotating the four vane handle (3) in either direction. The shoulder harness can be separately released by pulling outward on the black tab (A) located adjacent to the harness fittings (lap belt and crotch strap remain connected).

The restraint system is connected by the insertion of the end fittings into the slotted sockets of the buckle.

The seat belt can be used single or together with a variety of different shoulder harnesses and crotch straps.



E4. ACTUATING CABLE FAILED

Aircraft type : Beech 58 Baron
 Date : February 1994

During routine maintenance, the right main landing gear down lock actuating cable was found corroded and severed. The point at which the cable severed is hidden from inspection since the cable is routed through conduit. The only lock holding the right main landing gear down

after the cable failure was the over-centre side stay lock.

There is no inspection requirement to remove and inspect the inner cable and the reporter recommends inspecting it every three years. The reporter also

stated that the cable also acts as an up-lock actuating cable, therefore the right-hand gear was only held retracted by the landing gear motor. The 1989 aircraft had flown a total of 825 hours and is based in the Channel Isles and is subjected to a heavily salt laden environment.

E5. NON-DESTRUCTIVE TESTING - PIPER AIRCRAFT

(Unfortunately this item from last month's GASIL "lost" a paragraph. Thus, it is reprinted in full below.)

FAA AD 93-10-06 requires the inspection for corrosion of the wing lift struts and cracking of the wing lift strut fork end fittings on various Piper aircraft. The method of inspection specified for detecting the corrosion of the strut tubing involves the use of a Maule tester. (Piper SB528D/SB910A are referenced in the AD).

Note 1 to para (a)(1) of the AD, (which refers to AD para (f)), gives provision to the principle

of alternative means of compliance to the wing lift strut corrosion inspection of para (a)(1).

One maintenance organisation in the UK has already approached a non-destructive testing company to test, using radiographic techniques, the lift struts of Piper Pacer and Pawnee aircraft. Having viewed the testing techniques and results, the CAA approved this organisation's proposal as an acceptable alternative inspection

technique for the corrosion aspects of the AD.

It is known that a number of individuals are X-raying their struts in addition to carrying out the AD's required 'Maule' test. Whilst the CAA encourages such activity, on the basis that additional information on the internal condition is available, it is important to note that formal approval must be obtained from the Authority if it is wished to use radiographic technique in place of the Maule test.

E6. AIRWORTHINESS PROMULGATIONS

CAA Airworthiness Directives - Nil

CAA Letters of Transmittal

16 Feb 94 (BAZ AD75)	Rotax 912A engines	Insufficient earthing between stator and igniter
21 Feb 94 (RAI AD 94-027)	Partenavia P68	Inspection of Engine Oil Cooler System

CAA Letters to Operators

No 1333 Vickers Supermarine Spitfires with re-manufactured spars using L105. This Letter can be obtained from General Aviation Section, Aviation House, Gatwick Airport South, West Sussex, RH6 0YR. Tel: 0293 573726.

FAA Airworthiness Directives (Bi-weekly Lists 94-03) - Nil

BENDIX

BW 94-04

MAGNETOS

TELEDYNE CONTINENTAL
AIRWORTHINESS DIRECTIVE
APPLIANCE

SMALL AIRCRAFT & ROTORCRAFT

94-01-03 Teledyne Continental Motors: Amendment 39-3735. Docket 93-ANE-44. Supersedes AD 73-07-04, Amendment 39-1731 (Bendix AD).

Applicability: Teledyne Continental Motors (TCM) (formerly Bendix) S-20, S-200, and S-600 series magnetos with red or black Bendix (not TCM) data plates having serial numbers without any letter prefix, or serial numbers lower than A16058 having the letter 'A' prefix; S-20, S-200, S-600, and S-1200 series magnetos with blue Bendix (not TCM) data plates having serial number 901001 and lower; and S-1200 series magnetos with red Bendix (not TCM) data plates having serial numbers without any letter prefix, or serial numbers lower than A102844 having the letter 'A' prefix. These magnetos are installed on but not limited to reciprocating engine powered aircraft manufactured by Beech, Cessna, Maule, Mooney, and Piper.

Compliance: Required as indicated, unless accomplished previously.

To prevent magneto failure and subsequent engine failure, accomplish the following:

(a) For TCM (formerly Bendix) S-20, S-200, and S-600 series magnetos, replace Bendix ignition coils and rotating magnets identified in the Detailed Instructions of TCM Service Bulletin (SB) No. 637, dated December 1992, with appropriate serviceable ignition coils and rotating magnets at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours time in service (TIS) after the effective date of this AD, whichever occurs first.

(b) For TCM (formerly Bendix) S-1200 series magnetos, replace Bendix ignition coils identified in the Detailed Instructions of TCM SB No. 637, dated December 1992, with appropriate serviceable ignition coils at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of this AD, whichever occurs first.

NOTE: The rotating magnets on the S-1200 series magnetos already incorporate the improved TCM design.

(c) After compliance with paragraphs (a) or (b) of this AD, as applicable, and prior to further flight, mark the magneto in accordance with the identification instructions of TCM SB No. 637, dated December 1992.

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Atlanta Aircraft Certification Office.

(e) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the aircraft to a location where the requirements of this AD can be accomplished.

(f) The replacement shall be done in accordance with the following service bulletin:

Document No.	Pages	Revision	Date
TCM SB No. 637	1-2	Original	December 1992

Total pages: 2.

Ignition unit of ROTAX engine 912 A

Revision 1

Subject: As known from experience, inadequate ground connection could arise between stator and ignition housing on the engine type 912 A.

Engines affected : All engines up to engine no. 4,076.022. On all subsequent engines, measures have been taken at Rotax already.

Reason: Isolated formation of corrosion between stator and ignition cover, respectively at attachment screws.

Rework without delay, as requested in the TB 912-02, edition 1993-02-15 is not necessary, based on experience of recent date.

Compliance: Mandatory.
On the engines affected, this task has to be carried out at the next maintenance work but, before 31st Jan. 1994 at the latest.

Description: Ensure proper contact between attachment screws and stator by the removal of insulation layers. This can be carried out with engine installed in the aircraft.

Disconnect battery. No need to withdraw magneto housing ① with magneto ring. Remove at least 2 of the 4 Allen screws ② and lock washers for stator attachment via the openings ② in the magneto housing.

■ **ATTENTION:** Make absolutely sure that no foreign matter (lock washer or screws) will stick to the magneto ring.

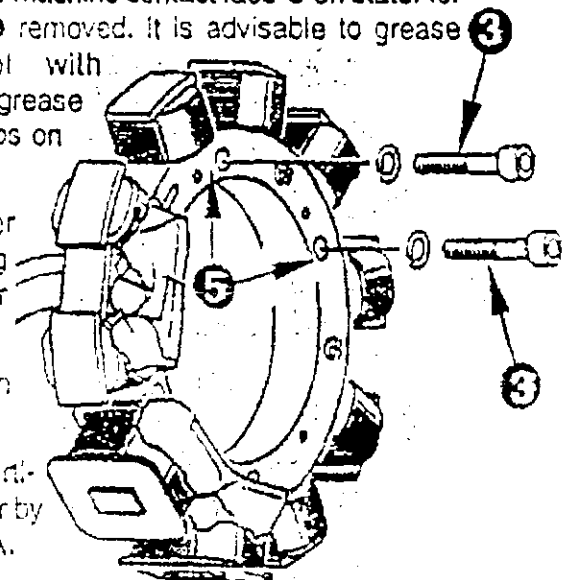
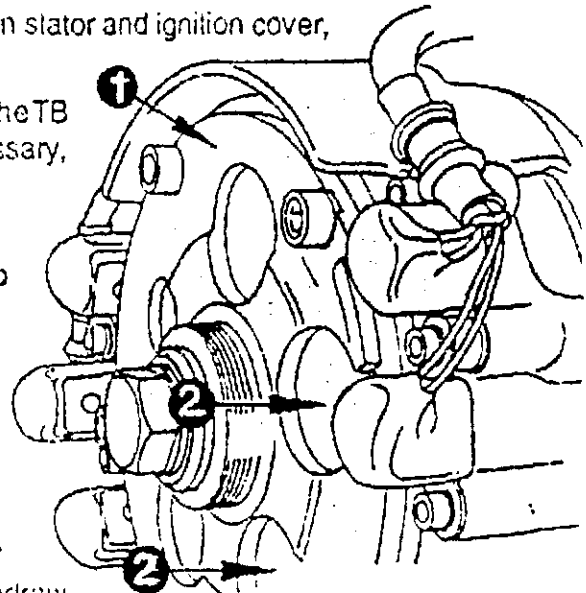
Use spot-facing cutter ④ or similar tool to machine contact face ⑤ on stator for the screws ② removed. It is advisable to grease cutting tool with Lithium-base grease to collect chips on

cutter and not on magneto ring.

Refit screws M5 along with lock washer and tighten to 6 Nm. To ensure lasting ground connection, treat contact faces for screws with Lithium-base grease.

Reconnect battery and carry out ignition check.

Accomplishment: The measures have to be taken and certified by the manufacturer of the engine or by persons authorized by the relevant CAA.



AD 75

Günskirchen, 93 10 25

BAZ accepted on: 28. NOV. 1993



BOMBARDIER - ROTAX
GESELLSCHAFT M.B.H. MOTORENFABRIK

A-4623 GÜNSKIRCHEN—AUSTRIA
Telefon: +43-(0)7246-271-0*, Telefax: +43-(0)7246-370
Telex: 25540 brk a, Telegr.: Bombrotax Günskirchen