BRITISH GLIDING ASSOCIATION

BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET TNS 9/10/93

PART 1 Airworthiness "AGGRO". Please refer to the 1993 Blue Pages.

1.1. Slingsby T.21. (Sedburgh). Cracked flanges on the OTFUR HOOK. First reported in TNS 7/80. Inspect and re-enforce as required.

1.2. Fixed Ballast Weights. (Swallow and other types) **Removal of ballast weights which are permanently installed to correct c.g. anomalies, should not be** undertaken without re-placarding and making prominent **log book entries.**

1.3. KA21 Canopy GAS-STRUT Hinge Pins found severely worn, almost to failure. Catastrophic damage to the canopy could occur. Inspect as soon as possible (RAFGSA).

1.4. JANTAR Water-Ballast Dump Valve - Control knob became detached, and resulting heavy landing, damaged the undercarriage. Secure threaded knobs with Loctite.

1.5. JANTAR 2 (SZD 48). Tailplane Securing Pin - loose in flight, tailplane not properly secured. Suggest pin be partially painted RED to highlight lack of penetration. (Enstone G.C.).

1.6. JANTAR (SZD 41). Main Wing Bin Fatique Failure. Owners were notified 12/8/93 to NDT Main Rigging Pins, pending replacement/Reference Service Bulletin BE 044/93 herewith). Contact UK Agents Anglo Polish Sailplanes.

1.7. SZD 51 "Junior" - Elevator Trim Spring - failed during pre-flight checks. Replacement part may be of improved material. (Cambridge G.C.).

1.8. Standard Cirrus - Elevator Incorrectly Connected. (Diagram herewith from Bristol & Glos G.C.).

1.9. Janus C Undercarriage Lever Failed at weld between lever and the drive rod tube wall. Diagram from RAFGSA Bicester details access holes to be cut to extract drive rod.

1.10. Kestrel 19. Ailerons Not Connected - Violent oscillations of ailerons Stop-to-Stop !!! (BGA Incident Report).

1.11. Centrair 20 FL (Wing Extensions) French A/D 92-223 (A) R1 herewith has been sent to owners and finally makes the modification MANDATORY if wing extensions are to be fitted!

1.12. Centrair 101 Sailplanes. French A/D 93-145 (A) herewith, has been sent to owners 8/9/93 and decreases ROUGH AIR SPEED.

1.13. LS3 - Airworthiness Directive 93-157 refers to LANDING GEAR LOCKING (copied).

1.14. LS3 - A/D 93-156 - Refers to Air Brake Drive (copied)

1.15. LS3 - A/D 93-155 Concerns Elevator Mounting Bracket. Copied to owners 10/8/93 and repeated herewith.

1.16. Schleicher ASW 17 A/D 93-124 extends SERVICE LIFE to 12000 hours subject to special inspections prior to 3000 hours. Schleicher Tech. Note 13 (Jan 1993) refers.

1.17. LS3 & LS4 Forward Elevator Mounting. A/D 93-155 & Tech Bulletin 3043/3045 herewith.

1.18. LS1-F- & LS3 Securing of the Horizontal Tail. Tech Bulletin 51/3041 herewith is OPTIONAL.

1.19. LS1 & LS3 L'Hotelier Connectors - to comply with LBA A/D 93-001. Tech Bulletin 52/3042 (herewith) refers.

1.20. Grob G109's Undercarriage Failures at the top radius - caused by severe corrosion, and lack of adequate protective treatment. Magnetic Particle NDT is recommended, and frequent inspection and re-protection (reported by BGA to CAA on RAFGSA failure).

1.21. Extract from GASIL's (copied herewith).

(1) Spark Plug Failures - Pawnee etc.
(2) Oil Pump Failure - GIPSY MAJOR
(3) Collapsed Oil Filters - Many incidents

1.22. SLINGSBY CAPSTAN - Rudder Post cracked at welds. (Sketch from RNGC Culdrose).

1.23. Puchacz - Elevator Trim Tab Drive Failures. 2mm solid wire cable fails inside the outer casing. Repaired with locally manufacturer cable. (Sketch herewith from Southdown G.C.).

1.24. Unconnected Aileron - induces Wing flutter, and abandonment by parachute in Australia!!! (all for the sake of a meticulous Daily Inspection).

PART 2 GENERAL INFORMATION

2.1. Harness Straps - Slipping (Janus). Report and remedy from New Zealand herewith.

2.2. BGA Inspector Renewals including Insurance Indemnity, are now due. Renewal Notices have been posted, extra copy herewith. Please action A.S.A.P.

Dick Stratton
Chief Technical Officer

SZD 41 JANTAR WING ROOT MAIN PIN

1. GROUNDS FOR INTRODUCING THIS BULLETIN.

The SZD-41 gliders of all types have been temporarily excluded of operation since the method of non destructive testing of spar root pivots was necessary to be prepared.

The introduction of the statements of this Bulletin allows for:

- the individual revocation of the excluding of operation for a particular glider independently of the general excluding of operation, and
- extension of the whole time period of operation acc. to the statements of item 5.3.

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

2.1. SZD-41A "Jantar Std." from B-628 up to B-699, from B-703 up to B-933

2.2. SZD-41 "Jantar Std." X-110, X-111
SZD-41A "Jantar Std." X-123, from B-700 up to B-702
SZD-41B "Jantar Std." X-125, X-126, X-130

2.3. SZD-41 "Jantar Std." X-121, X-122
SZD-41A "Jantar Std." X-124

3. DESCRIPTION OF CHANGES INTRODUCED WITH THIS BULLETIN.

3.1. It is allowed to introduce the Bulletin No BE-037/89 "Jantar Std.", namely the replacement of the spar root pivot as immediate action for all gliders of SZD-41 family independently of the amount of flying hours completed.

3.2. The 1000 hours inspection after each 6 years is canceled, therefore:

- in Annex No 3 of Technical Service Manual of SZD-41 gliders, and
- in Chapter 11 of Technical Service Manual for SZD-41A and SZD-41B gliders;

in the sentence defining the frequency of inspections, below the title: "Main Inspection of the Glider after 1000 flying hours completed" it should be canceled the wording: "-or after 6 years, if the time period would occur sooner than the allowed flying hours."

4. LIST OF ANNEXES.

No Annexes.

5. FINAL STATEMENTS.

5.1. The decision of immediate replacement of spar root pivot belongs to the user. The necessary parts to be replaced are available in the producer's factory on individual order.

5.2. All the spar root pivot replacement procedures are to be performed acc. to the statements of BE-037/89 "Jantar Std." Bulletin.

5.3. The whole life-times after the pivots are replaced are the following:

- 6000 flying hours for the gliders listed in item 2.1.
- 3000 flying hours for the gliders listed in item 2.2.
- 1500 flying hours for the gliders listed in item 2.3.

For the gliders listed in item 2.2. and 2.3. the further individual extension of life-time is provided, depending on their technical condition (prototype gliders).

5.4. The 1000 flying hours inspection should be performed on the base of BE-08/79 "Jantar Std." Bulletin. In case the flying time completed is near to 1000 hours the pivots replacement should be associated with the inspection.

5.5. The replacement of pivots should be noticed in the glider log-book. The data for total life-time should be changed in Technical Service Manual.

5.6. For gliders having the spar root pivot replaced acc. to this Bulletin the statements of Bulletins: BE-020/88, BE-034/88, BE-037/89 "Jantar Std." are not valid. The decision on their temporary excluding out of operation is not longer valid.

5.7. The inspection after 6 years can be canceled independently of the fact that the pivots are replaced or not.

THE END

SZD 41 JANTAR

WING PIN

BULLETIN No BE-044/93 "JANTAR-STANDARD"

Ref: - The possibility of cancellation the temporary excluding of operation the gliders of SZD-41 "Jantar Standard" family.

- Cancellation of inspection after every 6 years of operation for the above gliders.

Way of introducing: Acc. to user's decision

Elaborated in PDPS-TKS, on Aug. 6th, 1993.

Director of "PZL-BIELSKO"

Juliusz Zulauf, M.Sc.Eng

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

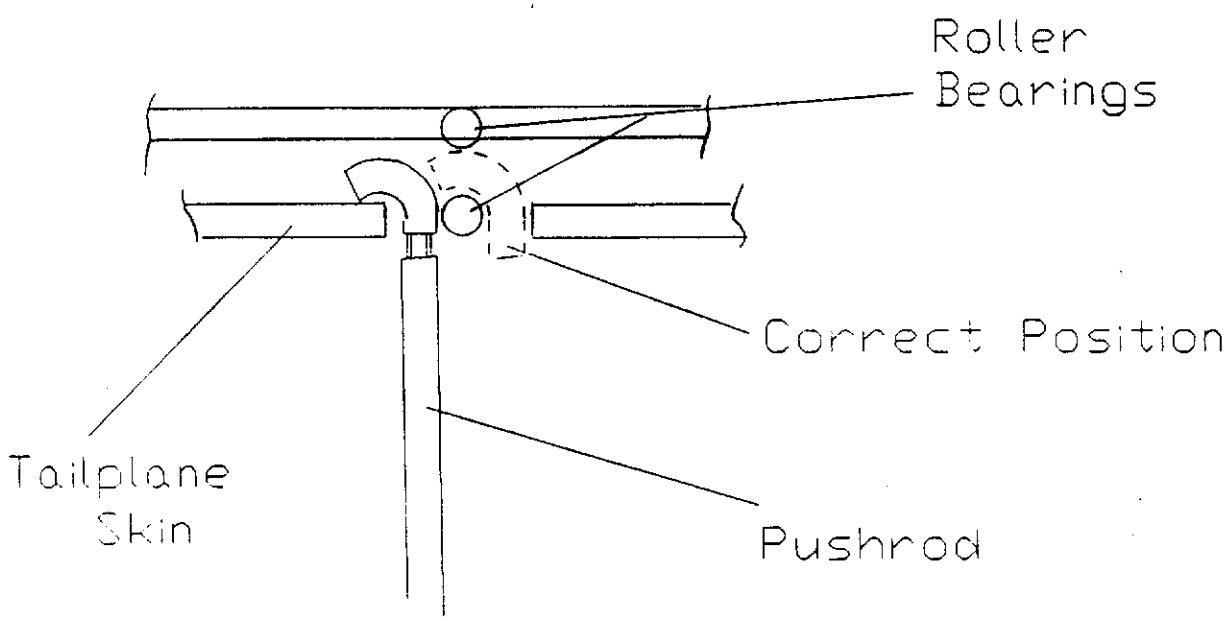
Translated by:

Wlodzimierz Stafiej, D.Sc.Eng

TNS 9/10/93.

STANDARD CIRRUS ELEVATOR CONNECTION

The pilot of a Standard Cirrus found that he was unable to reduce speed below 45 Kt following a winch launch, after landing it was found that the Elevator Pushrod to tailplane connection had been incorrectly fitted as shown in the diagram below.
This fault **could not be detected by a positive control check** and was difficult to observe visually, it also proved impossible to reproduce this fault on refitting the tailplane.

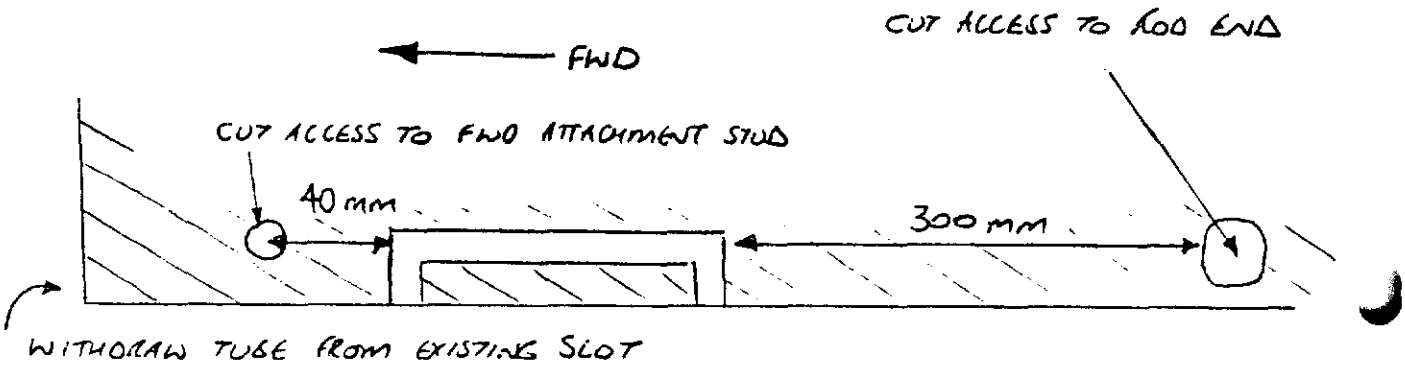


I. D. Smith I/A/180M

~~MISCELLANEOUS JANUS C~~

WHILE ATTEMPTING TO LOWER THE U/C ON A 10 YEAR OLD JANUS C, THE OPERATING LEVER SEPARATED FROM THE DRIVE ROD. THE FAILURE OCCURED AT THE WELD BETWEEN THE LEVER AND THE DRIVE ROD TUBE WALL.

THE FOLLOWING DIAGRAM MAY BE OF USE TO OTHER JANUS OR NIMBUS 2C OPERATORS WHO MAY NEED TO REMOVE THE U/C RETRACTION DRIVE ROD.



SKETCH OF RH FRONT COCKPIT WALL U/C LEVEL SLOT (NOT TO SCALE)

JANUS C. UNDERCARRIAGE LEVER.

BRITISH GLIDING ASSOCIATION
KIMBERLEY HOUSE,
VAUGHAN WAY, LEICESTER.
TEL. LEICESTER (0533) 531051

BUREAU VERITAS

AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive

Translation of 'Consigne de Navigabilité'
ref.: 92-223(A)R1
In case of any difficulty, reference should be made to the French original issue.

CENTRAIR

ASW 20 FL Sailplanes

Wing extension

The present Airworthiness Directive concerns to ASW 20 FL sailplanes all serial number, which have not modified by CENTRAIR N° ASW 20F/11 major modification.

A recent analysis has been carried out on the gliders ASW 20 FL with wing extension. The result is that the safety range on the strength at the spar root is lower than required by airworthiness rules.

In order to avoid a possible breaking in flight, resulting from this unconformity, the following measures are made mandatory at the effective date of this Airworthiness Directive :

- "It is therefore strictly forbidden to fly with the wing extensions".
- Fabricate and install a temporary placard in full view of the pilot which reads as above.

Record the application of this Airworthiness Directive in the sailplane log book.

Note : The accomplishement of CENTRAIR ASW 20F/11 modification cancels the above mentioned limitations.

Ref : CENTRAIR Service Bulletin N° 20-16 Revision 1

This Revision 1 replaces original AD 92-223(A) dated October 28, 1992.

EFFECTIVE DATES :
Original AD : NOVEMBER 07, 1992
Revision 1 : SEPTEMBER 11, 1993

n/Z

BCA TNS 9/10/93 · 10 DAYS 8/9/93

BUREAU VERITAS

KIMBERLEY HOUSE,
VAUGHAN WAY, LEICESTER.
TEL. LEICESTER (0533) 531051

AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive

Translation of 'Consigne de Navigabilité'
ref.: 93-145(A)
In case of any difficulty, reference should be made to the French original issue.

CENTRAIR

Models 101 Sailplanes

Decrease of VRA

The present Airworthiness Directive concerns CENTRAIR models 101 sailplanes from S/N 101001 to S/N 101039 and S/N 101041 no modified according to CENTRAIR N° 101-02 major modification.

In order to standardize the maximum true speed in raugh air on any sailplanes models 101, it is required to reducè, for the sailplanes affected by this Airworthiness Directive, VRA from 170 to 163 Km/h.

Following measures are made mandatory within next 3 months after the effective date of this Airworthiness Directive :

To modify : 1 - Flight Manual
2 - Maintenance Manual
3 - Placards
4 - Air speed indicator markings

in compliance with instructions of CENTRAIR SB N° 101-17 dated April 20, 1993.

Record the application of this Airworthiness Directive on the sailplane log book.

Ref : SB CENTRAIR N° 101-17 dated April 20, 1993

EFFECTIVE DATE : SEPTEMBER 11, 1993

n/Z
17

ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	Technical Bulletin No. 3045 / 4036	all LS3 LS4 LS4-a	Page 1/2 Edition July 93

AD 93-157

TNS 9/10/93
To owners 10/2/93

SUBJECT : Landing gear drive

EFFECTIVITY : Sailplane model LS3, all versions (LS3, LS3-a and LS3-17)
sailplane model LS4, versions LS4 and LS4-a

ACCOMPLISHMENT : Immediately and each time after working at the landing gear, especially when readjusting effective leverage during exchange of the gas strut in the drive.

REASON : Landing gear locking failed due to improper locking of nuts.

MATERIAL and INSTRUCTIONS :
Check locking of nuts in the landing gear drive:
A) Thread M10, Width over flats 19 mm,
torque 45 Nm (33 lb*ft)
B) Thread M8, width over flats 17 mm,
torque 25 Nm (18 lb*ft)
Additional safety by applying thread securing fluid (for example: Loctite)

WEIGHT AND BALANCE : Not affected

REMARKS : Inspection by Operator.
Accomplishment must be checked by inspector at next annual inspection and signed in logbook, for LS4 models also in Maintenance Manual page 14-2 (for USA: Instructions for Continued Airworthiness page 6-2), TB-AD-Accomplishment Checklist.

LBA-approved :

LUFTFAHRT-BUNDESAMT BRAUNSCHWEIG

U. Rapp
20. Juli 1993

Erstellt: 07.Jul.93 Heuck	Geprüft: - 7. JULI 1993 Schapka

LBA-AD 93-157

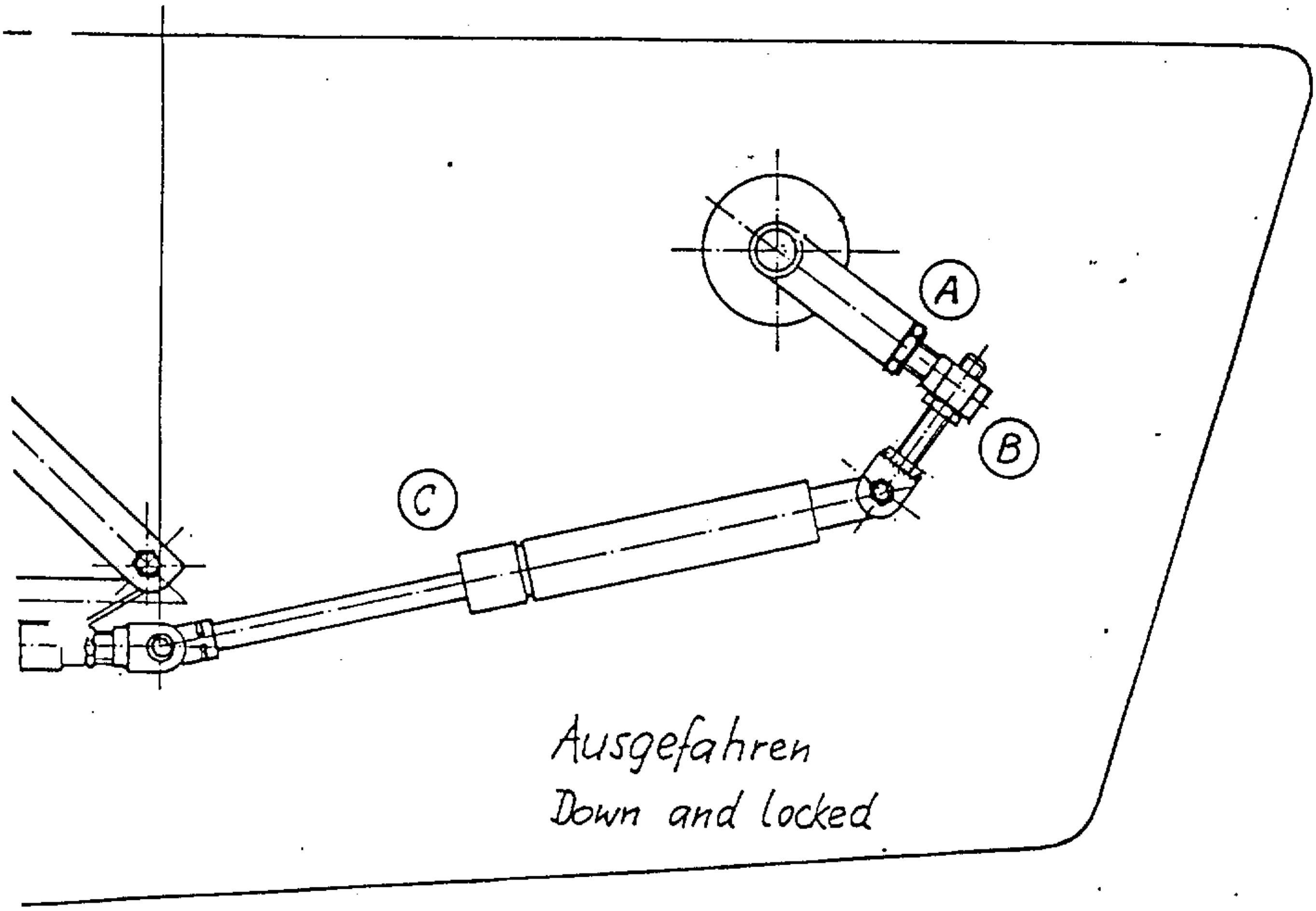
Zeichnung des Fahrwerksantriebs auf der linken Seite des Fahrwerkskastens, Einstellungen bei A und B, nach Ausbau des Gepäckraumbodens zugänglich. Bei Einbau einer neuen Gasfeder C ist zu überprüfen, ob diese beim Verriegeln des Fahrwerks zwischen 5 - 8 mm zusammengeschoben wird, damit die Gasfederkraft als Vorspannung für die Verriegelung wirkt.

Drawing of landing gear drive at the left side of the landing gear box, adjustments at A and B, accessible after removal of the baggage compartment cover. When fitting a new gas strut C the following must be checked: During locking the gas strut must **be compressed by about 5 to 8 mm (0.2 to 0.3 in) to ensure** total strut force acting as preset load for locking.

(A) Stellschraube mit Mutter, Gewinde M10
adjuster with nut, M10 thread

(B) Stellschraube mit Gabel, Gewinde M8
adjuster with fork, M8 thread

<u>Zusätzliche Sicherung durch Angabe von flüssiger Gewindesicherung (z.B. Loctite)</u>. Bei späteren Einstellungen müssen derart gesicherte Gewinde erwärmt werden um sie lösen zu können.
<u>Additional safety by applying thread securing fluid (for example: Loctite)</u>. For later adjustments, these secured threads must be heated for opening.



ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	Technical Bulletin No. 3044	LS3 LS3-a LS3-17	Page 1/2 Edition July 93

RGA TNS 9/10/93
To OWNRS. 10/8/93

SUBJECT : Air brake drive

EFFECTIVITY : Sailplane model LS3, all versions (LS3, LS3-a and LS3-17)

ACCOMPLISHMENT : immediately

REASON : With excessive play in bevel gear drive at root rib or at fuselage drive between root ribs, the retaining bolt of the gear drive plate may fail.

MATERIAL and INSTRUCTIONS :

1) Check play in bevel gear drive at root ribs:
The bevel gear drive plate must be axially free from play, but should be unbraced. Compensation of play by shims 16*12 mm (When this play is excessive, the plate may skip over one or more teeth, resulting in air brake being either not completely retractable or extendable).
See also drawing on page 2.

2) After rigging the plane - check spanwise play of fuselage air brake drive between bevel gears with air brakes not locked. Also, this value must be free from play, but unbraced.
Compensation of play by shims 14*10 mm.
(When this play is excessive, the root rib is being deformed during locking, resulting in possible failure of the bevel gear plate retaining bolt and also air brake being either not completely retractable or extendable).

3) Modification of the air brake bevel gear unit to version "a" (Drawing 1DF-4a), identifiable by locking nut M8, width over flats 13 mm at the gear drive plate, instead of locking nut M6, width over flats 10 mm.
Disassembly of bevel gear units as follows:
a. Mark bevel gear meshed using permanent marker, eventually after degreasing with white spirit.
b. Mark gear unit with serial number of plane and R or L for left or right unit.
c. Dismount units from wings and send them to the manufacturer for modification.

WEIGHT AND BALANCE : Not affected

REMARKS : Inspection by operator, modification by manufacturer or manufacturer-assigned national authority approved repair station.
Accomplishment of inspection (TB 3044, measure 1 and 2) to be checked by inspector and signed in logbook.
Accomplishment of modification (TB 3044, measure 3) to be checked by inspector and signed in logbook until 01.July 1994.

LBA-approved : LUFTFAHRT-BUNDESAMT BRAUNSCHWEIG U. Popp 20. Juli 1993

LBA-AD 93-156

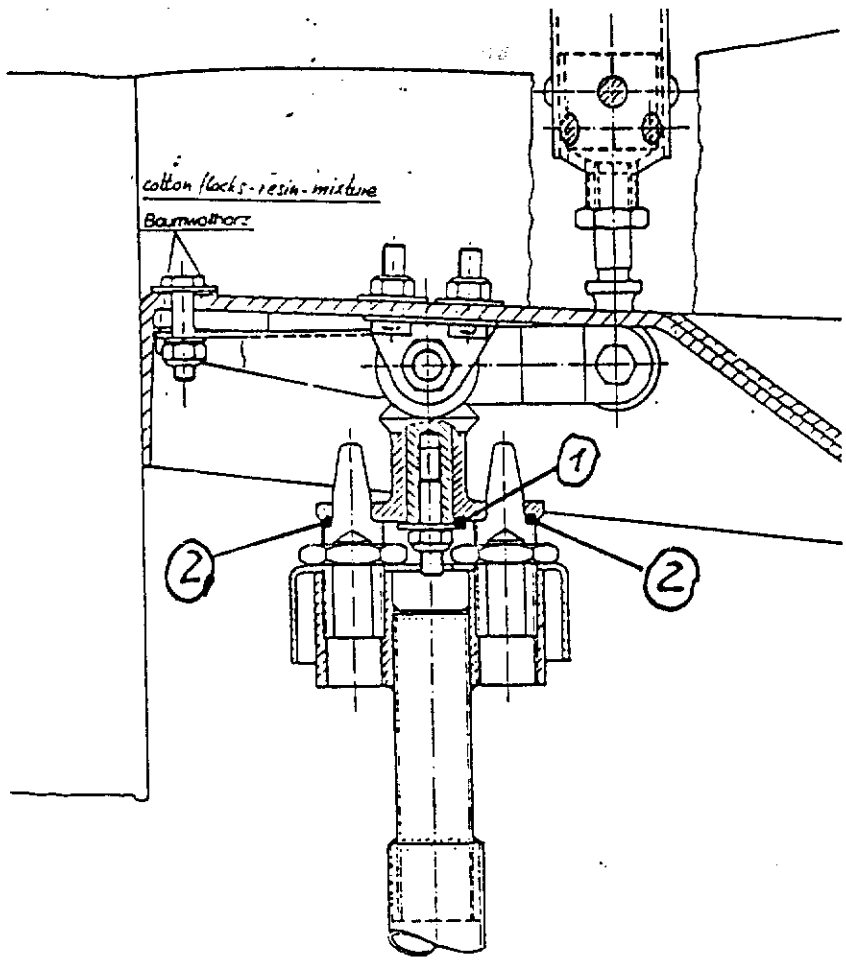
Erstellt: 14.Jul.93 Heuke	Geprüft: 14. JULI 1993 Schapka

(TM3044)

Zeichnung des Bremsklappenantriebs an der Wurzelrippe. Bereiche zum Spiel-Ausgleich gekennzeichnet:
Drawing of root rib and air brake drive, indicating regions for adjustment of play:

‹1› Teller des Kegelradgetriebes
bevel gear drive plate

‹2› rumpfseitige Antriebsbolzen
fuselage drive pins



Erstellt: 05.Jul.93 Zemke	Geprüft: - 8. JULI 1993 Klapka

ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	Technical Bulletin No. 3043 / 4035	LS3-a LS3-17 LS4, -a	Page 1/1 Edition July 93

BGA TN3 9/10/93. To owners 10/8/93

SUBJECT : Bonding of forward elevator mounting bracket in fuselage

EFFECTIVITY : Sailplane model LS3, versions LS3-a and LS3-17
sailplane model LS4, versions LS4 and LS4-a

ACCOMPLISHMENT : immediately

REASON : In one case the forward elevator mounting bracket on the vertical tail fin became loose.

MATERIAL and INSTRUCTIONS : Check the forward elevator mounting bracket for the following:
Fixture of the bracket by applying a torque 15 Nm (max. 6 kg (13 lbs) at lever arm 0.25 m (10 in)) at the bracket housing, without applying load to the bonded-in ball. Cracks in paint around bracket may indicate a loose mounting.

If the bracket is loose, repair with a new bracket 4R4-7c according to Instruction BA-4. When the bonding of the ball is loose, re-bond with elevator fitted.

WEIGHT AND BALANCE : Not affected

REMARKS : Inspection by operator, repair by national authority approved repair station.
Accomplishment must be checked by inspector at next annual inspection and signed in logbook, for LS4 models also in Maintenance Manual page 14-2 (for USA: Instructions for Continued Airworthiness page 6-2), TB-AD-Accomplishment Checklist.

LBA-approved :

20. Juli 1993

Erstellt: 14.Jul.93	Geprüft: 14. JULI 1993

LBA-AD 93-155

(TM3043)

ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	Arbeitsanleitung BA-4 Höhenleitwerksaufhängung zu TM 3043 / 4035	LS3-a LS3-17 LS4, -a	Blatt 1/1 Ausgabe Juli 93

1) Losen Beschlag aus der Bohrung in der Seitenflossen-Abschlußrippe ziehen.
Extract loose bracket from vertical tail fin.

2) Rippenbohrung innen mittels Schleifer auf volle Länge aufrauhen, aber nicht vergrößern.
Sand mounting orifice in rib internally along whole length using a grinder, but do not enlarge diameter.

3) Kontrolle des neuen Beschlags auf Leichtgängigkeit der Kugel auf dem vorderen Höhenleitwerksbolzen. Kontrolle des Beschlags auf unverspannte Montage: Beschlag in Seitenflosse mit kleinen Holzkeilen fixieren, Plastilinkitt an Bolzenbund setzen; nach Montage und Wiederabnehmen des Leitwerks soll 3±1 mm Abstand zwischen Bund und Beschlag sein. Bei Abweichungen - Kontakt mit dem Hersteller aufnehmen.
Check new bracket for sliding fit of ball on forward stabilizer pin. Check bracket for braceless rigging: fix bracket with small wooden wedges in tail fin, place plastilin putty at shoulder of bolt; after rigging and de-rigging the horizontal tail, distance between bracket and shoulder of bolt should be between 3±1 mm (0.12±0.04 in). If differences are greater, contact manufacturer.

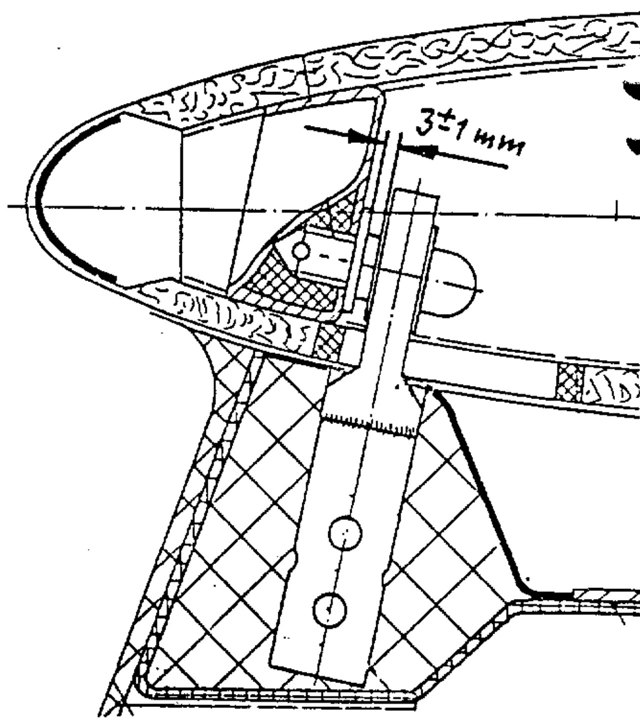
4) Rohr des neuen Beschlags 4R4-7c mit Baumwoll-Harz-Gemisch füllen, ebenso Bohrung in der Rippe. Harz: SCHEUFLER L285 + Härter L286, 100:38
RÜTAPOX L20 + Härter H91, 100:26
Fill tube of bracket and mounting orifice with mixture of cotton flocks with epoxy resin. Resin: SCHEUFLER L285 + hardener L286, 100:38
RÜTAPOX L20 + hardener H91, 100:26

5) Beschlag in Bohrung einführen und in gleicher Position wie unter 3) geprüft mit Keilen fixieren, Harzüberschuß abstreichen.
Place bracket into rib in position as checked under 3), fix with wedges, remove surplus resin.

6) Leitwerk komplett montieren, der Spalt im Vorderbereich der Höhenflosse zur Seitenflosse soll rundum gleichgroß sein, gegebenenfalls mittels kleiner Holzkeile fixieren.
Assemble horizontal tail unit. Gap between forward horizontal tail and vertical tail edge should be equal, fix with small wooden wedges if necessary.

7) Nach Aushärten des Harzes Leitwerk abbauen, Leimgutüberschuß entfernen, bei 55°C 15 Std. den Beschlagsbereich tempern. Verleimbereich mit Lack grau streichen.
Remove horizontal tail after curing of resin, remove surplus resin, heat treat bracket region at 55° C (131° F) for 15 hours. Finish bonding region using light grey paint.

8) Kugel des Beschlags mit Benzin oder Aceton reinigen. Harz oder Loctite an Kugelaußenfläche geben, Leitwerk mit gefettetem vorderen Bolzen montieren. (Bei loser Kugel ist die Montage wegen fehlender Ausrichtung schwierig).
Clean ball of bracket using acetone or white spirit. Apply epoxy resin or Loctite to outer ball surface. Assemble horizontal tail with forward pin greased. (With ball loose, assembly is difficult due to missing alignment)



Erstellt: 07.Jul.93	Geprüft: -7. JULI 1993

IN: 9/10/93

ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	Technical Bulletin No. 51 / 3041	LS1-f LS3	Page 1/1 Edition Mar. 93

SUBJECT : Securing of the horizontal tail

EFFECTIVITY : Sailplanes LS1-f and LS3

ACCOMPLISHMENT : Optional

REASON : The horizontal tail locking spring may be exchanged against a spring loaded ratchet (Similar to the ones used in later LS sailplane models).

MATERIAL and INSTRUCTIONS : Installation according to drawing 4BR-164. With the horizontal tail unit fitted, the ratchet housing (part No. 4R4-19) should not touch the securing nut (part No. 4R4-8a), the ball should protrude into the recesses of the securing nut. Housing must be secured in base plate by use of Loctite or similar.

WEIGHT AND BALANCE : Not affected

REMARKS : Exchange by Operator.
Accomplishment must be checked by inspector at next annual inspection and signed in logbook.

LBA-approved :

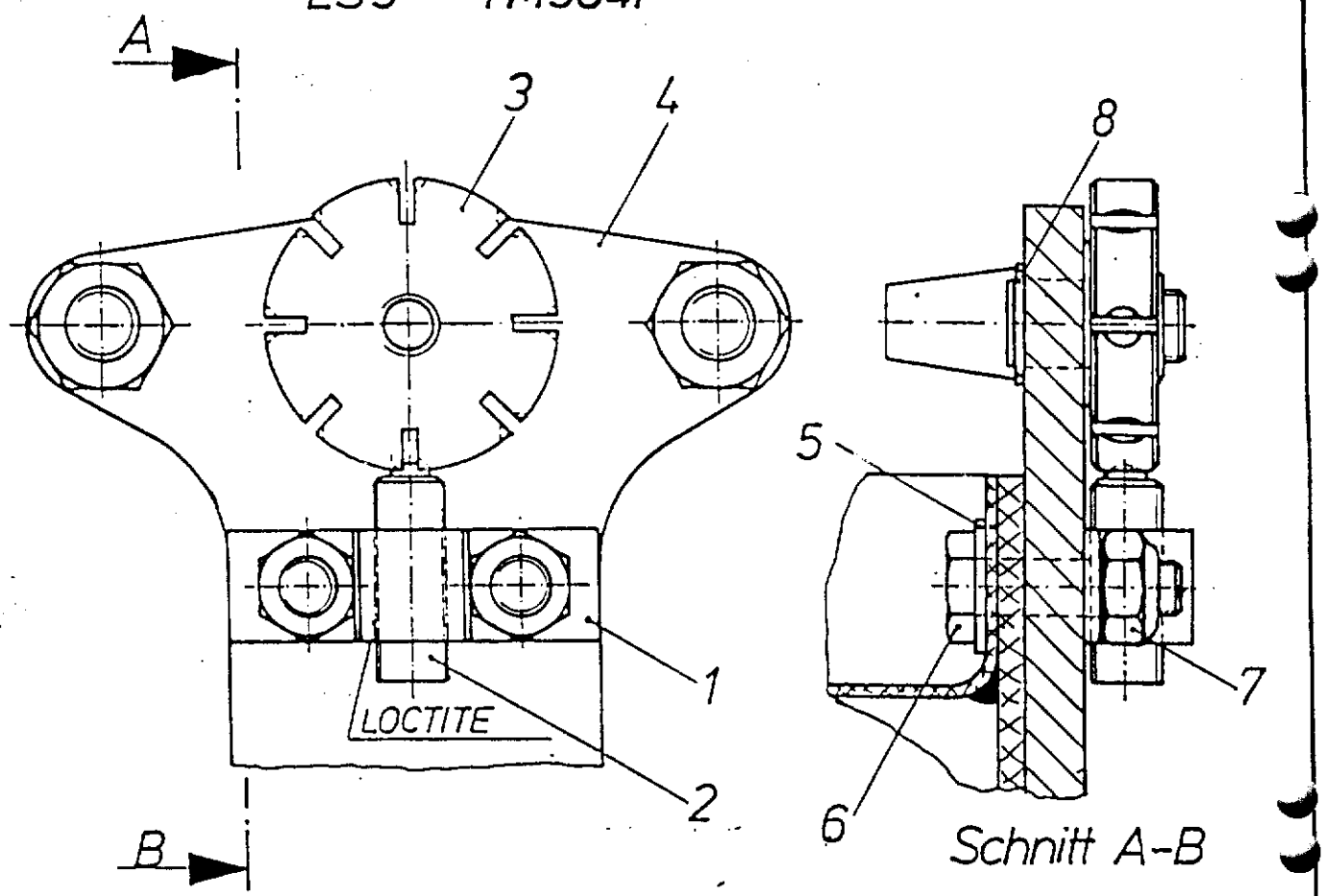
14. Juli 1993

Erstellt: 01.Jul.93	Geprüft: - 2. JULI 1993

	Datum	Name	Rolladen-Schneider Flugzeugbau GmbH	Maßstab: 1:1
Gez.	9.3.93	Ui	Benennung:	Zeichn.-Nr.
Bea.	1.7.93	Gesch	Höhenleitwerkssicherung	4BR - 164
Gepr.	2. JULI 199	Schapka		
Oberflächensch.: ✓.			Kommt vor:	BZ-Nr.
Rißprüfung: ✓.				BZ-Nr.

Pos.	Stck.	Benennung	DIN/LN	Werkstoff	Zeichn.-Nr.	

siehe auch:
LS1-f TM51
LS3 TM3041



Pos.	Stck	Benennung	DIN/LN	Werkstoff	Zeichn-Nr	Bemerkung
1	1	HLW.Sicherungshalter LS1-f, LS3			4R4-18	
2	1	Kugelschnäpper HLW-Sicherung LS1-f,3			4R4-19	
3	1	Sicherungsmutter			4R4-8a	
4	1	HLW.-Aufhängung hinten			4R4-13	
5	2	Scheibe ø8.5xø17.0x1.6	DIN125-B	St		
6	2	Sechskantschraube M8x28	LN9037			
7	2	Sechskantmutter M8 -8	DIN985	St		
8	2	Sicherungsring A12	DIN471	St		

Zus.	Ä.-Nr.	Dat.	Name	Name

LS3	1
LS1-f	1
Muster	Stück

TNS 9/10/93.

ROLLADEN-SCHNEIDER Flugzeugbau GmbH LBA-Nr. EB - 4	**Technical Bulletin** No. 52 / 3042	all LS1 LS3-a LS3-17	Page 1/1 Edition May 93

To owners 9/8/93.

SUBJECT : Securing of Hotellier control system connectors (a.k.a. ball snap joints or clip and ball coupling) according to LBA-AD 93-001

EFFECTIVITY : Sailplane model LS1, all versions
LS3, versions LS3-a and LS3-17

ACCOMPLISHMENT : immediately according to LBA-AD 93-001 (BGA TNS 3/9/93).

REASON : These connectors may open during use when they are not secured.

MATERIAL and INSTRUCTIONS : Securing may be performed using sleeve 4R10-170 according to specification SR10-170 dated 10.05.93. This sleeve replaces a securing pin. (For LS3-a and LS3-17 only the lefthand connector may be secured with this sleeve). Installation according to drawing 4BF-101. Insert page "Flight Manual LBA-AD 93-001" into Flight Manual, 2 pages "TB-AD-Accomplishment List for Periodical Inspections" into Maintenance Manual (Instructions for Continued Airworthiness) and update list of valid pages.

WEIGHT AND BALANCE : Not affected

REMARKS : Exchange by Operator.
Accomplishment must be checked by inspector at next annual inspection and signed in logbook. Inspect securing sleeves for proper retaining force, functioning and free from damage during each annual inspection, sign annual accomplishment in "TB-AD-Accomplishment List for Repetitive Inspections".

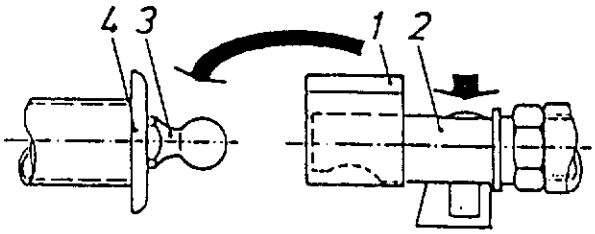
LBA-approved :

14. Juli 1993

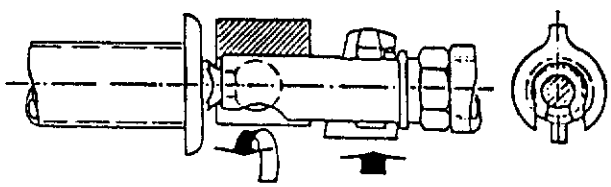
Erstellt: 06.Jul.07	Geprüft: -6. JULI 1993

Hotellier Control System Connectors

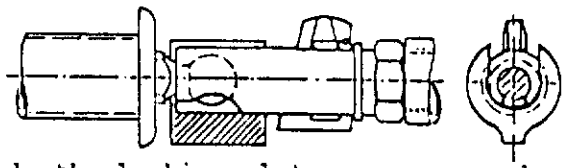
Prior to assembly, everybody should be familiar with the functioning of the Hotellier control system connectors (a.k.a. ball snap joints or clip and ball coupling). With the locking plate fully pressed, each connector (2) must be engaged fully on the ball (3). During securing, the locking plate moves slightly backwards. Using the securing sleeve (1), installation is possible only with the slot facing down, respectively the rib facing up. After proper connection and turning the sleeve by 180 degrees, the joint is secured, see also sketch below.



Locked



Locked and secured



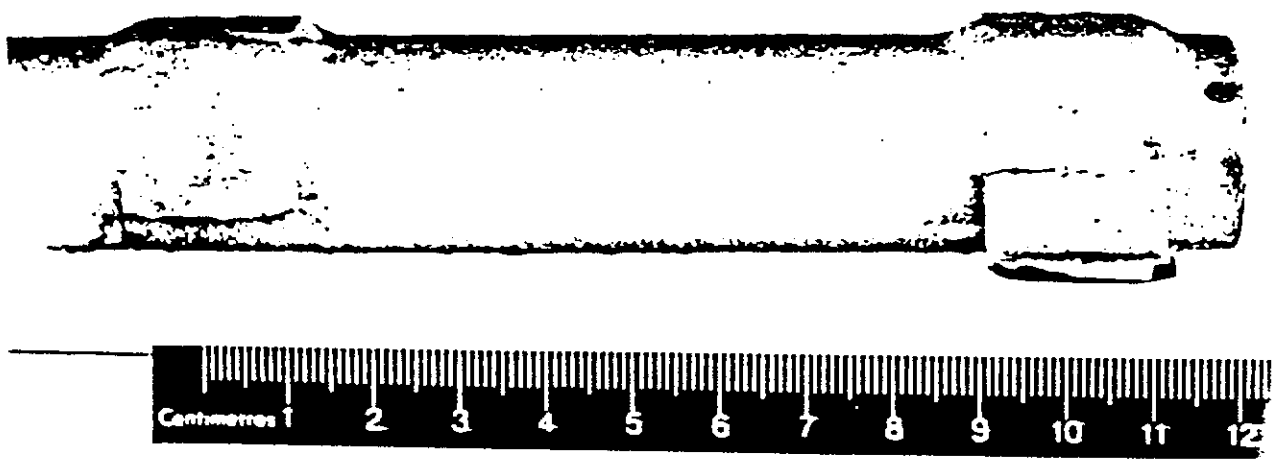
Warning: With connectors unsecured, the locking plate may open under load temporarily ! The locking plate should never be greased !

ROLLADEN-SCHNEIDER Flugzeugbau GmbH	TB-AD-Accomplishment List for Repetitive Inspections	LS1-0-a--b-c-d-f	Page 1 Edition Mai. 93

Sailplane LS1-__ Serial No. _____ TCDS No. _____ | List opened:
Registration _____ Year of Manufact. _____ Page No. _____ | Date + Signature of Inspector:

TB LBA-AD	Component affected	Measure / Modifi-cation	Interval	Date Op.Time Stamp Inspec.	Date Op.Time Stamp Inspec.	Date Op.Time Stamp Inspec.	Date Op.Time Stamp Inspec.	Date Op.Time Stamp Inspec.
____	C.G. Hook G___ S/N._____	Overhaul	4 years or 2000 take-offs	_____	_____	_____	_____	_____
____	Nose hook E____ S/N._____	Overhaul	4 years or 2000 take-offs	_____	_____	_____	_____	_____
____	Safety Harness Type _____ S/N. _____	Overhaul -exchange of fabric material	12 years	_____	_____	_____	_____	_____
TM 37 79-44	Axial securing washers at control surface fixed bearings	Inspect for presence	each annual inspect.	_____	_____	_____	_____	_____

RNGC Culdrose. TNS 9/10/93



SUNGSBY CAPSTAN Rudder Post - Cracked.

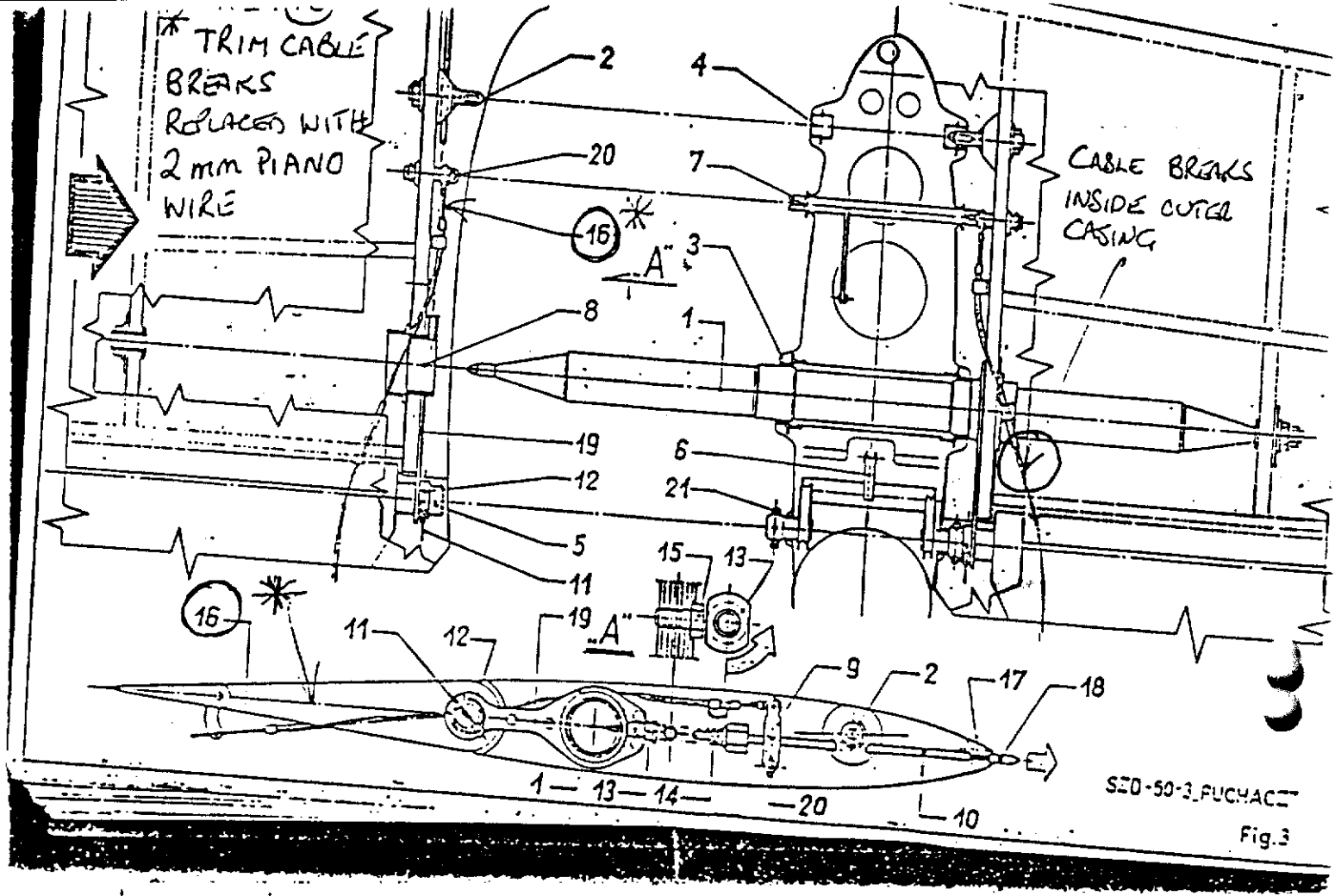
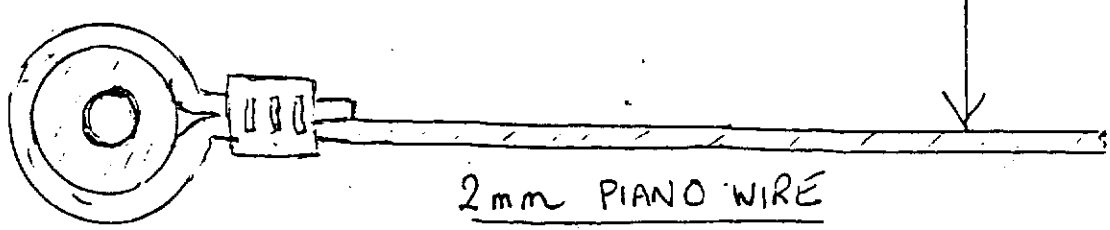


Fig. 3-20	Kołek Pin Stift Cheville	503.72.85.04
Fig. 3-21	Kołek Pin Stift Cheville	503.66.34.02
	Puchacz	
	TAIL TRIM.	

IF SPARE IS NOT AVAILABLE MANUFACTURE AS BELOW LUBRICATED WELL ON FITTING



2mm PIANO WIRE
LENGTH TO SUIT

ANNEAL TO BEND ROUND BEARING AND CRIMP ON NEW FERRULE

Puchacz
TRIM DRIVE Failure

PREVENTING HARNESS STRAPS SLIPPING

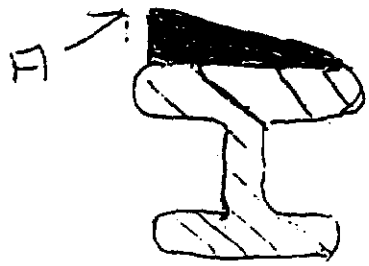
HOPPY HODGSON

In January 1993, a pilot in the Kaikohe Club Janus struck turbulence and his head hit and broke the canopy. His next sensation was diving at the ground with air whistling around him. Fortunately he was able to regain control and do a perfect paddock landing. Cause of the accident was that the harness straps had slipped during flight, allowing his body to be thrown upwards in turbulence.

In the April/May 1993 Kiwi, Roger Sparks asks for suggestions to prevent straps slipping loose. I have looked at the problem and found the simple solution.

When the harness strap slides (that part which moves up and down during adjustment) were manufactured there was a rough face from the casting of the aluminium. With time this rough face has worked smooth and the straps slide over it freely.

To prevent this I had the tops of the slide built up with MIG welding by about 3mm and then milled back at 45 degrees to give a raised face on the strap release side.



End view of harness slide
Dark portion is built up
by MIG welding and then
milled to 45 degrees

The edge A is somewhat serrated from the un-milled welding, and helps the strap grip even more. Cost was $7.50 per slide for first four experimental slides, doubtless it would be cheaper by the dozen.

(New Zealand).

PASIL . EXTRACT.

E3. SPARK PLUG FAILURE

Aircraft type	:	Piper PA25 Pawnee 235
Date	:	June 1993
Engine type	:	Lycoming O-540-B2C5

The aircraft had completed 10 aero tows satisfactorily when, on the eleventh, at a height of about 300 ft, power was lost and rpm dropped from 2500 to 1600. The tow was aborted, hot air applied and the aircraft landed back on the runway. A subsequent magneto check on the ground showed no fault, another aero tow was attempted and again the power loss was experienced at approximately 300 ft.

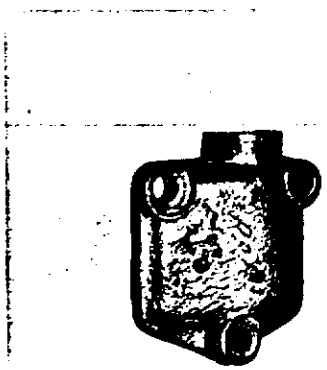
Engineering examination showed that one spark plug, the starboard front lower, had a broken electrode insulator.

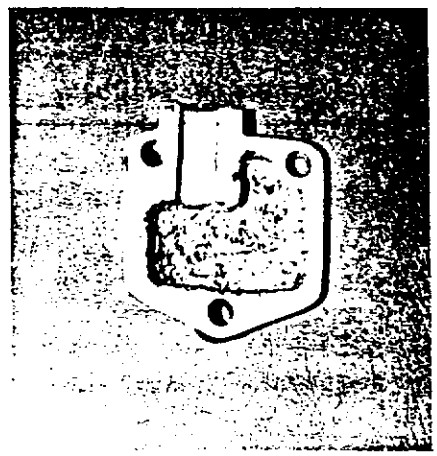
The reporter advised that similar failure took place a year ago but, 140 hours after that event one, of the new plugs was found with a cracked insulator. He points out that the defect is only apparent after a period of full power, not on normal ground checks.

E4. FUEL PUMP HOUSING

Aircraft type	:	Vintage Aircraft
Date	:	June 1993
Engine type	:	Gipsy Major

The aircraft and engine had been unused for 3½ years and the engineers were carrying out maintenance to restore it to flight condition. The lower casting from the fuel pump body clearly showed excessive corrosion. The component was full of general engine oil and sludge which prevented major leakage. After cleaning, the photographs show the extent of the corrosion.





E5. COLLAPSED OIL FILTER

Aircraft type	:	Piper PA31 Chieftain
Date	:	June 1993
Engine type	:	Lycoming LTIO-540-J2BD

Following the removal of the left engine oil filter during routine maintenance and subsequent cutting open of the filter can, it was noted that the element had collapsed. There had been no reported engine malfunction prior to this incident.

The right-hand engine oil filter and all other filters from the same source batch which have been opened have shown no collapse condition. The filter type is part number CH48103.

CAA COMMENT:

Over the years the problem of collapsed filters continues to occur and the cutting open of filters clearly continues to be a worthwhile diagnostic procedure.

The British Gliding Association Ltd.
Registered No. 422606 England
Registered Office as address

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Kimberley House, Vaughan Way,
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British Gliding Association

TO: ALL INSPECTORS

SEPTEMBER 1993

Renewal of your inspection approval for 1993/94 is due from 1st October and the annual fee is £17.50 inclusive of VAT. Please complete and return the form below together with your cheque for renewal as soon as possible.

THE ANNUAL FEE INCLUDES YOUR CONTRIBUTION TO THE BGA BLOCK LIABILITY INSURANCE COVER.

FULL NAME .....

ADDRESS .....

.....

TEL (h) ..... (w) .....

BGA INSPECTION NUMBER I / / RATINGS .....

PFA INSPECTION NUMBER .....

CAA LICENCE NUMBER .....

Category ..... Group/Type .....

I enclose inspection approval fee for 1993/94 £17.50

Please send any of the items ticked below:-

Technical Procedure Manual	£ 1.75	.....
Standard Repairs to Gliders	£ 5.00	.....
Aircraft Inspection & Repair EA-AC 43.13	£18.50	.....
G.R.P. Repair Manual (Slingsby)	£26.50	.....
Forms 267 (Inspection Pads)	£ 7.50	.....
Glider Log Book	£ 3.75	.....

Cheque enclosed for total of £ .....

SIGNED ..... DATE .....

VAT REGISTRATION NUMBER 238 5224 62

BGA CHARGES (as from 1st October 1993)

CERTIFICATES

'A' Endorsement	£ 8.00
'A' Pin Badge	£ 2.50
'B' Endorsement	£ 4.50
'B' Pin Badge	£ 2.50
Bronze Endorsement	£ 6.50
Bronze Pin Badge	£ 2.50
Silver, Gold & Diamond - per leg	£ 6.50
Silver Pin Badge	£ 2.50
Gold Pin Badge	£ 2.50
UK Cross-Country Diploma - each part if applying simultaneously for both	£ 6.50 £ 12.00

CERTIFICATE OF AIRWORTHINESS

Glider - issue/renewal per year	£ 35.00
Motor Glider - renewal	£294.00(3 yrs)
COMPETITION LICENCE - issue/renewal per year	£ 10.00
COMPETITION NUMBER - issue/renewals per year	£ 12.00
A.E.I. RECORD CARD	£ 15.00
INSTRUCTOR RECORD CARD	£ 25.00
INSPECTORS - issue/renewals per year	£ 17.50
INSTRUCTOR RENEWAL PER YEAR	£ 10.00
OFFICIAL OBSERVER - issue	£ 7.50