British Gliding Association – Technical Committee

Technical News Sheet 02/02

Part 1 Airworthiness issues (all categories)

1.1 ***Correction to TNS 11/12/01 item 1.8***
Schempp-Hirth Discus 2b
TN360-17 LBA AD 2001-259 (Mandatory)
Landing Gear inspection and Modification

1.2 **Elliots of Newbury Olympia 460 series**
BGA 025/02/2002 issue 1 (Mandatory)
Metal reinforced wing spar – continued airworthiness inspection
Annual and Five Year checks
Details enclosed and sent to owners

1.3 **DG 800B** Production Change 800-14-01 (information)
Powerplant retaining cable mounting in fuselage improvement
Maintenance manual amendment

1.4 **DG 800B** TN873/26 (Recommended)
Powerplant and electrical system modifications and manual revision

1.5 **DG800S** TN384/8 (Recommended)
Maintenance manual revision

1.6 **LET L13, L23 & L33** 136/6000/02 (Information)
List of manufacturers service bulletins
Available direct from LET. Subscription order form in TNS 11/12/01.

1.7 **Rolladen-Schneider LS7** TB 7015, AD 2002-043 (Mandatory)
Extension of service time
AD details enclosed. TB details by e-mail [isflug@aol.com]

1.8 **Rolladen-Schneider LS8, LS8-a, LS8-18**
TB 8011 (Recommended)
Flight and Maintenance manual re issue.

1.10 **Scheibe SF34** SB 336-10, AD 2002-044 (Mandatory)
Flight controls rear stick
AD details enclosed

1.11 **Schempp-Hirth Mini Nimbus** reported by Michael Burrows. (Information)
Cracks in elevator inner hinge mounting lugs on rear spar of tailplane.

1.12 **Schleicher K8** reported by Peter Philpot (Information)
Undetected damage to elevator leading edges possibly by contact with tailplane mounting lugs. Care is needed during rigging and careful inspection of the area especially if rigging was difficult or completed by inexperienced persons.

1.13 **PZL Swidnik PW5** BO-17-02-16, AD SP0003-2002A (Mandatory)
Inspection of adhesive bonded joint
Details sent to owners

1.14 **Rotax 912 series** SB 912-029 (Mandatory)
Checking crankcase

1.15 **Rotax 912 UL series** SB 912-029UL (Mandatory)
Checking crankcase

1.16 **Rotax 914 series** SB 914-018 Rev.1 (Mandatory)
Checking crankcase (replaces SB 914-018)

1.17 **Rotax 914 UL series** SB 914-018UL Rev.1 (Mandatory)
Checking crankcase (replaces SB 914-018UL)

1.18 **Rotax 582UL series** SB-2ST-001 (Mandatory)
Inspection or replacement of exhaust tension spring

1.19 **Rotax 582 UL series** SI-2ST-005 (Recommended)
Modified rotary valve cover

1.20 **Rotax 2-Stroke engines** SI-2ST-004 (Information)
Running modifications

1.21 **Sutton Harnesses** CAA AD 002-12-2001 (Mandatory)
Integrity inspections and lifing
(Contact - Anglia Sailplanes 07860 545812)

Part 2 Modifications

	Type	Subject	Mod No	Contact
2.1	T59d Kestrel	Winglets	BGA 2001/30	BGA
2.2	SHK-1	Relocate harness attach.	BGA 2002/01	BGA
2.3	T31b	Relocate winch hook	BGA 2002/02	BGA
2.4	K6e	Fit aerotow hook	BGA 2002/03	BGA

Part 3 General Matters

3.1 Weighing

When?

As previously reported the normal weighing interval for gliders is now 8 years unless the aircraft has been recovered, repainted or substantially repaired or whenever the weighing information is believed to be inaccurate.
It is recommended that motor gliders and tugs are also re-weighed at 8 year intervals. Mandatory Airworthiness Notice No 38 applies after painting.

The Data?

On many occasions the figures submitted are mixed metric and imperial units (Kgs/mm or Lbs/ins). To eliminate confusion the all figures must be in either Metric or Imperial and not mixed. It is recommended that the same system is used throughout the aircraft life. This is a flight safety issue as a pilot will be used to calculating the cockpit load in one system or the other and saves conversion during the DI and possible mistakes.

3.2 Overseas BGA Glider C of A – Qualifications

To qualify for a BGA C of A outside the UK the aircraft and owner have to meet certain requirements.

1/ BGA approved type
2/ The owner must be a UK National
3/ The aircraft must be inspected by a BGA authorised inspector
4/ The owner should be aware that the BGA may require to inspect or audit the aircraft or inspectors work at their expense

Exempt types

1/ British Vintage Gliders that are unable to obtain type approval in other countries and where the type was originally certified in the UK
2/ All Gliders owned and operated within the UK
3/ BFPO and UK Nationals on short term contracts overseas
4/ Special projects

The BGA is not an ICAO organisation and it may be necessary to seek approval from the local airworthiness authority to operate the aircraft outside the UK

3.3 Grob single seat aircraft

Grob have disposed of the single seat aircraft spares support business as detailed below. Grob still retain full airworthiness responsibility and will continue to support single seat aircraft (Astir's) for airworthiness information.

The new supplier is:

Fiberglas-Technik
Rudolf Lidner GmbH & co KG
Alpenweg 11
D-88497 Walpertshofen
Germany

Tel; +49 7535 2243
Fax; +49 7535 3096

Soaring Oxford remain the UK agents for Grob two seat gliders and motor gliders. Mark Davies also informs us that they still have a few dedicated Astir parts and 2 seat common parts in stock and can obtain from Grob.

Compliance Statement:
All mandatory inspections and modifications have been included up to the following;

Airworthiness Notices, Contents issue 129
Mandatory Aircraft Modifications & Inspections Summary, issue 256
FAA Summary of Airworthiness Directives. Bi-weekly listing 2002-03
Foreign Airworthiness Directives Vol. I and II – CAA Additional Airworthiness Directives, issue 330
Foreign Airworthiness Directives, issue 340
CAA Mandatory Permit Directives, issue 2002/1

Jim Hammerton
Chief Technical Officer

British Gliding Association
Aircraft Inspection

Mandatory

Number:	Issue:
025/02/2002	1

Date: 15th February 2002

Subject: Wing spar corrosion – continued airworthiness inspections

Applicability: Elliots of Newbury Olympia 460 series with metal reinforced main spars

Accomplishment: Part 'A' at the next and every C of A annual inspection after effective date
Part 'B' at FIVE YEAR intervals from the effective date
The effective date of this inspection is 31st March 2002.

Reason: To ensure the continued airworthiness of the wing spar and to provide early detection of any corrosion or deterioration of the joint between the wood and metal elements of the spar. The effective date will allow aircraft that are completing the Annual check now to be completed, but it is recommended that this inspection is carried out this year.

Instructions: All effected aircraft must have had the Mandatory inspection of the wing spar completed TNS 12/96 AND the spar Stabilisation modification BGA/OLY/460 Series 1/97 completed.

Part 'A' see pages 2 & 6
Part 'B' see pages 2, 3, 4, 5 & 6

Approved By
Jim Hammerton, Chief Technical Officer

Thanks to Keith Green and Ian Smith, members of Lasham Gliding Society and the Vintage Glider Club for their assistance in researching this inspection. The inspection also contains requirements from the BGA Technical Committee.

BGA Mandatory inspection 025/02/2002 issue 1

Part A (1 page)

Annual inspection procedure (to be completed at the next and every annual C of A inspection after the effective date)

1. With the aircraft de-rigged and the wings supported on suitable trestles

2. Remove any paint or other protective coating (including adhesive spew) that prevents a clear view of the top and bottom edges of both the upper and lower spar boom aluminium laminates and the metal/wood interface inboard of the closing rib (the spar stub). Do not scratch the aluminium. **The use of paint stripper is prohibited as this may have a detrimental effect on the spar bonding.**
   Note; removal of ply or wing skin is not required

3. Carefully inspect all bond lines of the aluminium laminates and the wood to aluminium interface. A magnifying glass may be necessary.

4. As far as non-intrusive access allows, inspect the bond lines on the inside of the wing via lower surface access panel using mirror and light or other suitable inspection equipment. Particular attention should be paid to the area around the closing rib.

5. If further investigation is deemed necessary, consider drilling an access hole on the centre line of the closing rib, about two inches in front of the front face of the spar. It will also be necessary to drill through the next rib. A flexible mirror and light source, or endoscope will be required. On some aircraft a tooling hole is present in the fwd closing rib, this may be suitable for inspection access and negate the need for further holes. Any holes cut must be adequately re-protected.
   Any evidence of corrosion or other defects must be investigated and rectified before further flight. Please report any such defects to the BGA.

6. Ensure the 2BA bolts of the mandatory modification are correctly tightened (do not over tighten, the aluminium packs should be straight).

7. Inspect the wing attachment fittings and hardware for correct installation, self-locking nuts in safety and for corrosion.

8. Inspect the wing spar to the closing rib for condition of protective paint finish. Rectify any defects.

9. Restore protective finish to stripped area. (see notes on the use of clear varnish)

10. Complete logbook entry to show compliance with this inspection Part 'A'.

Part B (2 pages)

Five year check (measurements to be recorded every five years from the effective date of this inspection)

1. Complete Part 'A' of the inspection items 1 to 8.
2. Remove the Stainless Steel protector plate having first removed the wing spigot bush assembly
3. Clean the spar area previously covered by the protector plate in accordance with the instructions in part 'A' item 2.
4. Inspect the spar area previously covered by the protector plate for any signs of corrosion or deterioration in accordance with part 'A' item 3 & 5 as applicable.
5. Inspect the removed wing spigot bush for serviceability.
6. Note the temperature. If the wings are at a lower or higher temperature than ambient note the temperature of the wings. Ideally the temperature of the wings should be allowed stabilize.
7. With a micrometer (preferred) or a digital vernier gauge, measure the width of the spar booms, on the centre line of the boom at positions (A) to (F) as detailed below (see sketch for positions)
8. **Top boom** – position (A), between the two visible 2BA bolts of the mandatory modification.
9. **Top boom** – position (B), between the inboard 2BA bolt and the joint plate.
10. **Top boom** – position (C), between the closing rib and the middle 2BA bolt of the mandatory modification. See note.
11. **Lower boom** – position (D), 1 inch from the closing rib
12. **Lower boom** – position (E), 1 inch from the spar joint plate.
13. **Lower boom** – position (F), at a point midway between point (D) & (E)

    Note: depending on the layout of the stabilization modification it may not be possible to measure position (C) if this is the case a note should be made in the log book when recording the measurements
14. **Record** the positions and measured widths and the temperature in the logbook.

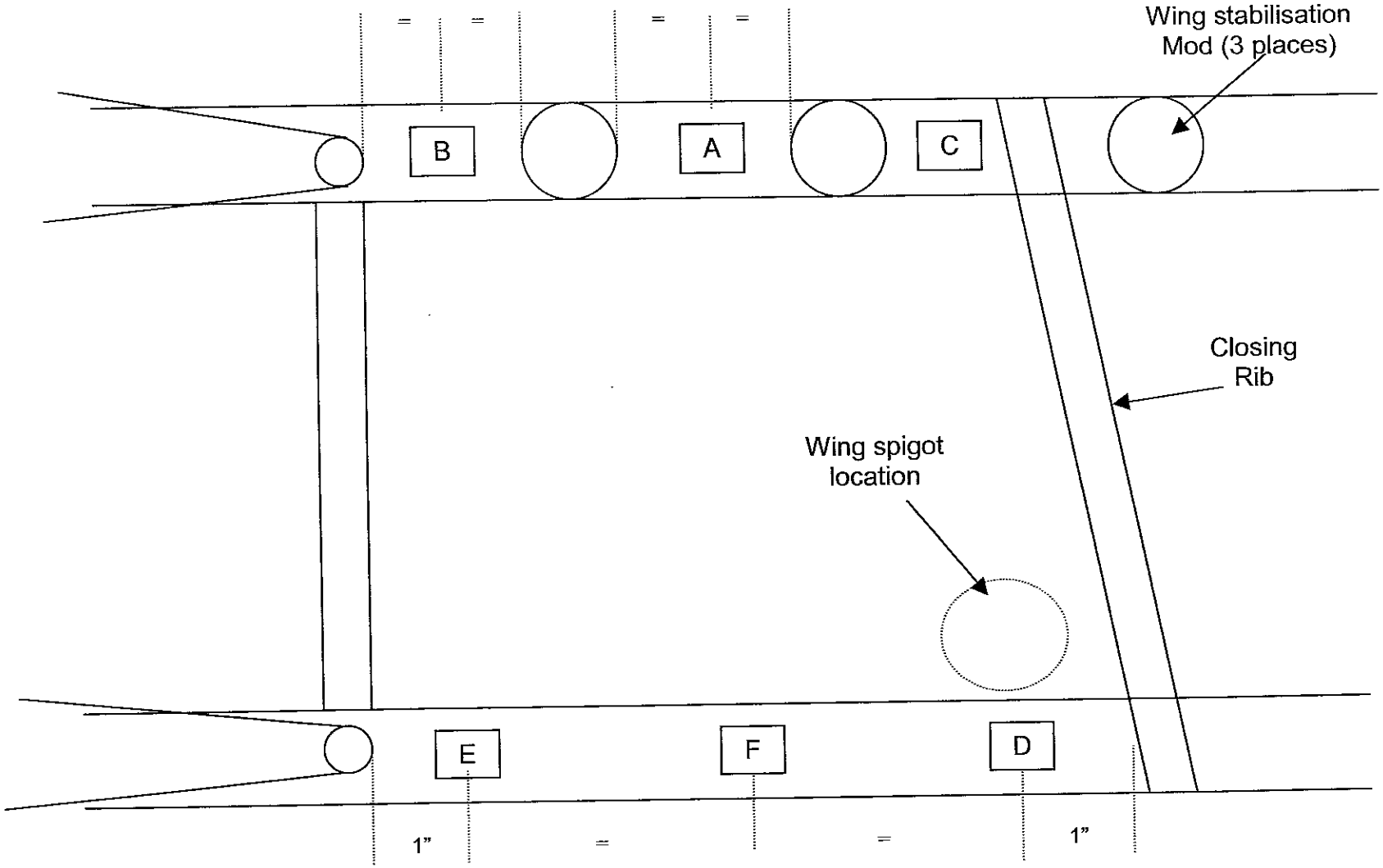
15. The width of the spar, at the various measurement locations, should be compared to previous measurements (after the initial measurements). **If the measurements are increasing, then corrosion in the bond lines should be suspected and a very careful inspection undertaken.** Allowance should be made for the normal dimensional changes brought about by change in water content of the wood and temperature. It is desirable to let the wings stabilise at room temperature before taking the spar width measurements, and note the temperature in the logbook.

16. Restore the protective finish of the stripped area. (see notes on the use of clear varnish)

17. Refit the Stainless Steel protector plate and wing spigot bush. The protector plate may be sealed against water ingress but please remember that it will require removal in another five years.

18. Complete the log book entry to show compliance with this inspection Part 'A' and 'B' and ensure the measurements and temperature is recorded as these will be required in the future.

Olympia 460 Wing measurement locations



Notes (1 page)

1. Do not mark the aluminium with pencil
2. Avoid scratching the surface of the aluminium. Any minor surface scratches should be blended using wet and dry paper or scotch brite.
3. Do not use paint stripper or steel wire brushes.
4. Great care should be exercised in removing the Wing Spigot bush as it is made from a bronze material and may shear if corroded. The drive flats or slots will also be easily damaged by poorly fitting tools.
5. Inspection of four Olympia's (including 460, 463 and 465 types) identified the wood to metal bond, at the point where the spar enters the closing rib, as the area most likely to suffer corrosion.
6. A good spar will present all bond lines as thin dark brown lines. It should not be possible to insert a thin feeler gauge (0.003"). Crack detection fluid (if used), should not identify any voids in the metal/metal or wood/metal bond lines.
7. A corroded spar will present sections of the bond line as grey in colour and it may be possible to insert a thin feeler gauge (0.003") into the bond line at this point. The grey material is the product of corrosion and is more friable than good adhesive.
8. The width of the spar, at the various measurement locations, should be compared to previous measurements. If the measurements are increasing, then corrosion in the bond lines should be suspected and a very careful inspection undertaken. Allowance should be made for the normal dimensional changes brought about by change in water content of the wood and temperature. It is desirable to let the wings stabilise at room temperature before taking the spar width measurements, and note the temperature in the logbook.
9. At the conclusion of the inspection, the stripped area should be carefully sealed.
10. In order to avoid stripping the finish every year, a transparent finish should be considered that is compatible with the other materials involved. The Elliott factory used copal varnish.

Airworthiness Directive

2002-043

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

Rolladen-Schneider

Effective Date: February 21, 2002

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Rolladen-Schneider, Egelsbach, Germany
Type:	LS 7
Models affected:	only LS 7-WL
Serial numbers affected:	all
German Type Certificate No.:	375

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 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 incorporated into the Maintenance Manual.

Action:
Perform an inspection according to the „Inspection program for extending the service time" in accordance with the Technical Notes of the manufacturer.

Compliance:
The action must be performed before reaching a service time of 3000 flight hours.

Technical publication of the manufacturer:
Rolladen-Schneider LS 7-WL Technical Bulletin No. 7015 Edition 15. November 2001 which becomes herewith part of this AD and may be obtained from Messrs.:

Rolladen-Schneider
Flugzeugbau GmbH
Mühlstrasse 10

D- 63329 Egelsbach
Federal Republic of Germany
Phone: ++ 49 6103 204126
Fax: ++ 49 6103 45526

Holders of affected aircraft registered in Germany have to observe the following:
Action to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed.

An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr.Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Airworthiness Directive

2002-044

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

Scheibe

Effective Date: February 21, 2002

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	Scheibe-Flugzeugbau, Dachau, Germany
Type:	SF 34
Models affected:	SF 34 B
Serial numbers affected:	5122 up to 5141
German Type Certificate No.:	336

Subject:
Flight Controls - rear control stick

Reason:
A routine check has showed, that socket head screw was broken. These socket screw connects upper and lower part of the rear control stick. If the connection by socket head screw failed between both parts of the control stick, the controllability of the glider is endangered.

Action:
Inspection and if necessary modification of the control stick assembly in accordance with the Technical Notes of the manufacturer.

Compliance:
The action must be done not later than February 28, 2002.

Technical publication of the manufacturer:
Scheibe Service Bulletin No. 336-10 dated November 07, 2001 which becomes herewith part of this AD and may be obtained from Messrs.:

Scheibe Flugzeugbau GmbH
August-Pfalz-Str. 23

D- 85221 Dachau
Federal Republic of Germany
Phone: ++ 49 8131 72083
Fax: ++49 8131 736985

Holders of affected aircraft registered in Germany have to observe the following:
Action to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed.

An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Suject: Cockpit Controls – rear control stick.

Affected: Glider of following Type:

SCHEIBE-Flugzeugbau GmbH , **SF 34 B, Gerätekennblatt 336:**
Serial-N°: **5122 and up to 5141**

Urgency: **Not later than February 28, 2002**

Reason: A Routine check has showed, that socket head screw M8x18 DIN 912-8.8(part 6 of following picture 1) was broken. These socket head screw connects upper- and lower part of the rear control stick. If connection by socket head screw M8x18 DIN 912-8.8 failed between both parts of the control stick - controlability of the glider is endangered.
At the affected glider the socket head screw M8x18 DIN 912-8.8 was drilled improperly at a wrong position (see position 8 of following picture 1). Socket head screw was drilled additional 2x at same distance to the screw head 90° misplaced (Ø 3mm and Ø 2mm). Through that the pretended cross-section of the thread was important lessened.

Actions:

1. Remove the rear control stick.
2. Remove part 1 (see picture 1)from the control stick; for this remove split pin (part 8, picture 1) and remove socket head screw M8x18 DIN 912-8.8 (part 6, picture 1). After this pull out part 1 from control stick.
3. Check for correct drilled split pin hole in the control stick and the socket head screw like picture 1 and 2.
4. If splint pin hole is drilled correct, installation of part 1 into the control stick, secure with a splint pin and install the completed control stick in the rear cockpit.
5. If splint pin hole is not drilled correct after picture 1 and 2, holes in the control stick must be closed by WIG-welding from a certified WIG-welder. After that holes must be drilled after picture 1 and 2. Renew socket head screw M8x18-8.8 DIN 912; lubricate brass bushings. Drill splint pin hole (Ø 2mm) only if controlstick is completed and install the splint pin. Take care that part 1 rotates easy in the control stick.
6. At installation of all removed parts renew all elastic Stop nuts.

Masses and C.G.: N/A

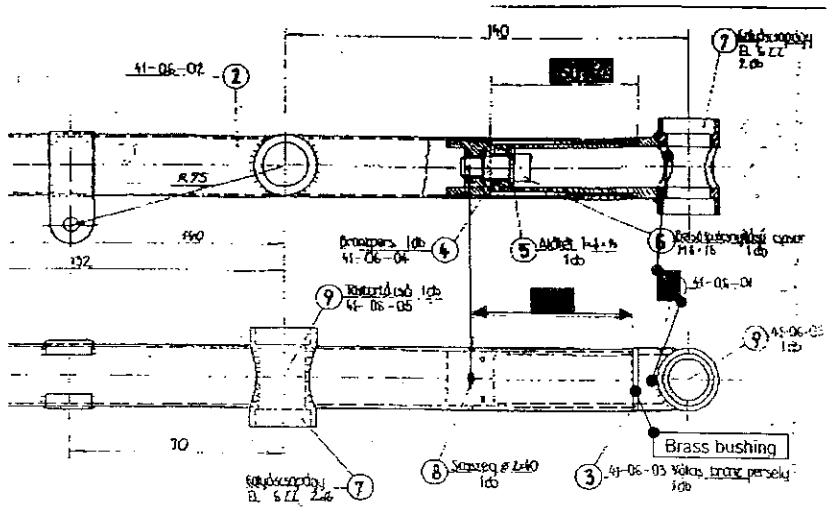
Remarks: Action to be accomplished by an approved aeronautical workshop, an approved JAR 145 organization or by the manufacturer, provided qualified personel for WIG-welding is available if necessary.
The inspection has to be certified in the log book by an authorized inspector.

Scheibe-Flugzeugbau GmbH
Dachau, November 7, 2001

Musterprüfstelle
(Haferkorn)

LBA- approved:

10. DEZ. 2001



picture 1: rear control stick

picture 2: detail