

Subject: Inspection and replacement of spar spigot assemblies

Concerning: Model: ASTIR CS TCDS No.: 306
 - Series: - S/N:
 ASTIR CS 1001-1536
 ASTIR CS 77 1601-1844
 ASTIR CS Jeans 2001-2248
 CLUB ASTIR II 5001-5061 (Suffix "C")
 STANDARD ASTIR II 5001-5061 (Suffix "S")
 G 102 CLUB ASTIR III 5501 & up (Suffix "C")
 G 102 CLUB ASTIR IIIB 5501 & up (Suffix "Cb")
 G 102 STANDARD ASTIR III 5502 & up (Suffix "S")

Model: SPEED ASTIR II TCDS No.: 320
 - Series: - S/N:
 SPEED ASTIR II 4001-4027
 SPEED ASTIR IIB 4028-4107

Urgency: See Actions

Procedure: As a result of the replacement action of the G 103 TWIN ASTIR spar spigot assemblies, the Gliding Federation of Australia issued a directive to inspect the similar main spigots of single-seater sailplanes. Because the reports of ostensibly discovered cracks are increasing, GROB has decided to issue this Service Bulletin as a pure precautionary measure.

Actions: The following actions are to be taken:

1. Inspection of the main spigot assembly
 Before the next flight, inspect both spar spigot assemblies for cracks using a suitable procedure (magnifying glass with a minimum 10 times magnification, dye penetrant, magnetic particle).

Important: When carrying out the crack inspection, ensure that any gap between the spigot plates and the spigot is not interpreted as a crack.

If no crack is discovered and if the distance between spigot plates and swivel bearing is (refer to figure on page 3):

- $b \leq 10 \text{ mm}$: Carry out Action 2 not later than 31 December 1992
- $b > 10 \text{ mm}$: Carry out Action 2 not later than 30 June 1991

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If a crack is discovered and if the distance between spigot plates and swivel bearing is $b \leq 10$ mm, the crack may initially be blended out (refer to page 4 for procedure):

• **Removal of crack is possible:**

Carry out Action 2 not later than 31 December 1992

Warning: After blending, check that dimension b is still ≤ 10 mm.

• **Removal of crack not possible:**

Carry out Action 2 immediately

If a crack is discovered and if the distance between spigot plates and swivel bearing is $b > 10$ mm, Action 2 must be carried out immediately.

2. Replacement of the spar spigot assembly

Replace the spar spigot assembly in accordance with Installation Instruction No. 306-29/320-5.

The modifications must be performed in conformance with the following drawings:

New Drawing

Replacement for

Drawing No.	Issued	Title
102-1909/1910	30.08.1990	SPIGOT ASSY LH/RH
104-1909/1910	30.08.1990	SPIGOT ASSY LH/RH

Drawing No.	Issued	Title
102-1012/1013	15.02.1975	SPIGOT ASSY
102C3-1012/1013	26.11.1980	RH/LH
104-1003/1004	20.09.1979	SPIGOT ASSY
104-1012/1013	30.05.1978	RH/LH

Weight and Balance:

Empty weight and c. of g. have to be determined after the installation of the new spar spigot assemblies.

Remarks:

Action 1 can be carried out by a competent person who is versed in the operation of the inspection methods and has to be certified in the logbook. Action 2 may only be carried out by an aviation workshop with authorization for GRP repairs. The proper execution has to be certified in the logbook by an authorized inspector.

Mattsies, 11 October 1990

LBA approved:

05. Dez. 1990



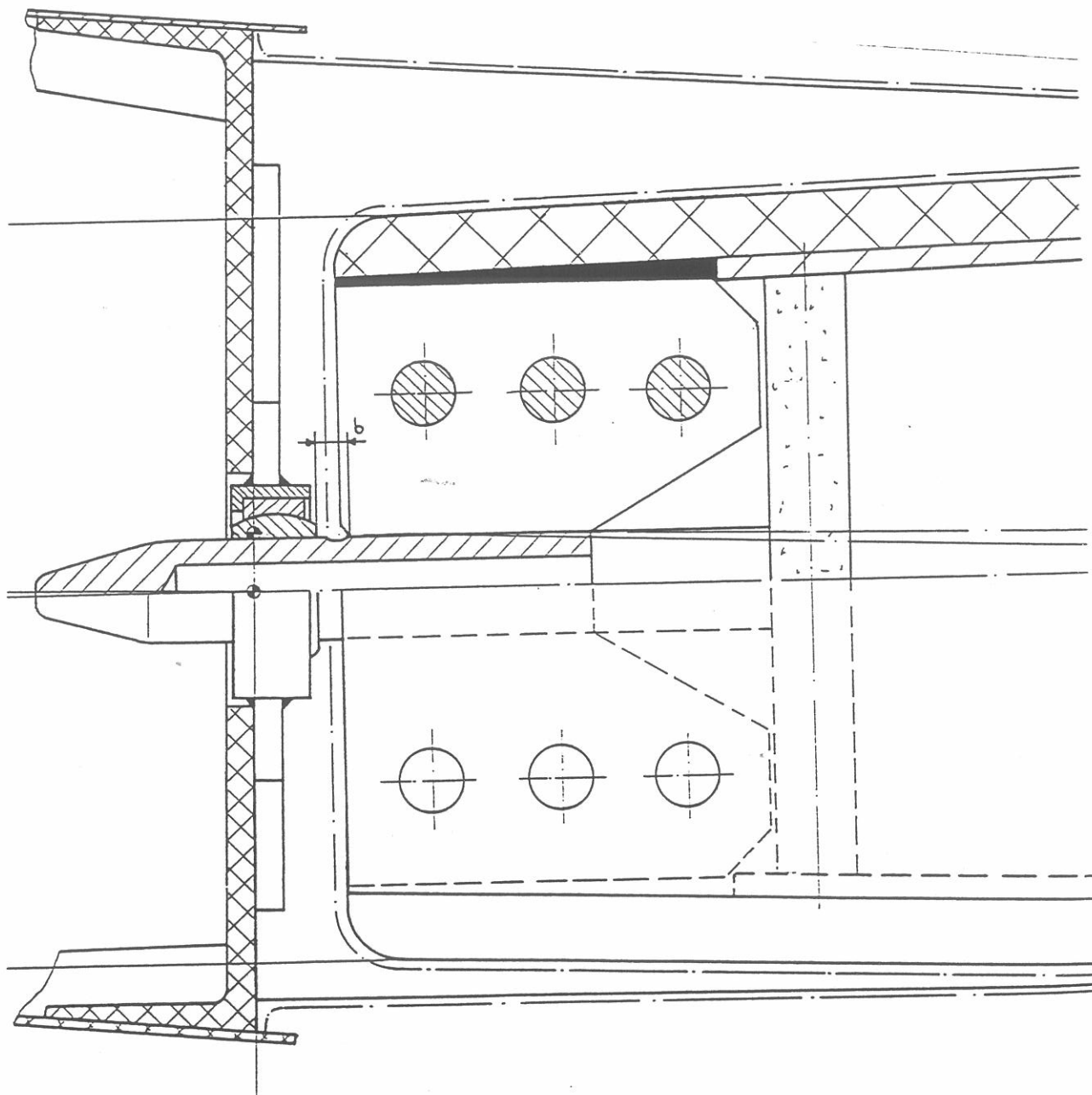
J. Altmann
Dipl. Ing. J. Altmann
(Airworthiness engineer
Certification staff)

Approval of translation has been done by best knowledge and judgement. -In any case the original text in German language is authoritative.-

Note: If in the meantime you have sold your glider, we would ask that you kindly pass this information immediately to the new owner and forward his address and aircraft s/n to us.

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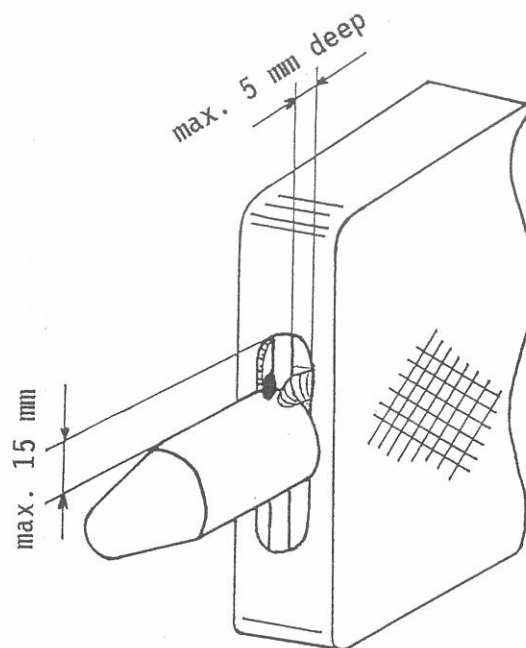
Definition of the distance b



Comments to crack inspection

To perform the crack inspection the section of the wrapping around the main spigot has to be removed (max. 15 mm) and the adhesive material removed to expose the welding seam (max. 5 mm deep, see figure). Be very careful not to scratch or otherwise damage the spigot or plate.

If the weld seam is continuous around the plate, the complete toe of the welding seam has to be inspected. Grooves or nicks in the surface of the welding seam which are not part of a crack must be polished out and the crack inspection performed again.



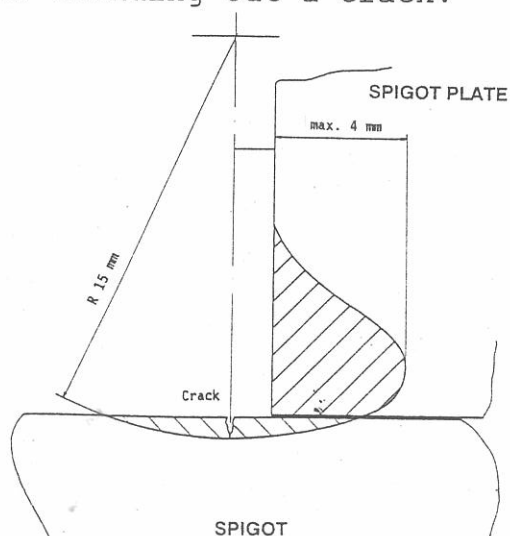
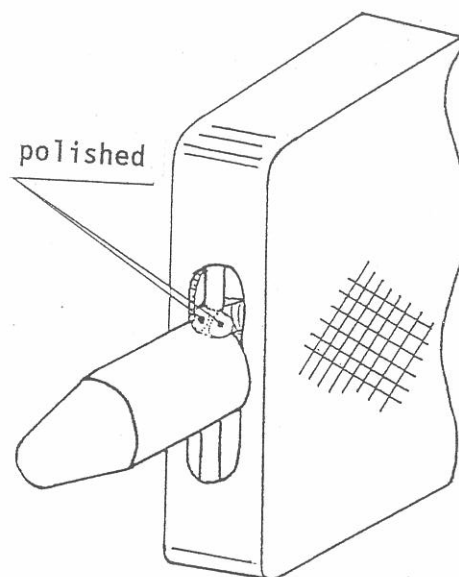
Procedure for blending out a crack

A crack may be blended out if the following conditions are fulfilled:

- * crack on one side not deeper than 0.75 mm
- * cracks on both sides not deeper than 0.5 mm each

Blending out should be done with grinding caps or equivalent. The grinded surface has to be polished.

Sketch mentioned below shows a cross section of blending out a crack.



Finally apply a coating of resin to the exposed area (wood and metal).