

## GFA AIRWORTHINESS DIRECTIVE

**TYPE AFFECTED:** SF 25 B and SF 25 C with the following Serial Numbers:

**SF 25 B:**

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

**SF 25 C:**

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

**SUBJECT:** Cracks in the aileron steel pipe spar around the welded hinge bushings.

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

**DOCUMENTATION:** Scheibe Flugzeugbau SF 25 B/C Service Bulletin No. 653-73 which herewith becomes part of this AD.

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

**SIGNED:**

*T. Geiger*

CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

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OF AUSTRALIA

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period of time. Furthermore, reinforcement according to the manufacturer's bulletin must be performed if cracks are detected.

All actions must be performed in accordance with S/B 653-73.

**WEIGHT AND BALANCE:** Not affected.

**COMPLIANCE:**

Inspection to be carried out by a Form2 inspector. All welding must be carried out by a licenced aircraft welder. Compliance with this AD to be entered in aircraft Log Book by a Form2 inspector. Action to be performed within the next 5 hours of operation.

The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.

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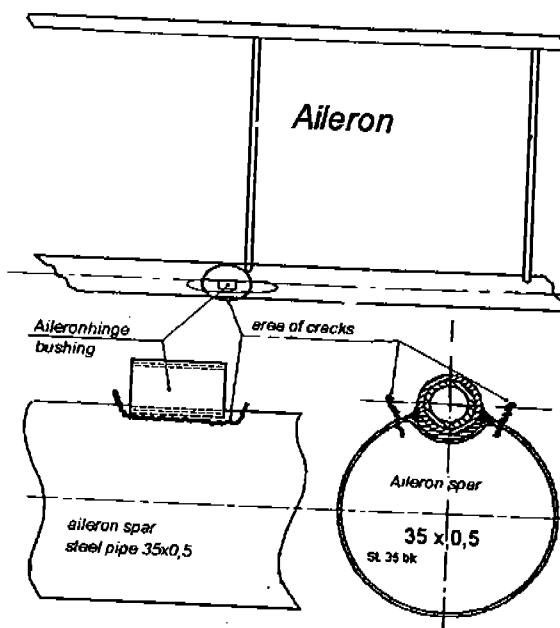
**Subject:** Cracks in the aileron steel pipe spar around the welded in hinge bushings  
(3 at each aileron)

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

- a) **SF 25 B, TCDS 653:** all serial numbers out of the production of
  - i) SCHEIBE Flugzeugbau GmbH= all serial numbers, beginning with 46...
  - ii) construction under Licence of Pützer= all serial numbers with 48...
  - iii) construction under Licence of Aeronautica Umbra= all serial numbers beginning with AU-..
  - iiii) Conversions from SF25 B to SF25 D= see serial numbers under i) to iii) with an additional letter **D** behind the numbers
  - iiiii) Conversions from SF25 B to SF25 C= see serial numbers under i) to iii) with an additional Letter **C** behind the numbers
 are affected.
- b) **SF 25 C, TCDS 653** with following serial numbers out of the production of: SCHEIBE Flugzeugbau GmbH:  
 4403, 4418, 4423, 4428, 4430, 4432, 4436, 4437, 4446 - 4448,  
 4450, 4451, 4454 - 4456, 4458, 4460, 4461, 4464, 4466 - 4468,  
 4471, 4472, 4475 - 4477, 4480 and 44178,  
 construction under license of Pützer = all serial numbers beginning with 42.  
 are affected.

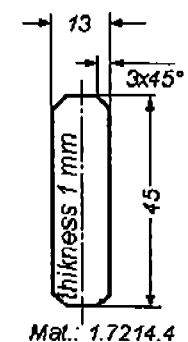
**Urgency:** Within the next 5 flight hours.

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

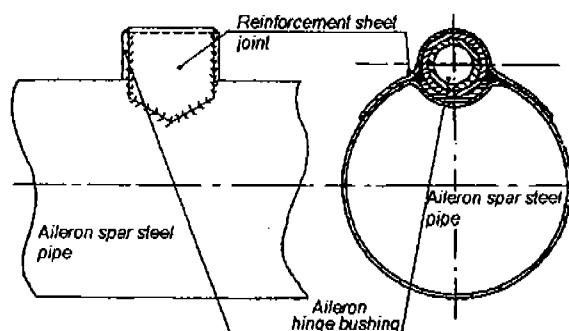


SCHEIBE- Flugzeugbau GmbH August- Pfaltz- Str. 23 85221 Dachau LBA-approval I-B 3/ I-EB2	<b>Service Bulletin 653- 73</b>	SF 25 B / C TCDS.: 653 Page 2 of 2
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- Actions:** 1. Ailerons of affected motorgliders must be removed. Inspection of the welded seams of the aileron hinges and of the areas around the hinges is to be made with a ten-times magnifying glass. Therefore fabric and painting are to remove 50 mm around the aileron hinge bushings on the aileron spar. If no cracks are found, paint the aileron spar steel pipe and repair the removed fabric. Following this inspection pay special attention during each maintenance inspection to point 6a of the manufacturer's check list SF 25 last edition.
2. If cracks are found aileron hinge bushings must be reinforced in accordance with the following sketch.
- If cracks are detected around an aileron hinge bushing or if a hinge bushing is worn out, corrosion inspection of the inside of the aileron spar steel pipe is requested, because moisture may have appeared in period of time.
- If corrosion is detected inside the aileron spar steel pipe please contact SCHEIBE Flugzeugbau GmbH for special repair instructions.
- If one aileron hinge bushing must be reinforced all three hinge bushings on both ailerons of the motorglider must be reinforced. After reinforcing of the hinge bushings by a steel sheet joint (see the following sketch) special inspections according to point 6a of the manufacturer's maintenance checklist last edition will no longer be necessary.



Reinforcement sheet joint



**Weight and Balance:** Is to neglect.

**Remarks:** Take care for a correct alignment of the welded in aileron hinge bushings with the wingside hinge bolts.

Actions to be accomplished by an approved aeronautical workshop, an approved JAR 145 organisation or by the manufacturer, provided licensed aviation welding personal is available.

This service bulletin was originally written in German and approved by the German LBA.  
The translation has been accomplished to best of our knowledge and judgement.  
In case of doubt, the German original is authoritative.

SCHEIBE Flugzeugbau GmbH  
Dachau, Sept. 20<sup>th</sup>, 1999

Musterprüfleitstelle  
(Haferkom)

LBA- approved:  
Sept. 27<sup>th</sup> 1999