

AIRWORTHINESS DIRECTIVE

SUBJECT: Cracking of elevator actuator.

TYPE AFFECTED: ASW 22

BACKGROUND: Cracking of the elevator actuator has been detected on one ASH 25 which uses the same fitting as the ASW 22. This damage was the result of incorrect support of the fin during ground transport.

DOCUMENTATION: See ASW 22 Technical note No. 7 attached. LBA AD 91-148.

ACTION REQUIRED: At next form 2 inspection or before 1 January 1992 inspect the elevator actuating fitting in accordance with ASW 22 Technical note No 7. This inspection must be completed at each subsequent form 2.

Note: If this glider is regularly transported by trailer this inspection must be carried out before next flight.

Insert the new pages 63 in the Flight Manual and 64A in the Maintenance Manual, both attached.

Inspect the trailer in accordance with the new Flight Manual pages.

IMPLEMENTATION: This inspection must be completed by persons endorsed "Inspection for Issue of Certificates of Airworthiness" any type.

Manual amendments may be incorporated by the owner.

WEIGHT AND BALANCE: Not Affected.

COMPLIANCE: The requirements of this Airworthiness Directive are mandatory. This Directive is issued pursuant to the Australian Civil aviation Regulations under the delegated authority of the Civil Aviation Authority (CEO42/90).

SIGNED:



CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

**THE GLIDING FEDERATION
OF AUSTRALIA**

SHEET: 2 of 2	ASW 22 Technical Note No. 7	Alexander Schleicher GmbH & Co. Segelflugzeugbau D-6416 Poppenhausen <u>Material & drawings:</u> The relevant drawings are incorporated on the new manual pages; see Flight Manual page 63 and Maintenance Manual page 64A. The production drawing of the elevator engaging actuator 220.48.0011 (99.000.0080) was revised accordingly (Revision date 22.01.91). <u>Notes:</u> The inspection of the elevator engaging actuator must be done by a licensed aviation inspector and certified in the glider's inspection documents and in the log-book. If cracks are found, the part must be replaced prior to the next take-off either by the manufacturer or by a technical aviation service station holding an appropriate license. The pages in the manuals may be inserted by the owner / operator of the glider himself. The new manual pages and, where necessary, a new elevator engaging actuator can be obtained from Messrs. Schleicher. Poppenhausen, June 28, 1991 ALEXANDER SCHLEICHER GmbH & Co. <i>Auth.-W. Jumbow</i> Lutz-W. Jumbow The German original of this Technical Note has been approved by the LBA under the date of July 5, 1991 (signature: FENDT). The translation into English has been done by best knowledge and judgement; in any case the German original is controlling.
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SHEET: 1 of 2	ASW 22 Technical Note No. 7	Alexander Schleicher GmbH & Co. Segelflugzeugbau D-6416 Poppenhausen <u>Subject:</u> Inspecting the elevator engaging actuator (on the top of the fin) in accordance with the instructions given in the flight and Maintenance Manuals. <u>Serial number applicability:</u> Glider model ASW 22, Data Sheet no. L-351, Serial no.s : 22001 thru 22022 22024 thru 22027 22029 thru 22033 22035 thru 22037 22039 and 22046 <u>Compliance:</u> Action to be accomplished with the next annual C. of A. inspection, but before or on January 1, 1992, at the latest. Where a glider has had rather long transports in its trailer, the action must be done prior to the next take-off. Thereafter during each annual C. of A. inspection. <u>Reason:</u> With the elevator engaging actuator of the ASW 25 (the part is of same construction as on the ASW 22) one case has been reported where one of the short tube pieces which carry the bearing casing for the elevator hinge pins, developed a crack in the welding seam. This failure was due to the fact that the elevator engaging actuator (on top of the fin) was held by means of a foam block inside the glider trailer. During the transports in the trailer the vibrations of the trailer top were induced into the elevator engaging actuator, leading to the above fatigue crack on this part. This is particularly critical with rather long road transports. <u>Action:</u> In the Flight Manual page 63 and in the Maintenance Manual page 64A with the revision entry "TN 7" and the date "28.06.91" must be inserted as new pages. The accomplishment of the supplement to the Manuals must be entered on the respective pages 1+2 "Index of Corrections" in both manuals. The elevator engaging actuator must be inspected according to the instructions given on Maintenance Manual page 64A. The same inspection must be repeated from now on during each annual C. of A. inspection. According to the new Flight Manual page 63 the glider trailer must also be checked and, where necessary, modified as described on this page. Even with the stick full back, the elevator engaging actuator must not be restricted in its required free moving.
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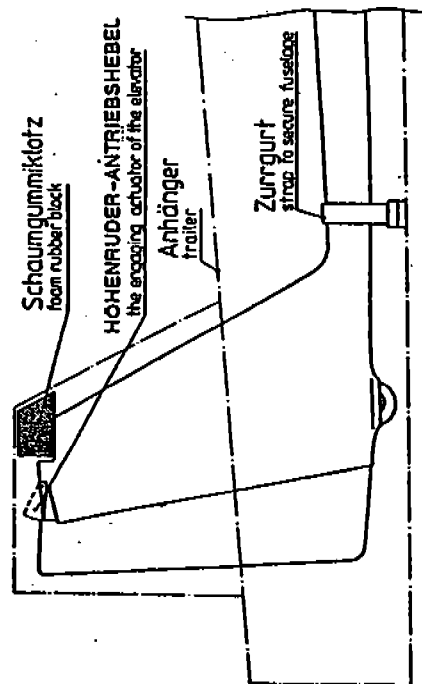
CAUTION:

When transported in a glider trailer, care must be taken that the elevator engaging actuator of the glider (on top of the fin) will not be restricted in its necessary free moving by any foam blocks inside the trailer.

If for example such a foam rubber block restricts the free moving of the elevator engaging actuator, with rather long road transports this may lead to a fatigue crack on this part. (See also the drawing on Page 64A of the Maintenance Manual).

This cause must immediately be removed.

The drawing below shows how to cut and locate a foam rubber block. We think it is also useful to have a strap anchored in the trailer floor in order to secure the tail boom in front of the fuselage-fin-transition. In any case be sure that the elevator engaging actuator is free moving. Even with the stick full back, full upwards deflection of the elevator engaging actuator must be possible.

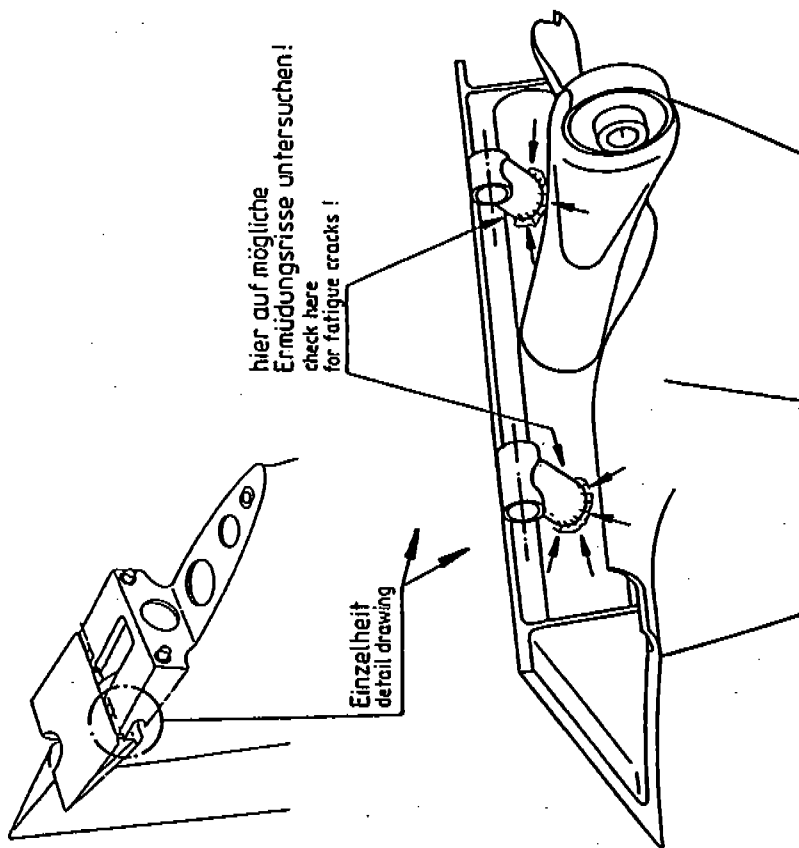


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SUPPLEMENT to chapter:**III.15 Periodical Inspections**

20. The elevator engaging actuator (on top of the fin) must be inspected for cracks at the locations which are shown below in the drawings. If it can be guaranteed that the welding seam can be minutely inspected all around the tube, e.g. by the aid of a small angular mirror, then the elevator engaging actuator need not be dismounted for this purpose.

Also the glider trailer in which the glider is transported, must be checked in accordance with the Flight Manual chapter VI.4 "Road Transport" (page 63) and where necessary, must be modified.



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