

**Subject:** Check of control circuit clearance inside the fuselage tail boom to fin intersection.

**Serial number applicability:** All ASW 27, Document No. 04 - 389, Serial Numbers 27002 through 27 104 .

**Compliance:** Until October 31<sup>st</sup>, 1999.

**Reason:** An ASW 27 owner in Sweden reported light jamming in one flight and abandoned the take-off. Rubbing of the 90° lever with its attached mass balance lead weights and connecting bolt against the cut-out of the lower fin rib has been determined as the only likely cause.

**Action:** **1)** De-rig the horizontal tailplane, look through fin ballast box as shown in Fig. 1A and check the clearance left and right of the mass balance weights, see Fig. 1B. A strong light which is held to the outside of the fuselage to fin intersection close to the critical area improves the visibility remarkably.  
**NOTE:** The critical situation is reached, when the elevator actuator is fully down. When the clearance (including bolt head and nut or bolt end) is about symmetric and 2,5 mm (1/10 inch) wide, no further action is needed.

**2)** When the clearance is insufficient, the situation can be remarkably improved by rotating the 90° lever forward and downward. To accomplish that, the bolt at the elevator actuator must be removed and the universal joint must be turned into the push rod so that it gets shorter, see Fig. 2. To compensate the adjustment in length, the push rod at the left hand side of the cockpit must also be shortened by the same number of threads. To get to the push rod the cockpit seat pan must be removed, see Fig. 3. When the threads at the cockpit push rod are not sufficient to get enough clearance at the lever, the front push rod may be shortened by an authorised welder for aircraft components.

**3)** When action according to 2) was necessary, the elevator deflections must be checked and be adjusted within the tolerances given in the Maintenance Manual, page 3.2. Now the adjusted control components must be safetied and checked (see also the other problem areas marked in Fig. 3 and 4 and reinstall the seat pan.

**Notes:** Action according to 1) can be done by the owner himself and has to be documented by himself in the sailplane's log book.  
When action according to points 2) and 3) is needed, a competent person or a repair station approved for such work should be consulted.  
Action according to 2) and 3) has to be documented by an inspector authorised for such work in the sailplane's log book and the records of inspections.

Poppenhausen, 16 July 1999

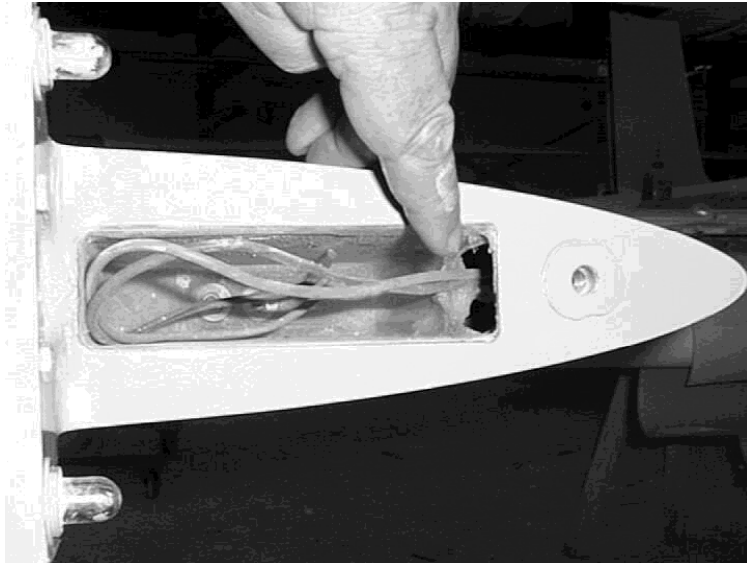
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by order  
(Gerhard Waibel)

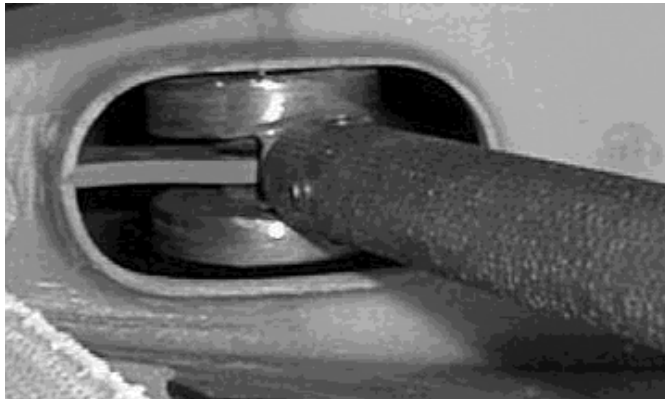
The German original of this Technical Note has been approved by the LBA under the date of July 22, 1999 (signed by Mr. Jung).

The translation into English has been done by best knowledge and judgement; in any case of doubt the German original is controlling.

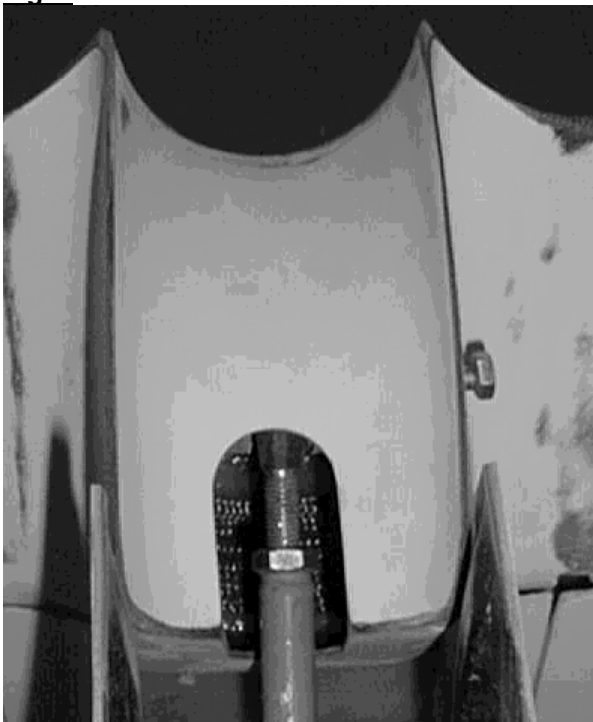
**Fig. 1A**



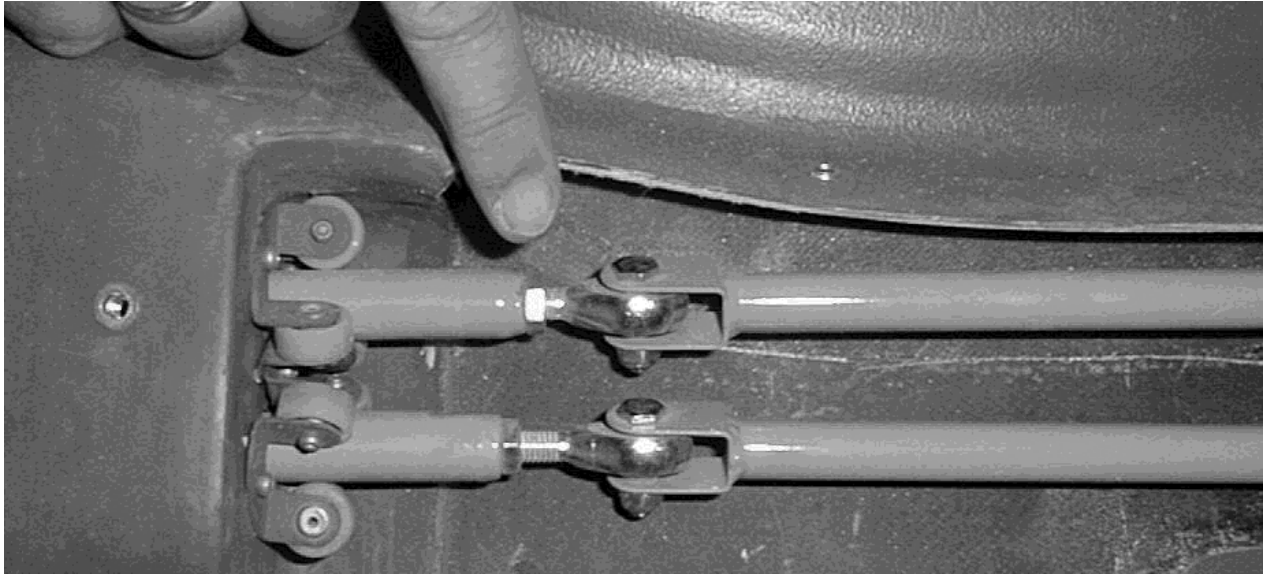
**Fig. 1B**



**Fig. 2**



**Fig. 3**



**Fig. 4**

