

**Subject:** **A)** Product improvement.  
**B)** Change and amendments to the Flight, Maintenance and Repair Manuals.

**Serial number applicability:** All ASW 27, Document No. 389  
Serial Number 27105 and serial version as off Serial Number 27119 .  
Serial Numbers 27001 through 27104 and 27106 through 27118 .

**Compliance:** **ad A)** None, upgrade when the fuselage water ballast valve needs exchange, serial version in new production sailplanes.

**ad B)** For next annual inspection however prior to 31 December 2000 .

**Reason:** **ad A.1)** In order to improve the operation of the water ballast actuator lever this lever is placed more forward into the landing gear gate. Also the operation forces to open the valves are decreased by changing the shape of the lever.  
The ball type valve used up to now will be replaced by a back pressure valve. The attachment point of the fuselage tank valve is re-designed.  
In order to achieve easier adjustment of the water ballast control system the actuating toggles for the wing water ballast valves are modified.

**ad A.2)** Additional flap position 3a.

Following operational experience which was also proven in wind tunnel experiments with the ASW 27 wing profile a new flap position 3a (+5°) a small but favourable operational speed range was tested. The old flap position 3 (+12°) is re-numbered as flap position 3b .

**ad A.3)** Aerobatic manoeuvres according to chapter 4.5.9 of the ASW 27 Flight Manual were not approved when new winglets according to TN 4 were installed. Flight tests for the new winglets were now performed and are aerobic manoeuvres are now approved for the new winglets.

**ad A.4)** For an ASW 27 which is built including TN2 (wing with integrated wet surface water ballast tanks), TN 4 (new winglets) and this TN 6 at the same time the sailplane is called an ASW 27 B. This ASW 27 B however is not regarded to be a new model variant. It is a new sales definition.

**ad B)** Flight, Maintenance and Repair Manuals have been corrected and modified as well as amended because of changes of the new water ballast system.

**Action:** **ad A.1)** For replacement of the old fuselage water ballast tank valve some minor modifications must be performed:

The water exit port on the lower fuselage surface must be moved about 8 mm forward, see drawing 270.77.9001.

A new water ballast actuating lever must be placed forward. To do so the landing gear gate must be modified or exchanged against a new one, see drawing 270.21.0024.

The forward Bowden cable end fitting as well as the Bowden cable attachment on the fuselage side toggle for water ballast valve operation inside the wings and also at the fuselage water tank valve must be replaced, see Maintenance Instruction B, Issue 2, drawings 270.77.1008 & 270.77.1009.

**ad A.2)** Drill flap position A (when not yet existent) as well as flap position 3a at the flap lever gate, see drawing 270.45.0015. The correct adjustment of flap position A is found on Maintenance Manual page 3.5. The adjustment of flap position 3a is the geometric middle between the holes of flap positions 2 and A. A new flap position placard must be installed above and left of the actuating lever.

**ad A.3)** None. Exchange Flight Manual page 4.23. see **B)** below !

**ad A.4)** Optional, action according to TN 2 and TN 4.

**ad B)** Flight Manual pages 0.4; 0.5; 2.3; 2.5; 4.6 & 4.7; 4.12 & 4.17; 4.23; 5.4; 5.9 & 5.10; 7.4 & 8.5 and Maintenance Manual pages 0.4; 0.5; 2.16; 3.2 through 3.4; 4.5 & 4.7; 7.3; 7.9; 9.6; 12.5 & 12.8 pages must be exchanged against new ones with the revision status „TN 6 dated 01.09.99 JUW“. The Maintenance Manual must be amended by pages 2.40 and 9.9 and Maintenance Instruction B, Issue 2, dated 04.05.99 as well as by the Repair Manual which was itself amended April 1999.

**Material and drawings:**

See ASW 27 Drawing list,   Component 77 dated 01.06.1999  
  Component 45 dated 01.06.1999  
  Component 21 dated 01.06.1999

**Weight (Mass)**

The differences in weight are so small that a weight and balance procedure is not necessary.

**and Balance:**

ary.

**Notes:**

Necessary parts, Manual pages, Maintenance Instructions as well as the amended Repair Manual can be ordered from Alexander Schleicher GmbH & Co., Telephone ++49 6658 890, Fax ++49 6658 - 8940 or via e-mail: sales@alexander-schleicher.de .

Action according to position A.1 & A.2 must only be done by the manufacturer of the sailplane (A:Schleicher) or a repair station approved for such work. Action according to position B may be performed by the owner/operator of the sailplane himself.

All action has to be documented by an inspector authorised for such work during the initial TC checks, or in case of exchange as a major modification in the sailplane's log book and the records of inspections.

Poppenhausen, 16 May 2000

**Alexander Schleicher**  
GmbH & Co.  
By order

(Lutz-W. Jumtow)

The German original of this Technical Note has been approved by the LBA under the date of 17 May 2000 (signed by H. Fendt).

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