

Subject: A) Electric power supply by solar cells, installed on top of the fuselage behind the canopy.
B) Gate valves for water ballast in the fuselage instead of the valves inside the wings.
C) Use of „Light Weight“ parts in the fuselage.
D) The in flight back rest position adjustment is replaced by a lighter system adjustable before take-off.
The modifications according to positions A) through D) can be performed independently from each other.

Serial number applicability: All ASW 27, Data sheet 389, Serial Number 27163 and from Serial Number 27178 onwards optional for new production.

Compliance: None, optional on customer's request.

Reason: A) Improvement of the power supply
B) Shorter time to jettison wing water ballast
C) Reduction of empty weight (mass)
D) Back rest system from the ASW 28

Action: A) Apply a false insert area simulating the solar panels to be used into the fuselage mould prior to laminating the fuselage. For electric power supply solar cells are installed on top of the fuselage behind the canopy. With regard to a higher temperature of the structure behind the solar cells, higher post curing temperatures have to be applied to that area (12 hours more than 80°C or 6 hours more than 90°C or 3 hours more than 100°C).

B) Instead of the water ballast valves inside the wings a double gate valve is installed inside the baggage compartment on top of the landing gear box. From the "wet" wing tanks hoses from left and right lead to the gate valves. From there two hoses are routed through the landing gear box to two ports behind the landing gear doors.

C) According to the drawing list applicable for the SL-Version called "Leichtbauteile" for this TN, parts are built and installed into the fuselage. Additional reduction of the empty weight during production is achieved by: A reduction of resin content in laminates, reduction of gel coat and use of white coloured resin for the outermost layers. Adjustment of the empty weight c. g. by use of batteries in the fin compartment and a possible second battery for the flight data recorder behind the instrument panel. The serial battery boxes in the baggage compartment floor are cancelled.

D) A back rest from the ASW 28 is installed. As with the ASW 28 adjustment of the back rest is only possible prior to take-off by engaging it into the slots left and right on the cockpit side wall. The winch for seat rest adjustment in flight at the right hand cockpit wall is not installed.

The following Manual pages must be exchanged against new ones with the revision status „TN 8 / 11.02.2002 Juw“. The exchange must be documented in the „Record of Revisions" of the manuals.

Flight Manual: Page 0.4; 0.5; 4.4; 4.6; 4.7; 4.18; 4.19; 4.20; 7.8; 7.9; 7.13 & 7.19
Maintenance Manual: Page 0.4; 2.13 until 2.16; 2.36; 2.38 & 2.42

For Manual amendments please regard the following information :
When an existing Manual page which should be exchanged against a new one according to this TN is already an amended one because of an earlier TN, both pages remain in the Manual.

Material and drawings:

See Action above and the following drawings according to the drawing list:

for A) drawings: 270.75.1003 Solarpanel auf Rumpfoberseite
270.75.1004 Schaltplan für Solarpanel

for B) drawings: 270.76.0361 Abdeckplatte an Wurzelrippe & Halter für Auslaßrohr
270.77.9011 Position der Wasserablaßöffnung, Rumpfröhre hinter
FW-Klappe, Fotodokumentation
270.77.1011 Absperrschieber, System Hostettler, komplett
270.77.1012 Schauhanschluß vom Integraltank zum Schieberventil
270.77.1013 Betätigungshebel 4 / Lagerwinkel, komplett
ASW 27 Wasserballast - Fotodokumentation

for C) ASW 27 Drawing list "Leichtbauteile", dated 11.02.2002 and
ASW 27 SL "Änderungsanweisung, Ausgabe 1", dated 11.02.2002

for D) drawings: 99 000 5146 Raste für Rückenlehne
280.11.1004 Rückenlehne mit Kopfstütze, komplett
99 000 5162 Rückenlehnen - Verstellung, komplett
ASW 27 Raste für Rückenlehne - Fotodokumentation

Weight (Mass) and Balance:

The differences in weight are such that a weight and balance procedure is necessary.

Notes:

Because of the need of moulds and special tools structural action must only be done by the manufacturer of the sailplane Alexander Schleicher Segelflugzeugbau.

The Manual pages can be exchanged by the owner himself.

Light weight pilots must have a fuselage tank, when they want to fly with maximum TOW. All installations necessary for the solar panel power control must then be installed such that the installation of the fuselage tank is still possible.

All action has to be documented by an inspector authorised for such work in the sailplane's log book, Flight and/or Maintenance Manual and the records of inspections.

For S/N 27163, which can be regarded as prototype for the die **Super-Leichtbau-Version** (SL), an individual modification dated 28.09.2001 was issued and approved by the LBA on 10.10.2001.

Poppenhausen, February 11, 2002

Alexander Schleicher
GmbH & Co.

by order

(Lutz-W. Juntow)

This Individual Modification has been approved by the LBA under the date of March 21, 2002 (signed by Ronig).

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