

- Subject:** Wings with integrated (wet inner surface) water ballast tanks.
- Serial number applicability:** ASW 27, Document No. 389, Serial Number 27105 and optionally all ASW 27, which have a pair of wings produced according to this TN. On option all earlier serial numbers as off 27001 where both wings must be replaced because of a repair.
- Compliance:** None, optional on customer's request for new production or for replacement of a whole set of wings.
- Reason:** Instead of the water ballast system using removable soft water ballast bags, the new wet surface water tanks are directly integrated into the wing structure. Flight and Maintenance Manuals are amended to cover the new design.
- Action:** Wings with integrated water ballast tanks are produced according to the amended wing main spar drawings and the amended wing layer scheme.
- At the cover of the wing root rib an automatic water ballast valve opener is installed.
- The following Flight Manual pages 0.4 & 0.5; 4.4 through 4.6; 4.18 through 4.20; 6.5; 7.13 & 8.4 as well as the following Maintenance Manual pages 0.4 & 0.5; 1.6; 2.13 through 2.18; 2.32; 7.5 & 7.8 must be exchanged against new ones with the revision status „TN 2 / 11.01.99 Juw“. In the Maintenance Manual pages 2.38 & 2.39 must be amended. The exchange must be documented in the „Record of Revisions“ of the manuals.
- Material and drawings:**
- 270.51.9004 Wing Layer Scheme (Flügel-Laminierplan) including amendment A, dated 03.12.98
 - 270.51.9007 General View of Wing (Flügel-Übersicht), Integralwassertank (Integrated Water Ballast Tank).
 - 270.51.1002 Right Forked Spar (Holmgabel, rechts) including amendment A, dated 02.12.98
 - 270.51.1003 Left Stub Spar (Holmzunge, links) including amendment A, dated 02.12.98.
- Master Drawing List (Zeichnungsstücklisten):
Component (Baugruppe) 51 - Wings (Flügel) amended 10.01.99,
Component (Baugruppe) 76 - Water Ballast (Wasserballast) amended 10.01.99.
- Weight (Mass) and Balance:** With new wings a weight and balance procedure is necessary.
- Notes:** New wings with integrated water ballast tanks can only be produced by the manufacturer, Alexander Schleicher GmbH & Co.
- 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. In case of new sailplanes this is a type certification inspection, in case of replacement of a pair of wings this is a major modification.

Poppenhausen, 11.01.1999

Alexander Schleicher
GmbH & Co.

i.A.
(Lutz-Werner Juntow)

The German original of this Technical Note has been approved by the LBA under the date of Sept. 7, 1999 (signed by H. Kopp).

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