

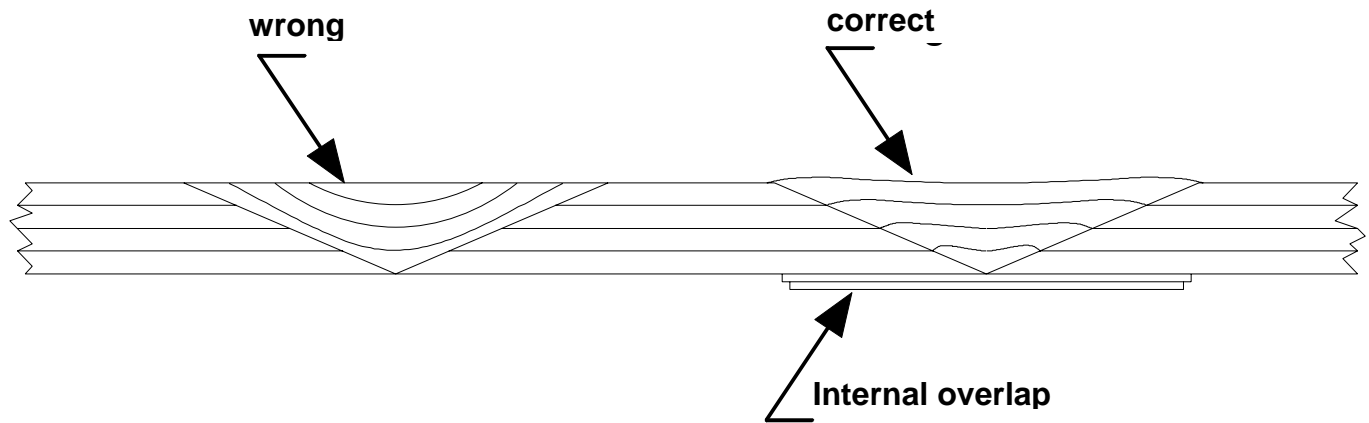
**Subject:** Repair of the tailcone by scarfing

**Applicability:** EASA.A.0220, all ASW 27-18 and ASW 27-18E

**Compliance:** where required

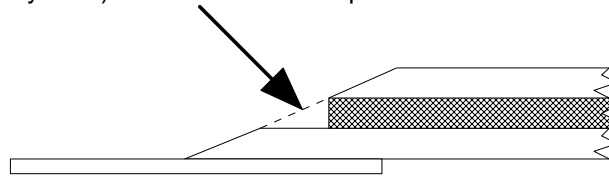
**Reason:** For the repair of the ASW 27-18 tailcone skin it is important that the hybrid laminate of the skins is preserved.

This means that after the repair the arrangement of the layers (from inside to outside) still corresponds to the original layer scheme, ie. the sequence of layers is maintained: glas-, carbon, kevlar, core material U-Pica-Mat (not scarved but adjoined bluntly), carbon, glas



- Action:**
0. Make a „backbone“ jig by use of an unbroken ASW 27 fuselage.
  1. Trim edges of broken tailcone in straight lines.
  2. Prepare an internal overlap (2x 92140 diagonal and 1x 92110 longitudinal, about 180 to 200mm long) and glue approximately 50% into the wider part of the fuselage.
  3. Adjust the other part on the rig and glue both parts together.
  4. Prepare scarf joints and scarf joint lengths according to Repair Manual

5. U-Pica Mat (Layer 19) is removed as a step.



6. The innermost layer of 92110 (Layer 25) is already replaced by the internal overlap and need no action any more
7. Laminate one layer CCC Style 763 longitudinal (Layer 22), scarf length approx. 16,5 mm long and overlap over corresponding scarf.
- 8a. In the area, where no core material was present (i.e. more than 2.5m behind the landing gear doors): Laminate one layer of 03040 diagonal (Layer 20) and overlap over corresponding scarf.
- 8b. In the area where core material was present, replace U-Pica-Mat without overlap. Now wind peel ply around the repaired area. Remove peel ply after hardening and check for air bubbles in the U-pica-Mat.
9. Laminate one layer 98608 diagonal (Layer 18) and overlap over corresponding scarf.
10. Laminate one layer 03056 diagonal (Layer 16) and overlap over corresponding scarf.
11. Laminate one layer CCC Style 796 longitudinal (Layer 11) and overlap over corresponding scarf.
12. Laminate one Layer 92145 longitudinal (Layer 4). Now wind peel ply all around and make bondage with tape to press for low resin content and harden and post cure. Remove peel ply after hardening and only scarf layer 92145, fill and gelcoat.

**Material &  
Drawings:**

Use only original material; refer to layer scheme drawing 290.11.9010.

**Notes:**

The repair may only be accomplished at a technical aviation repair station holding an appropriate license. All action has to be checked by an inspector authorised for such work, and must be documented in the sailplane's log book, and the records of inspections

Poppenhausen, September, 19, 2007

**Alexander Schleicher**  
GmbH & Co.

by order

(Michael Greiner)