Replacement of Elevator-control-rod for Glasflügel Sailplanes with T-tail

<u>Important Note:</u> On some Sailplane types, it was common to drill a hole on both sides of the fuselage in the respective area to gain access to the lower bolt of vertical elevator control rod. Due to special manufacturing procedures of Glasflügel Sailplanes, the a.m. procedure is NOT allowed for these types.

Procedure:

1. Remove rudder.

2. Store fuselage on LH side and secure.

3. Remove tail-wheel.

4. Place the wheel-case repair part (delivered in kit) as shown in photo 1 (LH upper edge, 45mm in front of wheel-axle centreline, 25mm above wheel-case/fuselage centreline) and contour with felt-pen.

5. Remove repair part. approx. 15 mm inside of contour-marking, mark the edges for the cut-out. Mill- or grind-out wheel-case to gain access to lower control rod bolt.
   <u>NOTE:</u> Use extreme care during milling/grinding to avoid damage of the surrounding structure or control rods inside of fuselage.

6. Block control stick with tape or rope approx. centred.

7. Remove vertical elevator control rod from lever.
   It is recommended to use a 10mm ratchet-wrench (straight), extended (i.e. fixed with tape) by a 500 mm flat-steel, inserted thru the existing hole in vertical stabilizer, to conter-hold the stop-nut from lower side of control lever (Photo 2a und 2b). Using a second 9mm or 10mm ratchet-wrench (depending on manufacturing period of airplane) or the special-wrenches delivered in „Plus-Kit“, access thru cut-out in wheel-case, unscrew bolt.

8. Remove control-rod from elevator-drive (top of vertical fin)

9. Remove control-rod from vertical fin by pulling it to top side.

10. **VALID ONLY FOR HORNET C:**
Send elevator control rod including hardware to:
Glasfaser-Flugzeug-Service GmbH, Grabenstetten, Germany

11. Measure and note length of old control rod from centre of bore-hole to centre of bore-hole.

12. Loosen counter-nut and remove rod-end from control rod.

13. Verify total length of rod-end thread: Reference: 50mm ± 1mm.

14. Screw-in rod-end into new control-rod and adjust to length of old control rod. Use care on minimum thread-in length: the remaining (visible) thread length must not be more than 23 mm with counter-nut in place.

15. If installed- remove rubber-bellow on top of vertical stabilizer and discard. After removing bonding residuals from vertical stabilizer surface, apply a thin coat of resin to bonding surface.

16. Insert new control-rod in vertical stabilizer.

17. Insert new bolt (LN9355 M6x26) between lower side of control rod and lever.

18. Connect control rod to elevator-drive, but do not tighten nut.

19. Tighten lower bolt of control rod and secure with torque seal.

20. Jack fuselage in normal position and install horizontal stabilizer.

21. Check elevator deflection i.a.w. Table 1 in Technical Note. If necessary, adjust with rod-end on vertical control-rod. Secure counter-nut and control-rod bolt after adjustment.

22. Remove horizontal stabilizer.

23. Position fuselage again to the left side or up-side down

24. Sand marked bonding areas in wheel-case and on the repair insert. Remove dust and clean both parts with dry cloth. Mix adhesive 1:1 parts and apply to the insert. Position insert in place and secure it as shown in photo No.3. Remove excessive adhesive
Important: Read and follow instructions for use of adhesive!!! Do not use adhesive below 15℃! Allow to cure the adhesive at least 12 hours @ 15℃ minimum!

25. Check tire pressure of tail-wheel i.a.w. flightmanual. Install tailwheel and check for free travel.

26. Jack fuselage in normal position. Install and secure rudder. Perform flight controls check (rudder).

27. Make an entry to log-book for compliance with this technical note.

Photo 1

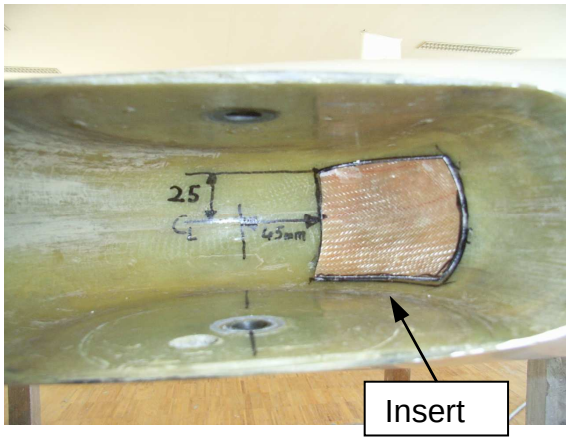


Photo 2a

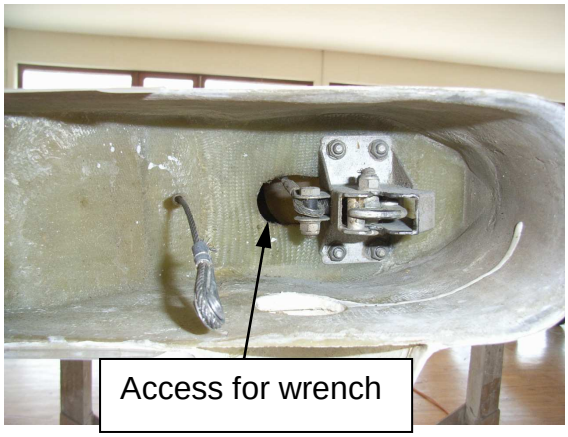
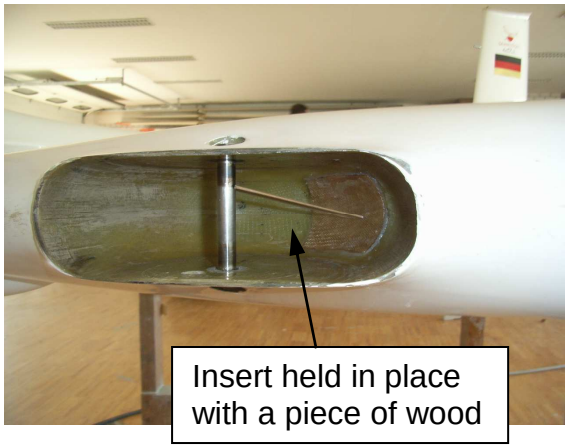


Photo 2b

Photo 3



Grabenstetten, July the 14, 2011

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Glasfaser-Flugzeug-Service
Hansjörg Streifeneder