

## Reinforcement of the airbrake control hook-up mounting

1. Derig the glider and position the wings in upright position (trailing edge up) Place the wing spar ends on stands and secure with G-clamps. Place the wing tips on the ground (see photo 1).
2. Remove the protection caps from the access holes in the rear root ribs (see photo 2).
3. Roughen the inside of the rear airbrake control hook-up mounting as described below (see photo 3-2 and sketch 1):
  - Chamfer and round off the end of a square wooden strip (approx. 10x10x200 mm) according to photos 3-1 and 3-2 and tape abrasive paper 60grit to the end.
  - Use this tool to roughen the surface opposite to the access hole and all other surfaces as far as you can reach them see photo 3-3. .
  - To roughen those surfaces which you can't reach tape a piece of abrasive paper 60grit to the fingertip of a disposable glove see photo 3-4. Roughen these surfaces as well as possible.
4. Mix 145g resin (L285) with 55g hardener (H286) per wing.
5. Apply some of this resin with a small brush to the roughened surfaces. Distribute the resin with one of your fingers to those surfaces which you can't reach with the brush.
6. Mix now 130g chopped glasfibre into the resin/hardener mix.
7. Fill a 50 ml syringe with this mix and fill the mix evenly into the mounting. Vibrate the wing for 15 seconds (loosen the G-clamp a little and move the trailing edge fore and aft approx.  $\pm 20$ mm as fast as you can). Continue this procedure until the mounting is filled up completely.
8. Let cure at room temperature for a min. of 12 hours.
9. Postcure for min. 18 hours at 50-54°. To accomplish this install a temperature sensor inside the wing and construct a curing box eg. from cardboard and fix it with tape to the root rib according to sketches 2-1 and 2-2. Heat with a hot air gun.
10. After the wing cooled down check the overcentre locking moment and locking travel according to sect. 4.4.2 MM. Reinstall the protection cap to the access hole

necessary material:

part no. DG	material per wing
30000010	resin L285 145g
30000011	hardener H286 55g
30001161	chopped glasfibre FG400/060 130g
70000450	small brush (size 3)
70002104	syringe (50ml)
	abrasive paper 60 grit
	square wooden strip 10x10x200 mm

Appendix: 1 – photos  
2 – sketches

Appendix 1, photos:



photo 1: positioning the wing



access hole

photo 2: root rib with access hole

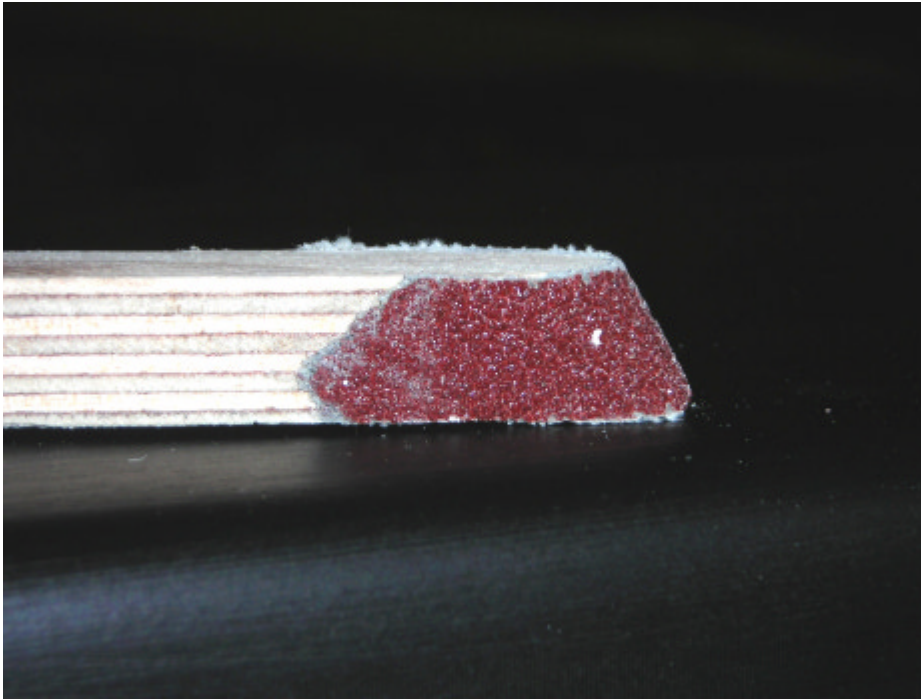


photo 3-1: chamfered and rounded end of the square wooden strip with abrasive paper



photo 3-2: chamfered and rounded end of the square wooden strip with abrasive paper

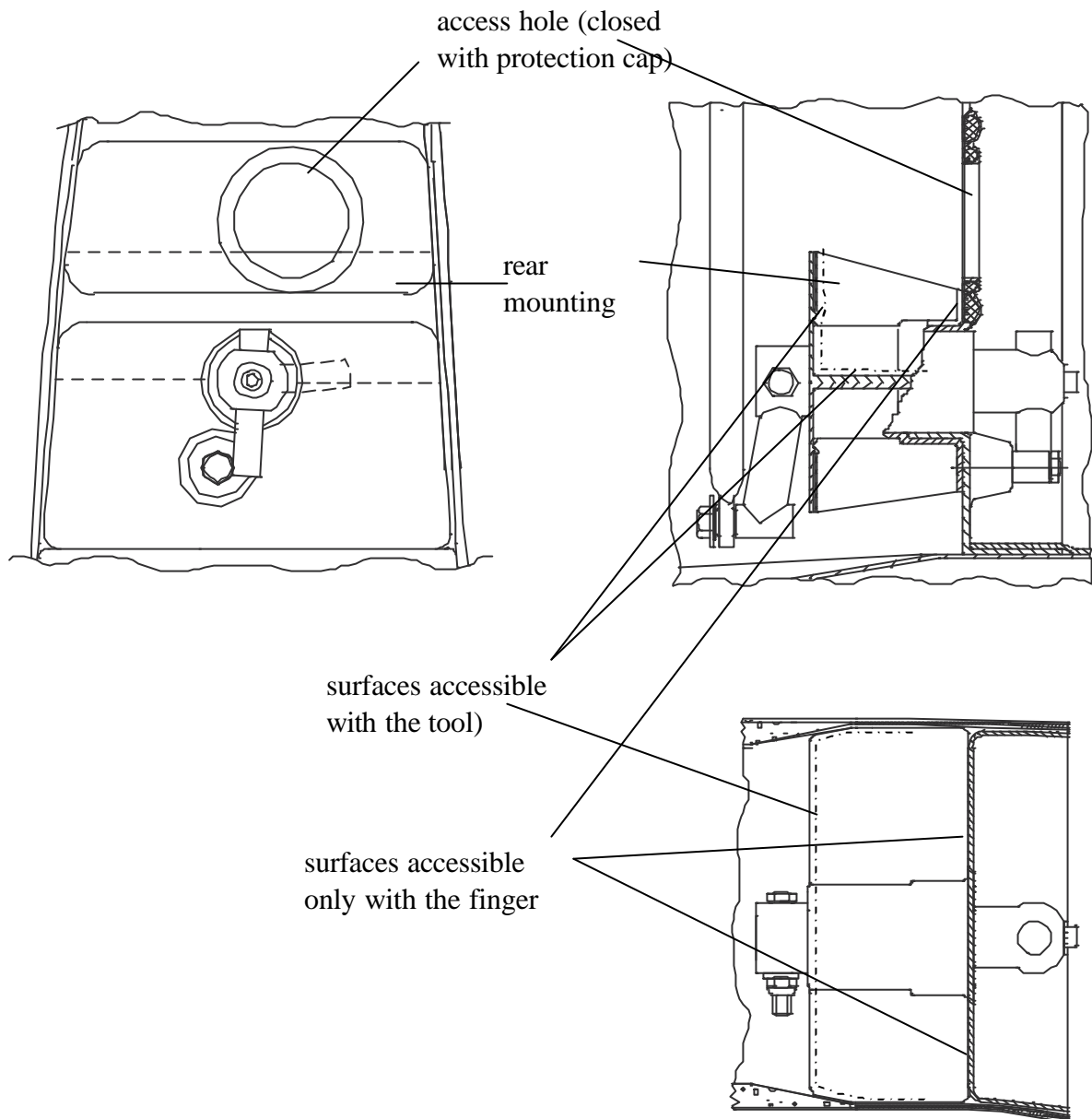


photo 3-3: applying the tool

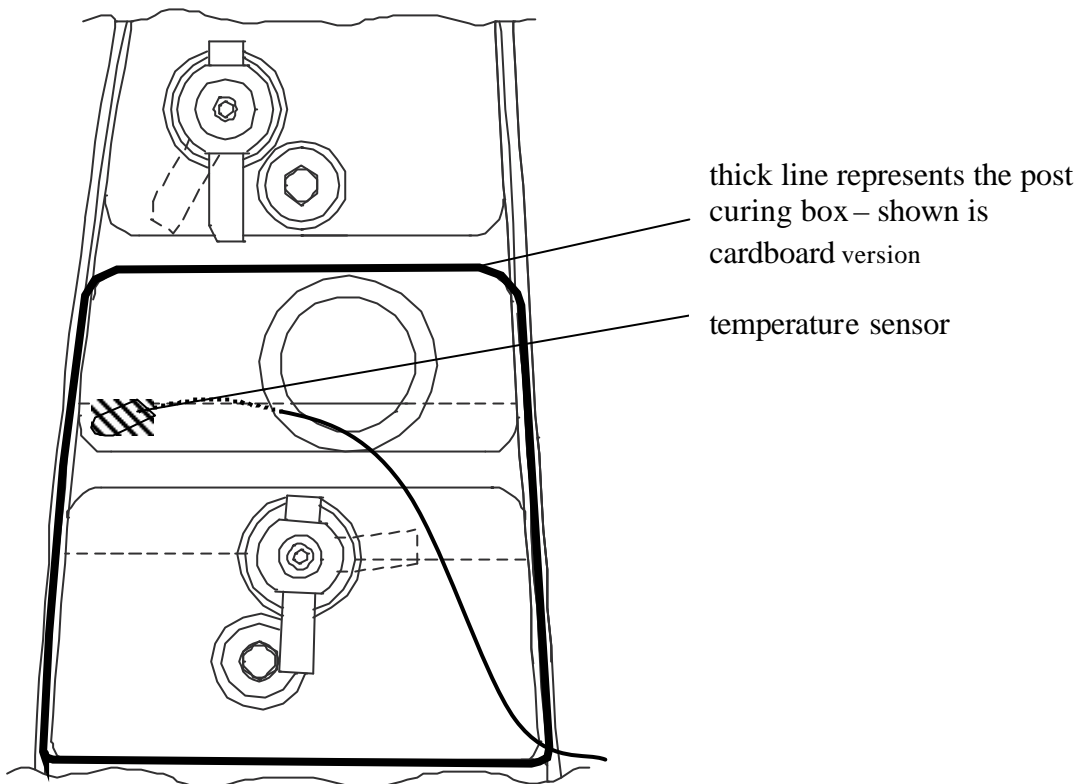


photo 3-4: finger of one time use glove with abrasive paper

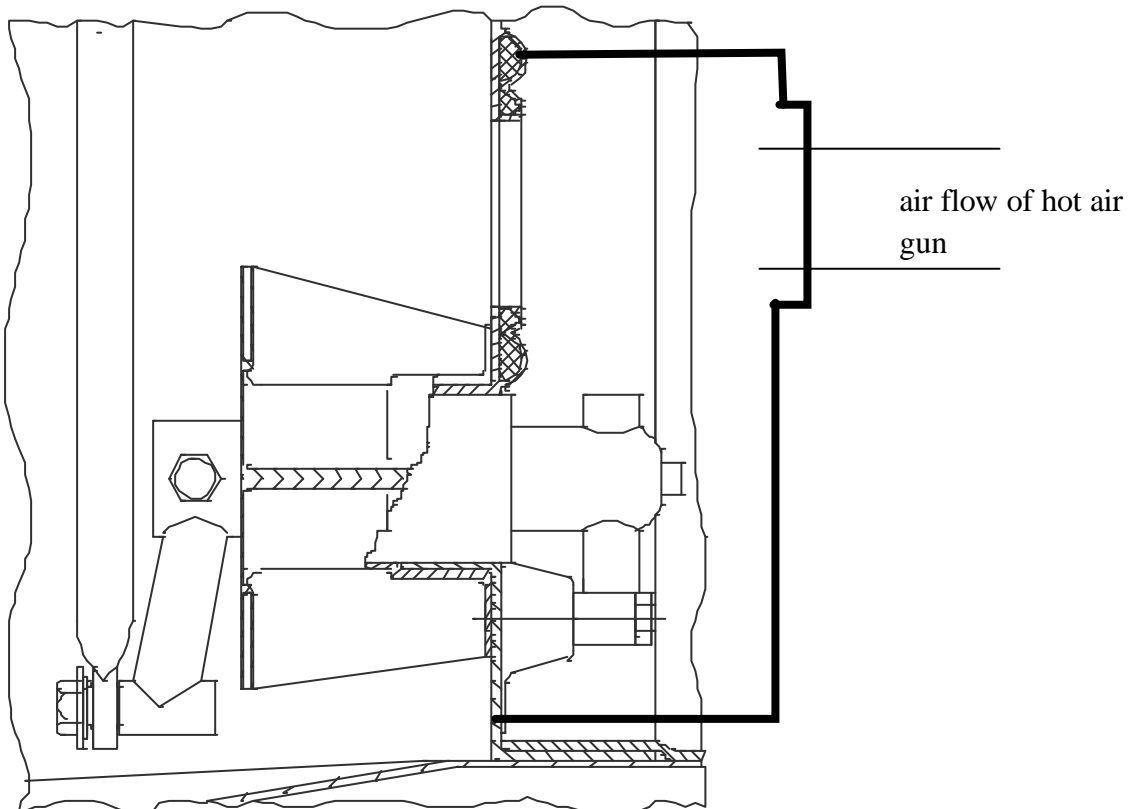
Appendix 2, Sketches:



Sketch 1: 3-side view of root rib with access hole and airbrake control coupling



Sketch 2-1: side view of airbrake control coupling at root rib, sketch for post curing box



Sketch 2-2: top view of airbrake control coupling at root rib, sketch for post curing box