Modification of the connection of the starter ring gear to the adapter for the lower drive belt pulley

A) Disassembly

1. It is not necessary to remove the powerplant from the glider to remove the starter ring gear.
   The following work has to be done according to the maintenance manual instructions:
   Remove the engine doors see sect. 4.17. Place a wooden plate over the engine bay on which the engine may rest.
   Disconnect the spindle drive from the engine see sect. 4.16.1 item II) 11) (page 66) (It is not necessary to disconnect the gas strut).
   Remove the proximity switch with its mounting plate, mark its position on the propellermount prior to removal.
   Loosen the drive belt according to sect. 4.11. a) (it is not necessary to remove the propeller).
   Remove the complete assembly of starter ring gear with adapter and lower pulley see sect. 4.16.2 item 3).

2. Remove all 5 bolts which connect the starter ring gear to the adapter for the lower drive belt pulley

B) Assembly of the starter ring gear to the adapter

1. Remove any remains of the red paint from the contact areas at the starter ring rear to the adapter and from the countersink bores for the bolts, paint can be dissolved with Acetone. Check the adapter too. Correct any deformations or burrs so that the contact areas are flush.
2. Mark the contact area at both parts and grind the contact areas with grinding paper 60 grit see drawing 1. Remove any dust and clean and degrease the contact areas with Acetone.
3. Apply the adhesive Araldite AV119 with a small brush to the contact areas and into the threads. Press both parts together and screw in the bolts until there is a gap of approx. 1mm between the bolt head and the countersink bores. Fill the gaps with Araldite AV119 and tighten the bolts crosswise with a torque of 12 Nm (9 ft lb).
4. Cure the whole assembly for 1 hour at 150°C $\pm$ 10°C (230°F $\pm$18°F) for example in a baking oven. Allow the part to cool down slowly, e.g. let it in the oven until the oven has cooled down.
5. When the part is cooled down file or grind off the excess bolt ends until they are flush with the flange. If you use a power grinder be careful not to heat up the part. Grind several short times and allow the part to cool down in-between.

Bild 1
drawing 1

1. Vorbereitung zur Verklebung
   Preparation for bonding

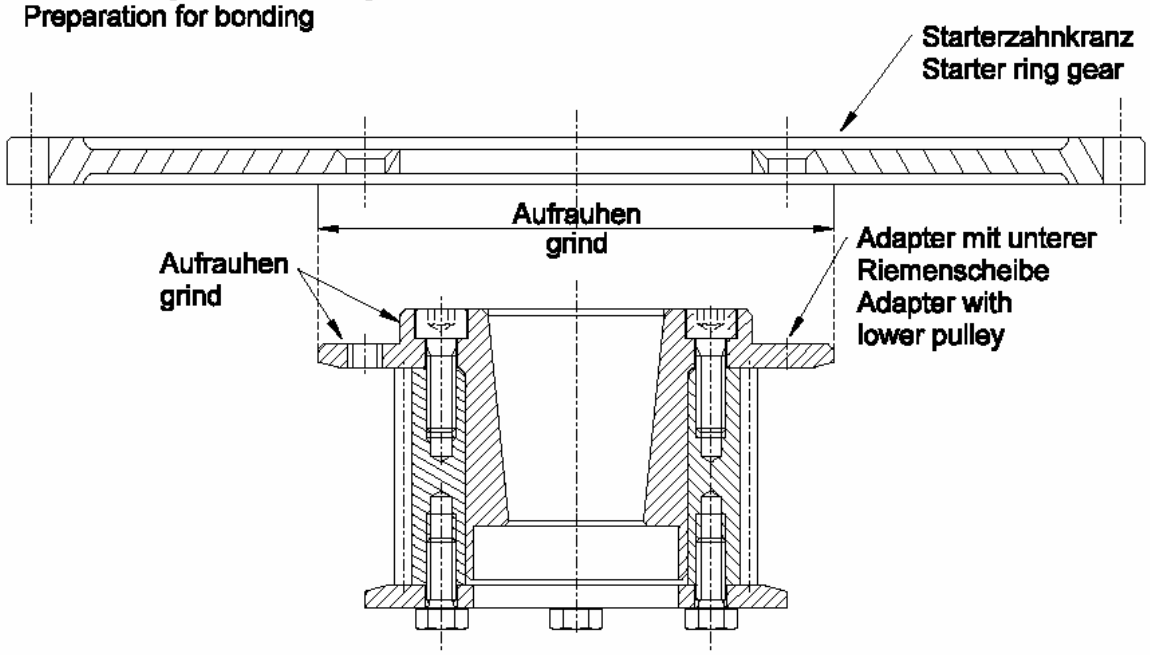
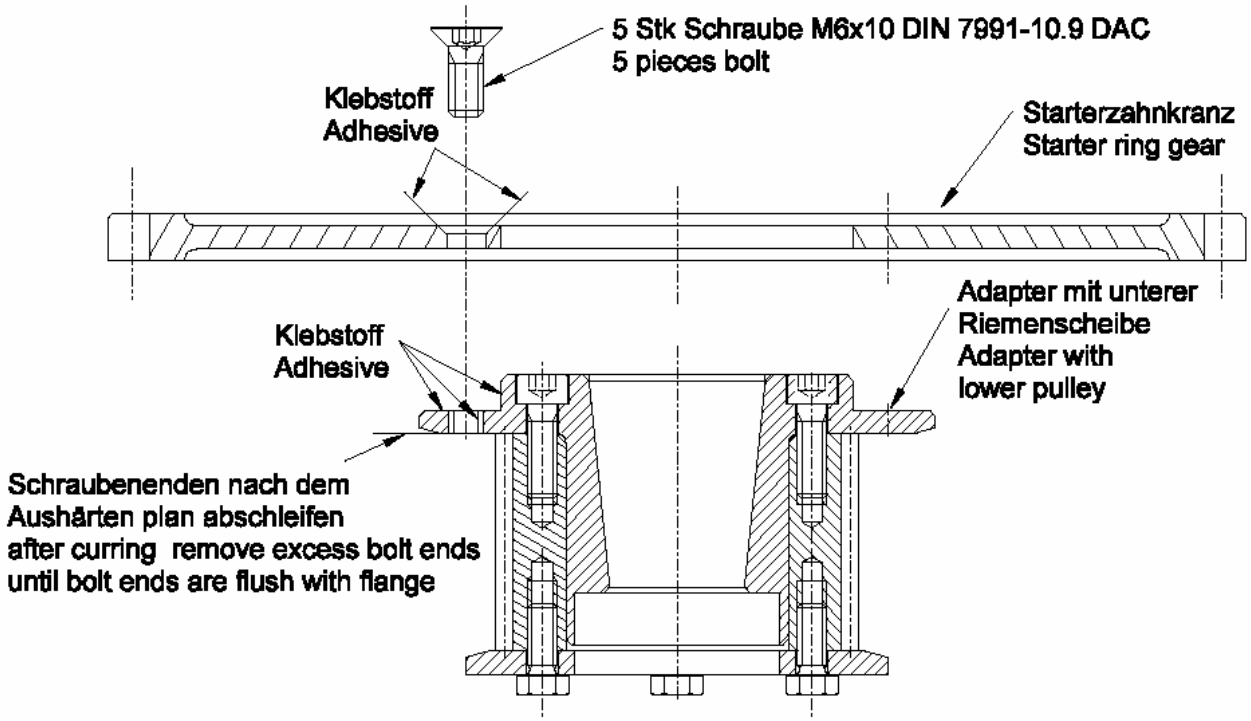


Bild 2
drawing 2

2. Klebstoffauftrag
   Application of adhesive



C) Reinstallation

1. When reinstalling the starter ring gear adjust the propeller position versus the engine compression point according to sect. 1.11.4 via the drive belt.
2. Install the screw at the crankshaft without using Loctite and tighten with a torque of 100Nm (73 ft lb).
3. Tighten the drive belt according to sect. 4.11e).
4. Reinstall the proximity switch and check its adjustment according to sect. 1.14.15 and correct if necessary.
5. Reconnect the spindle drive.
6. Rig the wings to the fuselage and secure the glider. Start the engine, apply full throttle for a short while (max. 30 seconds) and stop the engine again.
7. Retorque the screw at the crankshaft with 100Nm, to accomplish this the spindle drive must be disconnected again.
8. Start the engine, apply full throttle for a short while (max. 30 seconds) and stop the engine again, retorque again. Repeat this procedure until the screw can't be turned any more with the same torque. Normally it is necessary to repeat the procedure 4 times. After the last retorque remove the screw, apply Loctite 243 and torque again with 100 Nm.
9. Install a new selflocking nut M10DIN985-8zn to the spindle drive bolt.
10. Check if the propeller position versus the engine compression point is still in the limits. If necessary correct according to sect. 4.11 f).