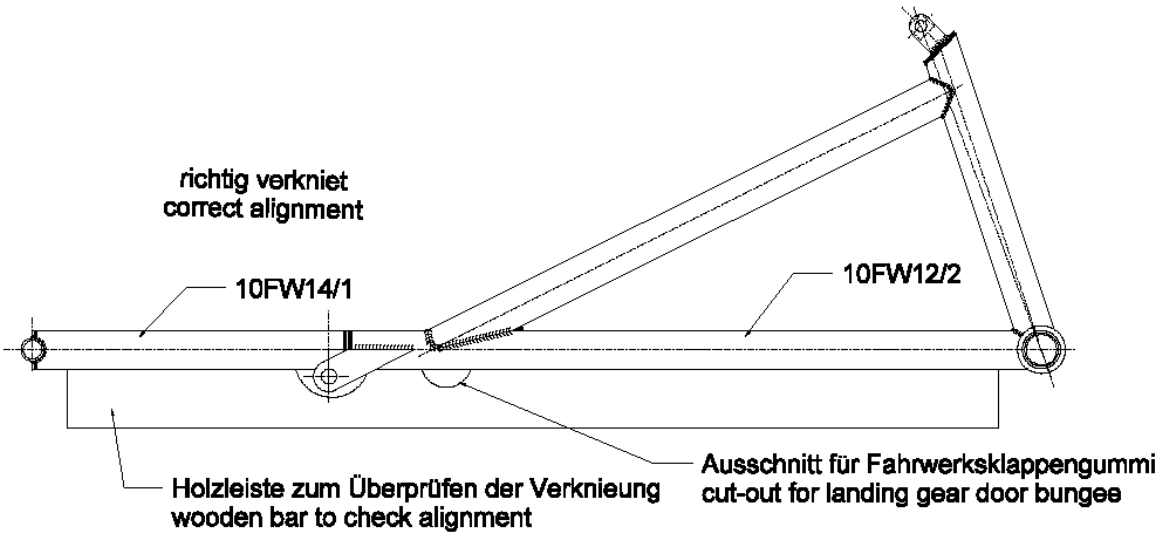
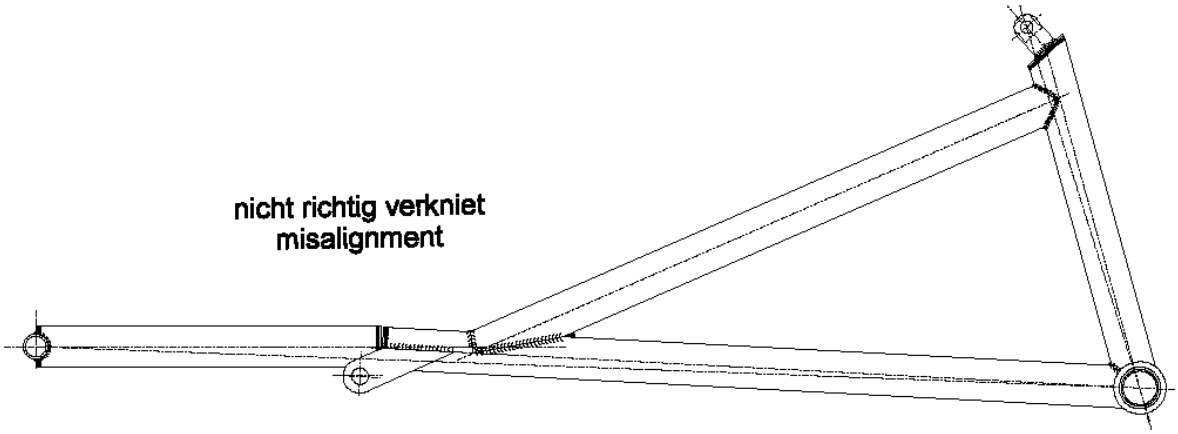
Working instruction for TN 413/2 No. 1

Please refer to maintenance manual diagram 7

Instruction 1: Check if the landing gear struts are aligned. .
Produce a straight wooden bar according to the sketch and check if the landing gear struts are aligned for a correct over centre lock in the extended position.
The centre lines of the tubes must be exactly in line. If this is not the case, disassemble the struts at their hinge point and remove paint and if necessary file away from the metal so far that the centre lines are in line.
For reassembly use new selflocking nuts M8DIN985-8zn.



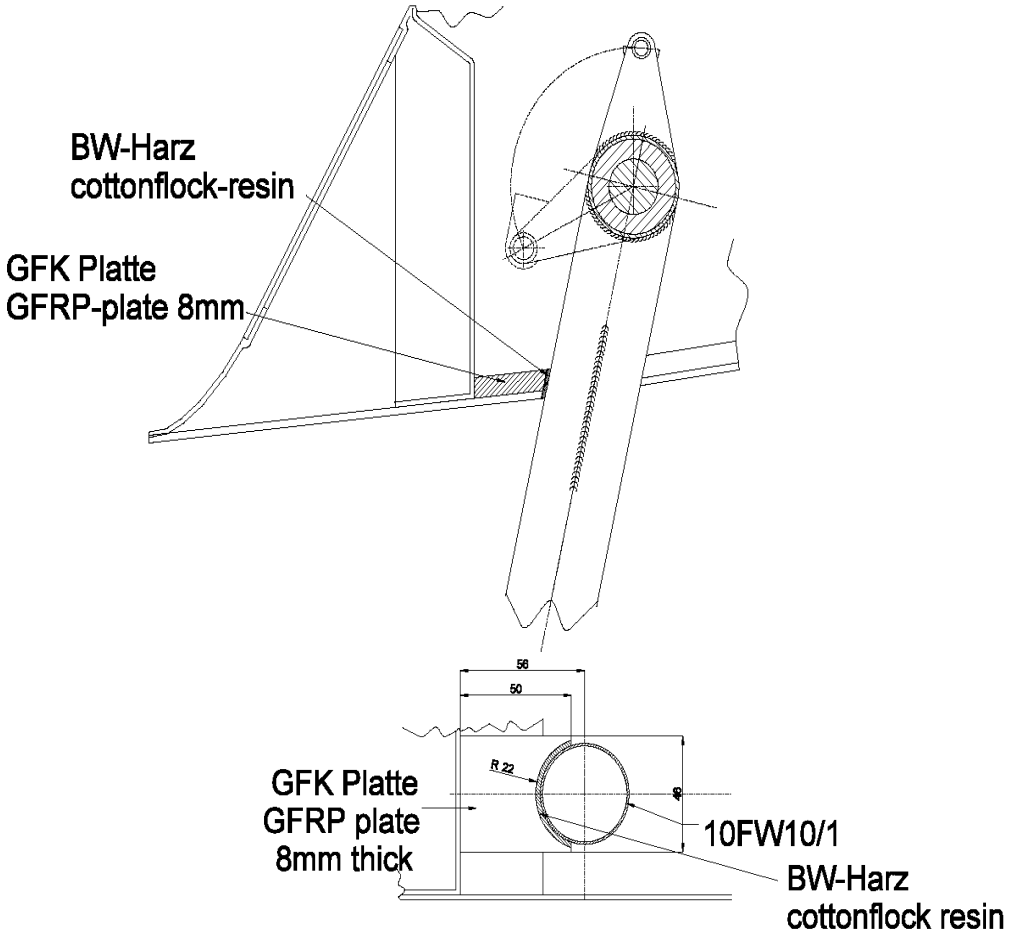


Instruction 2: Exchange the shaft 10FW15/3, refer to section A-A in diagram 7.
Disassemble the rod end from the pushrod 10FW20 (see also MM diagram 12).
Disassemble the rod ends of the pushrods 10FW14/3 from the fork 10FW13/1.
Remove the 2 bolts which connect the bellcrank 10FW15/1 to the shaft. Pull off the bellcrank. Remove the 3 bolts which connect the shaft with fork 10FW13/1 and part 10FW15/2 (above in the landing gear box).
Push a 6mm rod into one of the holes of the shaft and pull out the shaft up to the fuselage wall. Use a powerful lamp and illuminate this area from the inside. Mark the shaft on the fuselage outside.

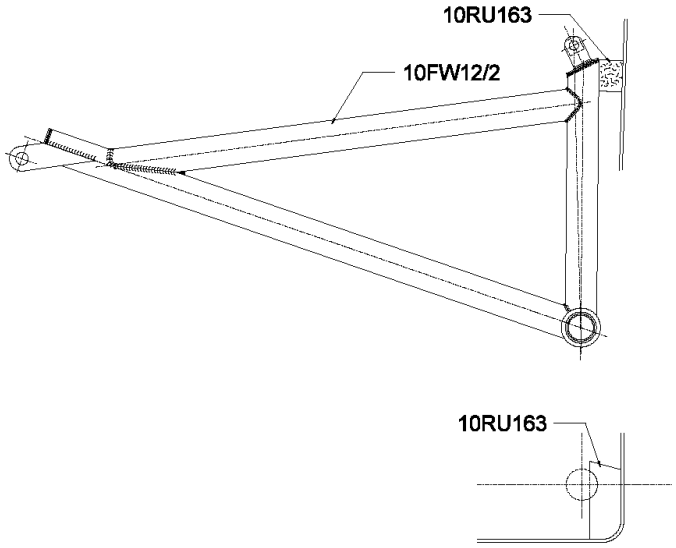
Push in the shaft for approx. 10mm and drill an 8mm hole from the outside into the fuselage-wall. Pull out the shaft again up to the fuselage wall and check if the hole is in the centre of the shaft, otherwise correct. Enlarge the hole to 20mm diameter. Screw an 8mm bolt into the shaft and pull the shaft out. Screw a 10mm bolt into part 10FW15/2 and pull it out. Now you can take fork 10FW13/1 out of the LG box.
Insert the new shaft 10FW15/3 (marked with a „V“ at the face side) into bellcrank and fork and take care for best alignment of the holes. Clamp the part in this position and ream the 4 holes with a dia. 6H7 reamer. If holes in the bellcrank or in the fork become oblong holes while reaming, all 3 parts must be exchanged.
Reassemble all parts again, use new selflocking nuts M6LN9348, except for the connection of pushrod 10FW20 to the bellcrank, there use a normal nut.
Close the hole in the fuselage with a dia. 33mm sticker.

Instruction 3: Install stops for the extended position

Roughen the gluing area for the pre-manufactured GFRP plates and at the plates. Glue in the plates so that there is 1mm free play to the tubes of the LG fork 10FW10/1 in the fully extended position.
After curing wax the LG fork in these areas with release agent. Apply a mixture of resin/hardener thickened with cotton-flocks into the round cut-outs of the GFRP plates and extend the LG fully. To make sure full extension pull the struts by hand into the overcentre position (downwards). After curing retract the LG and sand away excessive resin.



Instruction 4: Stop for the retracted position.
Roughen the gluing area for the stop block 10RU163 inside the LG box. (upper rear left hand side) and at the block.
Stick the block with glue film to the fork 10FW12/2. Retract the LG slowly, holding the LG doors open. Check if there is a little free play between the block and the LG box in the fully retracted position, otherwise you have to sand the block accordingly. Retract the LG again, apply resin/hardener thickened with cotton-flocks to the block, then retract the LG fully, make sure that the struts are overcentre
After curing extend the LG and sand away excessive resin.



Instruction 5: Exchange the locking plate 10FW35/1 against a longer part 10FW35 (d) according to MM diagram 12.

Instruction 6: Readjust the landing gear control circuit (extended position). (see also diagram 12 MM).
Adjustment should be made at the rod end in pushrod 10FW20 at the connection to the actuating lever 10Fw15/1. In extended position (landing gear struts over centre) a max. free play of ca. 0.5 mm (0.02 in.) between the notch at pushrod 10FW38 and the locking plate 10FW35 (see detail X in diagram 12) is allowed when the landing gear handle is pushed forward with a force of approx. 200N (44 lbs.), measurement with main wheel not resting on the ground. Apply a new selflocking nut M6LN9348 at the joint of pushrod 10FW20 and the bellcrank.

Instruction 7: Apply the placard to the inside of the cover of the fin ballast box directly at the right hand side of the slot.
Apply one red marking tape (5mm wide and 20mm high, to the lower side of the cover plate and the other at the corresponding place at the fin. (see sketch).

