

**Parts list:**

Item	Item description	Drawing no.	Part no.	Amount
1	Bowden outer black 3mm		60000207	1 m
2	End sleeve for Bowden outer		60000350	1 pc.
3	Stainless steel cable 1.440-2,5 mm DIN3055		60000855	2 m
4	Thimble A 2.5 DIN6899		45002014	1 pc.
5	Nicopress oval sleeve NT 282GA (28-2-G)		45001269	1 pc.
6	PA tube 8x1			0,3 m
7	Glass filament tape 92110 30mm wide		30001013	0,6 m
8	Wheel brake cable bracket	9R25	40960251	0,4 m
9	Adjusting screw M6x34/10 or M6x20/20		45008048	2 pcs.
10	Nut DIN439 M6			2 pcs.
11	Bolt M6x20 DIN 7985-8.8 zn			1 pc.
12	Washer 6,4 DIN9021			1 pc.
13	Air brake drive shaft	9St13	40930131	1 pc.
14	Clevis-pin 6h11x14x11,5 DIN1454zn		53200614	1 pc.
15	Split-pin 12x1,6 DIN94 zn		53010112	1 pc.
16	Washer 6,4 DIN125 St zn			1 pc.
17	Nipple 2-37 6x13		60000191	1 pc.
18	Brake pedal blocking bush	4R14-46		1 pc.
19	Joint head GASW 6 M8x33		45000669	2 pcs.
20	Nut M8 DIN439-B-4 zn			2 pcs.
21	Bush	4R13-40	45000760	4 pcs.
22	Bolt M8x30 DIN933-8.8 zn			1 pc.
23	Bush for gas spring	5R25/1	40560251	2 pcs.
24	Washer 6,4 DIN125-B St zn			1 pc.
25	Lock nut M6 DIN985-8 zn			7 pc.
26	Lock nut M8 DIN985-8 zn			1 pc.
27	Key ring 13mm		60000618	1 pc.
28	Key ring 20mm		60000627	1 pc.
29	Rubber cord 2 mm dia.			200 mm
30	Ty-rap 140x3,6		60510952	1 pc.
31	Loctite 243			-
32	Silicone			-

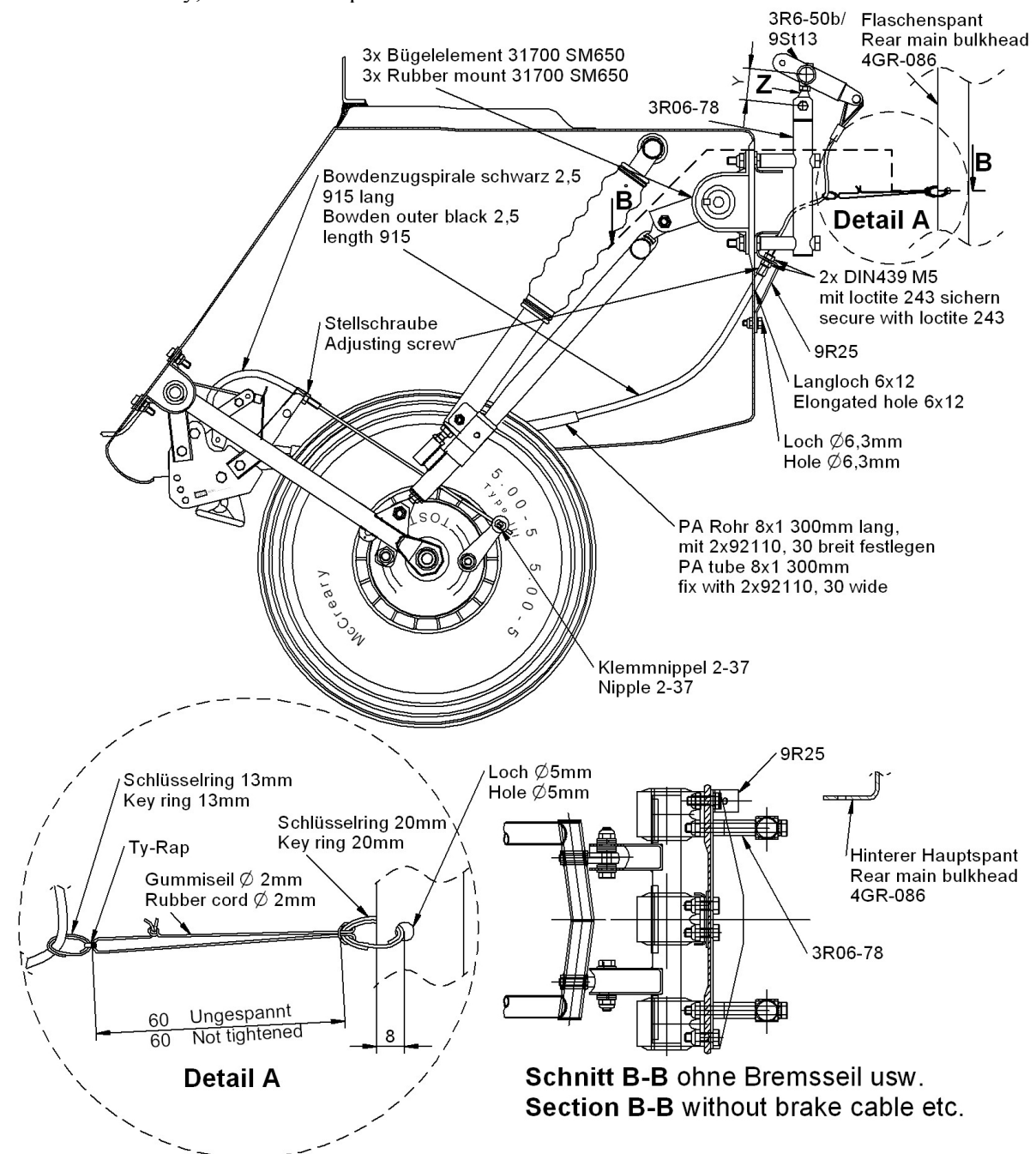
**Working instructions**

1. Derig the glider.
2. Remove the seat shell, see maintenance manual LS8 (for LS8, -a, -b and -18) section 4.3 or LS8-s, -sb and -t section 4.1.
3. Remove baggage compartment rear cover and baggage compartment floor.
4. Remove the wheel brake cable including the Bowden outer (see figure 1 and item 1, figure 3).
5. Remove the air brake drive shaft 3R6-50b, see maintenance manual section 1.3. This part will be replaced by the part drawing number 9St13, as shown in figures 1 and 2.

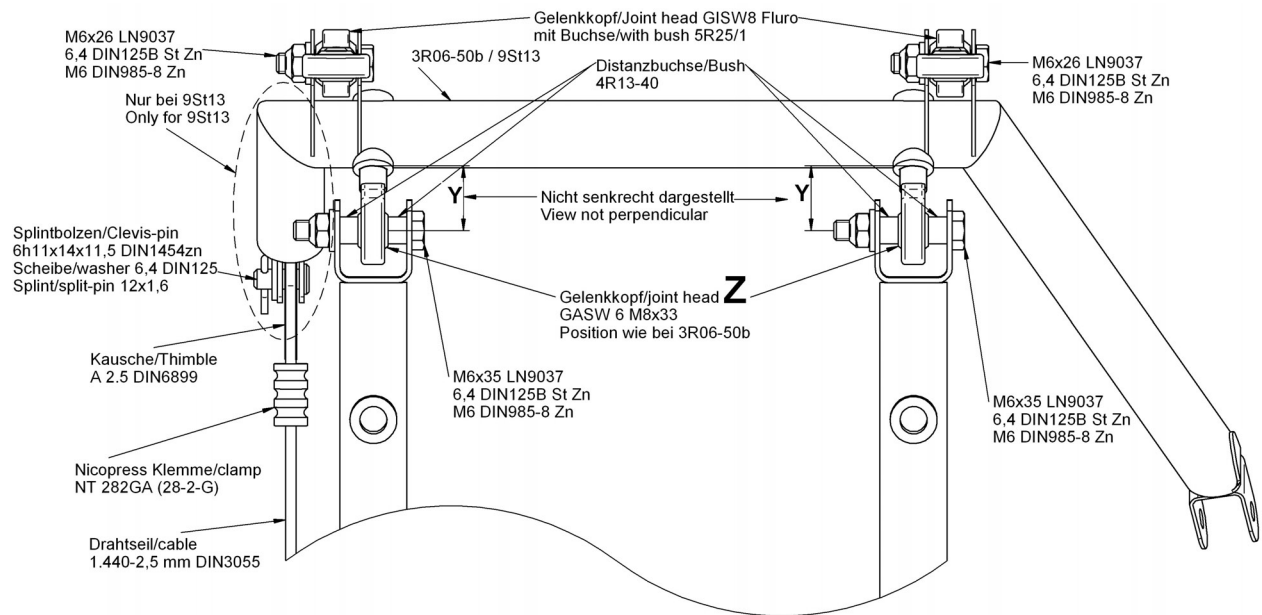
**Caution:** Don't remove the 2 joint heads (Z in figures 1 and 2, screwed into shaft) from the shaft 3R6-50b.

6. Mount the new joint heads (parts list, item 19) to shaft 9St13. It is important for correct function of the airbrake control system that the distance Y in figures 1 and 2 is exactly the same as on the removed shaft 3R6-50b.
7. Install the air brake drive shaft 9St13, use same bolts and washers, but new lock nuts, see figure 2.

8. Remove the lower right bolt of the right hand side (in direction of flight) landing gear rubber mount (see figure 1).
9. Install the wheel brake cable bracket (9R25) with the bolt M8x30 DIN933-8.8 zn (material list, item 22) at the place of the removed bolt provisionally and drill a dia. 6.3 mm hole for the lower mounting hole of the bracket into the rear wall of the landing gear box (see figure 1).
10. To create a lead through for the wheel brake Bowden cable mill an elongated hole 6x12 mm in the rear wall of the landing gear box. The exact position of the elongated hole follows from the hole for the Bowden cable in the bracket 9R25. Remove the bracket for milling.
11. Install the brake cable bracket (9R25) again, use bolt M6x20 DIN 7985-8.8 zn etc. (parts list item 10, 11, 12) for the lower hole, use new lock nuts.
12. Install the adjusting screw to bracket 9R25.
13. Fix a PA-tube 8x1 by laminating 2 layers 92110 over it, see figure 1. The PA tube should be fixed in such a way, that a smooth path results for the Bowden outer.

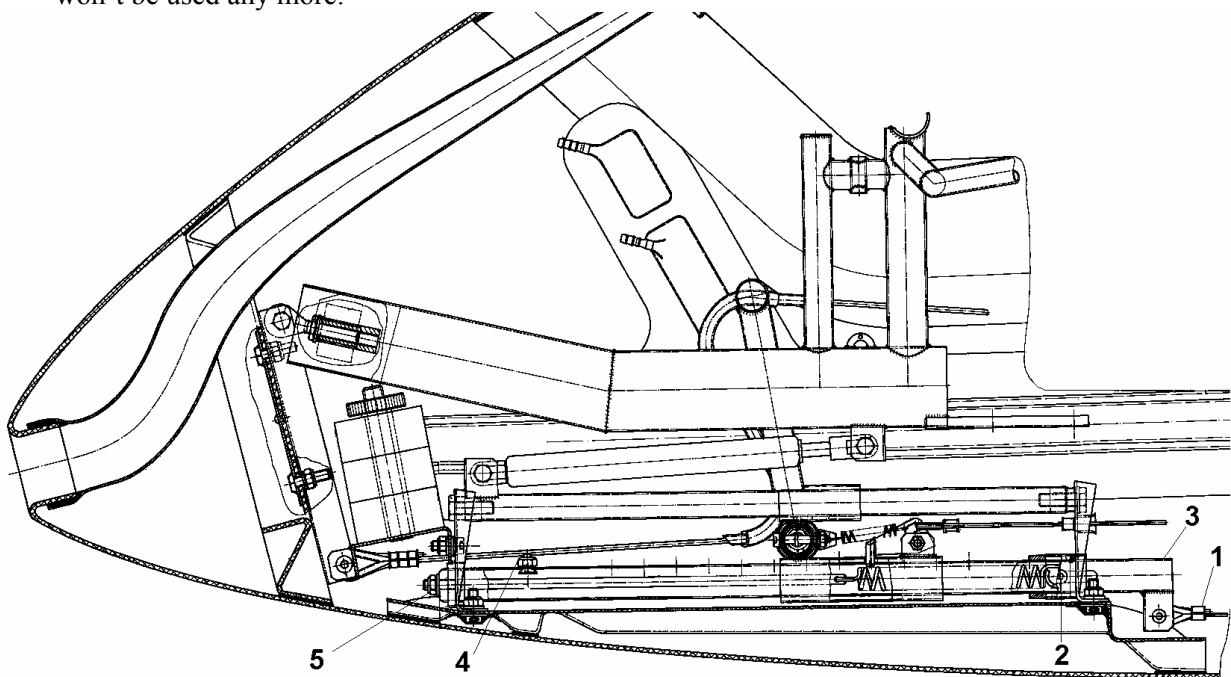


**Figure 1, landing gear assembly**



**Figure 2,**

14. Remove the bolt (item 2, figure 3).
15. Disengage the rudder pedal adjustment lock, rotate the lower rudder pedal guide tube 4R14-19 (item 3, figure 3) by almost 180° and remove the bolt (item 4, figure 3) and slide out the tube to the rear.
16. Remove nut (item 5, figure 3) and take out the rod with the spring and all washers. These parts won't be used any more.



**Figure 3, assembly rudder pedal guidance**

17. Slide the brake pedal blocking bush (4R14-46) onto the lower pedal guide tube (4R14-19) and install this assembly again (see figure 4).

**Note:** Depending on the thickness of the welds, it might be necessary to mill out the bush at area's A and B (see figure 4) for a proper fit on the pedal guide tube and on the rear pedal mounting bracket.

18. Fix the assembly again with bolt item 2 in figure 3).

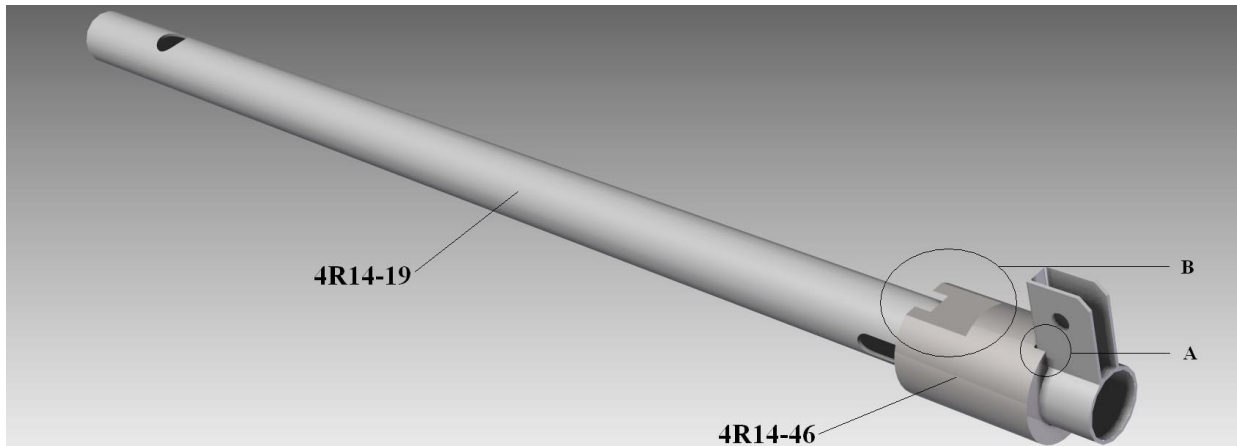


Figure 4, bush for brake pedal blockage and lower pedal guide tube.

19. Slide the Bowden outer through the PA tube and insert in both adjusting screws (at 9R25 and near the wheel).
20. Attach the brake cable with thimble, Nicopress sleeve and Clevis pin and split pin (parts list items 3, 4, 14 and 15) to the airbrake control shaft 9St13. Slide the cable through a 13mm key ring (parts list item 27) and into the Bowden outer. Attach the cable with the nipple to the wheel brake lever. Adjust the brake via the nipple. The fine adjustment of the brake is done by adjusting both adjusting screws.

**Note:** The maximum airbrake extension height is limited by the wheel brake. The wheel brake must be adjusted so that it enables at minimum 150 mm airbrake extension.

21. Drill a dia, 5mm hole in the right flange of the rear main bulkhead, 8mm from the edge, positioned as shown in figure 1. Insert a rubber cord loop (see Detail A in figure 1) into a 20mm key ring and insert the key ring through the hole in the bulkhead. Fix the rubber cord loop to the 13mm key ring at the brake cable with a Ty-rap.
22. Seal the elongated hole of step 10, as well as the old hole for the brake Bowden cable in the landing gear box with silicone.
23. To provide a parking brake function the guide plate of the air brake handle has to be adapted by milling a notch.
24. Rig the glider, extend the air brakes and pull the wheel brake with force. Determine the measure X, see figure 5.
25. Mark the shaded area on the air brake handle guide plate and mill out accordingly.
26. Reinstall baggage compartment rear wall and floor as well as the seat shell.

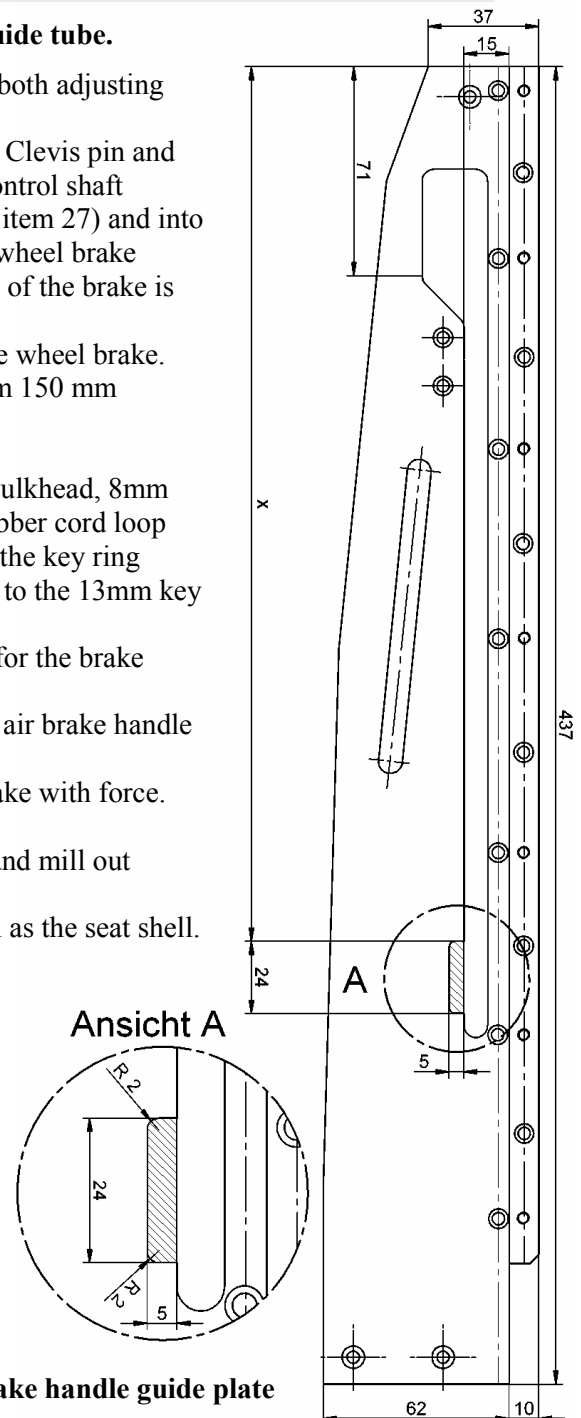


Figure 5, Milling a notch to the air brake handle guide plate