



**Subject:** Exchange of the trimm-tube in the elevator.

**Effectivity:** Glider aeroplane GROB G 103 "TWIN II" and GROB G 103A "TWIN II ACRO" of the following serial-numbers:

Serial-N° 3510, 3511 und 3515,  
from n° 3517 to 3529 and  
from n° 3531 to 3554,  
n° 3558, 3561, 3564, 3570 and 3571,  
and from n° 3574 to 3577 and n° 3605 included

**Accomplishment:** Latest date of action to be taken:  
31.03.1981

**Reason:** This action should be taken, because the trimm-tube of the mentioned gliders has an incorrect welding seam. It is possible that this incorrect seam breaks after a longer operation.

**Instructions:** This exchange should be taken in accordance to the repair instructions of TM 315-13.

**Material:** 1 trimm-tube n° 103B-4354 with fork-end and screw (M5)  
1 tube Ø 5 x 0,5 (11 mm long)  
1 tube Ø 5 x 0,5 (8 mm long)  
2 screws M4 (LN 9348)  
4 stretch-pins 2 x 10 DIN 1481  
The material can be obtained by the manufacturer.

**Weight and balance:** No influence

**Remarks:** The correct action has to be certified by an authorized inspector (Prüfer Klasse 3) in the log book.

Mattsies, 12.01.1981  
Signed: i.A. Dipl. Ing. H. Wilser      LBA-approved: 22.1.81

P.S. Provided your a/c is sold in the meantime, you are kindly requested to send this bulletin to the new owner as soon as possible and to inform us about this adress.

Datum	ersetzt Ausgabe vom	Bearbeitung		Seite
-------	---------------------	-------------	--	-------



**Subject:** Exchange of the trimm-tube in the elevator.

**Effectivity:** Glider aeroplane GROB G 103 "TWIN II" and GROB G 103A "TWIN II ACRO" of the following serial-numbers:

Serial-N° 3510, 3511 und 3515,  
from n° 3517 to 3529 and  
from n° 3531 to 3554,  
n° 3558, 3561, 3564, 3570 and 3571,  
and from n° 3574 to 3577 and n° 3605 included

**Accomplishment:** Latest date of action to be taken:  
31.03.1981

**Reason:** This action should be taken, because the trimm-tube of the mentioned gliders has an incorrect welding seam. It is possible that this incorrect seam breaks after a longer operation.


**Instructions:** This exchange should be taken in accordance to the repair instructions of TM 315-13.

**Material:** 1 trimm-tube n° 103B-4354 with fork-end and screw (M5)  
1 tube Ø 5 x 0,5 (11 mm long)  
1 tube Ø 5 x 0,5 (8 mm long)  
2 screws M4 (LN 9348)  
4 stretch-pins 2 x 10 DIN 1481  
The material can be obtained by the manufacturer.

**Weight and balance:** No influence

**Remarks:** The correct action has to be certified by an authorized inspector (Prüfer Klasse 3) in the log book.

Mattsies, 12.01.1981  
Signed: i.A. Dipl. Ing. H. Wilser

LBA-approved:  *Heinrich*  
22. Jan. 1981

P.S. Provided your a/c is sold in the meantime, you are kindly requested to send this bulletin to the new owner as soon as possible and to inform us about this adress.



The repair-instruction belongs to  
the Technical notice  
TM 315-13

GROB G 103  
"TWIN II"  
GROB G 103A  
"TWIN II ACRO"

The repair-instruction belongs to the Technical notice TM 315-13 which deals with exchanging the horizontal tail assembly trim rod.

The necessary material should be made available in accordance with TM 315-13. Also the following tools will be needed:

- 2 Spanners size 7 mm
- 1 Ringspanner size 8 mm
- 1 small Hammer
- 1 Punch size  $\emptyset$  2
- 1 Drill size  $\emptyset$  5
- 1 medium size screw driver

The following working sequences have been so arranged as to coincide with the accompanying sketch.

1. Remove horizontal tail assembly from aircraft. It is preferable to position assembly with the leading edge downwards.
2. Remove tape from between trim tab and elevator.
3. Move elevator upwards to full deflected position allowing the gap between elevator and tail assembly to open.
4. With a 7 mm spanner loosen the screw connection (m 4) between the Trim-shaft (Nr. 6) and Trim-rod (Nr. 4).
5. Knock out carefully spacer tube (Nr. 10) if necessary bend the fork open (Nr. 14).
6. Carefully knock the stretch pins (Nr. 40) out of the 3 rudder-trim-bearings using a  $\emptyset$  2 punch and a small hammer. Avoid hard blows, otherwise there exists the danger of knocking the bearing out of the Fiberglass structure.
7. Mark the hinge bolts to indicate the position from which they were removed (Nr. 39).
8. Slide the hinge bolts (Nr. 39) back and remove the trim tab.
9. With two 7 mm spanners loosen the screw-connection between trim-rod (Nr. 4) and trim-tab (m4).

Datum	ersetzt Ausgabe vom	Bearbeitung		Seite
-------	---------------------	-------------	--	-------



The repair-instruction belongs to  
teh Technical notice  
TM 315-13

GROB G 103  
"TWIN II"  
GROB G 103A  
"TWIN II ACRO"

10. It is necessary to adjust and secure new trim-rod and fork (Nr. 14) with hexagonal nut (Nr. 15) exactly to the length of the old trim-rod and fork using 8 mm ring spanner, this is in order to maintain the previously adjusted trim position.

Caution: Measurements should be taken from center hole to center hole, due to the fact that the hole in the old fork was  $\varnothing$  4 and the new one is  $\varnothing$  5.

11. The hole in the trim-tabs moving plate Nr. 5 should be drilled to 5 mm.
12. Connect new trim-rod (Nr. 4) on to the trim-tab using m4 x 16 screws and a 7 mm spanner. New spacer tube  $\varnothing$  5 x 0,5 (8 mm long) (Nr. 11), 2 washers and a new lock nut m4.
13. Place trim-tab in position inserting hinge bolts in their original location (Nr. 39) as in paragraph 7. Secure all 3 bearings with new stretch-pins (Nr. 40), stretch pins as in paragraph 6 should be carefully knocked into place.
14. Connect trim-rod (Nr. 4) to trim-shaft (Nr. 6) using screw m4 x 16 , 7 mm spanner, a new spacer tube  $\varnothing$  5 x 0,5 (11 mm long) (Nr. 10), washer and lock unit m4.
15. Elevator gap between trim-tab and elevator should be covered with textile tape.
16. Check all parts for freedom of movement.
17. Replace the horizontal-tail-assembly on the aircraft and carry out a functional check on the trim system.
18. To be carried out and certified in accordance with TM 315-13.

Mattsies, 12.01.1981

Dipl. Ing. H. Wilser

Datum	ersetzt Ausgabe vom	Bearbeitung		Seite
-------	---------------------	-------------	--	-------