



Service Bulletin  
TM 315-37

GROB  
G 103 TWIN II  
G 103 A TWIN  
II ACRO

Subject: Inspection and reinforcement of welded parts in the flight control system of the gliders GROB G 103 TWIN II and G 103 A TWIN II ACRO. The following welded parts will be reinforced:

Item	old p/n		new p/n
1	103B-4253	Elev. tab pushrod I	-4253/1
2	103B-4355	Bracket	-4356
10	102C3-4225	Aileron lever I	-4225/1
11	102C3-4351	Aileron pushrod I	-4351/1
12	103B-4405	Airbrake/trim unit front	-4405/1
13	103B-4412	Airbrake/trim unit rear	-4412/1
14	103B-4426	Pedal lever front	-4426/1
15	103B-4427	Pedal lever rear	-4427/1
16	103B-4433	Airbrake rev. lever	-4433/1
17	103B-4435	Aileron lever	-4435/1
18	103B-4436	Lever	-4436/1
19	103B-4451	Airbrake lever	-4451/1
20	103B-4454	Aileron lever	-4454/1
21	103B-4461	Elevator lever	-4461/1
22	103B-4553	Aileron pushrod III	-4553/1
23	103B-4586	Rudder pushrod I	-4586/1
24	103B-4779	Slide	-4779/1

Effectivity: G 103 TWIN II including ACRO s/n

- item 1 and 2 3501 - 3729
- item 10 through 24<sup>3</sup> 3730 - 3878
- item 10 through 20 and 22 through 24 33879 - 34078

Accomplishment: - Instruction 1 prior to the next take-off  
- Instruction 2 by 31 March 1989

Reason: Malfunctions now and then on welded control system parts in TWIN II gliders with the above s/n were the reason for the service bulletin.  
First, cracks appear in the area of the welds which may lead to a failure in an advanced stage. Therefore, all endangered control system parts will be reinforced through additional gussets as a precaution.



Instructions:

Instruction 1: Inspection of the control system parts for prior damages

- 1.1 The control system parts concerned are visually inspected for any signs of cracks.
- 1.2 If there are no damages, instruction 1 does not have to be repeated until the reinforcement of the control system parts according to instruction 2.
- 1.3 In case of any damages, instruction 2 has to be carried out prior to the next take-off.

Instruction 2: Reinforcement of the control system parts

The control system parts have to be reinforced according to the repair instructions to TM 315-37 by 31 March 1989.

Material:

The material and the repair instructions to TM 315-37 are to be procured from the manufacturer.

Weight and Balance: No effect

Remarks:

1. Instruction 1 can be carried out by a competent person and has to be certified in the log-book.
2. Instruction 2 may only be carried out by an approved aviation welder with a corresponding authorization.  
The proper execution has to be certified in the log-book by an authorized inspector class 3.
3. For the execution of the service bulletin
  - a) the required parts may be dismantled and sent to the manufacturer for reinforcement
  - or b) the material and the repair instructions may be ordered with the attached purchase order.

Mattsies, 22 July 1988

signed i.A. R. Rischer

LBA approved on:

26 July 1988

Datum	ersetzt Ausgabe vom	Bearbeitung	Musterprüfer	Seite 2
-------	---------------------	-------------	--------------	------------



Service Bulletin  
TM 315-37

GROB  
G 103 TWIN II  
G 103 A TWIN  
II ACRO

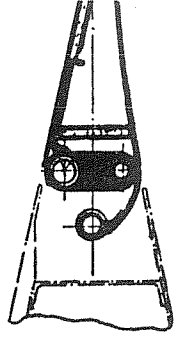
P.S.: In case you have sold your glider meanwhile, we ask you kindly to give this information immediately to the new owner and to let us know his address and serial number.

The translation has been done by best knowledge and judgement. In any case or doubt, the German original is authoritative. The German original of this service bulletin has been approved by the LBA under the date of 26 July 1988 and is signed by Mr. K. Volosciuk.

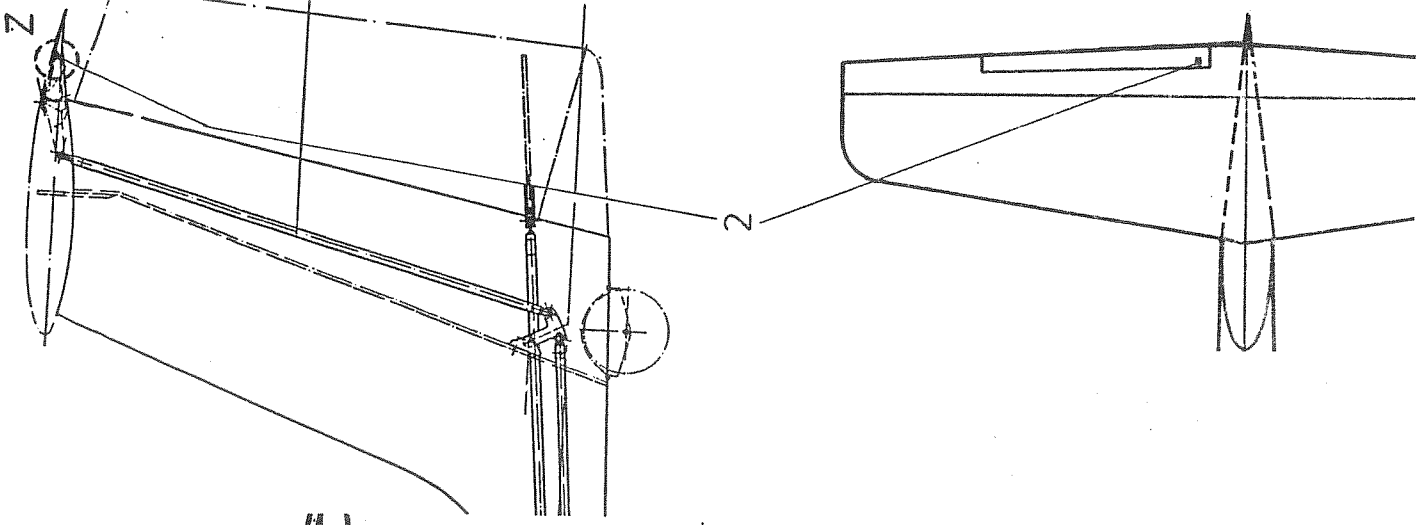
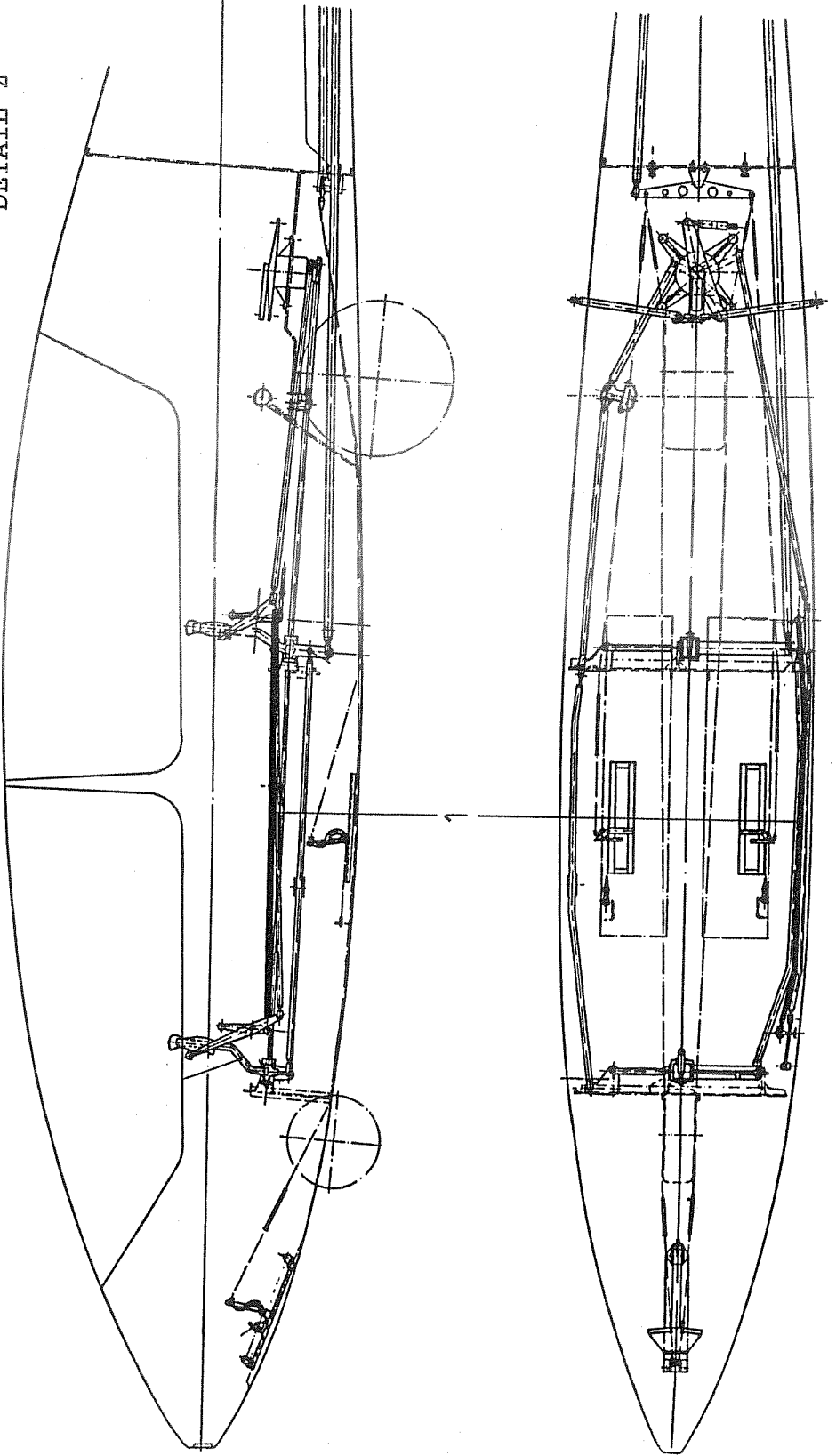
Datum	ersetzt Ausgabe vom	Bearbeitung	Musterprüfer	Seite 3
-------	---------------------	-------------	--------------	---------

Explanatory Sheet for the Execution of Instruction 1 of TM 315-37  
for s/n 3501 - 3729

The control system parts shown below have to be inspected for cracks and deformations.

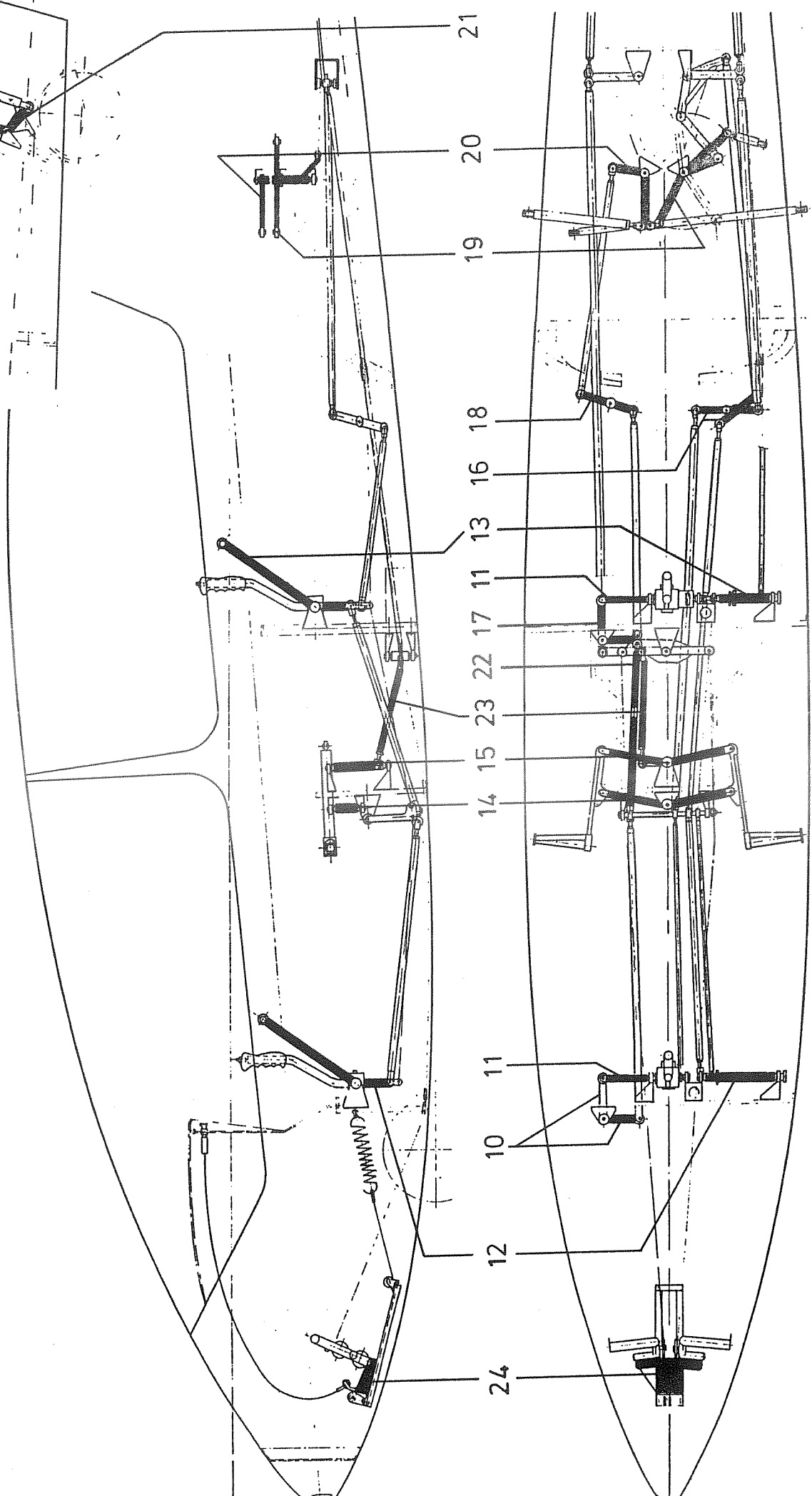


DETAIL Z



Explanatory Sheet for the Execution of Instruction 1 of TM 315-37

The control system parts shown below have to be inspected for cracks and deformations in the area of the welds.



GROB-WERKE GmbH & Co. KG  
Unternehmensbereich  
Burkhart Grob Flugzeugbau  
Am Flugplatz

D-8939 Mattsies  
Federal Republic of Germany

P U R C H A S E   O R D E R

TM 315-37 will be carried out as follows for the affected glider

Series: .....  
Serial-Number: .....  
Registration: .....  
Flight hours: .....  
Number of take-offs: .....

- o We wish the execution of the TM 315-37 at the manufacturer and are sending you herewith enclosed the affected parts for reinforcement.

The material is free of charge. The required work costs

- for s/n 3501 - 3729           DM 50.00  
- for s/n 3730 - 34078         DM 600.00

- o We perform the TM 315-37 ourselves and order herewith the material including repair instructions:

Scope of delivery (The supply of the material is free of charge)

- o Package 1 for s/n 3501 through 3729:

2 studs 103 B - 4253.03  
  plus 4 roll pins DIN 7344 - 2x10  
1 bracket 103 B - 4356  
1 glass cloth 92125 size 200x200 mm  
100 g resin/hardener  
15 g cotton flocks  
50 g paint  
3 roll pins DIN 7344 - 2x10  
3 new lock nuts M4

- o Please check off where applicable

o Package 2 for s/n 3730 through 3878:

- 2 102 C3 - 4351.04 gussets
- 1 103 B - 4405.08 gusset
- 2 103 B - 4405.12 gussets
- 4 103 B - 4405.13 gussets
- 1 103 B - 4412.08 gusset
- 2 103 B - 4412.10 gussets
- 1 103 B - 4426.03 gusset
- 2 103 B - 4427.12 gussets
- 2 103 B - 4433.05 gussets
- 2 103 B - 4435.09 gussets ] 1 each
- 2 103 B - 4435.10 gussets LH ] for 102 C3 - 4225/1
- 2 103 B - 4435.11 gussets RH ] and 103 B - 4435/1
- 1 103 B - 4436.07 gusset
- 1 103 B - 4451.09 gusset
- 1 103 B - 4451.12 gusset
- 1 103 B - 4454.09 tube
- 1 103 B - 4461.09 gusset
- 2 103 B - 4553.08 gussets
- 2 103 B - 4707.04 gussets
- 1 bolt DIN 912 M5x75 with nut M5 LN 9348
- new lock nuts M5 and M6

o Package 3 for s/n 33879 through 34078

- as package 2, but
- without 1 103 B - 4461.09 gusset
  - without 2 103 B - 4412.10 gussets
  - without 2 103 B - 4707.04 gussets

Sender (owner)

.....  
.....  
.....

.....  
(place, date)

.....  
(signature)

Information for FAA concerning TM 315-37 according  
to FAA letter dated Nov. 24, 1986

1. DESCRIPTION OF UNSAFE CONDITION:

Malfunctions now and then on welded control system parts in  
TWIN II gliders with the s/n below were the reason for the  
service bulletin.

2. PROBABLE CONSEQUENCE, IF UNSAFE CONDITION IS NOT RECTIFIED:

In case of a failure of a primary control system part, the  
glider could be not airworthy.

3. IS CONDITION LIKELY TO EXIST IN OTHER PRODUCTS OF THE SAME  
TYPE?

NO

4. SERIAL NUMBER APPLICABILITY:

G 103 TWIN II	s/n 3501 - 3878 and 33879 - 34078
G 103 A TWIN II ACRO (with supplement "K")	s/n 3544 - 34078

5. DIFFERENCES BETWEEN FCAA A.D. AND SERVICE BULLETIN, IF ANY?

NO

6. BASIS OF SERVICE LIFE OF LIFE LIMITED PARTS (e.g. service  
experience, test or analysis):

N.A.

7. BASIS OF INSPECTION TIMES:

respective maintenance manual G 103.

8. AVAILABILITY OF REPLACEMENT PARTS:

from stock

9. COMPATIBILITY OF MODIFICATION WITH OTHER AIRPLANE COMPONENTS:

not applicable

10. NUMBER OF SIMILAR INCIDENTS/REPORTS

15

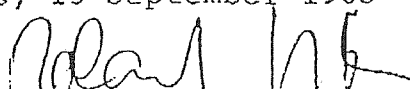
11. APPROXIMATE COST TO ACCOMPLISH MODIFICATION/INSPECTION

	for s/n 3501 - 3729	3730 - 34078
Spare parts :	-	-
Labor costs :	DM 200.00*	DM 1,200.00*
Estimated working time :	3 hours*	10 hours*
Labor costs :	DM 400.00**	DM 2,000.00**
Estimated working time :	6 hours**	18 hours**

\* 1x parts are delivered

\*\* including dismounting and installation

Mattsies, 15 September 1988

signed:   
Dipl.-Ing. R. Rischer  
(Airworthiness Engineer)