



Subject: Measures for improvement of the flutter behavior of the GROB G 109 B

Effectivity: Motorglider GROB G 109 B
Serial-number: 6200 thru 6434
- The following serial-numbers are excluded from realization of instruction 1: 6289, 6290, 6293, 6348, 6349

- The following serial-numbers are excluded from realization of instruction 3: 6289, 6290, 6293, 6348, 6349, 6351, all serial numbers as of serial-number 6356.

Accomplishment: Instruction 1 thru instruction 3 not later than December 31, 1986.

Reason: In the course of type certification of the motorglider GROB G 109 B in Sweden it was found that at high speeds combined with very high aileron and/or rudder deflections, aileron flutter may be induced at a certain excitation frequency. Thereupon the Luftfahrt-Bundesamt issued Airworthiness Directive 85-218. The object of this Technical Information is the annulment of the Airworthiness Directive.

Instructions: In order to improve the flutter behavior of the G 109 B decisively, the following instructions must be carried out.

First instruction: Installation of a rudder damper according to Repair Instruction no. 817-20/1.

Second instruction: Installation of additional mass-balance in the ailerons according to Repair Instruction no. 817-20/2.

Third instruction: Stiffening of the upper and lower rudder suspension at the fuselage according to Repair Instruction no. 817-20/3.

The Repair Instructions 817-20/1/2/3 are component parts of the present Service Bulletin TM 817-20.

For the modification of the maintenance manual by the revision dated Jan. 29, 86, the following pages are to be exchanged.

Page 1 replaces issue dated Oct. 21, 1985
Page 1a replaces issue dated Oct. 21, 1985
Page 12 replaces issue dated Sep. 1, 1983
Page 12a replaces issue dated Sep. 1, 1983



Page 12b new page
Page 12c new page
Page 13 replaces issue dated Jan. 15, 1985
Page 13a new page
Page 28 replaces issue dated Sep. 1, 1983
Page 41f replaces issue dated Jan. 15, 1985

Material:

Material for instruction 1:

- 1 Repair instruction no. 817-20/1 with drawing of damper-installation 109B-4380 IAW TM 817-20
- 1 Template for boring the holes in the stick mounting frame
- 10 Pages for maintenance manual G 109 B, revision no. 4, dated Jan. 29., 86
- 1 Damper unit, completely assembled
- 1 Disk 109B-4380.05
- 1 Lower mounting bracket 109B-4384.01
- 1 Hexagon nut M8 LN 9348
- 4 Hexagon nuts M5 LN 9348
- 4 Hexagon head screws M5 x 16 DIN 933 8.8 galvanized
- 4 Washers 5,3 LN 9025
- 1 Washer 8,5 DIN 9021

also for serial-no. 6200 thru 6339

- 1 Spiral spring 102-2000.33
- 1 Cable clamp H-NY 12 H 4300, company Bürklin with shrink tube Z 85 083, 11 mm long
- 1 Hexagon head screw M4 x 10 DIN 933 8.8 galvanized
- 1 Hexagon nut M4 LN 9348
- 1 Washer 4,3 LN 9025
- 1 Spring grommet 109B-5130

Material for instruction 2:

- 1 Repair instruction 817-20/2 with drawing aileron left/right 109B-1111/1112 IAW TM 817-20
- 2 Mass balance (lead dia. 12 mm, 4 parts each 360 mm length)
- 10 Roll pins 2 x 10 DIN 7344
- 2 Hexagon nuts M6 LN 9348
- 1 Piece of hard foam (Conticell 60 8 mm thick) 50 x 100 mm, covered on both sides diagonally with glass-cloth LN 8.4551.6 (Interglas 92125/)
- Glass-cloth, LN 8.4551.6 (Interglas 92125/) 500 x 1000 mm, diagonally cut

Material for instruction 3:

- 1 Repair instruction no. 817-20/3
- 3 Templates for the wood and glass-cloth
- 2 Plywood strips 20 x 3 x 140
- 2 Hexagon nuts M6 LN 9348
- Glass-cloth LN 8.4554.6 (Interglas 92140) 400 x 1000 mm

Also required:

- Resin Glycidäther 162 (BASF) 100 GT* (previously Epikote 162, SHELL)
- Hardener Laromin C 260 (BASF) 38 GT*
- Filler cotton flocks (type FL 1 f).

*GT = parts

Weight and Balance: After execution of the repair, the new empty weight and empty weight center of gravity position are to be determined.

Remarks: Instruction 1 to 3 must be carried out by an authorized aviation workshop. The proper execution of the instructions has to be certified in the log-book by an authorized inspector, class 3.

Mattsies, Jan. 29, 1986

signed i.A. Dipl.-Ing. R. Rischer

LBA-approved on:



Frieß
- 7. MRZ 1986

P.S.: In case you have sold your motorglider 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 Technical Information has been approved by the LBA under the date of March 7, 1986 and is signed by H. Frieß.