



Subject: Inspection and exchange of the legs of the main landing gear

Effectivity: Motorglider GROB G 109 from serial number 6001 to 6159 inclusive.
Motorglider GROB G 109 B from serial number 6200 to 6317 inclusive.

Accomplishment:

- Instruction 1 and instruction 2 before next start
- Instruction 3 until realization of instruction 4
- Instruction 4 not later than 31. Oct. 85

Reason: During operation of the motorgliders G 109 and G 109 B sporadically fractures of the undercarriage legs occurred. Caused by an overstress during hard landings, probably incipient cracks arised in the region of the boreholes of the legs, which finally led to the failure by fatigue. As a precaution all legs will be exchanged for such without boreholes.

Instructions:

1. Instruction: Inspection of the undercarriage legs for existing boreholes.
 - 1.1 - Before realization of the instruction the undercarriage-leg-linings are to be screwed off.
 - 1.2 - If the 3 boreholes for the mounting of the foot-board and the brake lines exist at the G 109, instruction 2 has to be carried out. (Sporadically, the foot-boards were fastened by a clamping joint). If no boreholes exist, further instructions are inapplicable.
 - 1.3 - If the 2 boreholes for the mounting of the brake lines as well as one free borehole exist at the G 109 B, instruction 2 has to be performed. (Sporadically, the brake lines were fastened by clamp straps). If no boreholes exist, further instructions are inapplicable.
 - 1.4 - After realization of all instructions the undercarriage-leg-linings have to be screwed on again.
Meanwhile it can be flown without linings.

Datum

ersetzt Ausgabe
vom

Bearbeitung

Musterprüfer

Seite



2. Instruction: Inspection of the undercarriage legs for cracks in the region of the boreholes.
- 2.1 - The edge of the leg has to be inspected for cracks close by the 3 boreholes (for G 109 see under point 1.2; for G 109 B under point 1.3). In case of an overstress the small stem between borehole and edge breaks first.
- 2.2 - The examination has to be done with a good magnifying glass. If need be, rests of dirt have to be removed previously. The place in question has to be inspected also from the undercarriage inside. In case of doubt the foot-board or the break line has to be screwed off temporarily for better access or a specialist has to be consulted for the application of a colour penetrating - crack test method.
- 2.3 - If no cracks are found it has to be continued according to instruction 3.
- 2.4 - If cracks are found, instruction 4 has to be carried out before next start.
3. Instruction: Repetition of instruction 2:
- 3.1 - Until realization of instruction 4 the crack-test according to instruction 2 has to be repeated all 25 flight hours as well as after hard landings.
- 3.2 - If cracks are found, instruction 4 has to be carried out before next start.
- 3.3 - Until exchange of the legs it is recommended to be careful with the undercarriage as much as possible, that is to taxi slowly, to avoid uneven airports and hard landings.
4. Instruction: Exchange of the legs no. 109-5000.01 (with boreholes) for the legs no. 109 B-5000.01 (without boreholes).
- 4.1 - The necessary material (see below) has to be ordered from the manufacturer with the attached order form.
- 4.2 - The exchange has to be carried out according to repair instruction

Datum

ersetzt Ausgabe
vom

Bearbeitung

Musterprüfer

Seite



no. 817-19. This repair instruction is component part of the present technical information and will be distributed with the material.

Material: for G 109 and G 109 B

2 undercarriage legs no. 109 B-5000.01
4 nuts LN 9348-M6
8 nuts LN 9348-M8
8 nuts LN 9348-M10
2 Parker- flexible fuel tubing, 50 mm long, slotted

besides

1 repair instruction no. 817-19
1 drawing no. 109-5100/5101 "undercarriage" for G 109 (edition: 18.03.85) or
1 drawing no. 109 B-5101/5102 "undercarriage" for G 109 B (edition: 18.03.85)

additionally for G 109:


2 stops no. 109-5206
2 sheet metals no. 109-5205.03
4 countersunk screws DIN 963-M6x12/8.8 galvanized
4 fillister head screws DIN 6912-M6x35/8.8 galvanized
4 discs LN 9025-6,4
4 nuts LN 9348-M6
2 Parker flexible fuel tubings 50 mm long, slotted

Weight and Balance: No influence

Remarks: The proper execution of the instructions by a competent person has to be certified in the log-book by an authorized inspector class 3.

Mattsies, March, 18, 1985
ri-on

LBA approved on - 4. Juni 1985


signed Dipl.-Ing. R. Rischer

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 the serial number.

Datum	ersetzt Ausgabe vom	Bearbeitung	Musterprüfer	Seite
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