

## SERVICE BULLETIN NO. OSB-817-74

### I. TECHNICAL DETAILS

**1.1 Category:**

Optional

**1.2 Airplanes affected:**

G 109-A/B All up to S/N 6500

**1.3 Time of Compliance:**

Optional

**1.4 Subject:**

ATA-Code: 32-10 Landing Gear  
Alternative Undercarriage Leg.

**1.5 Reason:**

Due to the non-availability of the Undercarriage Legs P/N 109-5000.01 and P/N 109B-5001.01 an alternative Undercarriage Leg is offered for retrofit. Since the dimensions of the alternative Leg are different, both Legs (LH and RH) must be replaced at initial installation of this Service Bulletin.

This Service Bulletin is intended to introduce the alternative Undercarriage leg for the airplanes affected and provides the instructions for replacement. The configuration of the aircraft is affected by this Service Bulletin.

**1.6 Concurrent documents:**

Corresponding AMM and AFM

**1.7 Approval Note:**

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.030.

**1.8 Accomplishment/ Instructions**

**Removal of the old main landing**

- 1.8.1 Make sure the aircraft is safe for maintenance, refer to AMM chapter 4.1.
- 1.8.2 Remove the wings, refer to AFM chapter 6.
- 1.8.3 Remove the pilot and co pilot seat, refer to AMM chapter 2.5.
- 1.8.4 Put the aircraft on jacks, refer to AMM chapter 4.10.5.
- 1.8.5 Remove the main landing gear fairings.
- 1.8.6 Remove the main wheel leg fairings Pos. 70, refer to Figure 1

<b>Note:</b>	The old main landing gear fairings cannot be used again, due to the thicker MLG leg.
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- 1.8.7 Remove the cable ties which holds the brake lining to the landing gear leg.

<b>Caution:</b>	DO NOT GET BRAKE FLUID ON YOUR SKIN OR CLOTHES. BRAKE FLUID CAN CAUSE SKIN DISEASE
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- 1.8.8 Remove the brake assy from the axle of the old landing gear.
- 1.8.9 Secure the brake assy and the brake lining against bending.

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G 109-A/B

- 1.8.10 Remove the landing gear from the aircraft, refer to AMM 4.10.5.
- 1.8.11 Disassemble the landing gear further on a workbench, see Figure 1:
- Remove the tire, refer to Figure 1.
  - Remove the axle, the plate and Torque Plate Pos. 180, 170 and 160 from the main landing gear leg, refer to Figure 1.
  - Remove the bracket Pos. 190 for the main wheel leg fairing, refer to Figure 1.

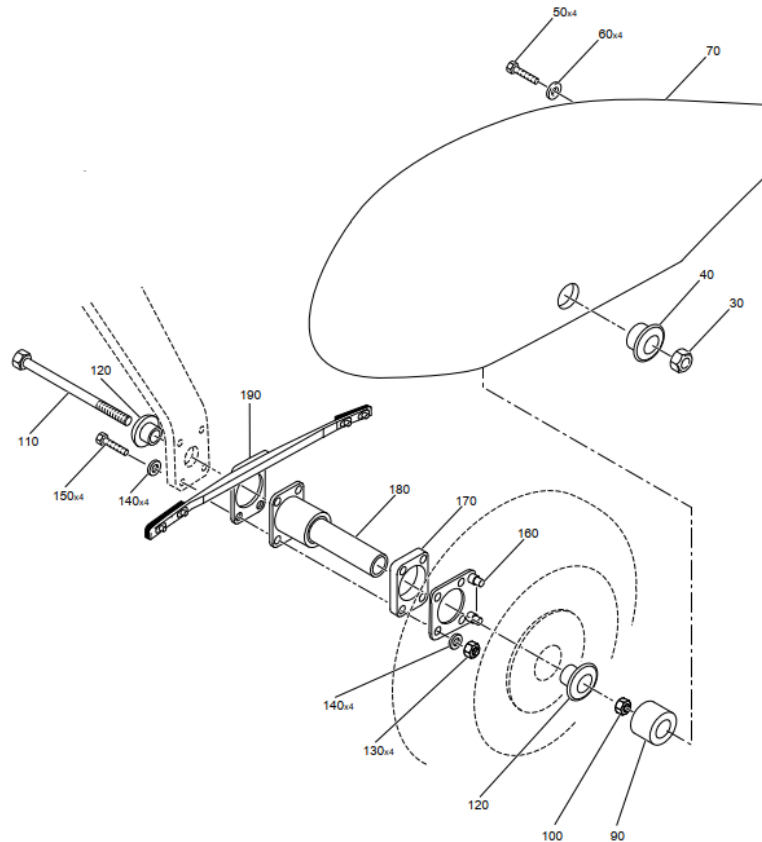


Figure 1

- 1.8.12 Clean the area on the fuselage from the inside and outside.
- 1.8.13 Inspect the area for any damages or whitening stress.

**Note:** If any damage is found, contact Grob Aircraft SE for further instructions.

### Installation of the new main landing gear

- 1.8.14 If required, remove the two layers of glass fiber covering the metal bracket by grinding in the marked area, see Figure 2.
- 1.8.15 Apply a protective coating (e.g. Alclon, Alodine, Bonderit1200 or Zinc Spray) over the grinded area.
- 1.8.16 Let it cure according to manufactures instruction.
- 1.8.17 Hold the Undercarriage Leg item 1 with the sheet metal item 5 of list 2.2 in position, refer to Figure 4.

- 1.8.18 Install the reinforcement plate item 2 with bolts item 10 and washers and nuts item 9 and item 12 of list 2.2, refer to Figure 4.
- 1.8.19 Prepare the retainer item 4 with the adhesive strip item 3 of list 2.2, refer to Figure 4.
- 1.8.20 Install the bolts items 11, washer item 12, the shim rings item 7, the bushings item 6 and the retaining bar with the washers and the nuts items 8 and 9 of list 2.2, refer to Figure 3 and Figure 4.
- 1.8.21 Torque the bolts, refer to AMM chapter 4.10.5.



Figure 2 Bracket inside the fuselage

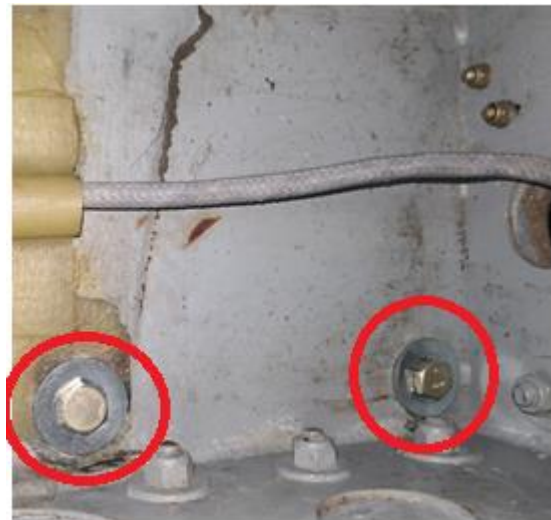


Figure 3 Bolts and nuts inside the fuselage

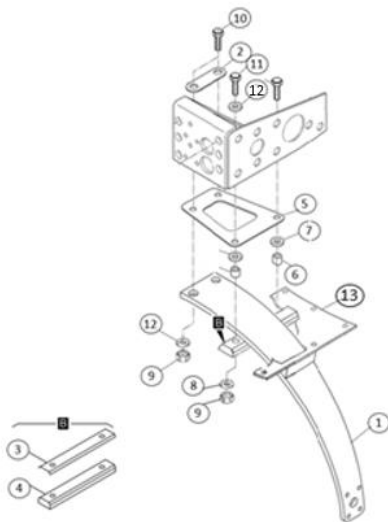


Figure 4



Figure 5 Landing gear leg outside the fuselage

- 1.8.22 Assemble the following parts to the new main landing gear legs, refer to Figure 1.
- Install the bracket Pos. 190 for the main wheel leg fairing.
  - Install the axle, the plate and Torque plate Pos. 180, 170 and 160 to the main landing gear leg.
  - Install the tire, refer to AMM chapter 4.6.3.
  - Install the brake, refer to AMM chapter 4.6.4.
  - Install the main wheel leg fairing.

**Note:** It is allowed to trim the main landing gear fairings further to ensure a perfect fit.

- Install new main landing gear fairings covering the LH and RH transition from landing gear leg to fuselage, item 13 and 14 of list 2.2.

**Caution:** SECURE THE FUSELAGE AGAINST BRAKE FLUID; BREAK FLUID CAN CAUSE DAMAGE TO THE FUSELAGE.

- 1.8.23 Bleed the brake system, refer to AMM chapter 4.6.5.  
1.8.24 Secure the brake lines with zip ties to the main landing gear leg.  
1.8.25 Restore the aircraft after maintenance.  
1.8.26 Release the aircraft into service according to national requirements.

### 1.9 Repetitive Actions

N/A

## II. PLANNING INFORMATION

### 2.1 Weight and CG

Do a Weight and Balance Inspection, refer to AMM chapter 4.2.

## 2.2 Material and Availability

Item	P/N	Description	Qty. / A/C
1	109B-5003.01	Undercarriage Leg	2
2	109B-5001.60	Reinforcement Plate	2
3	109-5000-07	Adhesive Strip	2
4	109-5000.02	Retainer	2
5	109B-5001.55	Sheet Metal	2
6	109B-5001.56	Bushing	4
7	DIN988-10x16x thickn.-A2	Shim Ring (0,1mm-1,2mm)	AR
8	LN9025-1015 L	Washer	4
9	LN9348-10	Nut	8
10	LN9037-10044	Bolt	4
11	LN9037-10050	Bolt	4
12	DIN9021-10.5-A2	Washer	4
13	109B-5069/2	Fairing L/H, Undercarriage	1
14	109B-5068/2	Fairing R/H, Undercarriage	1

## 2.3 Special Tools

N/A

## 2.4 Labor costs

N/A

## 2.5 Reference documents

N/A

## 2.6 Credit

N/A

### **III. REMARKS**

The instructions in paragraph 1.8 have to be accomplished and certified in the logbook by authorized staff:

- in EASA countries according to EASA Part 66.
- in non-EASA countries according to national regulations with respect to maintenance.

If you have sold your aircraft in the meantime, we kindly ask you to forward this information to the new owner and to provide us with the name and address of the new owner as well as with the respective serial number.

For questions and assistance or in case of occurrence please contact:

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