



**Pelegrin SIA.**  
Traleru iela 30,  
LV-1030, Latvia  
info@tarragonaircraft.com  
Tel: +371 28 623 746

**SERVICE BULLETIN No. 17-01-25-3**

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**RECOMMENDED**

**SUBJECT:** Main Landing Gear Stop Bracket Linkage Upgrade

**AFFECTED AIRCRAFT SERIAL NUMBER:** From TXXXXXX012 up to TXXXXXX038

**BACKGROUND:** The Main Landing Gear (MLG) strut and its associated Stop Bracket linkage are designed with bushings and bolts to ensure smooth extension and retraction. However, the previous design includes a bolt that is prone to loosening over time, leading maintenance personnel to apply excessive torque to secure it. This over-torquing imposes undue stress on the bushing and linkage, resulting in sluggish and harsh MLG operation.

**PURPOSE:** This Service Bulletin provides instructions for installing an updated Stop Bracket linkage and Extension–Retraction point connection to enhance MLG performance and reliability.

**REQUIRED ACTIONS:** Removal of the Main Landing Gear (MLG) strut assembly and replacement of the following two components:

1. Extension–Retraction Point Connection
2. Stop Bracket Linkage

These actions are necessary to address the bolt loosening issue and ensure smooth and reliable MLG extension/retraction. Follow the procedures detailed in this Service Bulletin to complete the required component replacements.

**TIME OF COMPLIANCE:** At the next 100-hour maintenance check or sooner if possible, following the release of this Service Bulletin.



**LABOR REQUIRED:**

One qualified technician with an estimated six (6) hours to complete primary replacement tasks. Total time of completion with the curing of materials is 30 hours.

**PARTS REQUIRED:**

Check Tarragon Service bulletin supplement 17-01-2025-3-1 For parts and materials.

**SPECIAL TOOLS:**

1. Hot air gun
2. Rubber hammer

**MASS (WEIGHT) and CG:**

Effect on mass (weight) and CG is none.

**SUMMARY:**

This Service Bulletin provides the information for parts replacement. Total of 2 parts are subject to replacement. Please contact Pelegrin in case of any doubt or questions.

**INSTRUCTIONS:**

This Service Bulletin outlines the replacement of two components in each Main Landing Gear strut assembly: the Extension–Retraction Point Connection and the Stop Bracket Linkage. Follow the procedures outlined:

**Procedure A: Preparing the aircraft and depressurization of the Hydraulic System.**

**Procedure B: Disconnect the Main Landing Gear strut assembly from the wing.**

**Procedure C: Disassemble the strut assembly, replace the component.**

**Procedure D: Reassemble the Main Landing Gear strut assembly and fit it to the aircraft.**

Complete these procedures for Main Landing gear strut assembly **on both sides.**

## Procedure A: Preparing the aircraft and Depressurization of the Hydraulic System

Proceed with steps 3 and 4 in a quick succession.

### 1. Preparation:

Ensure the aircraft is securely positioned on jack stands. Use two stands under the wings and one at the front for stability. Double-check that the stands are stable and correctly placed.

### 2. Position the Landing Gear in Wings:

Verify that the landing gear is securely retracted into wings by engaging the GEAR UP switch.

### 3. Engage GEAR DOWN Switch:

Locate the GEAR 25A fuse in the aircraft's interior control panel for the next Procedure step. Flick the GEAR DOWN switch to initiate the landing gear extension process.

### 4. Interrupt Extension with Fuse Removal:

As the landing gear approaches near-full extension, prepare to interrupt the process. Carefully pull the GEAR 25A fuse upward, halting the hydraulic flow and preventing full extension. Fuse will remain in this position until the completion procedure.

### 5. Safety Verification:

Inspect the landing gear's position to ensure stability before proceeding with the next procedure.

## Procedure B: Disconnect the Main Landing gear strut assembly from the wing

### 1. Remove the Inspection Hatch Cover:

From the underside of the wing, remove the 4 Inspection hatch bolts (refer to **Figure 1**) and take off the cover.

### 2. Remove the Landing Gear Cover:

Unbolt the 4 landing gear cover bolts and remove the cover.

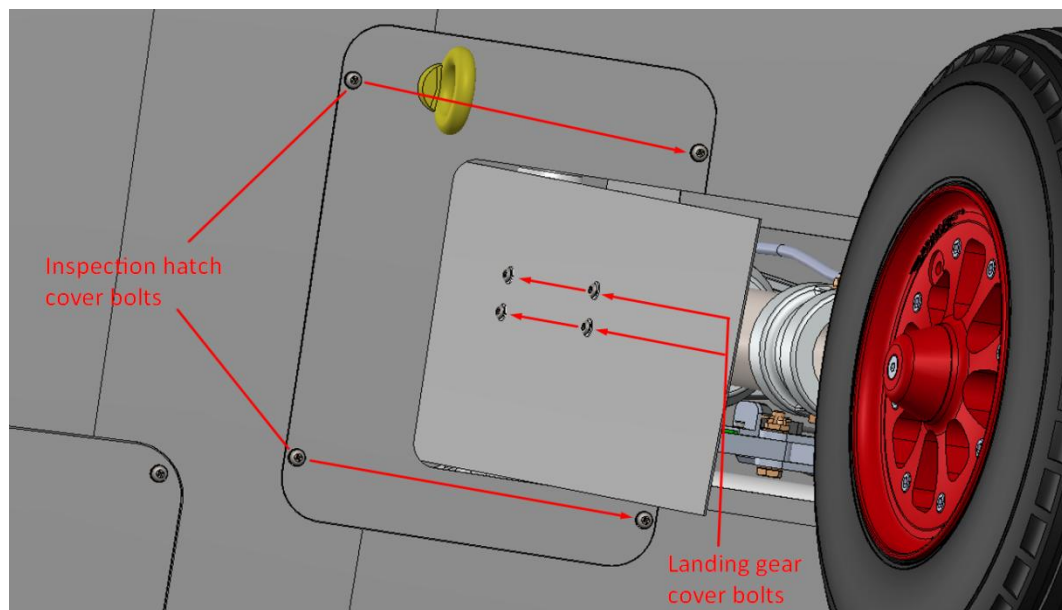


Figure 1 Location of the inspection and landing gear cover bolts

### 3. Detach the Retraction Gear Mechanism:

Undo the 5 bolts securing the retraction gear mechanism assembly (refer to **Figure 2**). Note that some bolts may have Loctite applied depending on the year of manufacture.

- a. Start with the bolt at **location 1** to release the compressed retraction gear shock absorber.
- b. Proceed by removing bolts at **locations 2 and 3** in sequence.
- c. For the castle nut at **location 4**, straighten and remove the cotter pin before removing the nut.  
**Reassembly Note:** Install a new cotter pin during reassembly.  
*Some aircraft will have bolt with self-locking nut instead of a castle nut with cotter pin. Let us know what system you have so that we can send you right spare parts.*
- d. Remove the bushing: An 8mm metal bushing at this location must be pressed out as it connects to a lever being replaced.
- e. Finally, remove the bolt at **location 5**. The bushing at this location does not need to be removed.

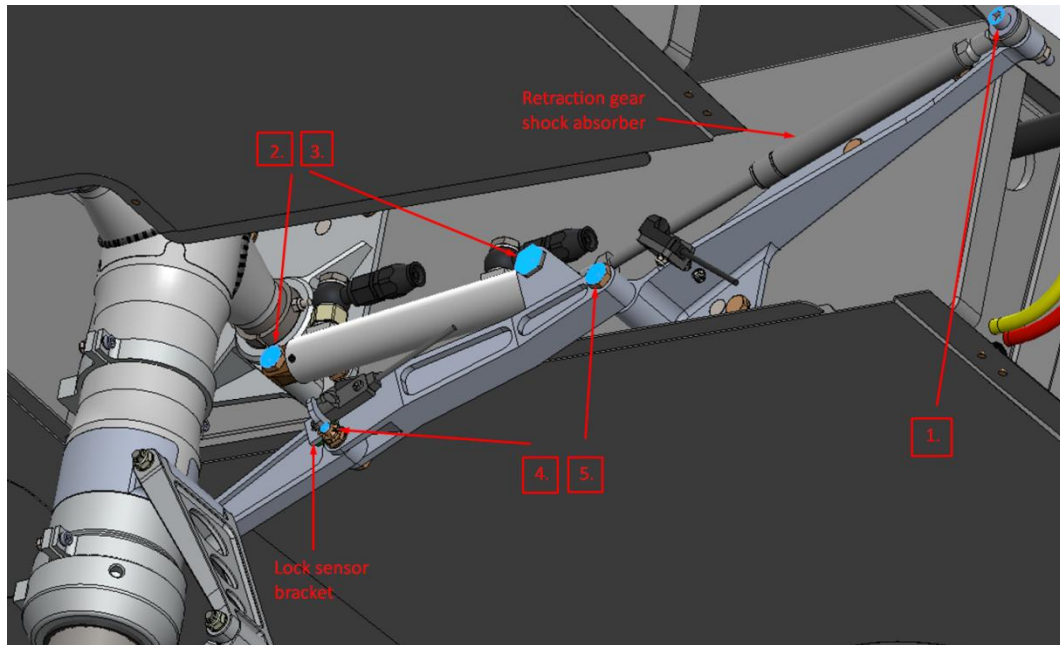


Figure 2 Retraction gear mechanism bolt locations

4. **Mark and Remove the Bottom Centering Ring:**

Mark the strut and the Centering ring with a Torque Marker to aid reassembly.

Remove the 2 bolts securing the bottom centering ring (refer to Figure 3) of the Main Landing Gear Strut assembly. The top centering ring does not need to be removed.

5. **Disconnect the Brake Line:**

Disconnect the brake line from the brake caliper and unfasten it from the brackets (refer to **Figure 3**). One of the brackets will be zip tied around the top of the shock absorber.

**Reassembly Note:** Replace the zip tie with a new one. Verify brake lines are free of kinks or damage after re-installation.

6. **Remove the MLG Axis Bracket:**

Remove two half-rings from the MLG axis on both the left and right sides of the strut, secured with an M5 bolt and a self-locking nut. Next release all four AN4 bolts on each MLG Axis Bracket.

Slide the MLG Axis Brackets toward the Main Landing Gear assembly by moving them from wing ribs until the entire MLG strut assembly can be taken out from the bottom of the wing.

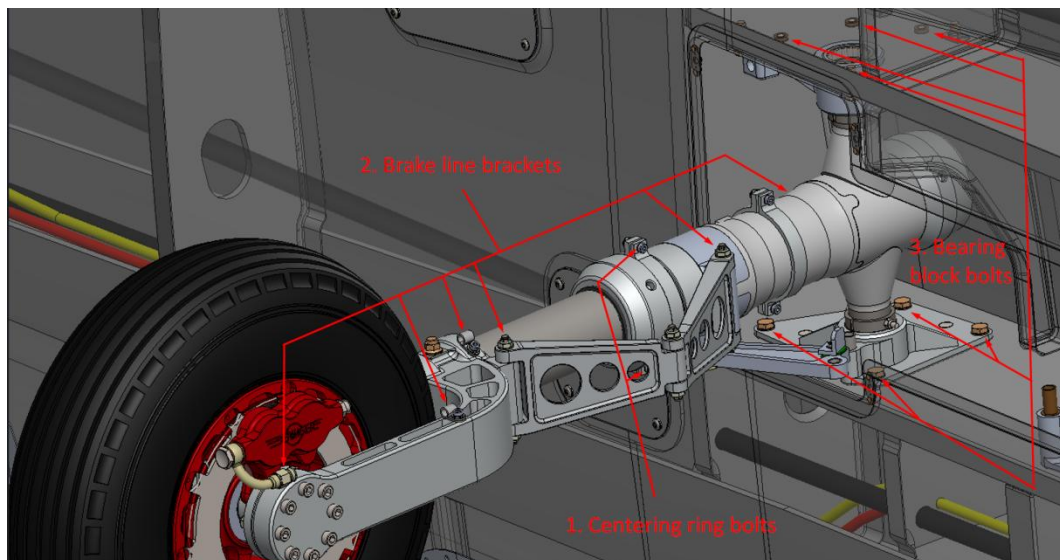


Figure 3 Location of Procedure A steps

**Warning: Further disassembly of the MLG strut assembly must only proceed after the depressurization step!**

## Procedure C: Disassemble the strut assembly, replace the component.

### 1. Depressurize the MLG Strut assembly:

Use the valve at the top of the MLG strut assembly to release pressure (refer to **Figure 4**).

**Warning:** Ensure the assembly is fully depressurized before proceeding with any further disassembly steps.

**Reassembly note:** Pressurize the Main Landing Gear strut to 10.5 bar with nitrogen gas.

### 2. Disconnect the Brake Caliper from the fork:

Remove the 3x bolts securing the brake caliper to the fork.

### 3. Remove the Wheel:

Undo the cotter pin and remove the wheel nut. Slide the wheel with the brake caliper off the assembly. Handle the brake caliper carefully, with the pads pressed against the brake disc, so that it does not slide off. Avoid any contaminants on the brake disc.

**Reassembly Note:** Replace the cotter pin with a new one during reassembly.

### 4. Disassemble the Anti-Steering Lever:

Undo the bolt securing the anti-steering linkage to the Extension-Retraction point connection.

### 5. Remove the Landing Gear Fork:

Undo the landing gear fork bolt to detach the fork.

If the fork is difficult to remove due to environmental conditions or tolerances used in manufacturing, apply heat to the part using a hot air gun (100–150°C) and tap with a rubber hammer to loosen the connection.

**Reassembly Note:** It can be helpful to heat the mating surface to 100–150°C before reattaching the fork.

### 6. Remove the Bottom Closure Part:

Undo the bottom closure part of the MLG strut assembly.

Depending on the year of manufacture, Loctite may have been applied, which may require heating to loosen.

**Reassembly Note:** Reapply Loctite to the threads during re-installation.

### 7. Remove the Extension–Retraction Point Connection:

Undo the bolts securing the extension–retraction point connection. Heating may be required for easier removal. Use a rubber hammer to disconnect the part if necessary.

Install the upgraded extension–retraction point connection. Ensure the correct part is used for the specific side (left or right).

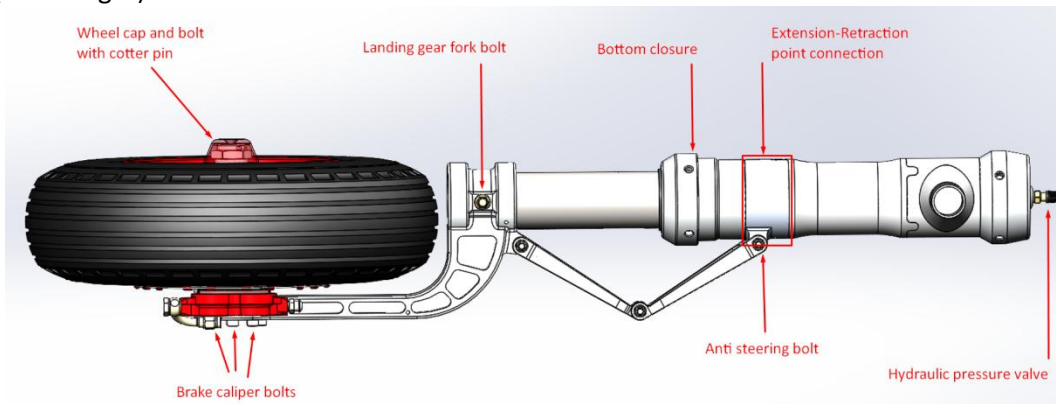


Figure 4 Shock absorber component locations

**Procedure D: Reassemble the Main Landing Gear strut assembly and fit it to the aircraft.**

1. Reverse the procedure, starting with the end of Procedure B working up to the start of Procedure A.
2. Pressurize the MLG strut assembly to 10.5 bar with nitrogen gas before installing it on the aircraft.

**Repeat Procedures B through D for the Main Landing Gear assembly on the opposite wing.**

**Completion**

1. Wait **24 hours** for Loctite to fully cure before operating the aircraft in air.
2. Carefully push the GEAR 25A fuse into its slot in the interior control panel, ensuring it is securely seated to restore hydraulic system functionality.
3. Bleed the brake system to ensure there is no air in the lines.
4. Before removing the aircraft from jack stands, check the following:
  - a. The Main Landing Gear strut moves smoothly and as intended.
  - b. The Main Landing Gear strut has no leaks.
  - c. The Main Landing Gear retracts and extends properly and smoothly.
  - d. The Main Landing Gear warning light operates as intended.
5. **Visually inspect all fasteners and connections** to ensure proper alignment and secure installation.
6. Record the following in the aircraft maintenance logbook:
  - a. Completion of all inspection and reassembly tasks with reference to Service Bulletin No.17-01-25-3.
7. Contact Pelegrin with the outcome of the inspection.