MANDATORY SERVICE BULLETIN

MSB 50-012

I TECHNICAL DETAILS

I.1 Category

Mandatory

I.1 Airplanes affected

Type:	DA 50 C
Serial numbers:	50.C.A.A.007 through 50.C.A.A.068
	50.C.A.A.070 through 50.C.A.A.073
	50.C.Q.A.001 through 50.C.Q.A.002

I.2 Date of effectivity

01-Jul-2025

I.3 Time of Compliance

Within 200 flight hours, but not later than 31-Jul-2026.

I.4 Subject

Replacement of the Main Landing Gear Retaining Rings.

ATA-Code: 32-00

I.5 Reason

It was discovered that the main landing gear braces of some aircraft had retaining rings with insufficient level of corrosion resistance being installed. This may cause the retaining rings to corrode, sustain damage, or fail (crack). If not corrected, this may lead to failure of the landing gear. This Service Bulletin describes the replacement of those retaining rings.

I.6 Concurrent Documents

None.

I.7 Approval

The technical information or instruction contained in this document relate to the Design Change Advisory No. MÄM 50-391/a, which has been approved under the authority of the DOA ref. EASA.21J.052.

The technical content of this document has been approved under the authority of the DOA ref. EASA.21J.052.

I.8 Accomplishments / Instructions

See WI-MSB 50-012 latest effective issue.

II Mass (Weight) and CG

Mass and Center of Gravity are not affected.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-MSB 50-012, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 0.5 hours.

II.4 Credit

Material according to WI-MSB 50-012, latest effective issue.

II.5 Reference Documents

DA 50 C Airplane Maintenance Manual, Doc. No. 9.02.01, latest effective issue.

III REMARKS

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. All work, particular that which is not especially described in this Service Bulletin, must be done in accordance with the referenced Maintenance Manual.
3. Completion of all work must be recorded in the log book.
4. If material is subject to be credited through Diamond Aircraft Industries, the Service Bulletin must be done by an authorized Diamond Service Center within the time of compliance and the Warranty Application incl. Work Report must be sent not later than 30 days after completion of work.
5. In case of doubt contact Diamond Aircraft Industries GmbH.

EXECUTION REPORT TO SERVICE BULLETIN MSB 50-012

AIRPLANE INFORMATION

Airplane Serial Number _____

Airplane Registration _____

Airplane Operator _____

Hours of operation of airplane _____

Number of landings _____

Hours of operation – engine _____

Typical operation of airplane private, club, training, other _____

_____
Date, Name, Sign

Please send the completed form to executionreports@diamondaircraft.com

WORK INSTRUCTION

WI-MSB 50-012

I GENERAL INFORMATION

I.1 Subject

Replacement of the Main Landing Gear Retaining Rings.

I.2 Reference Documents

DA 50 C Airplane Maintenance Manual, Doc. No. 9.02.01, latest effective issue.

I.3 Remarks

a) All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.

b) All work, in particular if not described in this work instruction, must be done in accordance with the referenced maintenance manual.

c) For conversion factors between SI units and US/Imperial units refer to AMM, Chapter 02.

d) In case of doubt, contact Diamond Aircraft Industries GmbH.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

None.

II.2 Special Tools

None.

II.3 Material

Quantity	Part Number	Description
4	DIN471-10-MZP	Retaining Ring, Mechanical Zinc Plated, DIN471-10x1,0-MZP (MLG Brace Assy LH and RH)
6	DIN471-20-MZP	Retaining Ring, Mechanical Zinc Plated, DIN471-20x1,2-MZP (MLG Brace Assy LH and RH)
2	DIN472-30X1.2-MZP	Retaining Ring, Mechanical Zinc Plated (MLG Drag Brace Assy LH and RH)

Material is available from Diamond Aircraft Industries.

III INSTRUCTIONS

1	Pull and tag the GEAR circuit breaker to prevent inadvertent landing gear operation.
2	Locate the retaining rings on the backside of the MLG. See Detail Views A and B shown in below figure showing the LH MLG:

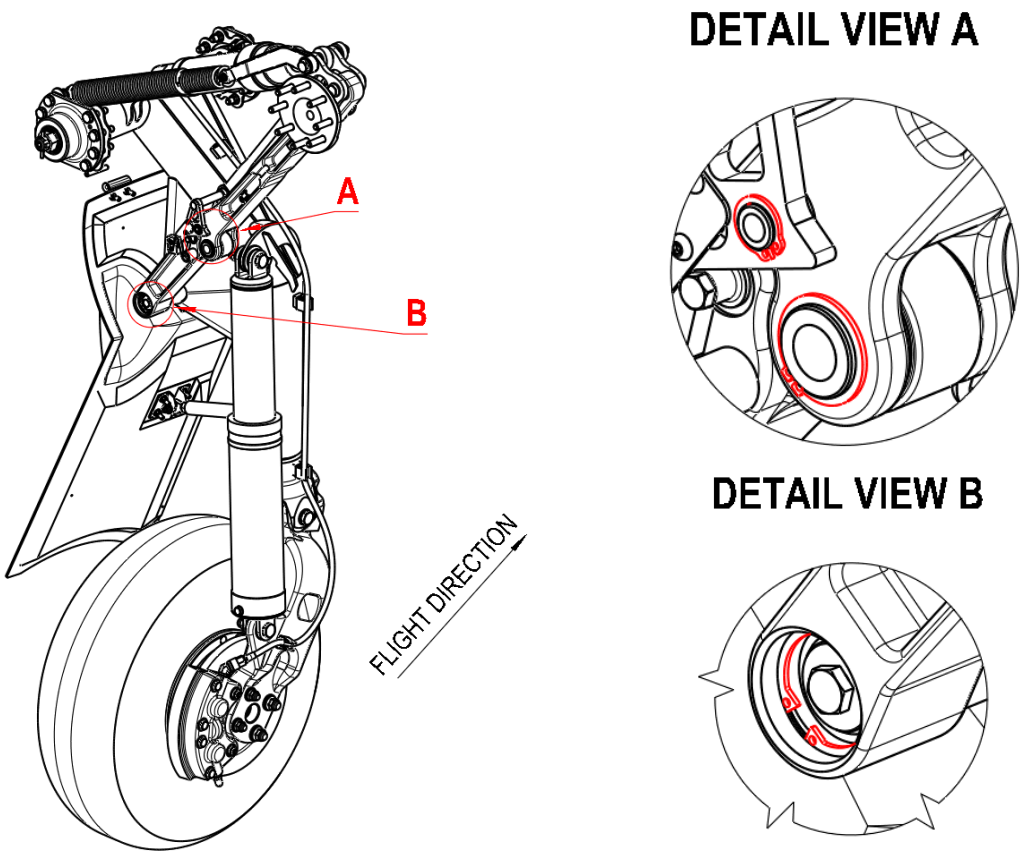

Figure 1: MLG Backside Retaining Rings

3	Replace the Retaining Rings in Detail View A with: • DIN471-20-MZP • DIN471-10-MZP Replace the Retaining Ring in Detail View B with: • DIN472-30X1.2-MZP Replace only one Retaining Ring at a time! **CAUTION** Do not remove or move shafts while replacing retaining rings Clean the grooves of the bearing shafts. Inspect the folding stay and bearing shafts for general condition before installing the new retaining rings. NOTE Any repair / replacement / further inspection of the folding stay, and/or the bearing shaft needs, must be completed before you proceed with the next steps. NOTE Do not overstretch the retaining rings during installation. Open the rings only enough to fit over the shaft when installing. Install the new retaining rings. Make sure the retaining rings properly engage into the grooves of the bearing shafts.

4	Locate the retaining rings on the frontside of the MLG. See Detail Views C and D shown in below figure showing the LH MLG:

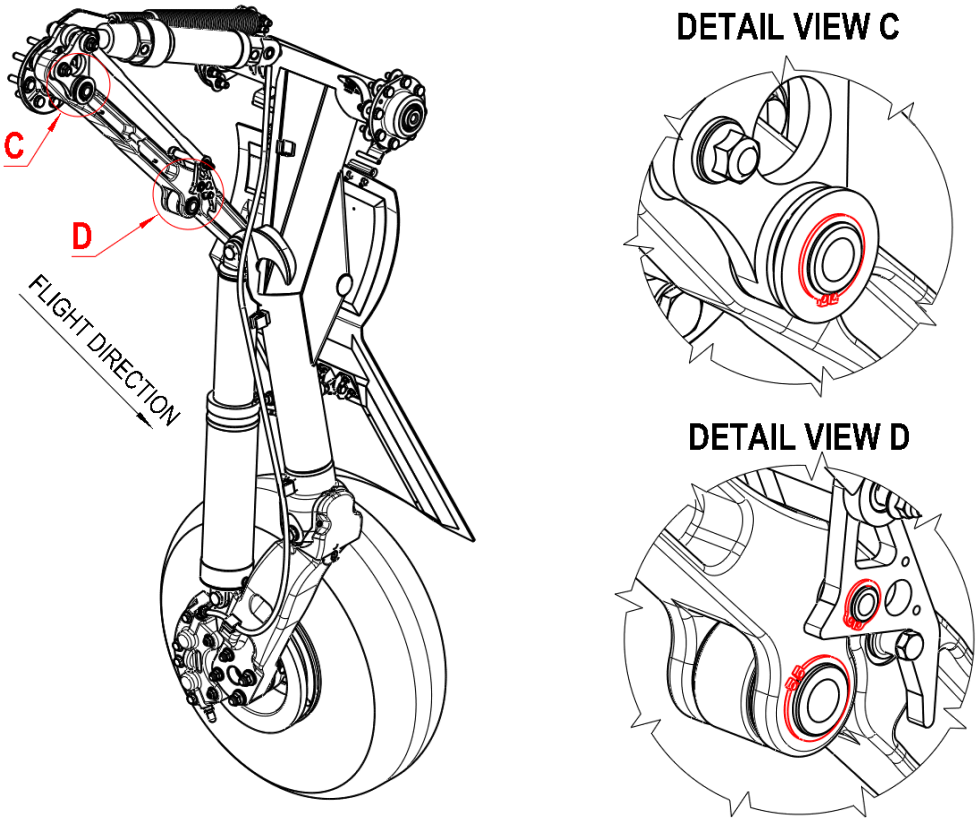

Figure 2: MLG Frontside Retaining Rings

5	Replace the Retaining Ring in Detail View C with: • DIN471-20-MZP Replace the Retaining Rings in Detail View D with: • DIN471-20-MZP • DIN471-10-MZP Replace one Retaining Ring at a time! **CAUTION** Do not remove or move shafts while replacing retaining rings. Clean the grooves of the bearing shafts. Inspect the folding stay and bearing shafts for general condition before installing the new retaining rings. NOTE Any repair / replacement / further inspection of the folding stay, and/or the bearing shaft needs, must be completed before you proceed with the next steps. NOTE Do not overstretch the retaining rings during installation. Open the rings only enough to fit over the shaft when installing. Install the new retaining rings. Make sure the retaining rings properly engage into the grooves of the bearing shafts.
6	Repeat steps 2 through 5 on the RH MLG.
7	Clean working areas, check for foreign objects.
8	Check all altered, replaced, repaired parts for proper function.
9	Apply anti-corrosion coating. Refer to AMM Section 12-30-00.
10	Set the GEAR circuit breaker.
11	Test all systems in working area for function.
12	Do all necessary entries in the airplane logs.