# **MANDATORY SERVICE BULLETIN**



Model DA 62

### MANDATORY SERVICE BULLETIN NO. MSB 62-051 REV. 1

#### I TECHNICAL DETAILS

#### I.1 Category

Mandatory.

#### **1.2** Airplanes Affected

Model: DA 62

S/N: 62.009 and subsequent.

62.C001 and subsequent.

#### **I.3** Date of Effectivity

15 March 2024

#### **1.4** Time of Compliance

At the next 100 hour inspection.

#### I.5 Subject

Replacement of the Main Landing Gear and Nose Landing Gear retaining rings.

ATA-Code: 32-00

#### I.6 Reason

It was discovered that the main and nose landing gear braces of some DA 62 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.7 Concurrent Documents

None.

#### I.8 Approval

The technical content of this document relates to Design Change Advisory MÄM 62-1127, which has been approved as part of the type design.

# MANDATORY SERVICE BULLETIN



#### Model DA 62

#### I.9 Accomplishment/Instructions

Install hardware specified in Option #1 of Section II.3 of WI MSB 62-051 Rev. 1 or the hardware specified in Option #2 of section II.3 of WI MSB 62-051 Rev. 1. If the hardware specified in Option #2 of section II.3 is installed, a recurring inspection and replacement as required, must be done every 100 FH.

Only installation of hardware specified in Option # 1 of Section II.3 of WI MSB 62.051 Rev. 1 would constitute terminating action for this MSB.

#### I.10 Mass (Weight) and CG

No change.

#### **II PLANNING INFORMATION**

#### II.1 Material and Availability

See WI-MSB 62-051, latest effective issue.

#### II.2 Special Tools

KNIPEX Circlip Pliers 46 11 A2 or equivalent.

#### II.3 Labour Effort

Approximately 1.0 hours will be required to accomplish this service bulletin.

This estimate is for direct labour performed by a technician, and it does not include setup, planning, familiarization, cure time, part fabrication, or tool acquisition.

#### II.4 Credit

Parts and labour, in accordance with II.1 and II.3 respectively, for all affected aircraft under warranty.

#### **II.5** Reference Documents

DA 62 series Airplane Maintenance Manual, Doc. No. 7.02.25, 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, in particular 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 logbook.
- 4. In case of doubt, contact Diamond Aircraft Industries Inc. customer support at 519-457-4041 or supportcanada@ diamondaircraft.com.

Page 2 of 4 15 March 2024

# **MANDATORY SERVICE BULLETIN**



Model DA 62

To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service bulletin if it is not incorporated.

If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner, and send the name of the current owner to Diamond Aircraft at the address below.

Diamond Aircraft Industries Inc. 1560 Crumlin Sideroad, London, Ontario, Canada N5V 1S2

Customer Support: Phone: (519) 457-4041, Fax: (519) 457-4045 E-mail: support-canada@diamondaircraft.com

Technical Publications: E-mail: Techpubs@diamondaircraft.com

Page 3 of 4 15 March 2024

# MANDATORY SERVICE BULLETIN



Model DA 62

# SERVICE BULLETIN MSB 62-051 REV. 1

**AIRPLANE DATA** 

# Airplane serial number Airplane registration Airplane operator Hours of operation of airplane (TSN) Typical operation of airplane MAINTENANCE DATA Date of maintenance Maintenance carried out by During scheduled inspection? Name Signature Date

Please e-mail the completed form to techpubs@diamondaircraft.com.

# **WORK INSTRUCTION**





#### **WORK INSTRUCTION WI-MSB 62-051 REV. 1**

#### **I GENERAL INFORMATION**

#### I.1 Subject

Replacement of Main Landing Gear and Nose Landing Gear retaining rings.

ATA-Code: 32-00.

#### I.2 Reference Documents

DA 62 Series Airplane Maintenance Manual, Doc. No. 7.02.25, latest effective issue.

#### I.3 Remarks

- 1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic
- 2. All work, in particular which is not especially described in this work instruction, must be done in accordance with the referenced maintenance manual.
- 3. In case of doubt, contact Diamond Aircraft Industries Inc. customer support at 519-457-4041 or support-canada@diamondaircraft.com.

#### II DRAWINGS, SPECIAL TOOLS & MATERIALS

#### II.1 Drawings

None.

#### II.2 Special Tools

KNIPEX Circlip Pliers 46 11 A2 or equivalent.

#### II.3 Material

#### Option #1:

ı	Item	Qty	Part Number	Description	Notes
I	1	6	DIN 471-10x1.0-MZP	Retaining Ring	Mechanically Zinc Plated per DIN EN ISO 12683
I	2	4	DIN 471-20x1.2-MZP	Retaining Ring	Mechanically Zinc Plated per DIN EN ISO 12683
ı	3	2	DIN 471-18x1.2-MZP	Retaining Ring	Mechanically Zinc Plated per DIN EN ISO 12683

Page 1 of 5 15 March 2024

# WORK INSTRUCTION



#### Model DA 62

#### Option #2:

I	Item	Qty	Part Number	Description	Notes
I	1	6	DIN 471-10x1.0	Retaining Ring	
I	2	4	DIN 471-20x1.2	Retaining Ring	
I	3	2	DIN 471-18x1.2	Retaining Ring	

#### **III INSTRUCTIONS**

WARNING: TAKE PRECAUTIONS BY SECURING THE AREA AROUND THE AIRPLANE BEFORE YOU PERFORM MAINTENANCE ON THE LANDING GEAR. THE LANDING GEAR RETRACTION SYSTEM CAN CAUSE SERIOUS INJURY TO PERSONS IF OPERATED ACCIDENTALLY.

#### **OPTION #1 - Zinc plated retaining rings are available.**

- 1. Pull and tag the gear circuit breaker to prevent inadvertent landing gear operation.
- 2. Locate the retaining rings. See Figure 1 for MLG locations and Figure 2 for NLG locations.
- 3. Remove the retaining rings from the MLG legs and NLG leg as per the figures (Refer to Figures 1 and 2 for location).
- 4. Clean the grooves of the bearing shafts. Inspect the folding stay and bearing shafts for general condition before installing the new retaining rings.

NOTE: If for any reason the folding stay, and/or the bearing shaft needs to be removed for repair / replacement / further inspection, perform work in accordance with AMM section 32-20-00, then proceed to step 5.

5. Using KNIPEX Circlip Pliers (or equivalent), install the new (Option # 1) retaining rings (items 1 and 2 for front and rear of the MLG and items 1 and 3 for left and right side of the NLG). Make sure the retaining rings properly engage into the grooves of the bearing shafts.

NOTE: Do not overstretch the retaining rings during installation. Open the rings only enough to fit over the shaft when installing.

# WORK INSTRUCTION

#### Model DA 62



#### **OPTION #2 - Zinc plated retaining rings** <u>are not available.</u>

- 1. Pull and tag the gear circuit breaker to prevent inadvertent landing gear operation.
- 2. Locate the retaining rings. See Figure 1 for MLG locations and Figure 2 for NLG locations.
- 3. Inspect the retaining rings to determine if there are any signs of corrosion.
- 4. if any signs of corrosion are found, replace the retaining rings with Option #2 hardware.
- 5. Remove the retaining rings from the MLG legs and NLG leg as per the figures (Refer to Figures 1 and 2 for location).
- 6. Clean the grooves of the bearing shafts. Inspect the folding stay and bearing shafts for general condition before installing the retaining rings.

NOTE: If for any reason the folding stay, and/or the bearing shaft needs to be removed for repair / replacement / further inspection, perform work in accordance with AMM section 32-20-00, then proceed to step 5.

7. Using KNIPEX Circlip Pliers (or equivalent), install the Option # 2 retaining rings (items 1 and 2 for front and rear of the MLG and items 1 and 3 for left and right side of the NLG). Make sure the retaining rings properly engage into the grooves of the bearing shafts.

NOTE: Do not overstretch the retaining rings during installation. Open the rings only enough to fit over the shaft when installing.

#### **IV WRAPUP**

- 1. Apply anti-corrosion coating. Refer to AMM Section 12-30-00.
- 2. Check all replaced parts for proper function.
- Set the gear circuit breaker.
- 4. Make all necessary entries into the logbooks.
- 5. Submit the execution report to techpubs@diamondaircraft.com.

Page 3 of 5 15 March 2024



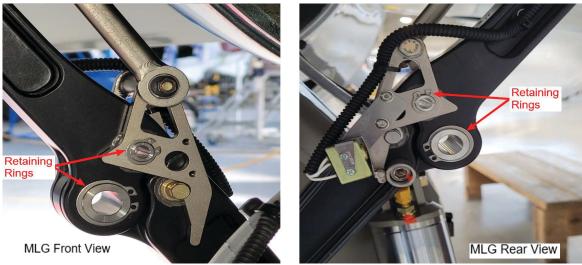


Figure 1. MLG Retaining rings.



Figure 2. NLG Retaining rings.

# **Retaining Rings Replacement**

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Page 5 of 5