

SERVICE BULLETIN No. 292 72 2239

Version: A

Date: 10 June 2024

First issue

Modification

Periodical action

One-off action

Applicable from:
"AUGUST 2024"

Subject:
Module M01 - Magnetic seal assemblies installed on starter gear.
Modification of the preformed packings.
Modification TU 239.

APPLICABLE ENGINE / VARIANT(S)	EFFECTIVITY CODE	MAINTENANCE LEVEL	CONDITION OF APPLICATION	EFFECT ON OPERATION
ARRIEL 2 B, B1, B1A, C, C-PM, C1, C2, C2-CG, D, E, H, L2, N, S1, S2	2-A-3	1, 2, 3	Application upon customer request	Replacement of the 2 magnetic seal assemblies installed on the starter gear
		4	Application upon first return to an approved Repair Center, if the repair/overhaul done gives access to, at least, one of the 2 magnetic seal assemblies installed on the starter gear	

Apply this SB in full compliance with the manufacturer's instructions.
Refer to the Effectivity Code above.

Note: In level 1, 2 and 3, it is possible to install one POST TU 239 standard magnetic seal assembly with one PRE TU 239 standard magnetic seal assembly on the starter gear in Position 1 **or** 2 (mixability). In this configuration, modification TU 239 is not applied and **must not be recorded** in the engine logbook.

TU 239 is applied and **must be recorded** on the engine logbook only when the two POST TU 239 standard magnetic seals assembly are installed in both Position 1 **and** Position 2.

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§1.GENERAL

§2.LEVEL 1, 2

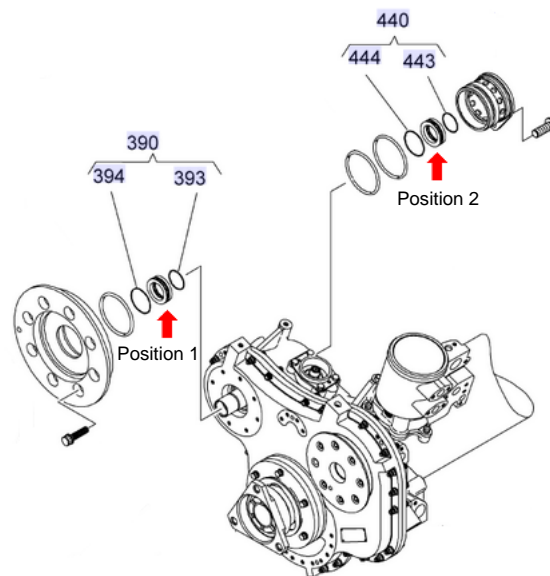
§3.LEVEL 3

§4.LEVEL 4

§5.CERTIFICATES

1. GENERAL
1.1. Background
1.1.1. Context

Operators of ARRIEL 2 engines found oil leaks on the magnetic seal assemblies Position 1: seal of the Dynastart adapter and Position 2: seal of the breather cover (see figure 1) installed on the starter gear of the accessory gearbox module (M01).


Figure 1

Items 390 and 440 of magnetic seal assemblies
 Items 393, 394, 443 and 444 of preformed packings

1.1.2. Analysis

The investigations done by Safran Helicopter Engines on the magnetic seal assemblies Position 1 and Position 2 highlighted damage to preformed packings linked to premature aging. It was also shown that the material of the preformed packings was not optimum when these seals were used in a HTS (High Thermal Stability) oil environment.

1.1.3. Solution

Modification TU 239 introduces new preformed packings in the magnetic seal assemblies Position 1 and Position 2 made from material compatible with HTS oils.

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§1.GENERAL

§2.LEVEL 1, 2

§3.LEVEL 3

§4.LEVEL 4

§5.CERTIFICATES

1.2. Approval

- ARRIEL 2 B - B1 - B1A - C - C1 - C2 - D - E - H - L2 - N - S1 - S2 variants

The technical content of this document is approved under the authority of the DOA (Design Organisation Approval) ref. EASA.21J.070.

- ARRIEL 2 C-PM - C2-CG variants

The technical information given in this document is approved by Safran Helicopter Engines.

1.3. Summary of updates

Not applicable.

End of Section §1**“General”**

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§1.GENERAL	§2.LEVEL 1, 2	§3.LEVEL 3	§4.LEVEL 4	§5.CERTIFICATES
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2. PROCEDURE DONE AT THE OPERATOR’S SITE OR AT A MAINTENANCE CENTER APPROVED FOR LEVEL 1, 2

2.1. Manpower

- Personnel: 1 mechanic.
- Time: 6 man-hours.

2.2. Tools / Parts

- Mechanic's standard tooling.
- Removal and installation tool of magnetic seal assemblies Position 1 and Position 2, refer to the applicable ARRIEL 2 Maintenance Manual.

2.3. Parts information

2.3.1. Basic information

The list of parts is given for one engine.

2.3.2. List of parts

2.3.2.1. Parts for application of this SB

New Part Number	Key	Qty	Description* / Item	Old Part Number	Key	Qty
ARRIEL 2 B - B1 - B1A - C - C-PM - C1 - C2 - C2-CG - D - E - H - L2 - N - S1 - S2						
9 560 17 766 0	A	1	Magnetic seal assembly Item 72-61-00-01-390	9 560 11 545 0	C	1
9 560 17 766 0	A	1	Magnetic seal assembly Item 72-61-00-01-440	9 560 11 545 0	C	1

* Please tell us if you would like pricing information.

A full list of the old item part numbers above is given in the Spare Parts Catalog.

Key

A	Part included by this modification
C	Part deleted by this modification

2.3.2.2. Parts for application of the maintenance tasks referred to in this SB

Refer to the applicable ARRIEL 2 Maintenance Manual or Spare Parts Catalog.

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§1.GENERAL

§2.LEVEL 1, 2

§3.LEVEL 3

§4.LEVEL 4

§5.CERTIFICATES

2.3.3. Supply conditions

Order supplies as needed from:
 Your local Safran Helicopter Engines Support Center
 or
 SAFRAN HELICOPTER ENGINES
 Direction Support et Service
 Département Commercial
 40220 TARNOS - France

2.4. Procedures

Replacement of PRE TU 239 magnetic seal assemblies of the starter gear Position 1 and Position 2 with POST TU 239 magnetic seal assemblies, refer to paragraph 2.6.

2.5. Block diagram for this SB

Not applicable.

2.6. Instructions on how to do the procedure
2.6.1. Implementation

Removal of the engine is not necessary for this SB.

2.6.2. Operating instructions

Refer to the applicable ARRIEL 2 Maintenance Manual.

2.6.3. Reconditioning and checks

Refer to the applicable ARRIEL 2 Maintenance Manual, task 05-50-00-200-801.

2.6.4. Identification

Refer to the Guides U441 and U015 for instructions on how to record the engine log book and the log cards.

2.6.4.1. Record the application of this SB on the log card of Module M01 and in section E.

Note: The recordings given above are only applicable if the 2 seals (Position 1 **and** Position 2) were POST TU 239 modified. If one seal only was POST TU 239 modified, it is not allowed to record TU 239 (see note on the first page of this SB).

2.6.4.2. Update the availability status on the module log card and in section E.

2.6.4.3. Send back the fully-completed compliance certificate, links to the digital document

EngineLife Customer Portal: [Certificate 5.1 SB 292 72 2239 EN A](#) or



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§1.GENERAL

§2.LEVEL 1, 2

§3.LEVEL 3

§4.LEVEL 4

§5.CERTIFICATES

2.7. Weight and balance

Not applicable.

End of Section §2**“Procedure done at the operator’s site or at a Maintenance Center approved for Level 1, 2”**

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§1.GENERAL

§2. LEVEL 1, 2

§3. LEVEL 3

§4. LEVEL 4

§5.CERTIFICATES

3. PROCEDURE DONE AT A MAINTENANCE CENTER APPROVED FOR LEVEL 3 OR AT THE OPERATOR'S SITE BY A MAINTENANCE CENTER APPROVED FOR LEVEL 3

Refer to the paragraphs of section [§2](#) related to the Maintenance Centers approved for Level 1, 2.

End of section §3

“Procedure done AT a Maintenance Center approved for Level 3 OR AT THE OPERATOR'S SITE BY a Maintenance Center approved for Level 3”

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§1.GENERAL

§2. LEVEL 1, 2

§3. LEVEL 3

§4. LEVEL 4

§5.CERTIFICATES

4. PROCEDURE DONE AT A REPAIR CENTER APPROVED FOR LEVEL 4

4.1. Manpower

- Personnel of approved Repair Center.
- Time calculated by the Repair Center for this level of intervention.

4.2. Tools / Parts

Refer to the ARRIEL 2 Overhaul Manual.

4.3. Parts information

4.3.1. Basic information

The list of parts is given for one engine.

4.3.2. List of parts

New Part Number	Key	Qty	Description* / Item	Old Part Number	Key	Qty
ARRIEL 2 B - B1 - B1A - C - C-PM - C1 - C2 - C2-CG - D - E - H - L2 - N - S1 - S2						
9 560 17 766 0	A	1	Magnetic seal assembly Item 72-61-00-01-390	9 560 11 545 0	C	1
9 560 17 766 0	A	1	Magnetic seal assembly Item 72-61-00-01-440	9 560 11 545 0	C	1

Key

A	Part included by this modification
C	Part deleted by this modification

4.3.3. Supply conditions

Order supplies as needed from:
 Your local Safran Helicopter Engines Support Center
 or
 SAFRAN HELICOPTER ENGINES
 Direction Support et Service
 Département Commercial
 40220 TARNOS - France

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§1.GENERAL

§2. LEVEL 1, 2

§3. LEVEL 3

§4. LEVEL 4

§5.CERTIFICATES

4.4. Procedures

Replacement of PRE TU 239 magnetic seal assemblies of the starter gear Position 1 and Position 2 with POST TU 239 magnetic seal assemblies, refer to paragraph 4.6.

4.5. Block diagram for this SB

Not applicable.

4.6. Instructions on how to do the procedure**4.6.1. Implementation**

Not applicable.

4.6.2. Operating instructions

Refer to the ARRIEL 2 Overhaul Manual.

4.6.3. Reconditioning and checks

Refer to the ARRIEL 2 Overhaul Manual.

4.6.4. Identification

Refer to the Guides U441 and U015 for instructions on how to record the engine log book and the log cards.

4.6.4.1. Record the application of the SB in the module M01 log card.

4.6.4.2. Send back the fully-completed compliance certificate, links to the digital document

EngineLife Customer Portal: [Certificate 5.1 SB 292 72 2239 EN A](#) or

**4.7. Weight and balance**

Not applicable.

End of Section §4**“Procedure done at a Repair Center approved for Level 4”**

SERVICE BULLETIN No. 292 72 2239

§1. GENERAL

§2. LEVEL 1, 2

§3. LEVEL 3

§4. LEVEL 4

§5. CERTIFICATES

5.1- Compliance certificate for replacement of magnetic seal assemblies installed on the starter gear through application of SB No. 292 72 2239 (TU 239) - LEVEL 1, 2, 3, 4

Important:

Fill in the compliance certificate after application of the instructions given in this SB.

Mail or email it to:

SAFRAN HELICOPTER ENGINES
 Equipe Administration Base installée / Fleet Data Administrator Team, BP 25
 40220 TARNOS - France

Email: data-fleet.fr.she@safrangroup.com

Equipment information					
Customer:			Aircraft S/N:		
	S/N	P/N	TSN*	CSN HP*	CSN PT*
Engine					
Modified module M01					

* TSN = Time Since New
 CSN = Cycles Since New

I certify that the above-mentioned module M01 has been modified according to the directives of this SB.

Date [DD/MMMM (letter)/YYYY]	
Comments	