

# SERVICE BULLETIN No. 319 73 2866

Version: A

Date: 14 April 2023

First issue

Modification

Periodical action

One-off action

Applicable from:

“As soon as this SB is issued”

Subject:

Preference injector - Containment of stocks.

APPLICABLE ENGINE / VARIANT(S)	EFFECTIVITY CODE	MAINTENANCE LEVEL	CONDITION OF APPLICATION	EFFECT ON OPERATION
ARRIUS 2 B1, B1A, B2, K1, K2, G1	2-2	1	Not applicable	
		2	Preference injector in stock repaired by SA ERMETO before August 3rd, 2022: Application <b>as soon as possible</b> and before the next installation of the preference injector on an engine	
		3, 4	Not applicable	

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

**WARNING:**

**FAILURE TO DO THIS SERVICE BULLETIN CAN RESULT IN AN UNCOMMANDED IN-FLIGHT ENGINE SHUTDOWN.**

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**1. GENERAL****1.1. Background****1.1.1. Context**

Safran Helicopter Engines was informed of an event related to an uncommanded engine in-flight shutdown on an EC120B powered by an ARRIUS 2 F engine.

**1.1.2. Analysis**

The engine was sent back to Safran Helicopter Engines for investigation. The main findings are:

- A non-compliant engine flame-out margin found on the engine test bench. After the replacement of the preference injector, the engine flame-out margin became compliant.
- A significantly non-compliant fuel flow of the preference injector.
- Pollution in the preference injector. This pollution was most probably introduced during the last repair process of this preference injector (21 flight hours before the event).

The repair process analysis highlighted that this risk of pollution is possibly applicable to all preference injector P/Ns of all the ARRIUS 2 variants.

**1.1.3. Solution**

Since August 3rd, 2022 (included), Safran Helicopter Engines has modified the repair procedure for the preference injector to prevent this pollution.

This Service Bulletin (SB) asks you to send back the preference injectors in stock if the last repair of the preference injector was done by "SA ERMETO" before August 3rd, 2022.

**1.2. Approval**

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

**1.3. Summary of updates**

Not applicable.

**End of Section §1  
"General"**

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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**

- Time: 1 man-hour.

**2.2. Tools / Parts**

Not applicable.

**2.3. Parts information**

Not applicable.

**2.4. Procedures**

Refer to paragraph 2.5.

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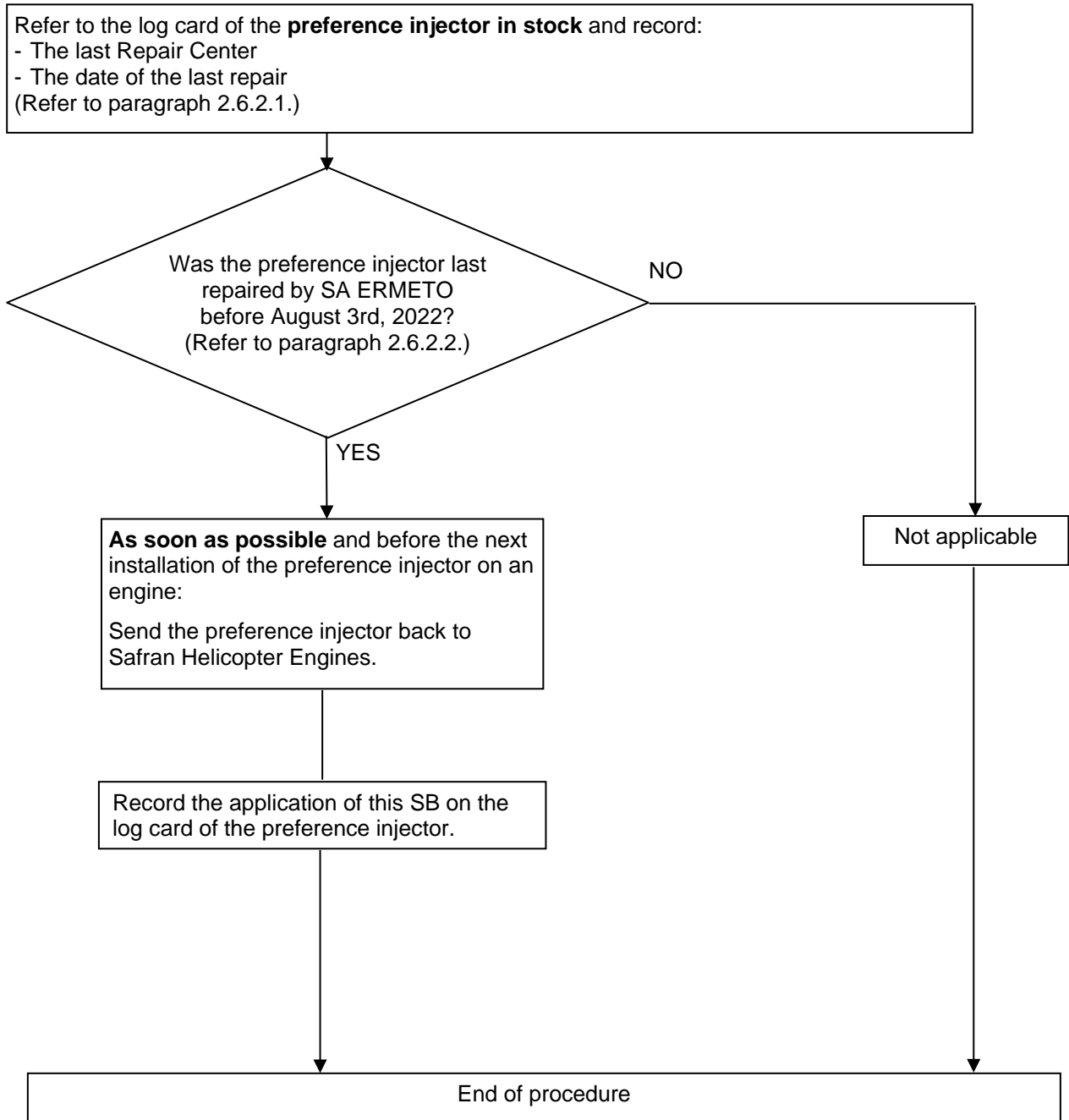
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**2.5. Block diagram for this SB**



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2.6. Instructions on how to do the procedure

2.6.1. Implementation

Preference injector in stock.

2.6.2. Operating instructions

2.6.2.1. Find the last repair of the preference injector

2.6.2.1.1. Historical log card - Template 07263 (ENR0441)

On the log card of the preference injector, refer to the section “Successive locations, minor and major maintenance and overhaul operations” (see example on figure 1):

1- In the column “Reason for transfer (code and symptoms) - Works carried out - Replaced parts”, record if the preference injector was “Repaired”.

If the preference injector was repaired:

- 2- Record the “Unit or Contractor” in charge of the repair.
- 3- Record the “Date” of the last repair.

Unité ou Société Unit or Contractor	Date Date	Positions Location	Fonctionnement Operation			Motif du mouvement (code, symptômes) - Travaux effectués - Pièces changées Reason for transfer (code and symptoms) - Work carried out - Replaced parts
			Support Support	Partiel Partial	Total Total	
TMA	03 Oct 2014	-	-	-	O/C	Repaired, Applied SB A319 73 4001 – M And Pyrolysis At 550°C
Customer A	29/01/2015	A2F 34698	238,5	-	0	Box/Unstalled IAW
Customer A	29/02/2015	A2F 34698	2713	344,5	344,5	Box/Unstalled IAW
SA-ERMETO SA-ERMETO	23/09/2015	-	-	-	N/A	REPAIRED PYROLYSIS X=1+1 Y=0 SBA 319 734001 (EASA AD 2012-0150) (FAA AD 2013-11-09)
Customer B	06/01/2016	ARS 2F 34706	3286,6	-	0	Box/Unstalled IAW
SafraHE	3 Janvier 2017	ARS 2F 34706	3575,9	289,3	733,8	Dépose
SA-ERMETO	30/03/2017	-	-	-	N/A	REPAIRED PYROLYSIS X=2+1 Y=0
Customer C	04/07/2018	A2F 34697	650,6	-	0	Box/Unstalled IAW
Customer C	01/08/2018	A2F 34697	658,8	13,2	13,2	Box/Unstalled IAW

Figure 1

Historical log card - Template 07263 (ENR0441)

**Note:** Tell Safran Helicopter Engines if you cannot easily find if the preference injector was repaired.

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2.6.2.1.2. Unique log card - Template 033719

1- Refer to the field “Works carried out” on page 1/4 of the log card and record if the preference injector was “Repaired” or “Inspected - Tested”.

Log card n° / Fiche N°		INC		<b>LOG CARD / FICHE MATRICULE</b>			Page 1/4
MATERIAL IDENTIFICATION / IDENTIFICATION DU MATERIEL							
DESIGNATION	TUJ ALIMENTATION INJECTEUR ISOLE PIPE ASSY. PREFERRED INJECTOR			P/N P/N OTAN	0319730440 2915145778545	MANUFACTURER / FABRICANT	SAFRAN HELICOPTER ENGINES
FAMILY TYPE / FAMILLE TYPE	ARRIUS 2			S/N	19026ERM	MANUF. CODE / CODE FABRICANT	F0228
<b>WORKS CARRIED OUT / TRAVAUX EFFECTUES</b>				<b>REMARKS / RENSEIGNEMENTS PARTICULIERS</b>			
Inspected-Tested / Inspecté-Testé				Pyrolysis Y = 3 + 1			
1 Under W.O. 21971495							
Recording maintenance / Enregistrement de la maintenance :				Service Letter / Lettre Service :			

Figure 2-1

Unique log card - Template 033719 - Page 1/4

If the preference injector was “Repaired” or “Inspected - Tested”:

- 2- Refer to the field “Observations - Works carried out & Signature - Stamp” on page 4/4 of the log card and record the Company in charge of the last delivery (Delivered).
- 3- Record the “Date” of the last delivery.

<b>LOG CARD / FICHE MATRICULE</b>												Page 4/4			
MAINTENANCES - WORKS CARRIED OUT - TRANSFERS / MAINTENANCES - TRAVAUX EFFECTUES - MOUVEMENTS															
DATE	Installation Removal / Dépose	Engine Counter Since New or Overhaul / Moteur compteur depuis neuf ou révision					Equipment Counter Since New or Overhaul / Équipement compteur depuis neuf ou révision					O.E.I		Observations - Works carried out Observations - Travaux effectués & Signature - Stamp Signature - Tampon	
		Variant- Version / Variant- version	S/N	HOURS HEURES	HP HP	PT TL	HOURS / HEURES	HP HP	PT TL	MGB BTP	Creep damage / Endoillage	OEI 1	OEI 2		
3 Nov 2022		/	/	/	/	/	/	/	/	/	/	/	/	/	SAFRAN HE Delivered
3 JAN 2023	X	R	54140	962.00	4143.00	1760.00	0.00	/	/	/	/	/	/	/	SAFRAN HE Delivered

Figure 2-2

Unique log card - Template 033719 - Page 4/4

**Note:** Tell Safran Helicopter Engines if you cannot easily find if the preference injector was repaired.

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**2.6.2.2. Criteria of applicability**

This SB is applicable to preference injectors in stock, if the last repair of the preference injector was done before August 3rd, 2022 by “SA ERMETO” (also known as: “SAE” or “SENIOR ERMETO” or “SENIOR AEROSPACE ERMETO”).

This SB is not applicable, if the preference injector was not last repaired by “SA ERMETO”, or if the last repair was done by “SA ERMETO” after August 3rd, 2022.

**2.6.2.3. Send the preference injector back**

Send the preference injector back with its log card to Safran Helicopter Engines.

**2.6.3. Reconditioning and checks**

Not applicable.

**2.6.4. Identification**

Refer to the Guide U015 for instructions on how to record this SB in the engine log cards.

Record the application of this SB on the log card of the preference injector.

**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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**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**

Not applicable.

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

Not applicable.

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