

SERVICE BULLETIN

DMC:	342-49-037 – SERVICE BULLETIN
Title:	Application of grease required on the two fuel manifolds
Issue number:	001
Issue Date:	28-01-2021

Responsible Partner Company: A0126

Originator: F1989

Category: 2 – Recommended

Applicability: All until APU S/N 1116

Related SB: 342-49-034 and 342-49-035

Related Documents: None

Accomplishment: Once only Recurring

Planned to be incorporated in Technical Publications:
 Yes No

Safran Power Units PROPRIETARY INFORMATION

All information and data appearing in this document are the exclusive property of SAFRAN POWER UNITS. They are made available to any person required to comply with the terms of the instructions for maintaining the airworthiness of the APU.

Any other use of said information and data, including, but without limitation, design, manufacture, development, or derivation of any repairs, modifications, spare parts, or configuration changes or to obtain EASA or any other government regulatory approval to do so, is subject to prior agreement from SAFRAN POWER UNITS. This document shall not be used, copied, reproduced, duplicated, modified or disclosed in whole or in part for any purpose other than maintaining the airworthiness of the APU, without the express written consent of SAFRAN POWER UNITS. If such consent is given, this notice and the notice set forth on each page of this document shall also be reproduced.

All information and data contained herein, with respect to assembly and disassembly, cleaning, inspection methods and limits, repair methods and limits, operational limits, life limits and the like, have been developed and approved for use with equipment and parts that have been manufactured and/or approved by SAFRAN POWER UNITS and that have been maintained in accordance with SAFRAN POWER UNITS technical documentation and recommendations. SAFRAN POWER UNITS has no contractual or legal obligation for, nor knowledge of, parts and repairs not approved by SAFRAN POWER UNITS. Accordingly, this document is not intended to apply to parts and repairs not approved by SAFRAN POWER UNITS.

Copyright 2021 Safran Power Units All rights reserved. Confidential and Proprietary.

SERVICE BULLETIN

342-49-037

1. Service Bulletin Data

Not applicable.

2. Planning information

2.1. Applicability

This Service Bulletin (SB) is applicable to all APU power plant fitted on Leonardo Helicopters AW189 / AW149 helicopters.

The new installation procedures will be applied in production on the APU S/N from 1116.

2.2. Reason

Following a few occurrence of APU fuel line leakage, SAFRAN POWER UNITS decides to add lubrication to the rear part of each fuel line ferrule to reduce the torsion when the nuts are tightened.

This new procedure is covered by modification sheet N° 342/409.

This Service Bulletin is part of the continuous improvement already undertaken in the Service Bulletin 342-49-034 and 342-49-035.

2.3. Description

The purpose of this Service Bulletin is to describe the two procedures to be performed by the end user and by the repair centers to apply grease AIR 3565/A on the ferrules of the burner manifold and of the ignition manifold.

The application of grease AIR 3565/A must be performed each time the DMs 89-A-49-31-05-00A-720A-B and 89-A-49-31-09-00A-720A-B are applied. It will be integrated in the next issue of the technical publication to the affected DMs.

2.4. Compliance

Comply with compliance category 2.

Do as soon as possible without effect on revenue service.

2.5. Approval

The technical content of this document is approved under the authority of DOA No. EASA 21J214.

2.6. Manpower

Manpower: 2 h man hours are necessary to perform the procedures described in this Service Bulletin.

2.7. Material

Refer to para. 3.1.4 and 3.2.4.

2.8. Tooling

No additional tooling is required.

2.9. Weight and balance

The weight is not affected.

The centre of gravity is not affected.

SERVICE BULLETIN

342-49-037

2.10. Publication affected

DT13-01 (ML 1/2) data modules will be revised:

- 89-A-49-31-05-00A-720A-B
- 89-A-49-31-09-00A-720A-B

DT13-02 (ML 3) data modules will be revised:

- 89-A-49-31-05-00A-720A-B
- 89-A-49-31-09-00A-720A-B

2.11. Previous modifications

Not applicable.

3. Accomplishment Instructions

Note:

This Service Bulletin must be performed either by the end user or by the manufacturer when a concerned APU is returned to the shop.

3.1. Apply grease AIR 3565/A on the rear part of each burner manifold ferrule

3.1.1. Preliminary requirements

<i>Required condition</i>	<i>Data Module/Technical Publication</i>
The helicopter must be safe for maintenance. Refer to the helicopter maintenance manual if the APU is installed. The access doors 461A, 462A, 463A and 481A must be opened. The APU must be removed.	n/a n/a n/a Refer to the helicopter maintenance manual

3.1.2. Safety conditions

The helicopter must be safe for maintenance.

3.1.3. Support Equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Standard torque wrench	Local purchase	1 Ea
Special torque wrench	MFC: M25740	1 Ea
Special torque wrench	MFC: M26470	1 Ea

3.1.4. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Grease	AIR 3565/A (NATO CODE S-743)	AR
Lockwire	23320TC050 (F0111) or equivalent (dia 0.5 mm)	AR

3.1.5. Unscrew the 11 burner manifold nuts**1. CAUTION**

- **Be careful when you cut and remove safety wire. Safety wire can cause injury to persons.**

Cut and remove the safety wire from the 11 burner manifold nuts (7, Figure 1).

2. Unscrew the 11 burner manifold nuts (7).**3. CAUTION**

- **Do not completely unscrew the 18 screws of the six burners.**
- **Make sure that the burners are free in movement after untightening.**

Untighten the 18 screws (1, 18, 21) of the six burners (8, 17).

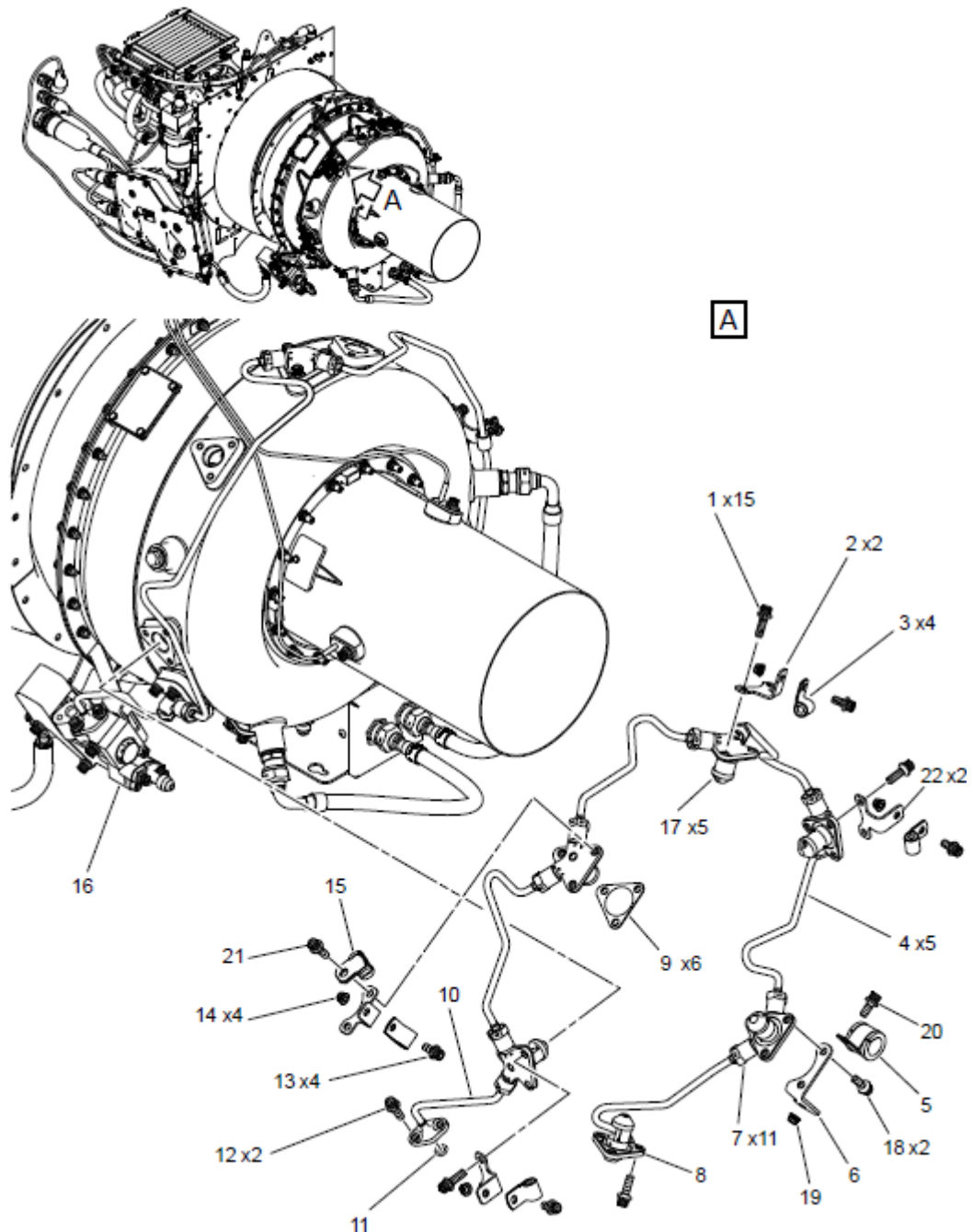


Figure 1 : Burner manifold - Remove procedure

3.1.6. Screw the 11 burner manifold nuts

1. CAUTION

- **Make sure that the burners stay free in movement after tightening.**

Tighten by hand the 15 Screws (1, Figure 1), the Screw (21) and the 2 Screws (18).

Note

The fuel lines of the burner manifold are rigid and must be connected to the mobile burners to prevent damage to the unions.

SERVICE BULLETIN

342-49-037

2. WARNING

- Do not lubricate the threads of the nuts (7).
- Apply a small amount of grease AIR 3565/A to the location shown in the Figure 2.

Lubricate the rear part of the 11 burner manifold ferrules with grease AIR 3565/A.

Note

This step must be performed in the DM 89-A-49-31-05-00A-720A-B (between steps 8 and 9) and will be integrated in the next issue of the technical publication.



Figure 2 : Location where application of a small amount of grease is required

3. Tighten by hand the 11 nuts (7, Figure 1) of the five fuel lines (4, 10).
4. Torque the eight screws (1) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

Note

These screws do not secure the brackets.

5. Torque the 11 nuts (7) to 11 Nm - 12 Nm (97.360 lbf.in - 106.210 lbf.in) with a standard torque wrench or a special torque wrench (M26470).
6. Torque the 7 screws (1), the screw (21) and the 2 screws (18) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

Note

These screws secure the brackets.

7. Make sure that the tightening torque of the 15 screws (1), the screw (21) and the 2 screws (18) is 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).
8. Lock the 11 nuts (7) with Lockwire.

SERVICE BULLETIN

342-49-037

3.1.7. Close up procedures

<i>Required condition</i>	<i>Data Module/Technical Publication</i>
The APU must be installed.	89-A-49-11-01-00A-720A-A
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	n/a
Do an APU ground check.	89-A-49-20-00-00A-131A-A
Inspect for fuel leaks.	89-A-49-20-00-00A-310A-A
The access doors 461A, 462A, 463A and 481A must be closed.	n/a

3.2. Apply grease AIR 3565/A on the rear part of each ignition manifold ferrule

3.2.1. Preliminary requirements

<i>Required condition</i>	<i>Data Module/Technical Publication</i>
The helicopter must be safe for maintenance.	n/a
Refer to the helicopter maintenance manual if the APU is installed.	n/a
The access doors 461A, 462A, 463A and 481A must be opened.	n/a

3.2.2. Safety conditions

The helicopter must be safe for maintenance.

3.2.3. Support Equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Standard torque wrench	Local purchase	1 Ea
Special torque wrench	MFC: M25740	1 Ea
Special torque wrench	MFC: M26470	1 Ea

3.2.4. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Grease	AIR 3565/A (NATO CODE S-743)	AR
Lockwire	23320TC050 (F0111) or equivalent (dia 0.5 mm)	AR

SERVICE BULLETIN

342-49-037

3.2.5. Unscrew the five ignition manifold nuts

1. CAUTION

- Be careful when you cut and remove safety wire. Safety wire can cause injury to persons. Cut and remove the safety wire from the five fuel lines nuts (3, Figure 3).

2. Unscrew the five ignition manifold nuts (3).

3. CAUTION

- Do not completely unscrew the nine screws of the three burners.
- Make sure that the burners are free in movement after untightening.

Untighten the nine screws (2) of the three burners (6).

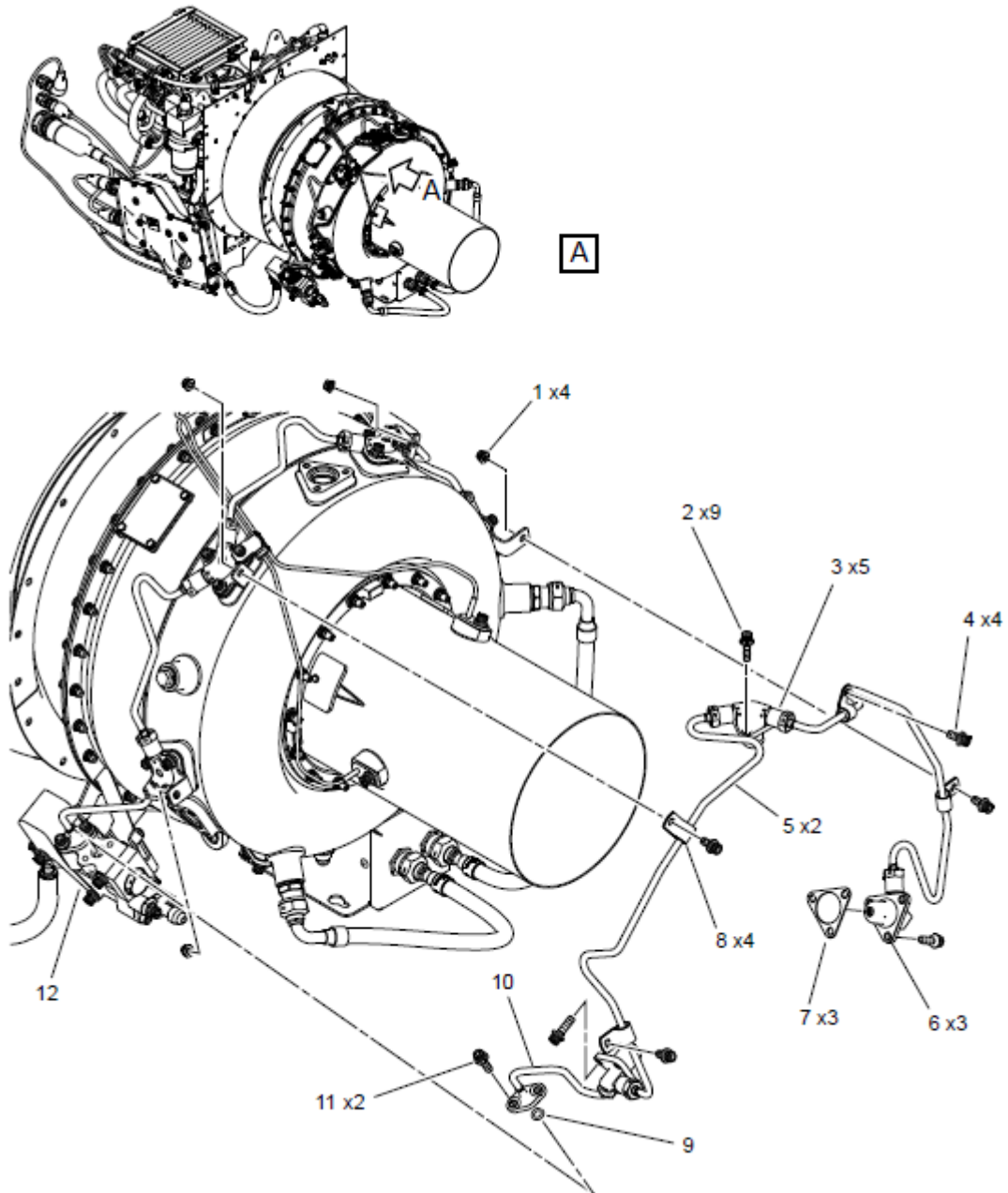


Figure 3 : Ignition manifold - Remove procedure

3.2.6. Screw the five ignition manifold nuts

1. CAUTION

- **Make sure that the burners stay free in movement after tightening.**

Tighten by hand the nine Screws (2, Figure 3).

Note

The fuel lines of the ignition manifold are rigid and must be connected to the mobile burners to prevent damage to the unions.

2. WARNING

- **Do not lubricate the threads of the nuts (3).**
- **Apply a small amount of grease AIR 3565/A to the location shown in the Figure 2.**

Lubricate the rear part of the five ignition manifold ferrules with grease AIR 3565/A.

Note

This step must be performed in the DM 89-A-49-31-09-00A-720A-B (between steps 6 and 7) and will be integrated in the next issue of the technical publication.

3. Tighten by hand the five nuts (3) of the five fuel lines (5, 10).
4. Torque the nine screws (2) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).
5. Torque the five nuts (3) to 11 Nm - 12 Nm (97.360 lbf.in - 106.210 lbf.in) with a standard torque wrench or a special torque wrench (M26470).
6. Lock the five nuts (3) with Lockwire.

3.2.7. Close up procedures

<i>Required condition</i>	<i>Data Module/Technical Publication</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	n/a
Do an APU ground check.	89-A-49-20-00-00A-131A-A
Inspect for fuel leaks.	89-A-49-20-00-00A-310A-A
The access doors 461A, 462A, 463A and 481A must be closed.	n/a

3.3. Requirements after job completion

3.3.1.1. Record

Record the embodiment of this SERVICE BULLETIN 342-49-037 in the EQUIPMENT LOG CARD of the APU.

3.3.1.2. Compliance certificate

For each APU power plant upgraded, send the following service bulletin compliance certificate to the MANUFACTURER.

Objet : Attestation d'application du Bulletin Service 342-49-037.
Subject: Service Bulletin Embodiment Certificate 342-49-037.
Important / Important notice:

Après application de ce Bulletin Service, veuillez compléter la présente attestation et la retourner par courrier ou fax à :
After incorporating this Service Bulletin, please complete this certificate and mail or fax it to:

Safran Power Units

Support Clients - 8 Chemin du pont de Rupé, BP 62089 - 31019 Toulouse Cedex 2, France
 Fax (33) (0)5 61 70 74 45 - e.mail: csc.spu@safrangroup.com

Information concernant le matériel / Equipment information

Utilisateur <i>Customer</i>					N° Appareil <i>Aircraft S/N</i>
	Réf. - P/N	N/S - S/N	TSN*	CSN*	
GAP / APU					
Application de graisse sur la face arrière des olives de chaque tuyauterie de carburant de la rampe principale <i>Application of grease on rear part of each fuel line ferrule of the burner manifold</i>		Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Application de graisse sur la face arrière des olives de chaque tuyauterie de carburant de la rampe de démarrage <i>Application of grease on rear part of each fuel line ferrule of the ignition manifold</i>		Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Commentaire <i>Comment</i>					

* TSN = Time Since New (Heures depuis neuf)

CSN = Cycles Since New (Cycles depuis neuf)

Opération effectuée par:
Work performed by:
Je certifie que le matériel identifié ci-dessus a été modifié selon les directives du Bulletin Service en objet.
I certify that the above-mentioned equipment has been modified according to the directives given in this Service Bulletin.
Date
Nom / Print name
Fonction / Position
Signature

.....

--

4. Material information**4.1. Material requirements**

Refer to para. 3.1.4 and 3.2.4.

4.2. List of components

Not applicable.

4.3. Interchangeability

Physical interchangeability: Not affected

Functional interchangeability: Not affected

Restriction of mixability: No restriction

4.4. Parts disposition

Not applicable.

4.5. Procurement conditions

Not applicable.

END OF SERVICE BULLETIN