SERVICE BULLETIN

DMC:	342-49-037 – SERVICE BULLETIN
Title:	Application of grease required on the two fuel manifolds
Issue number:	002
Issue Date:	16-03-2021

Responsible Partner Company:	A0126
Originator:	F1989
Category:	2 – Highly 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

SERVICE BULLETIN 342-49-037

1. Revision information

Issue	Date	Reason for update
001	28/01/2021	Original issue
002	16/03/2021	Modification of the SB compliance category

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, classified as a minor safety impact, 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

2.4.1. Compliance category

Comply with compliance category 2 – Highly Recommended.

2.4.2. Time of compliance

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.

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

Required condition	*Data Module/Technical Publication*
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

Nomenclature	*Identification no.*	*Qty*
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

Nomenclature	*Identification no.*	*Qty*
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).

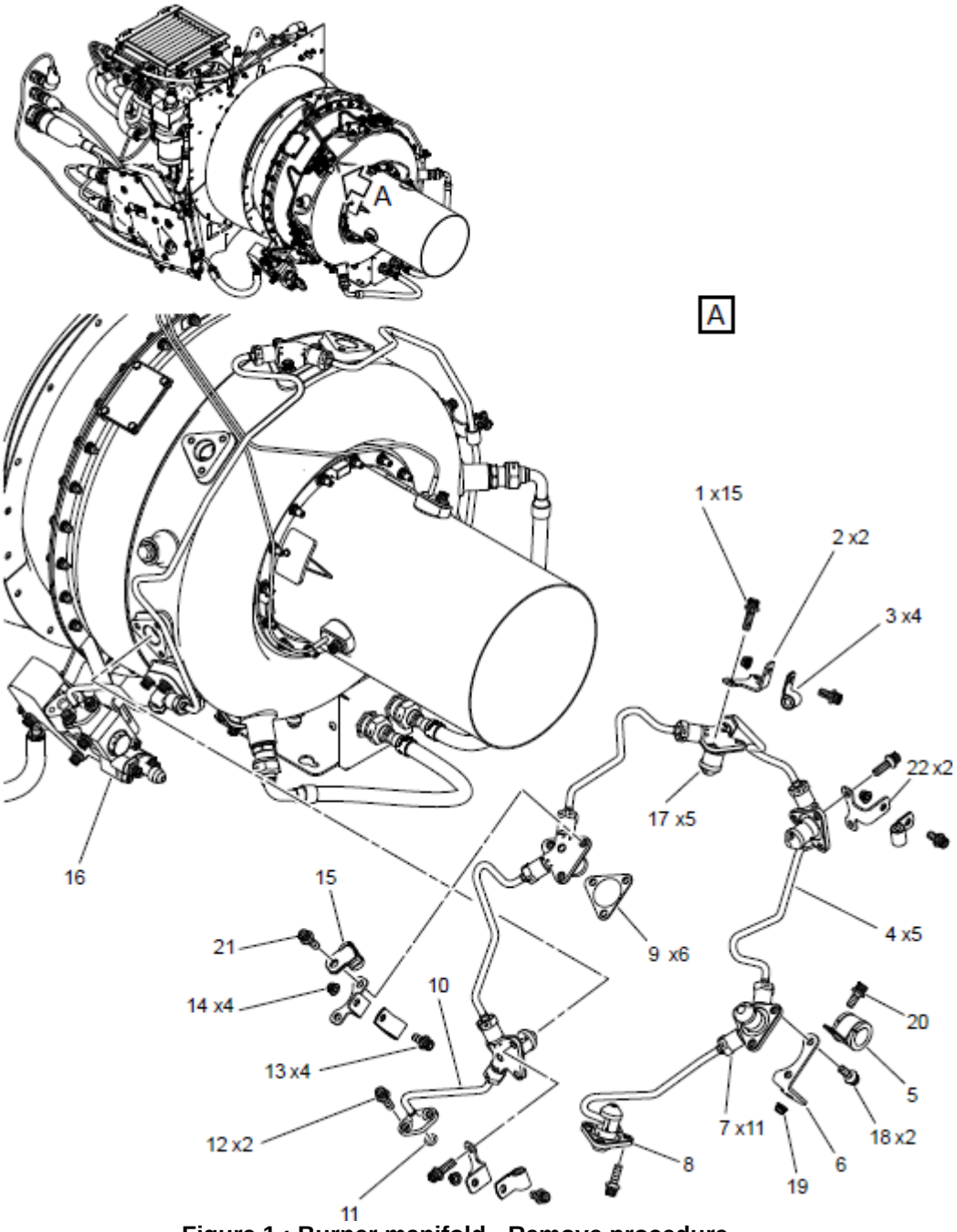

Figure 1 : Burner manifold - Remove procedure

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.

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.

3.1.7. Close up procedures

Required condition	*Data Module/Technical Publication*
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

Required condition	*Data Module/Technical Publication*
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

Nomenclature	*Identification no.*	*Qty*
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

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

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).

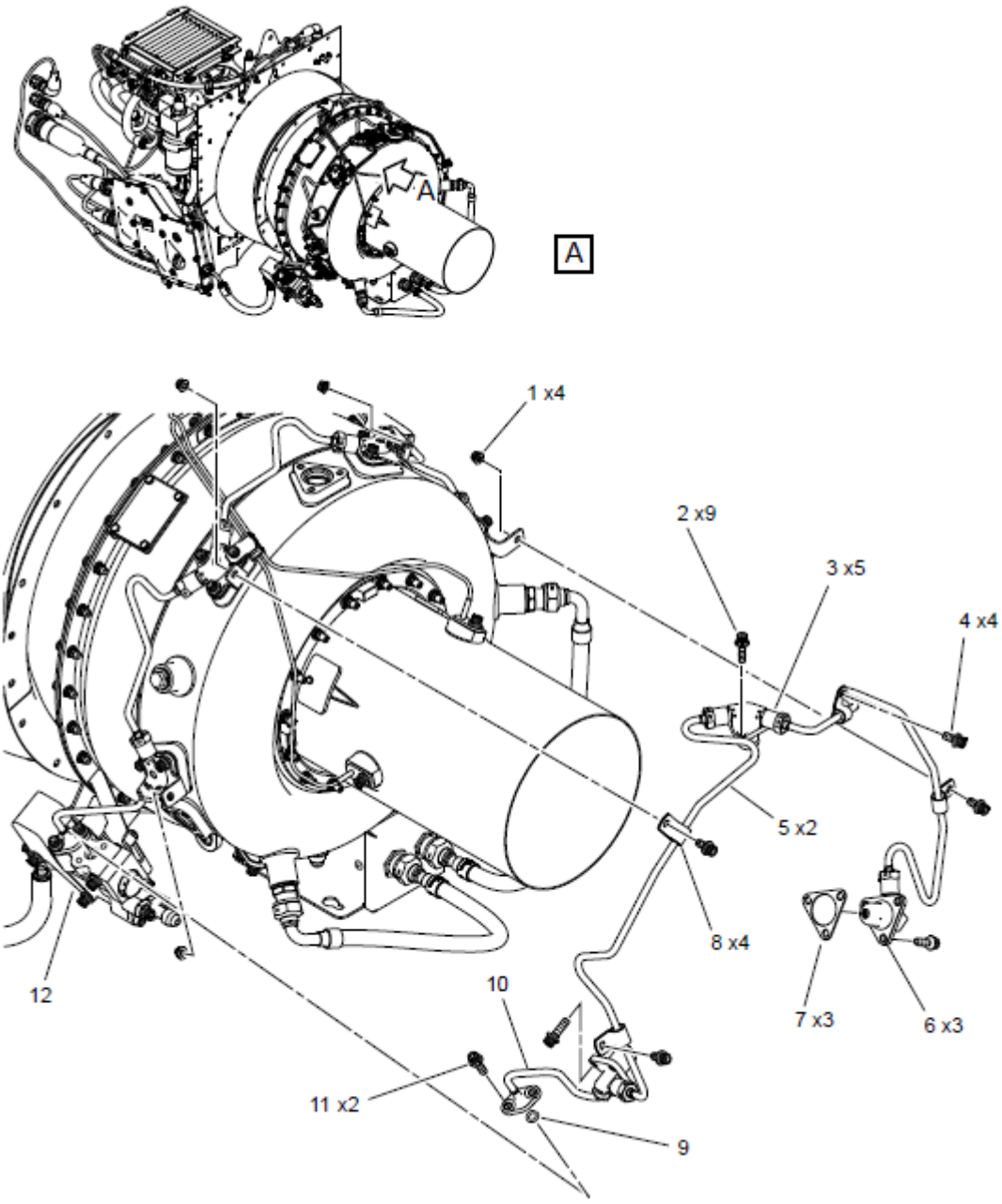

Figure 3 : Ignition manifold - Remove procedure

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

Required condition	*Data Module/Technical Publication*
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.

SERVICE BULLETIN 342-49-037

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 *Customer*					**N° Appareil** *Aircraft S/N*
	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 *Application of grease on rear part of each fuel line ferrule of the burner manifold*	Yes ☐ No ☐
Application de graisse sur la face arrière des olives de chaque tuyauterie de carburant de la rampe de démarrage *Application of grease on rear part of each fuel line ferrule of the ignition manifold*	Yes ☐ No ☐
Commentaire *Comment*	

*** 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