

SERVICE BULLETIN

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Title:	Update of removal and installation procedures following the release of SB 342-49-048
Issue number:	001
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Responsible Partner Company: A0126

Originator: F1989

Category: 3 - Recommended

Applicability: All

Related SB: 342-49-048

Related Documents: None

Accomplishment: Once only Recurring

Planned to be incorporated in Technical Publications: Yes No

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1. Revision information

Issue	Date	Reason for update
001	27-apr-2023	Original issue

2. Planning information

2.1. Applicability

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

2.2. Reason

The purposes of this modification is to introduce the modification of the following procedures:

- Applicable to operators and MRO centers :
 - o Removal of the ignition manifold,
 - o Installation of the ignition manifold,
 - o Removal of the burner manifold,
 - o Installation of the burners manifold,
 - o Installation of the igniter plugs,
 - o Removal of the drain valve,
 - o Installation of the drain valve,
 - o Removal of the Exhaust Gas Temperature Probe T4-1,
 - o Installation of the Exhaust Gas Temperature Probe T4-1,
 - o Removal of the Exhaust Gas Temperature Probe T4-2,
 - o Installation of the Exhaust Gas Temperature Probe T4-2,
- Applicable only to MRO centers:
 - o Disassembly of the gas generator,
 - o Assembly of the gas generator.

This Service Bulletin is part of the continuous improvement undertaken by the Service Bulletin 342-49-048 (the introduction of the modification n°342/396).

2.3. Description

Some procedures need to be updated with regard to the new combustor casing design, which modified the locking of the ignition and main manifolds' burners, igniter plugs and drain valve. The impacted procedures, updated in this Service Bulletin, are the following:

- Ignition manifold – Remove procedure (89-A-49-31-09-00A-520A-A),
- Ignition manifold – Install procedure (89-A-49-31-09-00A-720A-A),
- Burner manifold – Remove procedure (89-A-49-31-05-00A-520A-B),
- Burner manifold – Install procedure (89-A-49-31-05-00A-720A-B),
- Igniter plugs – Install procedure (89-A-49-42-01-00A-720A-A),
- Drain valve – Remove procedure (89-A-49-27-01-00A-520A-B),
- Drain valve – Install procedure (89-A-49-27-01-00A-720A-B),

- Temperature probe T4-1 – Remove procedure (89-A-49-72-01-00A-520A-A),
- Temperature probe T4-1 – Install procedure (89-A-49-72-01-00A-720A-A),
- Temperature probe T4-2 – Remove procedure (89-A-49-72-03-00A-520A-A),
- Temperature probe T4-2 – Install procedure (89-A-49-72-03-00A-720A-A).
- Engine (APU) – Disassemble procedure (89-A-49-20-00-00A-530A-C)
 - o Para 2.5: Removal of main burners
 - o Para 2.6: Removal of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration
 - o Para 2.7: Removal of the ignition burners if the APU is a post-modification SB 342-49-028 configuration
- Engine (APU) – Assemble procedure (89-A-49-20-00-00A-710A-C)
 - o Para 1.24.13: Install the igniter plugs,
 - o Para 1.24.16: Installation of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration,
 - o Para 1.24.17: Installation of the ignition burners if the APU is a post-modification SB 342-49-028 configuration,
 - o Para 1.24.18: Install the main burners,
 - o Para 1.35.13: Torque of screws that attached the main and ignition manifold,
 - o Para 1.35.18: Torque of screws that attached the main manifold,
 - o Introduction of a new paragraph to lock the burners if the APU is a post-modification SB 342-49-048 configuration.

The update of these procedures will be integrated in the next issue of the Maintenance Manual.

There is no modification of the removal and installation procedures of the ignition plug leads and of the removal procedure of the igniter plugs.

The procedure related to the replacement of the thread insert (89-A-49-20-01-00A-685A-A) is now only applicable to pre-modification SB 342-49-048 configuration.

2.4. Compliance

2.4.1. Compliance category

Comply with compliance category 3 - Recommended

2.4.2. Time of compliance

This SB is recommended to be performed:

- when replacing any of the ignition manifold or burner manifold components,
- when installing the igniter plugs,
- when replacing the drain valve,
- when replacing the temperature probe (T4-1 or T4-2),
- when disassemble or assemble the gas generator (applicable to MRO centers).

2.5. Approval

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

SERVICE BULLETIN**342-49-049****2.6. Manpower**

Not applicable.

2.7. Material

Refer to para. 3.2.3, 3.2.4, 3.4.3, 3.4.4, 3.5.3, 3.5.1, 3.7.3, 3.7.4, 3.9.3, 3.9.4, 3.11.3 and 3.11.4.

2.8. Tooling

Refer to para. 3.1.2, 3.2.2, 3.3.2, 3.4.2, 3.5.2, 3.6.2, 3.7.2, 3.8.2, 3.9.2, 3.10.2 and 3.11.2.

2.9. Weight and balance

The weight is not affected.

The centre of gravity is not affected.

2.10. Publication affected

DT 13-01 – Maintenance Manual ML1-2

DT 13-02 – Engine Manual ML3

2.11. Previous modifications

Not applicable.

3. Accomplishment Instructions

3.1. Ignition manifold – Removal Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-31-09-00A-520A-A – Ignition manifold – Removal Procedure.

This procedure is applicable to operators and MRO centers.

3.1.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</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 must be opened.	N/A

3.1.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Protective plugs	Tool: Local purchase	11 Ea
Protective cap	Tool: Local purchase	1 Ea

3.1.3. Procedure

1. Remove the four screws (4, Figure 1) from the clamps (8), and discard the four self-locking nuts (1).

2. **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 ignition fuel lines nuts (3).

3. Removal of the ignition burners if the APU is a post-modification SB 342-49-048 configuration:

3.1 **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 three ignition burners (6).

4. Unscrew the five nuts (3).
5. Remove the two fuel lines (5).
6. Remove and discard the two screws (11) of the fuel lines (10) on the drain block (fuel flow divider) (12).
7. Remove the fuel lines (10) from the drain block (fuel flow divider) (12).
8. Remove and discard the O-ring (9).
9. Install four Protective plugs on the fuel lines (5).
10. Install one of the Protective plugs and the Protective cap on the fuel lines (10).
11. Removal of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration.
 - 11.1 Remove and discard the nine screws (2) of the three burners (6).
 - 11.2 Remove the three burners (6).

SERVICE BULLETIN**342-49-049****Note**

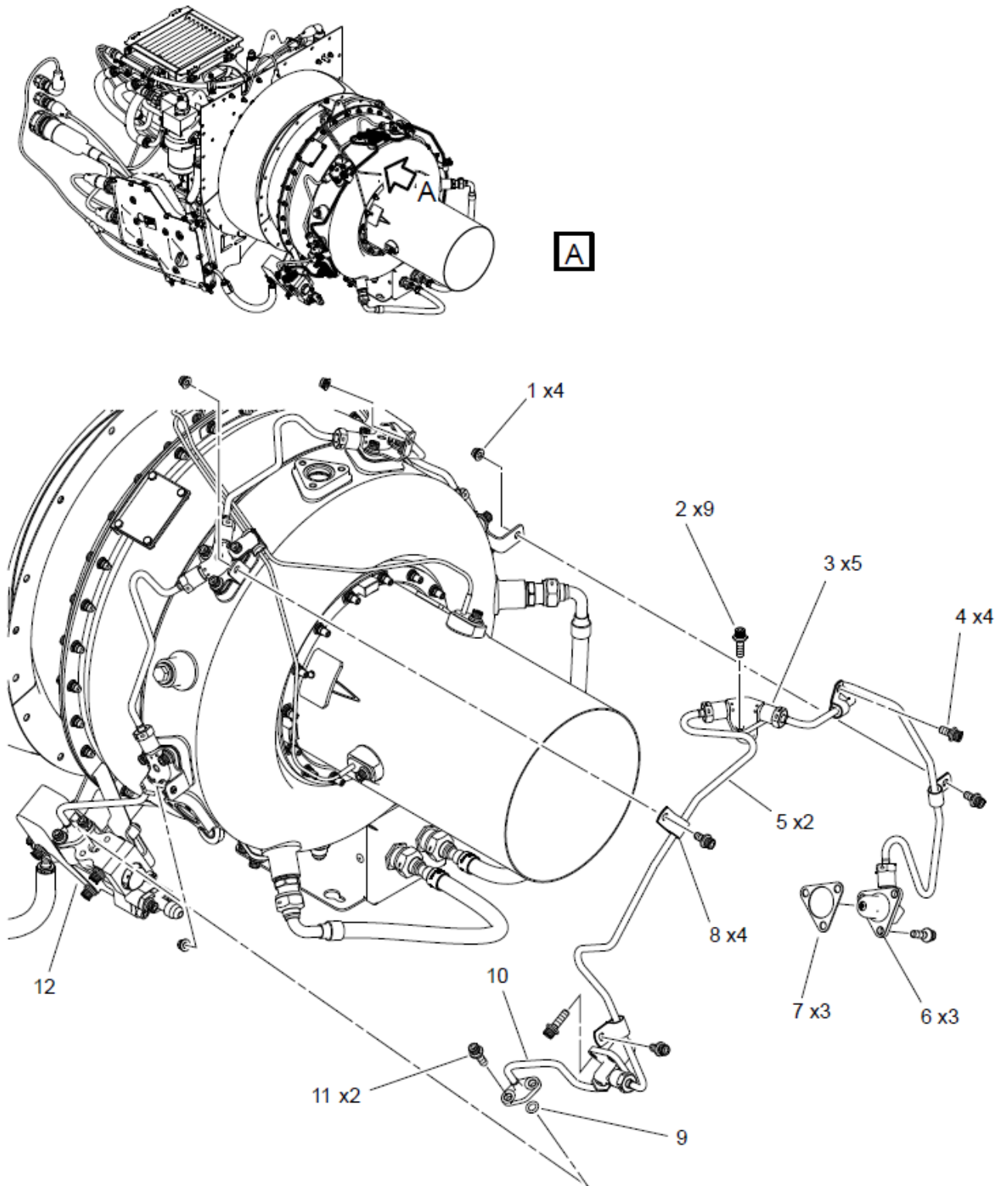
If the hat (lower part of the burner) is not removed with the burner, remove it of the combustion chamber with an extracting tool or a plier.

- 11.3 Remove and discard the three seals (7).
- 11.4 Install six Protective plugs on the burners (6).
- 12. Removal of the ignition burners if the APU is a post-modification SB 342-49-028 configuration.
- 12.1 Remove and discard the nine screws (2, Figure 2) of the three burners (6).
- 12.2 Remove the three burners (6).

Note

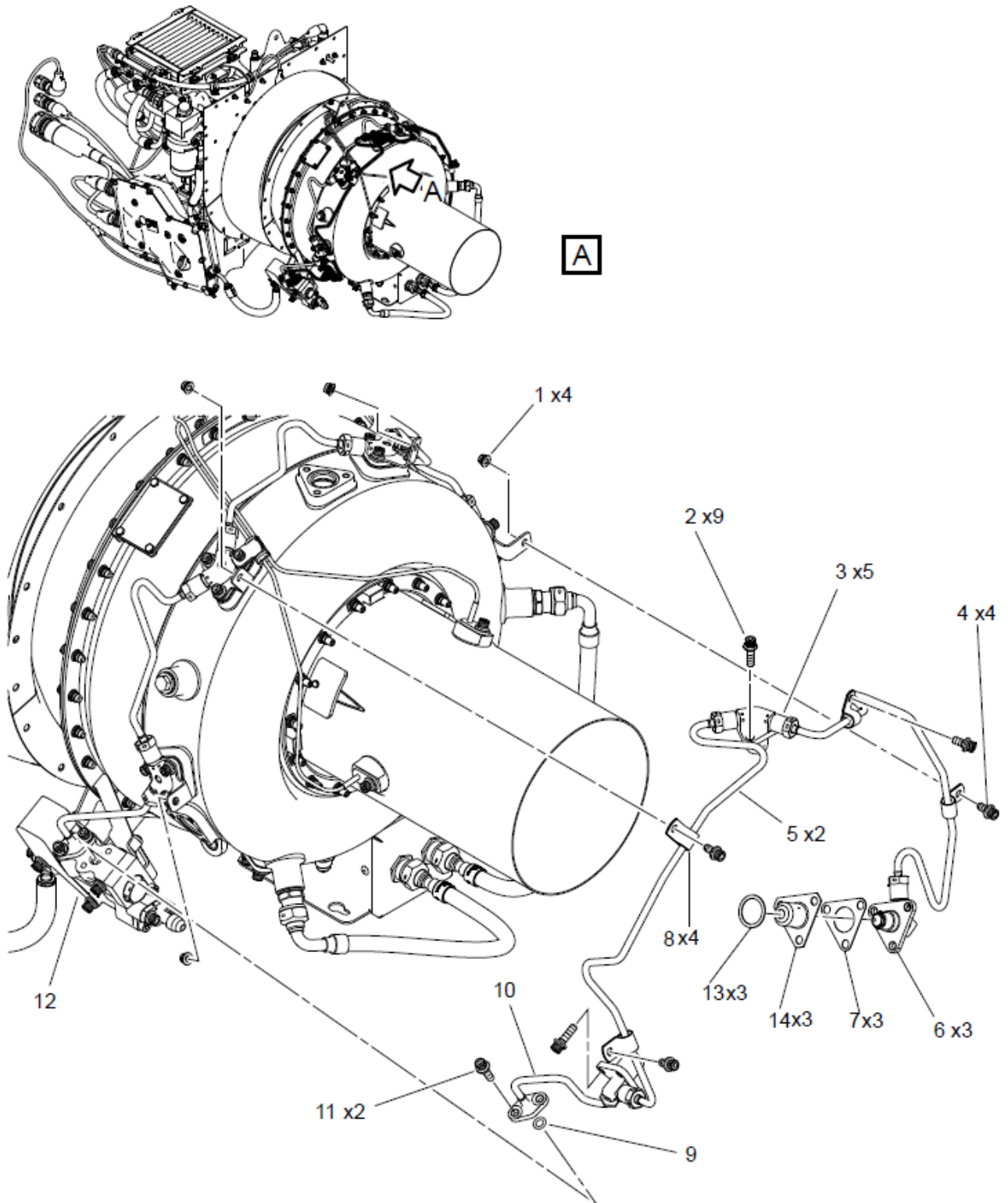
If the hat (lower part of the burner) is not removed with the burner, remove it of the combustion chamber with an extracting tool or a plier.

- 12.3 Remove and discard the three seals (7, Figure 2).
- 12.4 Remove the three caps (14, Figure 2) equipped with the three seals (13, Figure 2).
- 12.5 Remove and discard the three seals (13, Figure 2) from the three caps (14, Figure 2).
- 12.6 Install the six protective plugs on the burners (6).



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Figure 1: Ignition manifold - Remove procedure (pre-modification SB 342-49-028 configuration)



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Figure 2: Ignition manifold – Remove procedure (post-modification SB 342-49-028 configuration)

SERVICE BULLETIN**342-49-049****3.1.4. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A

3.2. Ignition manifold – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-31-09-00A-720A-A – Ignition manifold – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.2.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.2.2. Support equipment

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

3.2.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Engine Fuel	Cons.: C033	AR
Petrolatum	Cons.: C047	AR
Engine Oil	Cons.: C007	AR
Lockwire	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Grease AIR 3565/A	Cons.: AIR 3565/A (NATO CODE S-743)	AR
Oil AIR 3514	Cons.: AIR 3514 (NATO CODE O-150)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.2.4. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Screws	CSN: 49300001 043 -	2 EA
O-ring	CSN: 49300001 044 -	1 EA
Screws (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49300001 046 -	9 EA
Screws (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49300001 046A -	9 EA
Self-locking nuts	CSN: 49300001 047 -	4 EA
Fuel line	CSN: 49300001 049 -	2 EA
Fuel line	CSN: 49300001 050 -	1 EA
Burner	CSN: 49300001 051 -	1 EA
Burner	CSN: 49300001 052 -	2 EA
Seals	CSN: 49300001 054 -	3 EA
Caps	CSN: 49300001 053 -	3 EA
Seals (if the APU is a post-modification SB 342-49-028 configuration)	CSN: 49300001 053M -	3 EA
Clamps	CSN: 49300001 055 -	4 EA
Screws	CSN: 49300001 048 -	4 EA

3.2.5. Procedure

1. Identification of the configuration:

1.1 Inspect the threads allowing the installation of the ignition burners in the combustor casing.

1.1.1 If the threads contain thread inserts, the APU configuration is pre-modification SB 342-49-048 configuration.

1.1.2 If the threads does not contain thread inserts, the APU configuration is post-modification SB 342-49-048 configuration.

Note

To make sure that the APU configuration is post-modification SB 342-49-048 configuration, manually run down a screw (2) and check that the head of the Screw (2) correctly seats on the combustor casing boss.

2. Remove the six protective plugs from the three Burner (6, Figure 3).

3. Installation of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration:

3.1 Install the three Caps (493000-01-053) and the three new Seals (7) on the three Burner (6).

Note

Make sure that the three holes of the three new Seals (7) and the three holes of the three burners (6) are fully aligned.

3.2 Install the three burners (6) on the combustor casing.

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3.3 Lubricate the nine new Screws (2) with Graphited grease.

Note

Make sure that the Screws (2) fitted correspond to the APU configuration on which the operation is performed.

3.4 Install the nine new Screws (2) on the three burners (6).

3.5

CAUTION

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

Tighten by hand the nine new Screws (2).

Note

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

4. Installation of the ignition burners if the APU is a post-modification SB 342-49-028 configuration:

(Refer to Figure 4)

4.1 Install the three new Seals (7, Figure 4) on the three burners (6, Figure 4).

Note

Make sure that the three holes of the three burners (6, Figure 4) are aligned with the three holes of the three Seals (7, Figure 4).

4.2 Install the three new seals (13, Figure 4) on the three Caps (14, Figure 4).

4.3 Install the three Caps (14, Figure 4) equipped with the three new seals (13, Figure 4) on the combustor casing.

4.4 Lubricate the nine new Screws (2, Figure 4) with Graphited grease.

Note

Make sure that the Screws (2, Figure 4) fitted correspond to the APU configuration on which the operation is performed.

4.5 Install the three burners (6, Figure 4) equipped with the three new seals (7, Figure 4) and the nine new Screws (2, Figure 4) on the combustor casing.

4.6

CAUTION

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

Tighten by hand the nine new Screws (2, Figure 4).

Note

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

5. Remove the five protective plugs from the two Fuel line (5, Figure 3) and the Fuel line (10).

6. Lubricate the new O-ring (9) with Grease AIR 3565/A, Engine fuel or Petrolatum.

7. Install the new O-ring (9) on the Fuel line (10).

8.

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 5.

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

9. Install the Fuel line (10) on the drain block (fuel flow divider) (12).

10. Tighten by hand the nut (3) of the Fuel line (10).

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11.

WARNING**Do not lubricate the threads of the nuts (3).**

Install the two Fuel lines (5).

12. Tighten by hand the four nuts (3) of the two Fuel lines (5).

13. Lubricate the threads of the two screws Screws (11) with Oil AIR 3514 or Engine oil.

14. Install the two new Screws (11) on the Fuel line (10).

15. Torque the Screws (11) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

16. Installation of the ignition burners if the APU is a pre-modification SB 342-49-048 configuration:

16.1 Torque the nine Screws (2) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

17. Installation of the ignition burners if the APU is a post-modification SB 342-49-048 configuration:

17.1 Torque the nine Screws (2) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

18. 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).

19. Lubricate the threads of the four Screws (4) with Oil AIR 3514 or a Engine oil.

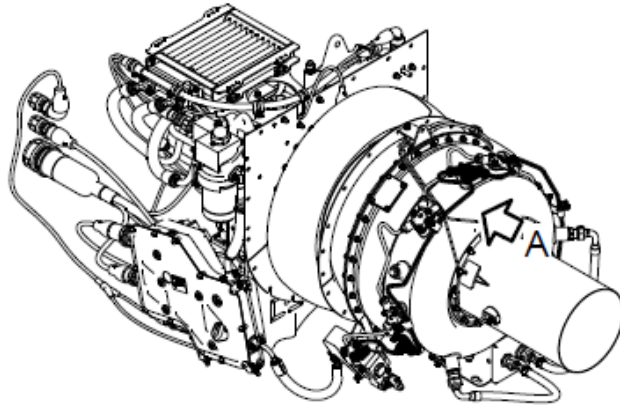
20. Install the four Screws (4) and the new four Self-locking nuts (1) on the four Clamps (8).

21. Torque the four Self-locking nuts (1) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

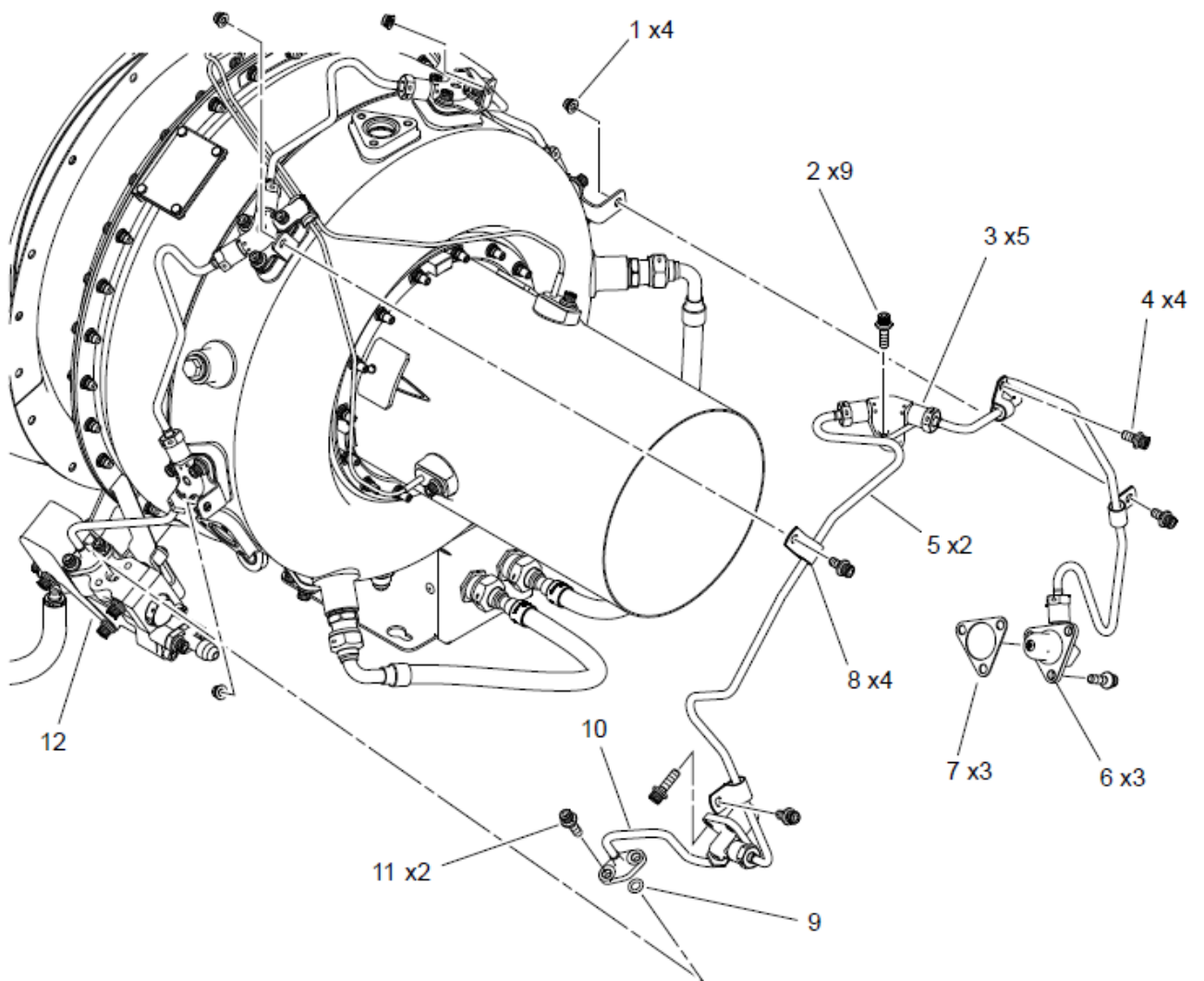
22. Lock the five nuts (3) with Lockwire.

23. Installation of the ignition burners if the APU is a post-modification SB 342-49-048 configuration:

23.1 Lock the nine new Screws (2) with Lockwire as shown in the Figure 6.

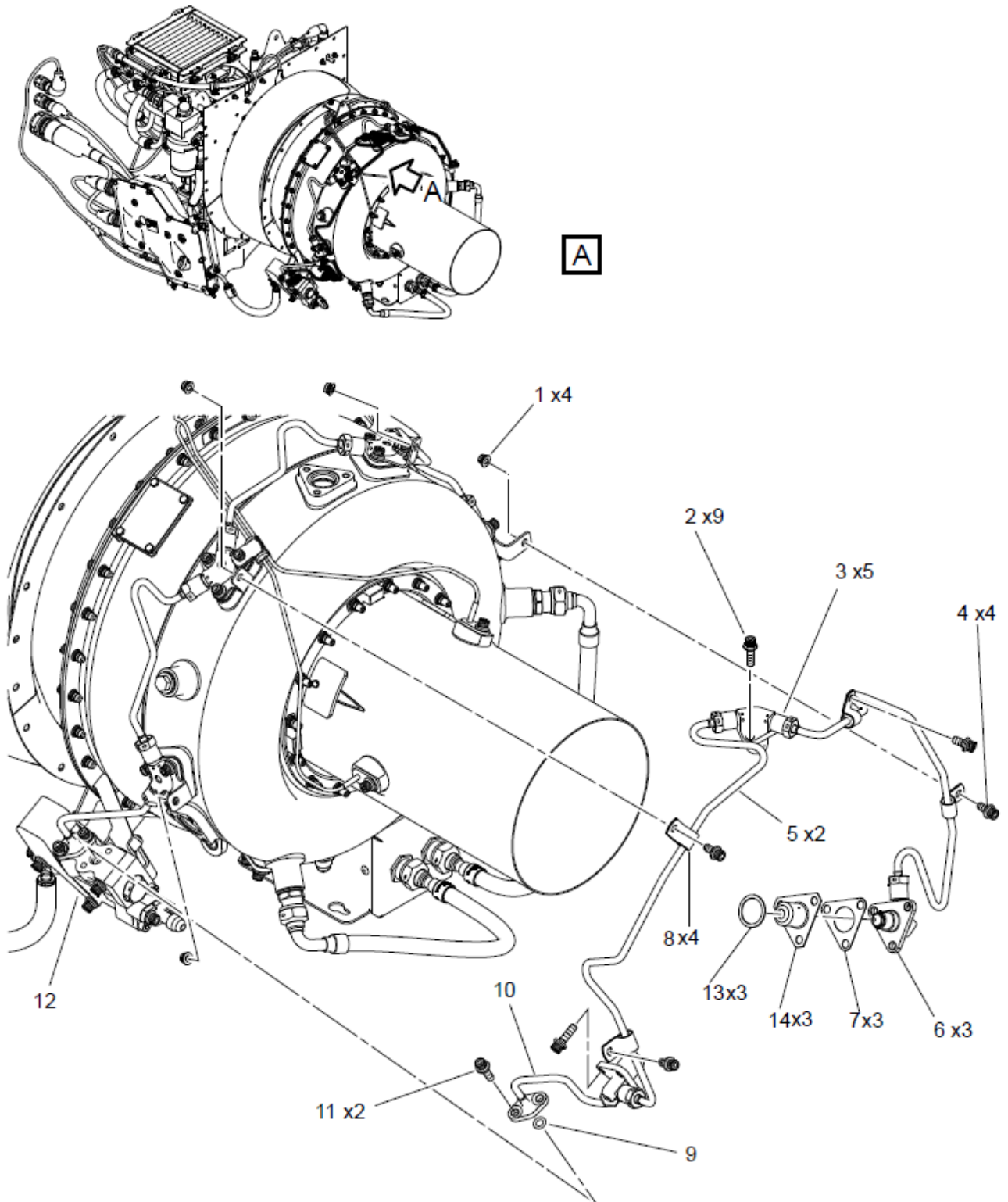


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Figure 3: Ignition manifold - Installation procedure (pre-modification SB 342-49-028 configuration)



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Figure 4: Ignition manifold – Installation procedure (post-modification SB 342-49-028 configuration)



Figure 5: Location where application of a small amount of grease is required

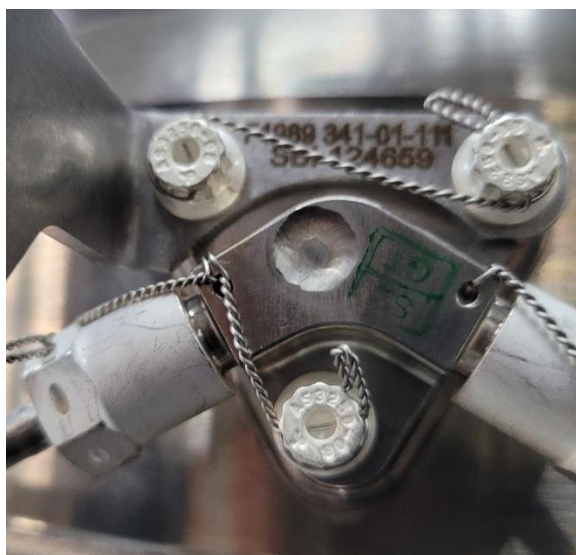


Figure 6: Locking of the Screws (2) (post-modification SB 342-49-048 configuration)

3.2.6. Requirements after job completion

<i>Required condition Data module</i>	<i>Publication identifier</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 must be closed.	N/A

3.3. Burner manifold – Removal Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-31-05-00A-520A-B – Burner manifold – Removal Procedure.

This procedure is applicable to operators and MRO centers.

3.3.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</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 must be opened.	N/A
The APU must be removed.	N/A

3.3.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Protective plugs	Tool: Local purchase	23 Ea
Protective cap	Tool: Local purchase	1 Ea

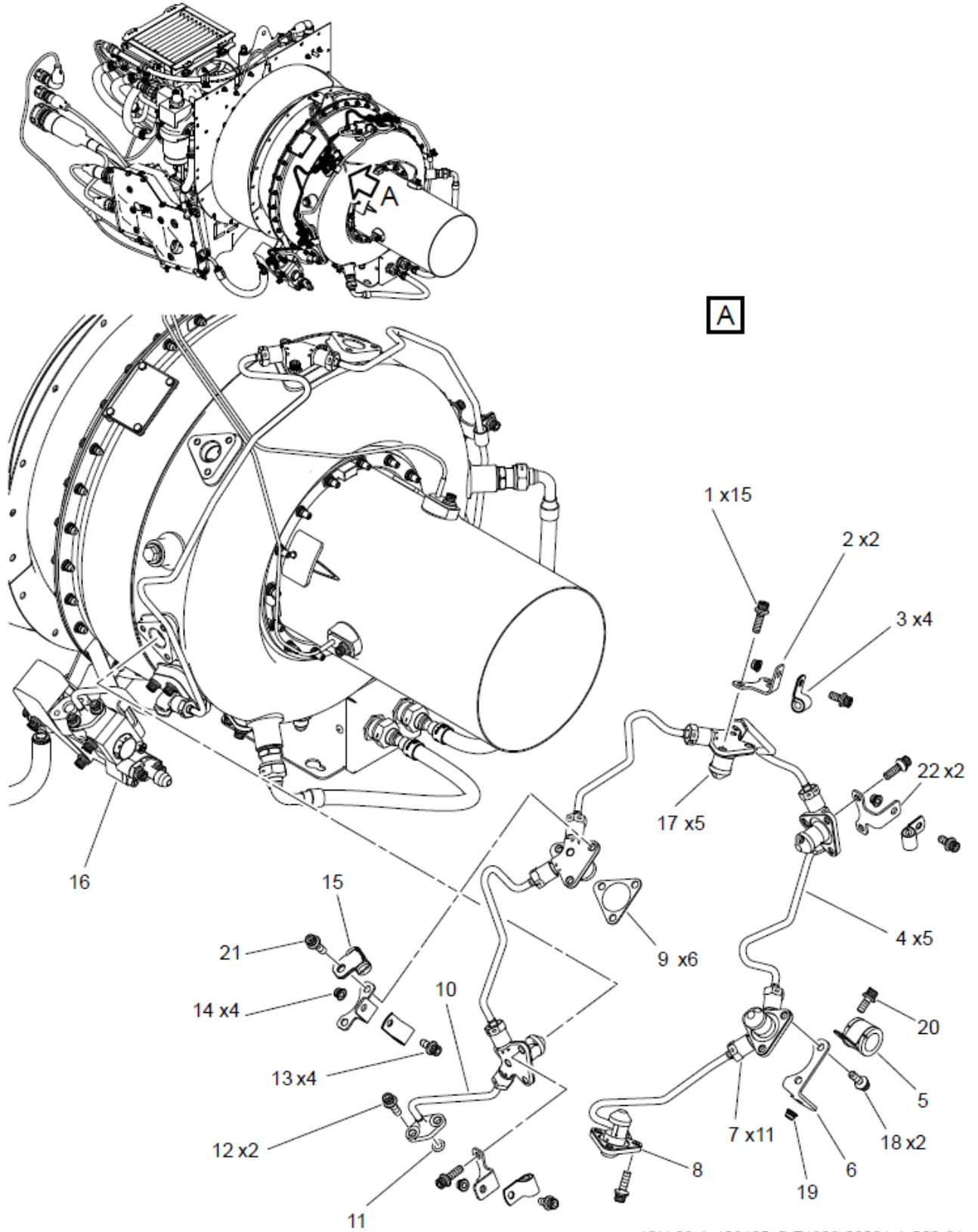
3.3.3. Procedure

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 7).
2. Removal of the main burners if the APU is a post-modification SB 342-49-048 configuration:
 - 2.1 **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 six main burners (8, 17).
3. Remove and discard the five nuts (14, 19) from the five clamps (3, 5).
4. Remove the screws (13, 20) from the five clamps (3, 5).
5. Unscrew the 11 nuts (7) and remove the five fuel lines (4).
6. Remove and discard the two screws (12) of the fuel pipe (10) on the drain block (fuel flow divider) (16).
7. Remove the fuel line (10) from the drain block (fuel flow divider) (16).
8. Remove and discard the O-ring (11).
9. Install 10 Protective plugs on the five Fuel lines (4).
10. Install one of the Protective plugs and the Protective cap on the fuel line (10).
11. Remove and discard the 18 screws (1, 18, 21) of the six burners (8, 17).
12. Remove the six burners (8, 17) with the five brackets (2, 6, 22) and the bracket (15).
13. Remove the six seals (9).

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14. Install 12 Protective plugs on the burners (8, 17).



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Figure 7: Burner manifold - Remove procedure

3.3.4. Requirements after job completion

<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A

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3.4. Burner manifold – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-31-05-00A-720A-B– Burner manifold – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.4.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.4.2. Support equipment

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

3.4.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Engine Fuel	Cons.: C033	AR
Petrolatum	Cons.: C047	AR
Engine Oil	Cons.: C007	AR
Lockwire	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Grease AIR 3565/A	Cons.: AIR 3565/A (NATO CODE S-743)	AR
Oil AIR 3514	Cons.: AIR 3514 (NATO CODE O-150)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.4.4. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Screws	CSN: 49300001 043 -	2 EA
O-ring	CSN: 49300001 044 -	1 EA
Nuts	CSN: 49300001 047 -	4 EA
Screws	CSN: 49300001 048 -	4 EA
Clamp	CSN: 49300001 055 -	4 EA
Mounting brackets	CSN: 49300001 056 -	2 EA
Mounting brackets	CSN: 49300001 057 -	2 EA
Screws (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49300001 061 -	15 EA
Screws (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49300001 061A -	15 EA
Burner	CSN: 49300001 062 -	1 EA
Seals	CSN: 49300001 063 -	6 EA
Burners	CSN: 49300001 064 -	5 EA
Fuel lines	CSN: 49300001 065 -	5 EA
Fuel line	CSN: 49300001 066 -	1 EA
Mounting bracket	CSN: 49300001 067 -	1 EA
Screw (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49300001 068 -	2 EA
Screw (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49300001 068A -	2 EA
Clamp	CSN: 49600001 046 -	1 EA
Screw (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49600001 047 -	1 EA
Screw (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49600001 047A -	1 EA
Clamp	CSN: 49900001 067 -	1 EA
Nut	CSN: 49900001 068 -	1 EA
Screw	CSN: 49900001 069 -	1 EA

3.4.5. Procedure

1. Identification of the configuration:
 - 1.1 Inspect the threads allowing the installation of the main burners in the combustor casing.

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- 1.1.1 If the threads contain thread inserts, the APU configuration is pre-modification SB 342-49-048 configuration.
- 1.1.2 If the threads does not contain thread inserts, the APU configuration is post-modification SB 342-49-048 configuration.

Note

To make sure that the APU configuration is post-modification SB 342-49-048 configuration, manually run down a screw (2, Figure 8) and check that the head of the Screw (2, Figure 8) correctly seats on the combustor casing boss.

2. Remove the 12 protective plugs from the six burners (8, 17, Figure 8).
3. Lubricate the 15 new Screws (1), the new Screw (21) and the two new Screw (18) with Graphited grease.

Note

Make sure that the Screws (1, 18, 21) fitted correspond to the APU configuration on which the operation is performed.

4. Install the six burners (8, 17) with the six new Seals (9) and the 15 new Screws (1), the new Screw (21) and the two new Screw (18) as follows:
 - One of the Burners (17) with the Mounting bracket (6)
 - One of the Burners (17) with one of the Mounting brackets (22)
 - One of the Burners (17) with one of the Mounting brackets (2)
 - One of the Burners (17) with one of the Mounting brackets (22) and the Clamp (15)
 - One of the Burners (17) with one of the Mounting brackets (2)
 - The Burner (8).
5. Put in position the T4 probes in the Clamp (15).

6. **CAUTION**

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

Tighten by hand the 15 new Screws (1), the new Screw (21) and the two new Screw (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.

7. Remove the protective plug and the protective cap from the Fuel line (10).
8. Remove the 10 protective plugs from the five Fuel lines (4).
9. Lubricate the new O-ring (11) with Grease AIR 3565/A, Engine fuel or Petrolatum.
10. Install the new O-ring (11) on the Fuel line (10).

11. **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 9.

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

12. Install the Fuel line (10) on the drain block (fuel flow divider) (16).
13. Tighten by hand the nut (7) of the Fuel line (10).
14. Install the five Fuel lines (4).
15. Tighten by hand the 10 nuts (7) of the five Fuel lines (4).

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16. Installation of the main burners if the APU is a pre-modification SB 342-49-048 configuration:

16.1 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.

17. Installation of the main burners if the APU is a post-modification SB 342-49-048 configuration:

17.1 Torque the eight Screws (1) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

Note

These screws do not secure the brackets.

18. Torque the 10 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).

19. Lightly lubricate the threads of the two Screws (12) with Oil AIR 3514 or Engine oil.

20. Install the two new Screws (12) on the Fuel line (10).

21. Torque the Screws (12) to 5 Nm (44.254 lbf.in) standard torque wrench or a Special torque wrench (M25740).

22. Torque the nut (7) of the Fuel line (10) to 11 Nm - 12 Nm (97.360 lbf.in - 106.210 lbf.in) with a standard torque wrench or a Special torque wrench (M26470).

23. Lightly lubricate the threads of the four Screws (13) and the Screw (20) with Oil AIR 3514 or Engine oil.

24. Install the four Clamp (3), the Clamp (5), with the four Screws (13), the Screw (20) and the four new Nuts (14), the Nut (19) on the brackets and on the ignition manifold.

25. Torque the Nuts (14) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a Special torque wrench (M25740).

26. Installation of the main burners if the APU is a pre-modification SB 342-49-048 configuration:

26.1 Torque the seven Screws (1), the Screw (21) and the two Screw (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.

27. Installation of the main burners if the APU is a post-modification SB 342-49-048 configuration:

27.1 Torque the seven Screws (1), the Screw (21) and the two Screw (18) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

Note

These screws secure the brackets.

28. Installation of the main burners if the APU is a pre-modification SB 342-49-048 configuration:

28.1 Make sure that the tightening torque of the 15 Screws (1), the Screw (21) and the two Screw (18) is 5 Nm (44.254 lbf.in) with a standard torque wrench or a Special torque wrench (M25740).

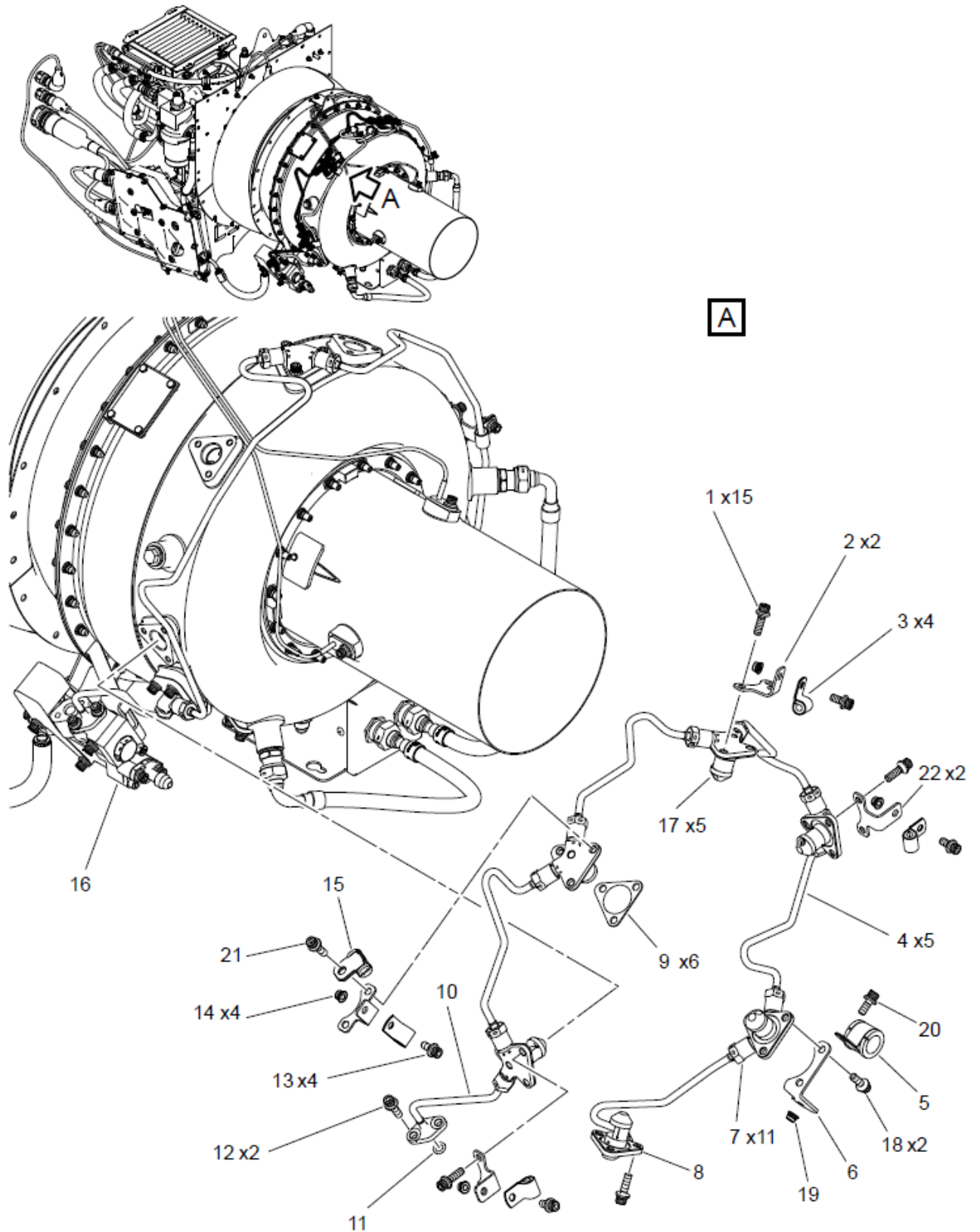
29. Installation of the main burners if the APU is a post-modification SB 342-49-048 configuration:

29.1 Make sure that the tightening torque of the 15 Screws (1), the Screw (21) and the two Screw (18) is 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

30. Lock the 11 nuts (7) with Lockwire.

31. Installation of the main burners if the APU is a post-modification SB 342-49-048 configuration:

31.1 Lock the 15 Screws (1), the Screw (21) and the two Screw (18) with Lockwire as shown in the Figure 10.



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Figure 8: Burner manifold - Installation procedure



Figure 9: Location where application of a small amount of grease is required

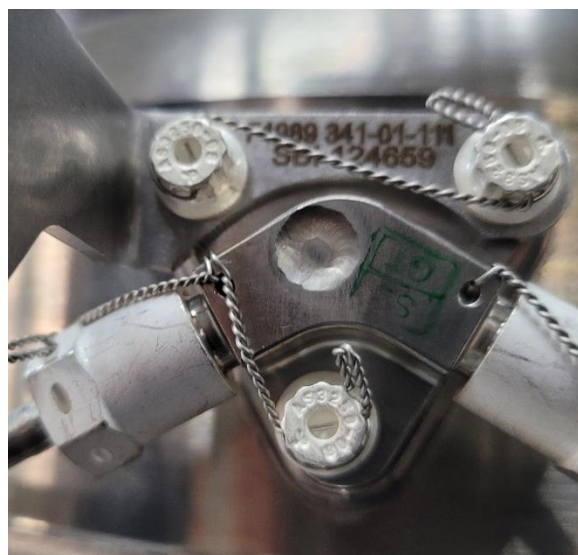


Figure 10: Locking of the 15 Screws (1), the Screw (21) and the two Screw (18) (post-modification SB 342-49-048 configuration)

3.4.6. Requirements after job completion

<i>Required condition Data module</i>	<i>Publication identifier</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 must be closed.	N/A

3.5. Igniter plugs – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-42-01-00A-720A-A – Igniter plugs – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.5.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.5.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Standard torque wrench	Tool: Local purchase	1 Ea

3.5.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Lockwire	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.5.1. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Igniter plugs	CSN: 49400001 007 -	2 EA
Gaskets	CSN: 49400001 008 -	2 EA

3.5.2. Procedure

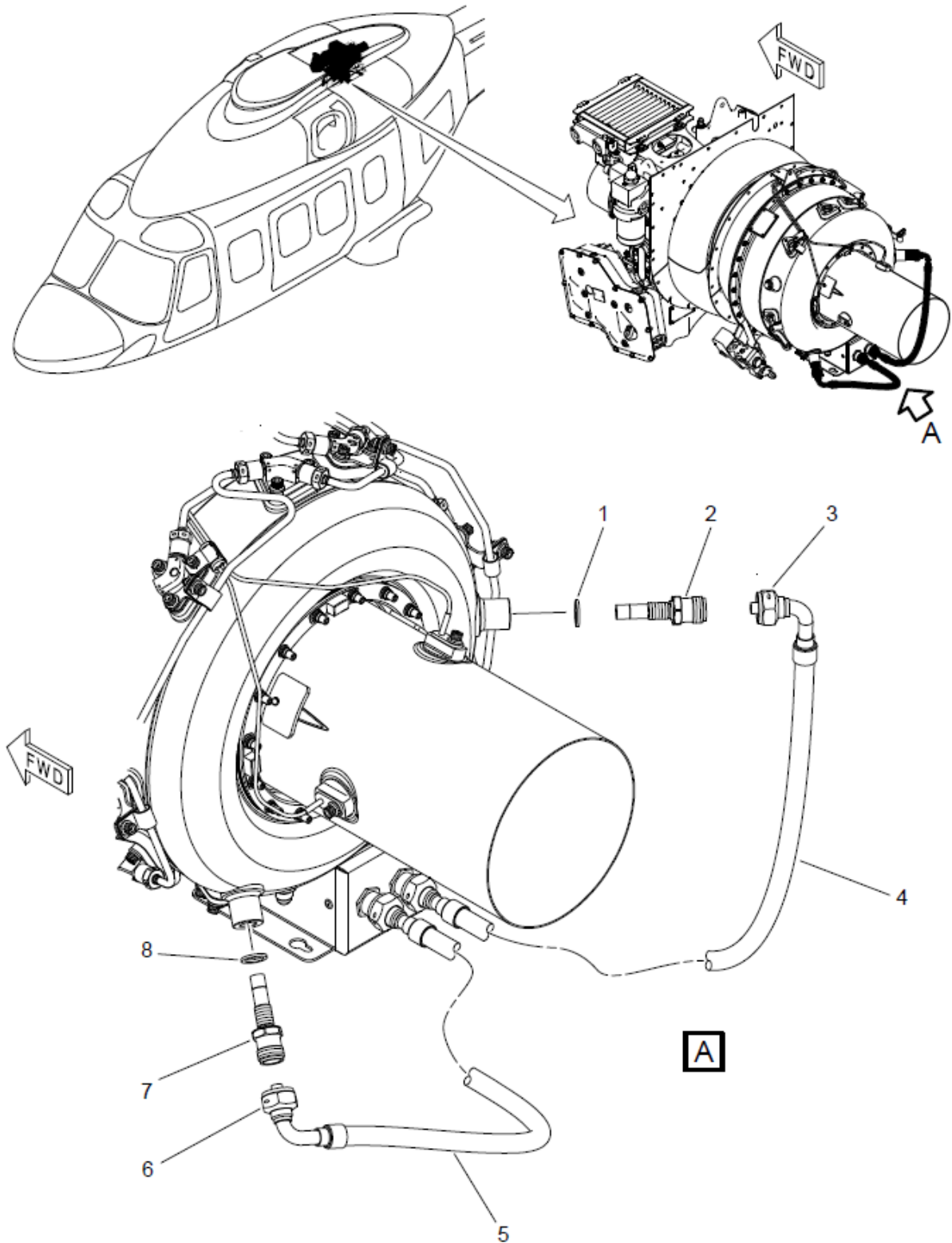
1. Remove the two protective caps from the Igniter plugs (2, 7, Figure 11) and the two protective caps from the gas generator.
2. Lubricate the thread of the two Igniter plugs (2, 7) with Graphited grease.
3. Install the two Gaskets (1, 8), the two Igniter plugs (2, 7) and screw the two Igniter plugs (2, 7).
4. Installation of the ignition plugs if the APU is a pre-modification SB 342-49-048 configuration:
 - 4.1 Torque the two Igniter plugs to 10 Nm (88.507 lbf.in) with a standard torque wrench.
5. Installation of the ignition plugs if the APU is a post-modification SB 342-49-048 configuration:
 - 5.1 Torque the two Igniter plugs to 8 Nm (70,806 lbf.in) with a standard torque wrench.
6. Remove the two protective caps from the electrical connector of the ignition leads.
7. Remove the two protective caps from the electrical socket of the igniter plugs.

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8. Connect the two ignition plugs leads (4, 5).
9. Install the two nuts (3, 6) of the ignition plugs leads (4, 5).
10. Torque the two nuts (3, 6) of the ignition plugs leads (4, 5) to 8 Nm (70.806 lbf.in) with a standard torque wrench.
11. Lock the two nuts (3, 6) of the two ignition plugs leads (4, 5) with Lockwire.

Note

Make sure that the locking is performed in the groove as close as possible to the igniter plugs.



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Figure 11: Igniter plugs - Installation procedure

3.5.3. Requirements after job completion

<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A
Check the electric functional status of the component at the PFD.	89-A-49-20-00-00A-320A-A
The access doors must be closed.	N/A

3.6. Drain valve – Removal Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-27-01-00A-520A-B – Drain valve – Removal Procedure.
 This procedure is applicable to operators and MRO centers.

3.6.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</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 must be opened	N/A
The APU must be removed.	89-A-49-11-01-00A-520A-A

3.6.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Protective cap	Tool: Local purchase	1 Ea

3.6.3. Procedure

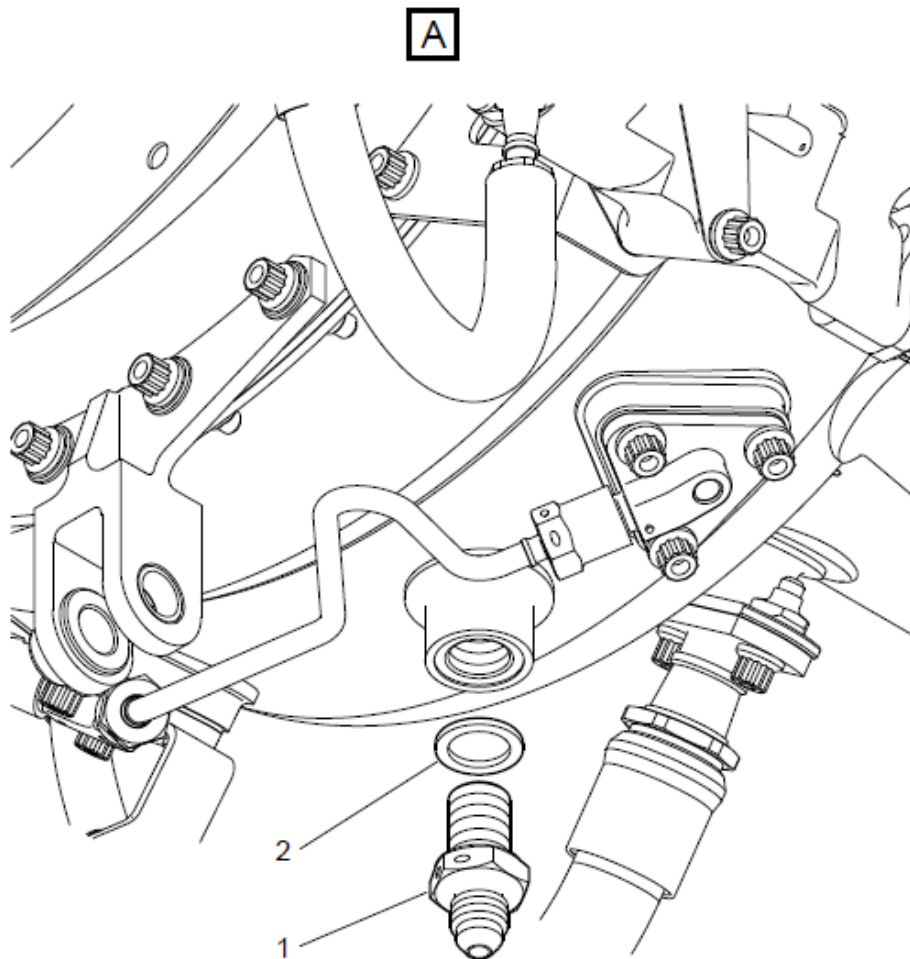
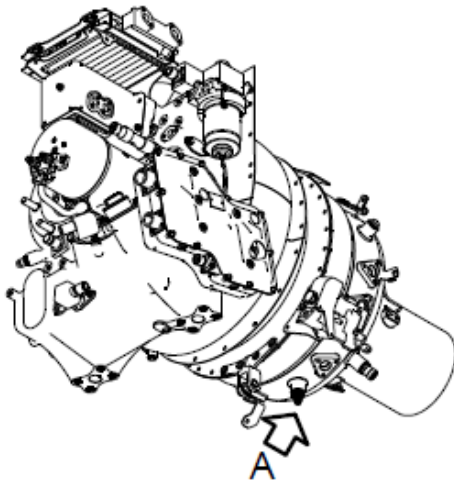
1. Removal of the drain valve if the APU is a post-modification SB 342-49-048 configuration:

1.1 **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 drain valve (1, Figure 12).

2. Remove the drain valve (1).
3. Remove and discard the gasket (2).
4. Install the Protective cap on the gas generator.



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Figure 12: Drain valve - Removal procedure

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<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A

3.7. Drain Valve – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-27-01-00A-720A-B – Drain Valve – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.7.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.7.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Protective plug	MFC: F1989 Pt no.: 2411604401	1 Ea

3.7.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Lockwire (if the APU is a post-modification SB 342-49-048 configuration)	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.7.4. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Drain valve	CSN: 49300001 058 -	1 EA
Gaskets	CSN: 49300001 059 -	1 EA

3.7.5. Safety conditions

Note

Lightly lubricate the thread of every screw with Graphited grease before installation.

3.7.6. Procedure

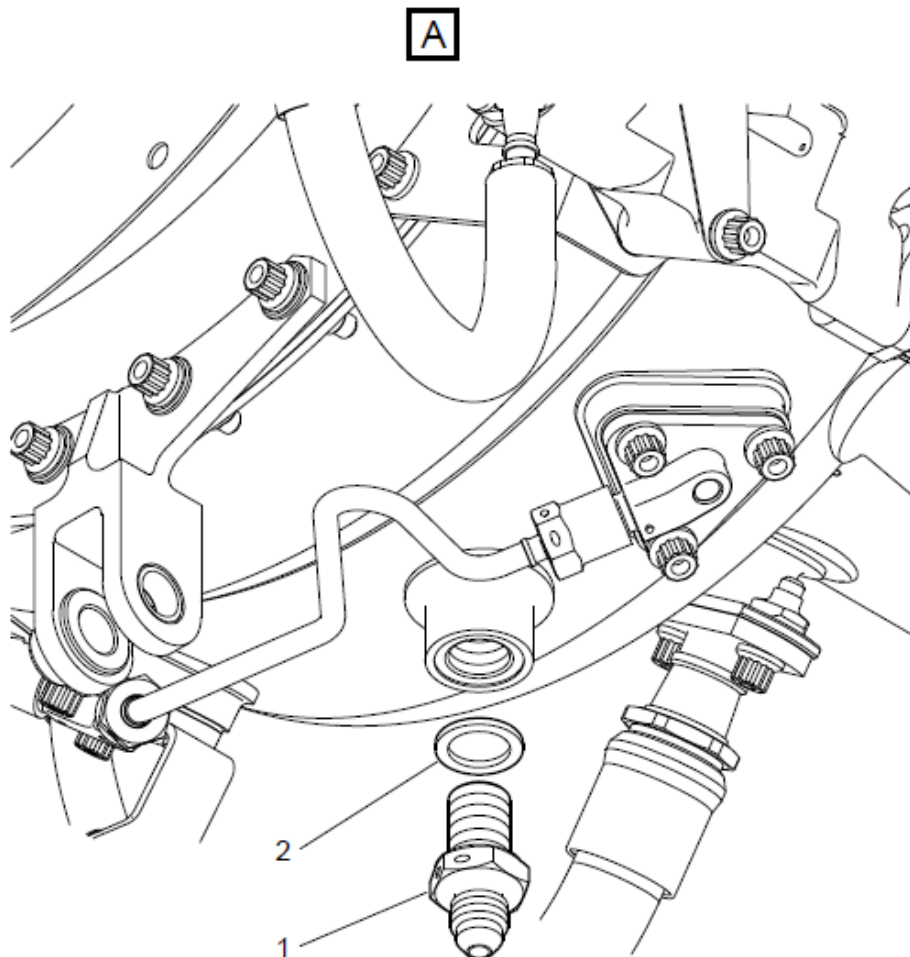
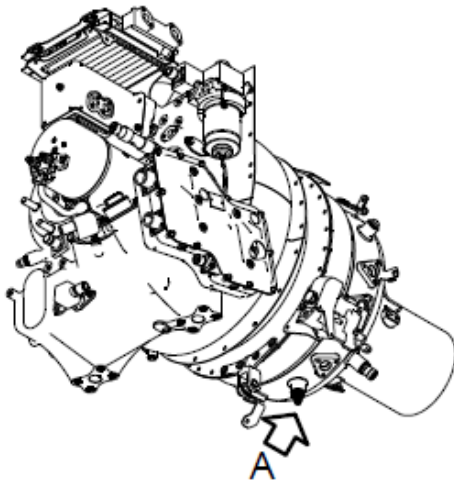
1. Remove the protective plug from the Drain valve (1, Figure 13).
2. Install the new Gasket (2) on the Drain valve (1).
3. Remove the protective cap from the gas generator.
4. Lightly lubricate the thread of the Drain valve (1) with Graphited grease.
5. Install the Drain valve (1).

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6. Installation of the drain valve if the APU is a pre-modification SB 342-49-048 configuration:
 - 6.1 Torque the Drain valve (1) to 15 Nm (132.761 lbf.in).
7. Installation of the drain valve if the APU is a post-modification SB 342-49-048 configuration:
 - 7.1 Torque the Drain valve (1) to 8 Nm (70,806 lbf.in).
8. Install the Protective plug on the Drain valve.
9. Installation of the drain valve if the APU is a post-modification SB 342-49-048 configuration:
 - 9.1 If the APU is a post-modification SB 342-49-048 configuration, lock the nut of the drain valve (1) with Lockwire.

Note

Make sure that the locking is performed in the groove as close as possible to the drain valve.



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Figure 13: Drain Valve - Installation procedure

SERVICE BULLETIN**342-49-049****3.7.7. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</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 must be closed.	N/A

3.8. Temperature probe T4-1 – Removal Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-72-01-00A-520A-A – Temperature probe T4-1 – Removal Procedure.

This procedure is applicable to operators and MRO centers.

3.8.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</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 must be opened	N/A

3.8.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Electrical connector protective cap	Tool: Local purchase	1 Ea
Electrical socket protective cap	Tool: Local purchase	1 Ea
Protective cap	Tool: Local purchase	1 Ea

3.8.3. Procedure

1. Disconnect the electrical connector (4, Figure 14).
2. Install the Electrical connector protective cap on the electrical connector.
3. Remove and discard the lockwire from the two temperature probe socket nuts.
4. Remove the nut (5) of the temperature probe T4-1 socket (6).
5. Remove the temperature probe socket (6).
6. Install the Electrical socket protective cap on the electrical socket.
7. Remove the screw (3) of the temperature probe harness clamp (2) and discard the self-locking nut (1).
8. Remove the clamp (2).
9. Remove the three screws (11) of the temperature probe junction mounting bracket (12) and discard the three self-locking nuts (15).

10. Remove the mounting bracket (12), the hoisting ring (13) and the locking plate (14).

11. Removal of the temperature probe T4-1 if the APU is a post-modification SB 342-49-048 configuration:

11.1

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 screw (9).

12. Remove and discard the screw (9) of the clamp (10).

13. Remove the clamp (10).

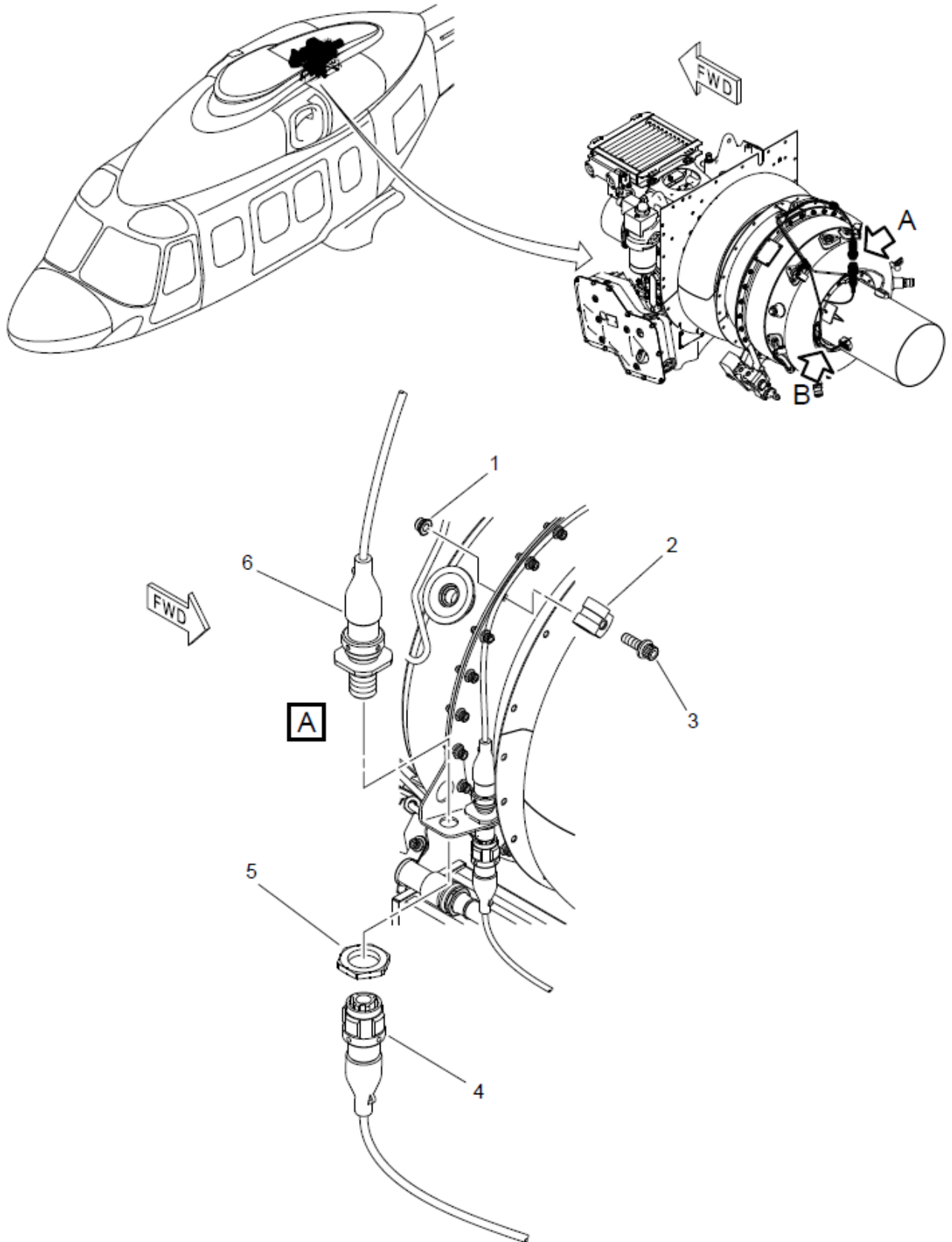
Note

The clamp is on the burner socket.

14. Remove and discard the screw (8) of the temperature probe T4-1 (7).

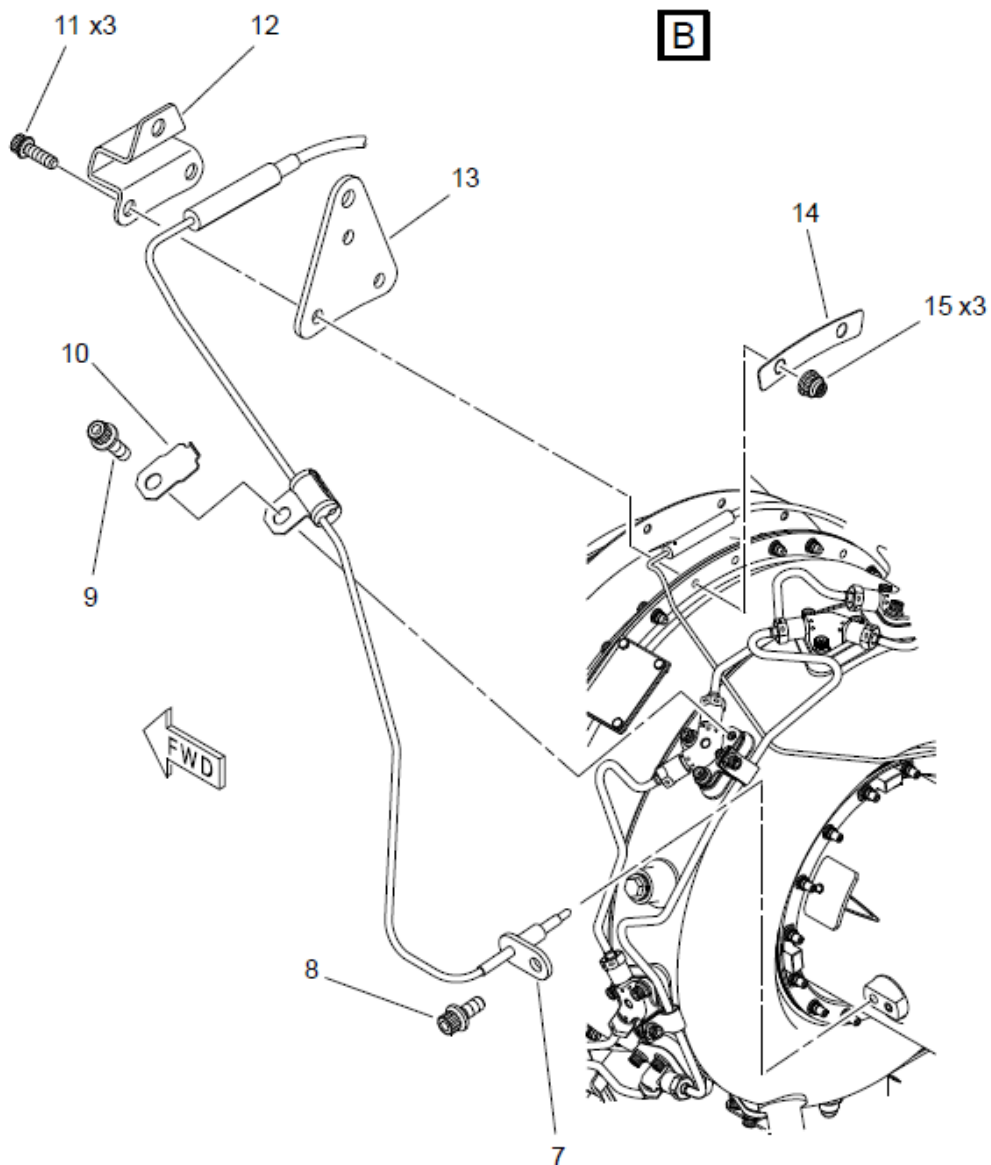
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15. Remove the temperature probe T4-1 (7).
16. Install the Protective cap on the temperature probe T4-1 (7).



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Figure 14: Temperature Probe T4-1 - Removal procedure (sheet 1 of 2)



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Figure 14: Temperature Probe T4-1 - Removal procedure (sheet 2 of 2)

SERVICE BULLETIN**342-49-049****3.8.4. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A

3.9. Temperature probe T4-1 – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-72-01-00A-720A-A – Temperature probe T4-1 – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.9.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.9.2. Support equipment

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

3.9.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Lockwire	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.9.4. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Temperature probe T4-1	CSN: 49600001 043 -	1 Ea
Screw	CSN: 49600001 045 -	1 Ea
Screw (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49600001 047 -	1 EA
Screw (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49600001 047A -	1 EA
Self-locking nuts	CSN: 49600001 049 -	3 Ea
Clamp	CSN: 49600001 046 -	1 Ea
Mounting bracket	CSN: 49600001 048 -	1 Ea
Hoisting ring	CSN: 49200003 004 -	1 Ea
Locking plate	CSN: 49200003 005 -	1 Ea
Screws	CSN: 49600001 050 -	3 Ea
Clamp	CSN: 49600001 051 -	1 Ea
Screw	CSN: 49600001 052 -	1 Ea
Nut	CSN: 49600001 051M -	1 Ea

3.9.5. Safety conditions

Note

Lightly lubricate the thread of every screw with Graphited grease before installation.

3.9.6. Procedure

1. Remove the protective cap from the Temperature probe T4-1 (7, Figure 15).
2. Install the Temperature probe T4-1 (7).
3. Install the new Screw (8) of the Temperature probe T4-1 (7).
4. Torque the screw (8) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).
5. Remove the protective cap from the temperature probe T4-1 socket (6).
6. Install the temperature probe T4-1 socket (6).
7. Install the nut of the temperature probe T4-1 socket (5).
8. Torque the nut (5) to 5 Nm (44.254 lbf.in).
9. Install the Clamp (10).

Note

The clamp is on the burner socket.

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10. Install the new Screw (9) of the Clamp (10).

Note

Make sure that the Screw (9) fitted corresponds to the APU configuration on which the operation is performed.

11. Installation of the Screw (9) if the APU is a pre-modification SB 342-49-048 configuration:

11.1 Torque the Screw (9) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a Special torque wrench (M25740).

12. Installation of the Screw (9) if the APU is a post-modification SB 342-49-048 configuration:

12.1 Torque the Screw (9) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

13. Install the Mounting bracket (12), the Hoisting ring (13) and the Locking plate (14).

14. Install the three new Self-locking nuts (15) and the three Screws (11) of the temperature probe junction Mounting bracket (12).

15. Torque the Screws (11) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

16. Install the Clamp (2).

17. Install the new Nut (1) and the Screw (3) of the temperature probe harness Clamp (2).

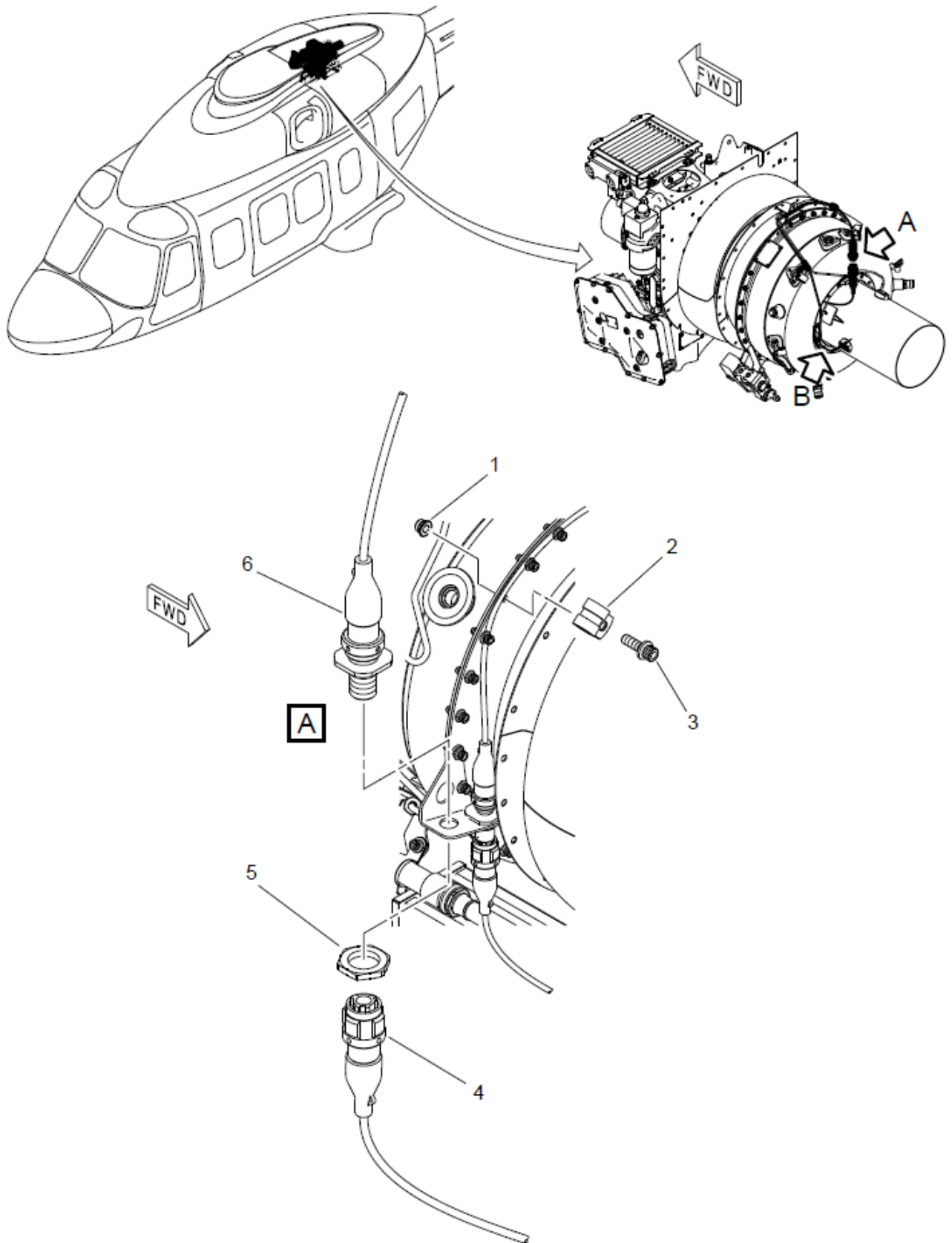
18. Torque the screw (3) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

19. Install the Lockwire on the two temperature probes sockets nuts.

20. If the APU is a post-modification SB 342-49-048 configuration, lock the Screw (9) with the other screw used to attach the burner with Lockwire.

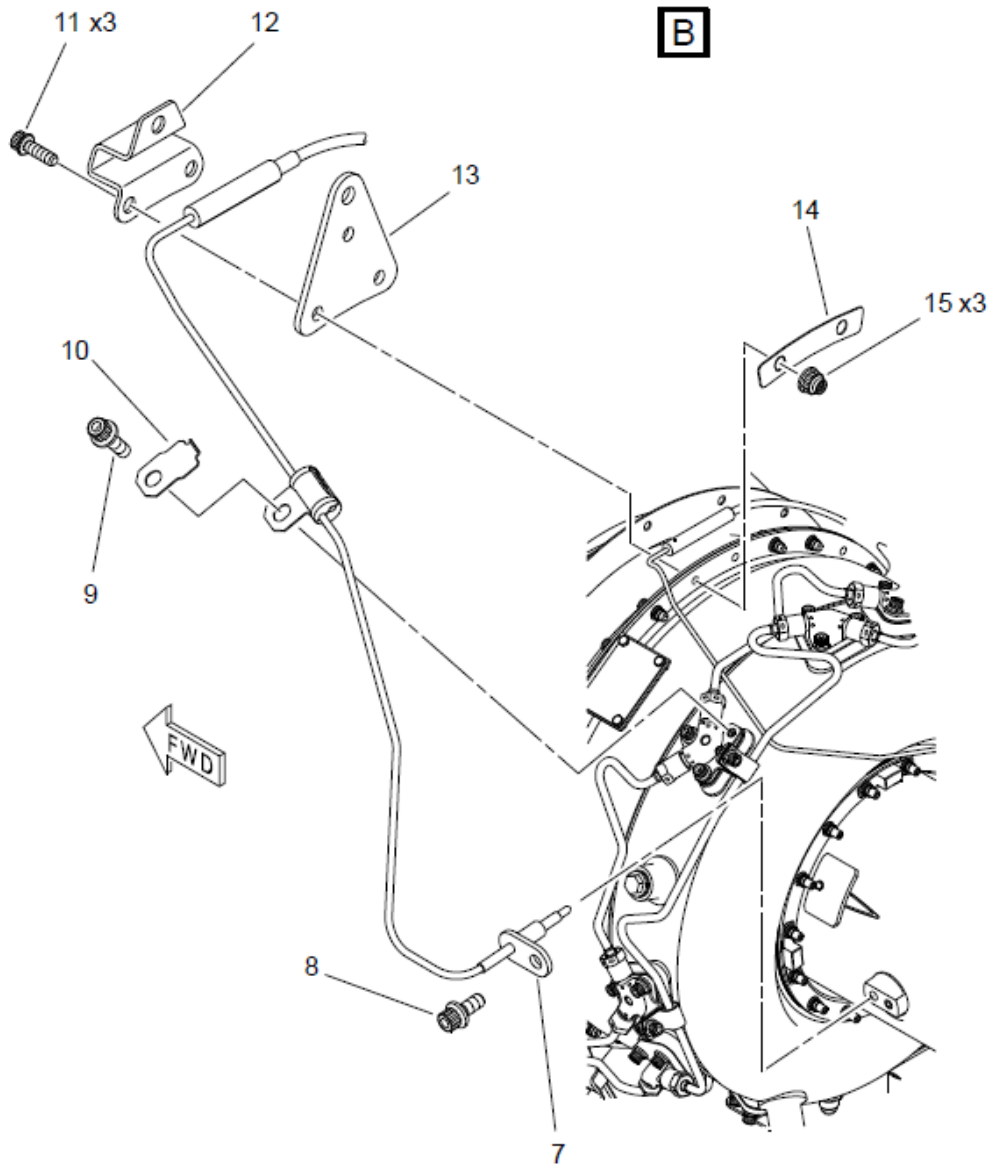
21. Remove the protective cap from the electrical connector (4).

22. Connect the electrical connector (4).



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Figure 15: Temperature Probe T4-1 - Installation procedure (sheet 1 of 2)



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Figure 15: Temperature Probe T4-1 – Installation procedure (sheet 2 of 2)

SERVICE BULLETIN**342-49-049****3.9.7. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</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 must be closed.	N/A

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3.10. Temperature probe T4-2 – Removal Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-72-03-00A-520A-A – Temperature probe T4-2 – Removal Procedure.
This procedure is applicable to operators and MRO centers.

3.10.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</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 must be opened	N/A

3.10.2. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Electrical connector protective cap	Tool: Local purchase	1 Ea
Electrical socket protective cap	Tool: Local purchase	1 Ea
Protective cap	Tool: Local purchase	1 Ea

3.10.3. Procedure

1. Disconnect the electrical connector (4, Figure 16).
2. Install the Electrical connector protective cap on the electrical connector.
3. Remove and discard the lockwire from the two temperature probe socket nuts.
4. Remove the nut (5) of the temperature probe T4-2 socket (6).
5. Remove the temperature probe socket (6).
6. Install the Electrical socket protective cap on the electrical socket.
7. Remove the screw (3) of the temperature probe harness clamp (2) and discard the self-locking nut (1).
8. Remove the clamp (2).
9. Remove the three screws (11) of the temperature probe junction mounting bracket (12) and discard the three self-locking nuts (15).
10. Remove the mounting bracket (12), the hoisting ring (13) and the locking plate (14).
11. Removal of the temperature probe T4-2 if the APU is a post-modification SB 342-49-048 configuration:

11.1

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 screw (9).

12. Remove and discard the screw (9) of the clamp (10).

13. Remove the clamp (10).

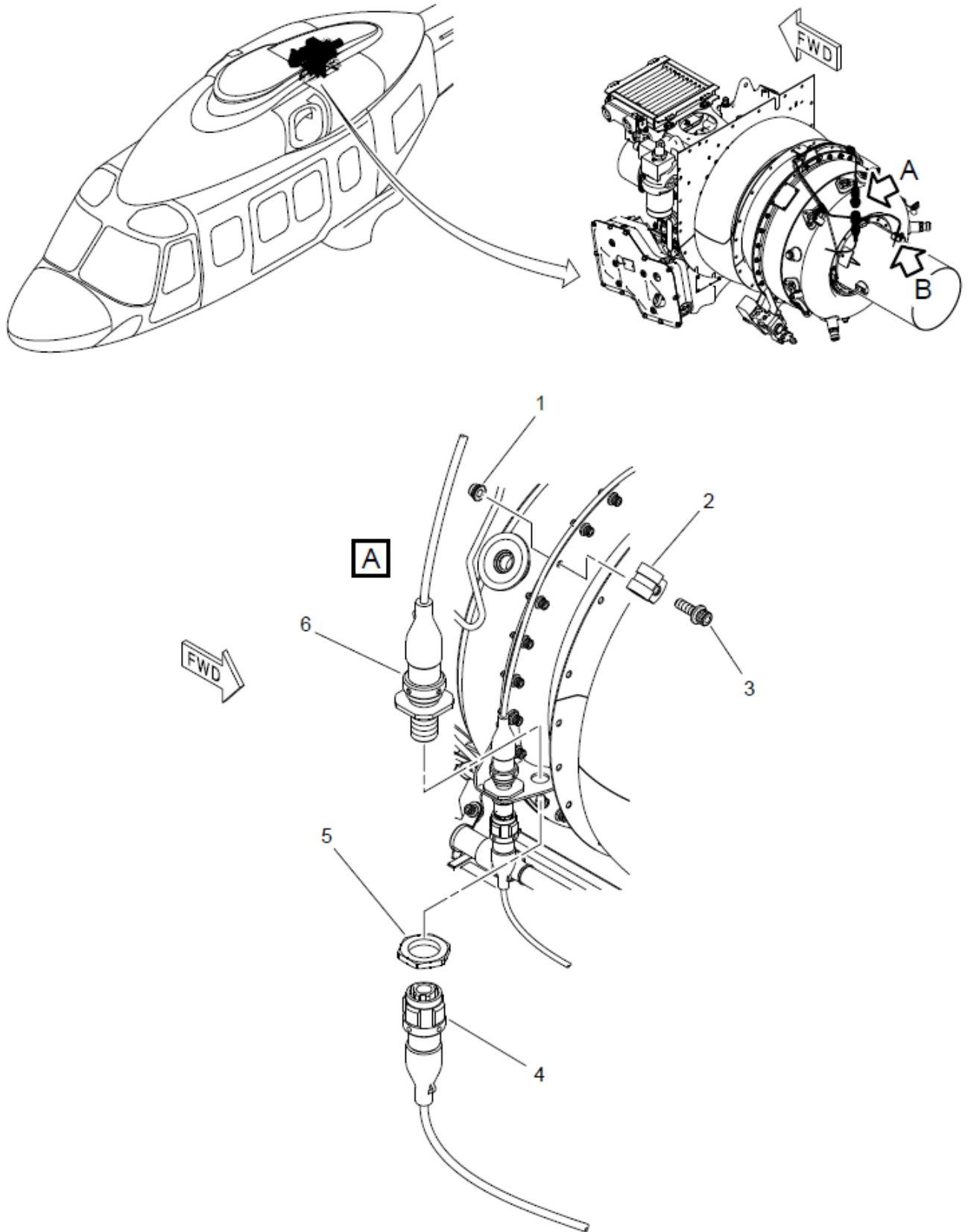
Note

The clamp is on the burner socket.

14. Remove and discard the screw (7) of the temperature probe T4-2 (8).
15. Remove the temperature probe T4-2 (8).

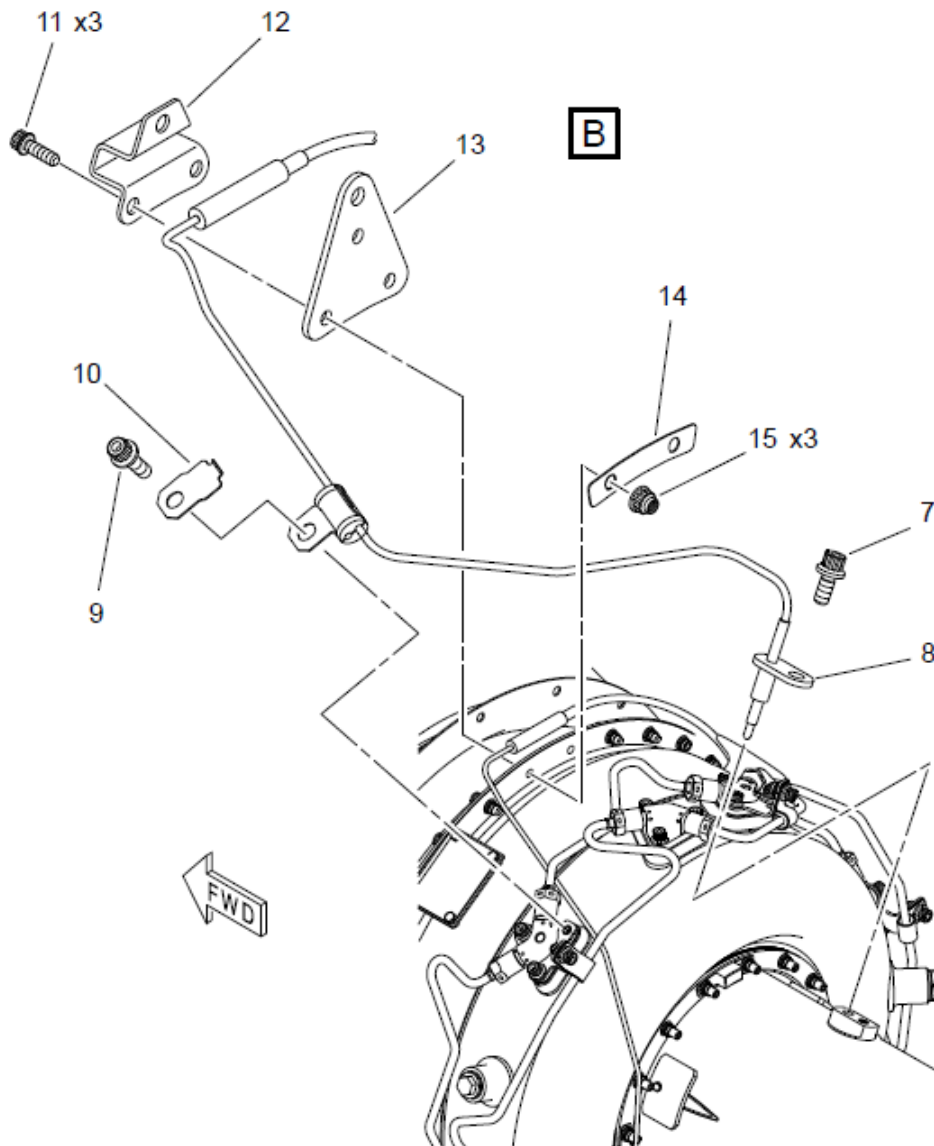
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16. Install the Protective cap on the temperature probe T4-2 (8).



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Figure 16: Temperature Probe T4-2 - Removal procedure (sheet 1 of 2)



ICN-89-A-497203-G-F1989-00004-A-001-01

Figure 16: Temperature Probe T4-2 - Removal procedure (sheet 2 of 2)

SERVICE BULLETIN**342-49-049****3.10.4. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</i>
Remove all the tools and the other items from the work area. Make sure that the work area is clean.	N/A

3.11. Temperature probe T4-2 – Installation Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-72-03-00A-720A-A – Temperature probe T4-2 – Installation Procedure.

This procedure is applicable to operators and MRO centers.

3.11.1. Preliminary requirements

<i>Required condition Data module</i>	<i>Publication identifier</i>
The helicopter must be safe for maintenance.	N/A
Refer to the helicopter maintenance manual if the APU is installed.	N/A

3.11.2. Support equipment

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

3.11.3. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Lockwire	Cons.: 23320TC050 (F0111) or equivalent (dia 0,5 mm)	AR
Graphited Grease	Cons.: Molycote 1000 or equivalent	AR

3.11.4. Spares

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Temperature probe T4-2	CSN: 49600001 044 -	1 Ea
Screw	CSN: 49600001 045 -	1 Ea
Screw (if the APU is a pre-modification SB 342-49-048 configuration)	CSN: 49600001 047 -	1 EA
Screw (if the APU is a post-modification SB 342-49-048 configuration)	CSN: 49600001 047A -	1 EA
Self-locking nuts	CSN: 49600001 049 -	3 Ea
Clamp	CSN: 49600001 046 -	1 Ea
Mounting bracket	CSN: 49600001 048 -	1 Ea
Hoisting ring	CSN: 49200003 004 -	1 Ea
Locking plate	CSN: 49200003 005 -	1 Ea
Screws	CSN: 49600001 050 -	3 Ea
Clamp	CSN: 49600001 051 -	1 Ea
Screw	CSN: 49600001 052 -	1 Ea
Nut	CSN: 49600001 051M -	1 Ea

3.11.5. Safety conditions

Note

Lightly lubricate the thread of every screw with Graphited grease before installation.

3.11.6. Procedure

1. Remove the protective cap from the Temperature probe T4-2 (8, Figure 17).
2. Install the Temperature probe T4-2 (8).
3. Install the new Screw (7) of the Temperature probe T4-2 (8).
4. Torque the screw (7) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).
5. Remove the protective cap from the temperature probe T4-1 socket (6).
6. Install the temperature probe T4-1 socket (6).
7. Install the nut of the temperature probe T4-1 socket (5).
8. Torque the nut (5) to 5 Nm (44.254 lbf.in).
9. Install the Clamp (10).

Note

The clamp is on the burner socket.

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10. Install the new Screw (9) of the Clamp (10).

Note

Make sure that the Screw (9) fitted corresponds to the APU configuration on which the operation is performed.

11. Installation of the Screw (9) if the APU is a pre-modification SB 342-49-048 configuration:

11.1 Torque the Screw (9) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a Special torque wrench (M25740).

12. Installation of the Screw (9) if the APU is a post-modification SB 342-49-048 configuration:

12.1 Torque the Screw (9) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

13. Install the Mounting bracket (12), the Hoisting ring (13) and the Locking plate (14).

14. Install the three new Self-locking nuts (15) and the three Screws (11) of the temperature probe junction Mounting bracket (12).

15. Torque the Screws (11) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

16. Install the Clamp (2).

17. Install the new Nut (1) and the Screw (3) of the temperature probe harness Clamp (2).

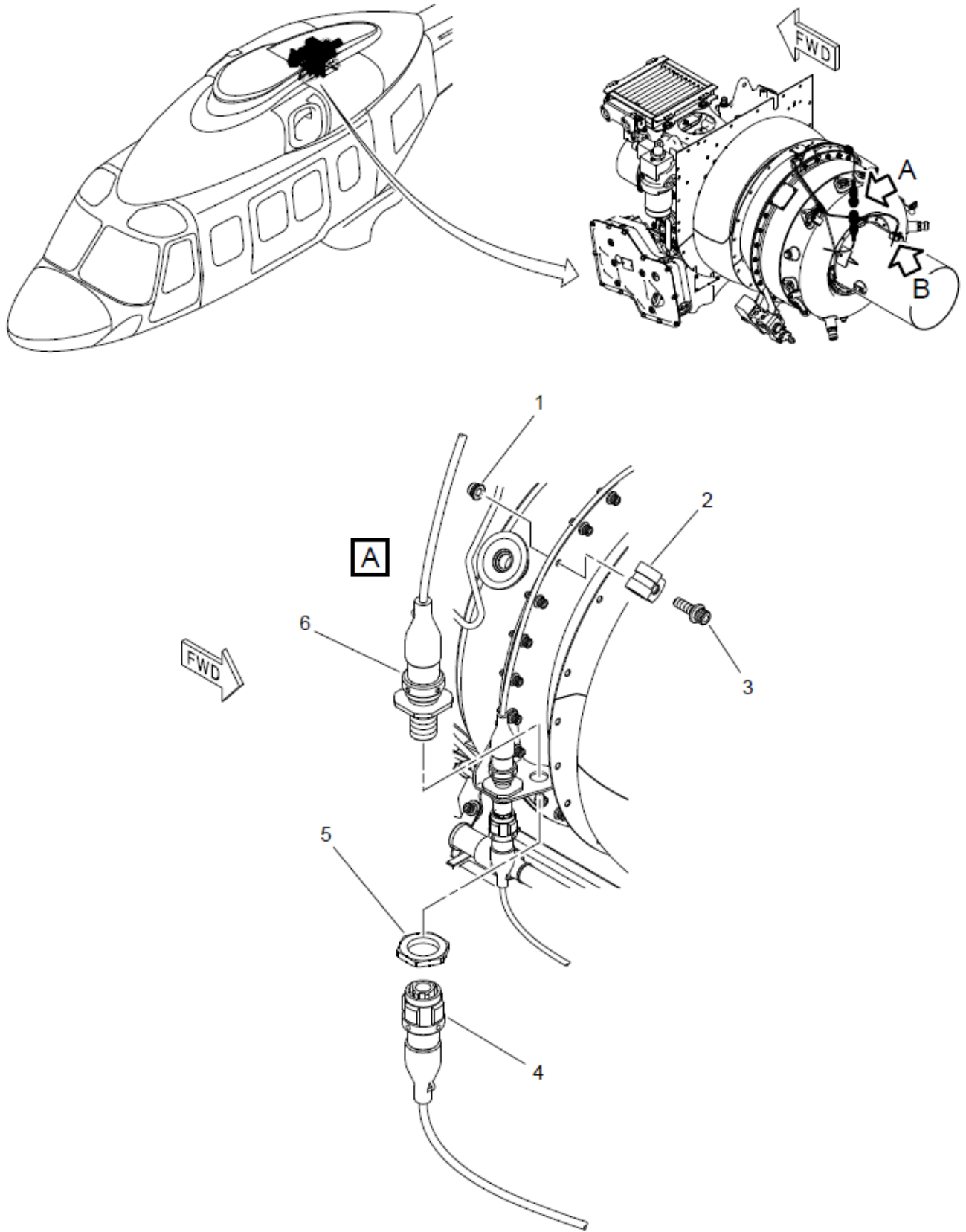
18. Torque the screw (3) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

19. Install the Lockwire on the two temperature probes sockets nuts.

20. If the APU is a post-modification SB 342-49-048 configuration, lock the Screw (9) with the other screw used to attach the burner with Lockwire.

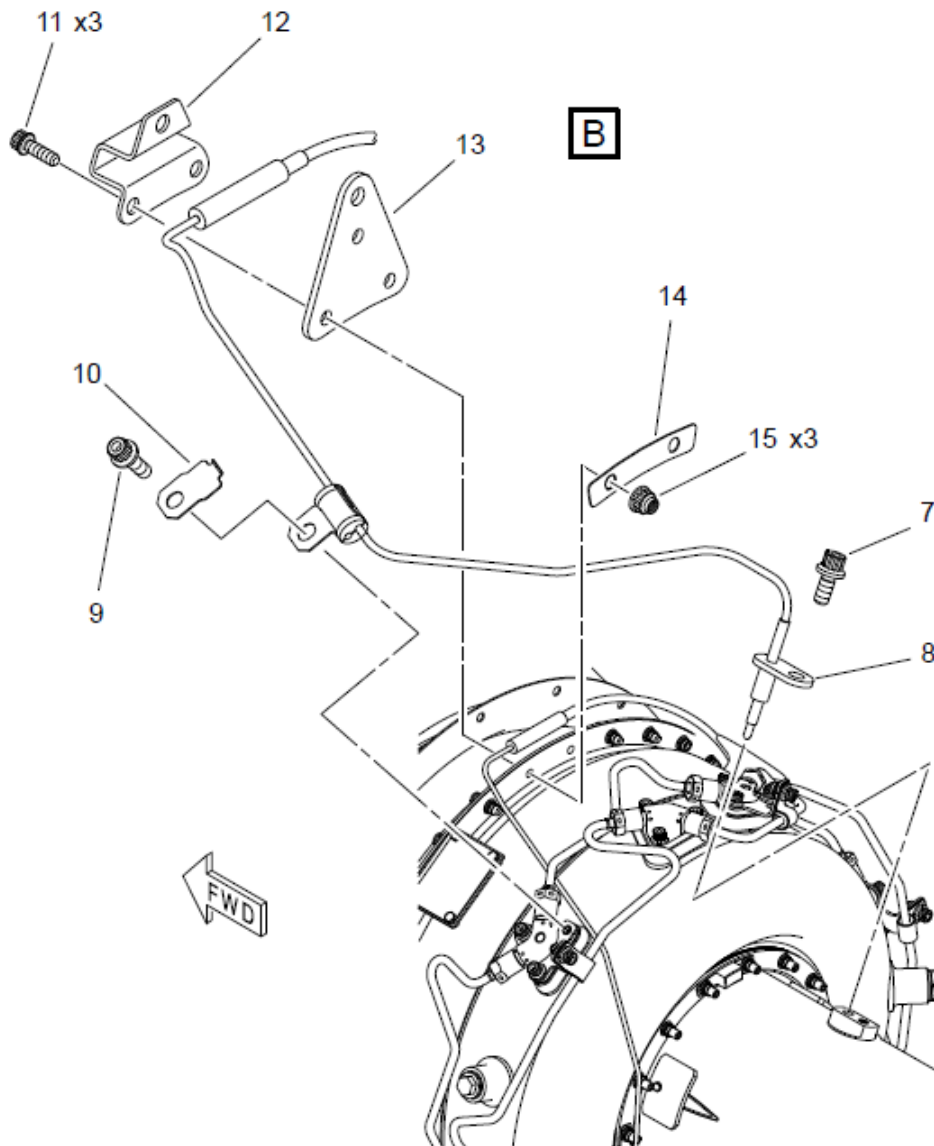
21. Remove the protective cap from the electrical connector (4).

22. Connect the electrical connector (4).



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Figure 17: Temperature Probe T4-2 - Installation procedure (sheet 1 of 2)



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Figure 17: Temperature Probe T4-2 – Installation procedure (sheet 2 of 2)

SERVICE BULLETIN**342-49-049****3.11.7. Requirements after job completion**

<i>Required condition Data module</i>	<i>Publication identifier</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 must be closed.	N/A

3.12. Engine (APU) – Disassemble Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-20-00-00A-530A-C – Engine (APU) – Disassemble procedure.

This procedure is applicable only to MRO centers.

Only the following paragraphs need to be updated and are detailed below:

- Para 2.5: Removal of main burners
- Para 2.6: Removal of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration
- Para 2.7: Removal of the ignition burners if the APU is a post-modification SB 342-49-028 configuration

All other paragraphs remain unchanged.

3.12.1. Procedure

[...]

2.5 Removal of the main burners

2.5.1 Removal of the main burners if the APU is a post-modification SB 342-49-048 configuration:

2.5.1.1 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 six burners (493000-01-062 and 493000-01-064).

2.5.2 Remove and discard the 17 screws of the six burners (493000-01-061 or 493000-01-061A and 493000-01-068 or 493000-01-068A).

2.5.3 Remove the six burners (493000-01-062 and 493000-01-064) with the five brackets (493000-01-067, 493000-01-056 and 493000-01-057).

2.5.4 Remove and discard the six seals (493000-01-063).

2.5.5 Install the 12 Protective plugs on the burners (493000-01-062 and 493000-01-064).

2.6 Removal of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration

2.6.1 Removal of the ignition burners if the APU is a post-modification SB 342-49-048 configuration:

2.6.1.1 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 three ignition burners (493000-01-052 and 493000-01-051).

2.6.2 Remove and discard the nine screws of the three burners (493000-01-046 or 493000-01-046A).

2.6.3 Remove the three burners (493000-01-052 and 493000-01-051).

Note

If the hat (lower part of the burner) is not removed with the burner, remove it of the combustion chamber with an extracting tool or a plier.

2.6.4 Remove and discard the three seals (493000-01-054).

2.6.5 Install the six Protective plugs on the burners (493000-01-052 and 493000-01-051).

2.7 Removal of the ignition burners if the APU is a post-modification SB 342-49-028 configuration

2.7.1 Removal of the ignition burners if the APU is a post-modification SB 342-49-048 configuration:

2.7.1.1

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 three ignition burners (493000-01-052 and 493000-01-051).

2.7.2 Remove and discard the nine screws of the three burners (493000-01-046 or 493000-01-046A).

2.7.3 Remove the three burners (493000-01-052 and 493000-01-051).

Note

If the hat (lower part of the burner) is not removed with the burner, remove it of the combustion chamber with an extracting tool or a plier.

2.7.4 Remove and discard the three seals (493000-01-054).

2.7.5 Remove the three caps (493000-01-053) equipped with the three seals (493000-01-053M).

2.7.6 Remove and discard the three seals (493000-01-053M) from the three caps (493000-01-053).

2.7.7 Install the six Protective plugs on the burners (493000-01-052 and 493000-01-051).

[...]

3.13. Engine (APU) – Assemble Procedure

This paragraph corresponds to the update of the Data Module 89-A-49-20-00-00A-710A-C – Engine (APU) – Assemble procedure.

This procedure is applicable only to MRO centers.

Only the following paragraphs need to be updated and are detailed below:

- Para 1.24.13: Install the igniter plugs,
- Para 1.24.16: Installation of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration,
- Para 1.24.17: Installation of the ignition burners if the APU is a post-modification SB 342-49-028 configuration,
- Para 1.24.18: Install the main burners,
- Para 1.35.13: Torque of screws that attached the main and ignition manifold,
- Para 1.35.18: Torque of screws that attached the main manifold,
- New paragraph: locking of the screws attaching the burners.

All other paragraphs remain unchanged.

3.13.1. Procedure

[...]

1.24.13 Install the igniter plugs (Refer to applicable paragraphs, 89-A-49-42-01-00A-720A-A).

[...]

1.24.16 Installation of the ignition burners if the APU is a pre-modification SB 342-49-028 configuration:

1.24.16.1 Identification of the configuration:

1.24.16.1.1 Inspect the threads allowing the installation of the ignition burners in the combustor casing.

1.24.16.1.2 If the threads contain thread inserts, the APU configuration is pre-modification SB 342-49-048 configuration.

1.24.16.1.3 If the threads does not contain thread inserts, the APU configuration is post-modification SB 342-49-048 configuration.

Note

To make sure that the APU configuration is post-modification SB 342-49-048 configuration, manually run down a screw that attaches a burner and check that the head of the Screw correctly seats on the combustor casing boss.

1.24.16.2 Install the three caps (493000-01-053) and the three new seals (493000-01-054) on the two burners (493000-01-052) and the burner (493000-01-051).

Note

Make sure that the three holes of the three new seals (493000-01-054) and the three holes of the three burners (493000-01-051) and (493000-01-052) are fully aligned.

1.24.16.3 Install the two burners (493000-01-052) and the burner (493000-01-051) on the combustor casing (03-085) (Refer to Figure 67).

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- 1.24.16.4 Lubricate the nine new Screws (493000-01-046 or 493000-01-046A) with Graphited grease.

Note

Make sure that the Screws (493000-01-046 or 493000-01-046A) fitted correspond to the APU configuration on which the operation is performed.

- 1.24.16.5 Install the nine new screws (493000-01-046 or 493000-01-046A) on the two burners (493000-01-052) and the burner (493000-01-051).

- 1.24.16.6

CAUTION

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

Tighten by hand the nine new Screws (493000-01-046 or 493000-01-046A).

Note

The nine new screws (493000-01-046 or 493000-01-046A) will be torque when the ignition manifold will be installed.

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

[...]

- 1.24.17 Installation of the ignition burners if the APU is a post-modification SB 342-49-028 configuration:

- 1.24.17.1 Identification of the configuration:

- 1.24.17.1.1 Inspect the threads allowing the installation of the main burners in the combustor casing.

- 1.24.17.1.2 If the threads contain thread inserts, the APU configuration is pre-modification SB 342-49-048 configuration.

- 1.24.17.1.3 If the threads does not contain thread inserts, the APU configuration is post-modification SB 342-49-048 configuration.

Note

To make sure that the APU configuration is post-modification SB 342-49-048 configuration, manually run down a screw that attaches a burner and check that the head of the Screw correctly seats on the combustor casing boss.

- 1.24.17.2 Install the three new Seals (493000-01-054) on the two Burners (493000-01-052) and the Burner (493000-01-051).

Note

Make sure that the three holes of the two Burners (493000-01-052) and the Burner (493000-01-051) are aligned with the three holes of the three Seals (493000-01-054).

- 1.24.17.3 Install the three new Seals (493000-01-053M) on the three caps (493000-01-053).

- 1.24.17.4 Install the three caps (493000-01-053) equipped with the three new Seals (493000-01-053M) on the combustor casing (03-085).

- 1.24.17.5 Lubricate the nine new Screws (493000-01-046 or 493000-01-046A) with Graphited grease.

Note

Make sure that the Screws (493000-01-046 or 493000-01-046A) fitted correspond to the APU configuration on which the operation is performed.

- 1.24.17.6 Install the two burners (493000-01-052) and the burner (493000-01-051) equipped with the three new Seals (493000-01-054) and the nine new Screws (493000-01-046 or 493000-01-046A) on the combustor casing.

1.24.17.7

CAUTION

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

Tighten by hand the nine new Screws (493000-01-046 or 493000-01-046A).

Note

The nine new screws (493000-01-046 or 493000-01-046A) will be torque when the ignition manifold will be installed. The fuel lines of the ignition manifold are rigid and must be connected to the mobile burners to prevent damage to the unions.

[...]

1.24.18

CAUTION

- **Record the part numbers, the serial numbers and the installation positions of the five burners (493000-01-064) and the burner (493000-01-062) on the assembly report No. CM34211.**

Install the main burners (refer to applicable paragraphs, 89-A-49-31-05-00A-720A-B).

[...]

1.35.13 Tightening of the main and ignition burners

1.35.13.1 Installation of the main and ignition burners if the APU is a pre-modification SB 342-49-048 configuration:

1.35.13.1.1 Torque the 9 new Screws (493000-01-046) and the 8 new screws (493000-01-061) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

Note

Do not torque the screws that attach the main burners to the mounting brackets (493000-01-067, 493000-01-056 and 493000-01-057).

1.35.13.2 Installation of the main and ignition burners if the APU is a post-modification SB 342-49-048 configuration:

1.35.13.2.1 Torque the 9 new Screws (493000-01-046A) and the 8 new screws (493000-01-061A) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

Note

Do not torque the screws that attach the main burners to the mounting brackets (493000-01-067, 493000-01-056 and 493000-01-057).

[...]

1.35.18 Tightening of the remaining screws attaching the main burners

1.35.18.1 Installation of the remaining screws attaching the main burners if the APU is a pre-modification SB 342-49-048 configuration:

1.35.18.1.1 Torque the 10 remaining new Screws (493000-01-061 and 493000-01-068) to 5 Nm (44.254 lbf.in) with a standard torque wrench or a special torque wrench (M25740).

Note

These screws secure the brackets.

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1.35.18.2 Installation of the remaining screws attaching the main burners if the APU is a post-modification SB 342-49-048 configuration:

1.35.18.2.1 Torque the 10 remaining new Screws (493000-01-061A and 493000-01-068A) to 3,8 Nm (33,633 lbf.in) with a standard torque wrench.

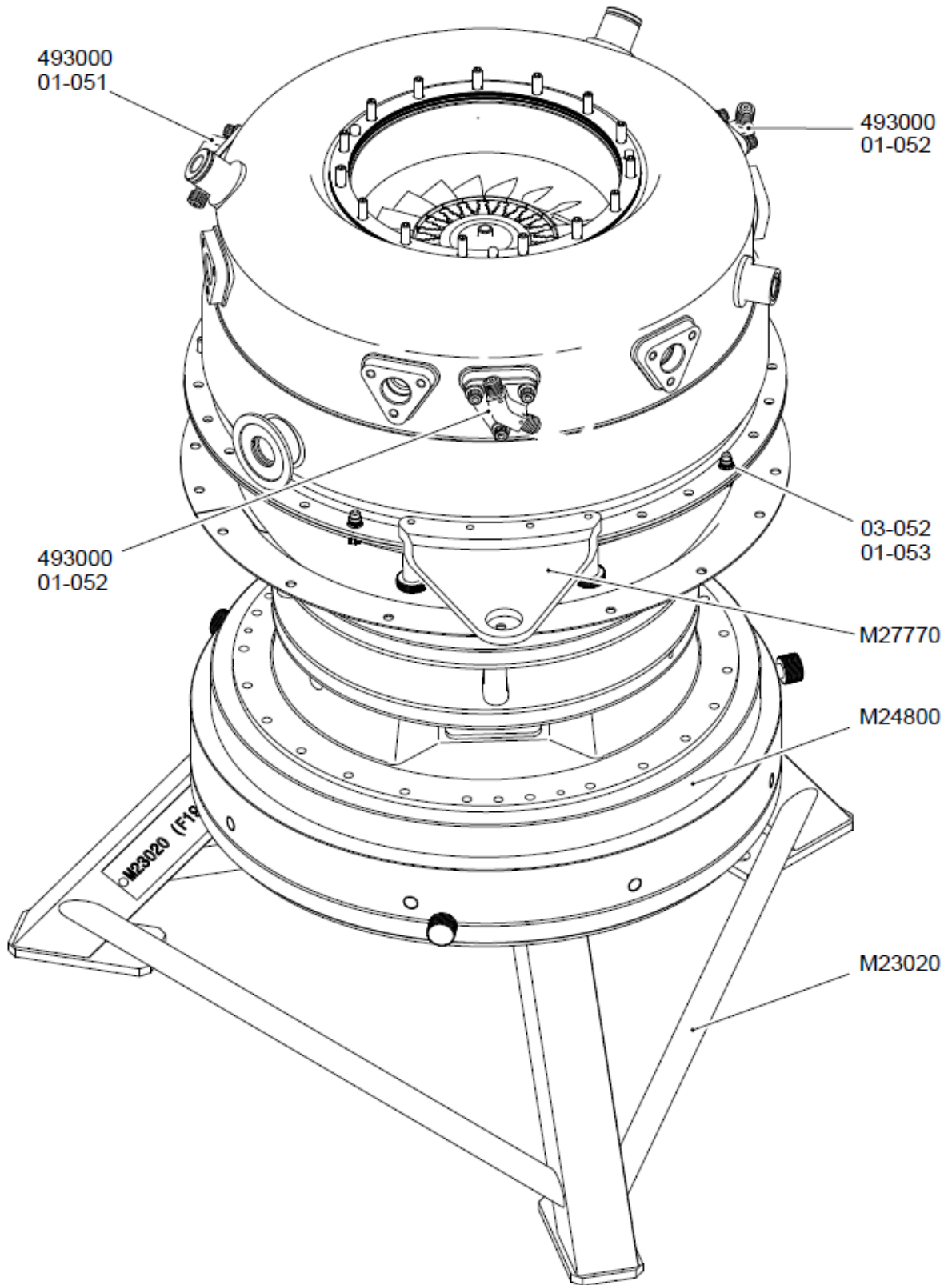
Note

These screws secure the brackets.

[...]

1.35.20 Locking of the ignition and main burners if the APU is a post-modification SB 342-49-048 configuration:

1.35.20.1 Lock the screws attaching the ignition and main burners with Lockwire as shown in the Figure 68.



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Figure 67: Installation of the ignition manifold burners



Figure 68: Locking of the screws attaching the ignition and main burners if the APU is in post-modification SB 342-49-048 configuration

4. Material information

4.1. Support equipment

Refer to para. 3.1.2, 3.2.2, 3.3.2, 3.4.2, 3.5.2, 3.6.2, 3.7.2, 3.8.2, 3.9.2, 3.10.2 and 3.11.2.

4.2. Material requirements

Refer to para. 3.2.3, 3.2.4, 3.4.3, 3.4.4, 3.5.3, 3.5.1, 3.7.3, 3.7.4, 3.9.3, 3.9.4, 3.11.3 and 3.11.4.

4.3. List of components

Not applicable.

4.4. Interchangeability

Physical interchangeability: Not affected

Functional interchangeability: Not affected

Restriction of mixability: Restriction as indicated below

4.4.1. Restriction of mixability:

The screws used to fix the burners (from main manifold and ignition manifold) are different depending on the configuration of the combustor casing:

- Install on thread inserts for pre-modification SB 342-49-048 configuration
- Install and lock with lock wire for post-modification SB 342-49-048 configuration

Make sure that the screws used to install the ignition and main burners correspond to the APU configuration on which the operation is performed in accordance with the Service Bulletin 342-49-048.

Make sure to respect the tightening torque defined for the APU configuration on which the operation is performed.

4.5. Parts disposition

Not applicable.

4.6. Procurement conditions

The new parts will be provided at conditions indicated in Safran Power Units' price catalogue.

END OF SERVICE BULLETIN