

SERVICE BULLETIN

DMC:	342-49-033 – SERVICE BULLETIN
Title:	Storage-related maintenances for APU stored in shuttle container
Issue number:	002
Issue Date:	26-11-2021

Responsible Partner Company: A0126

Originator: F1989

Category: 3 – Recommended

Applicability: All

Related SB: None

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	09/03/2020	Original
002	26/11/2021	Introduction of ACF-50 as an alternative of Ardrex 3965 or Ardrex 396/1 E8

2. Planning information

2.1. Applicability

This Service Bulletin (SB) is applicable to all APU power plant P/N 342-50-11 stored in shuttle container.

2.2. Reason

The purpose of this Service Bulletin is to introduce two new storage procedures to be performed when the APU is stored in the shuttle container. These procedures will be integrated in the next issue of the Maintenance Manual.

The maximum storage life of an APU stored in shuttle container (P/N CNR11120) is 5 years. If the storage life limit is reached, contact the representative customer support.

2.3. Description

This service bulletin introduces the following procedures:

- Procedure to keep the APU serviceable when stored in the shuttle container,
- Procedure to prepare the APU for use after storage in the shuttle container.

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 the APU is stored in the shuttle container.

2.5. Approval

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

2.6. Manpower

The procedure to keep the APU serviceable when stored in the shuttle container requires 0.15 man hour and must be performed by ML1 technicians.

The procedure to prepare the APU for use after storage in the shuttle container requires 1 man hour and must be performed by ML1 technicians.

2.7. Material

Refer to paragraph 3.1.2.

2.8. Tooling

Refer to paragraph 3.1.1.

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 Level 1 and 2 data modules will be revised:

- New data module for the procedure to keep items serviceable when in storage
- New data module for the procedure to prepare the APU for use after storage in the shuttle container

DT 13-02 – Maintenance Level 3 data modules will be revised:

- New data module for the procedure to keep items serviceable when in storage
- New data module for the procedure to prepare the APU for use after storage in the shuttle container

2.11. Previous modifications

Not applicable.

3. Accomplishment Instructions

3.1. Engine (APU) – Procedure to keep items serviceable when in storage

3.1.1. Support equipment

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Hot air blower	Local purchase	1 Ea

3.1.2. Consumables, materials and expendables

<i>Nomenclature</i>	<i>Identification no.</i>	<i>Qty</i>
Corrosion inhibitor	Local purchase (Ardrox 396/1 or Ardrox 396/1E8 or ACF-50)	AR
Desiccant bags	Local purchase	4 Ea

3.1.3. Safety conditions

WARNING

- **Before you use the consumable materials, you must know and obey the local and manufacturer’s safety instructions. They are dangerous materials. Refer to:**
 - The label on the container in which it was supplied
 - The material safety data sheet
 - Your local safety regulations.
- **Do not breathe the consumable material fumes. They can cause dizziness and headaches. Make sure that:**
 - There is a good air flow.
 - You do not smoke when you use a flammable consumable material.
 - You wear the approved breathing apparatus.

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- **Do not get the consumable materials on your skin or in your eyes. Put on safety goggles and protective clothing. If the consumable material gets on your skin or in your eyes, get medical help.**

3.1.4. Procedure

During storage of the APU in shuttle container, perform the inspection of humidity indicator every 6 months.

1. Check humidity indicator of the container:

1.1. If the color of the 20% or 30% sections of the indicator changes:

- Remove the APU from the APU container (refer to the DM 89-A-49-20-00-00A-840A-B, from step 2).
- Dry the humidity indicator using a hot air blower.
- Replace the desiccant bags.
- Installation of the APU in the APU container (refer to the DM 89-A-49-20-00-00A-830A-B, from step 4.9 to step 6.3).

1.2. If the color of the 40% section of the indicator changes:

- Remove the APU from the APU container (refer to the DM 89-A-49-20-00-00A-840A-B, from step 2).
- Examine the air intake and combustor casing at the exhaust for signs of corrosion. If signs of corrosion are found, contact the representative customer support.
- From the exhaust, spray the corrosion inhibitor on the turbine wheel. Make sure that the product is correctly applied on the turbine wheel.
- From the air intake, spray the corrosion inhibitor on the compressor wheel and on the air intake casing. Make sure that the product is correctly applied on the areas. If necessary, manually turn the turbine wheel to get access to the compressor wheel.
- Do a protection surfaces by anti-corrosion process (refer to 89-A-49-20-00-00A-259A-A from step 2).
- Replace the desiccant bags.
- Installation of the APU in the APU container (refer to the DM 89-A-49-20-00-00A-830A-B, from step 4.9 to step 6.3).

3.1.5. Record

Not applicable.

3.1.6. Compliance certificate

Not applicable.

3.2. Engine (APU) – Procedure to prepare item for use after storage

3.2.1. Required conditions

<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.	n/a n/a
The access doors 461A, 462A, 463A and 481A must be opened.	n/a
Remove the APU from the container. The APU must be installed	89-A-49-20-00-00A-840A-B 89-A-49-11-01-00A-720A-A

3.2.2. Procedure

This task gives the procedures to do before you use an APU stored in shuttle container.

1. Before you start the APU:
 - 1.1. Make sure that the APU rotating parts turn freely through the electrical starter motor hand crank interface.
 - 1.2. Check the magnetic chip detector (refer to DM 89-A-49-92-02-00B-310A-A).
 - 1.3. Do an examination with a borescope (refer to DM 89-A-49-20-00-00A-312A-A).
2. If foreign particles or signs of corrosion are found, contact the representative customer support.
3. If there are no signs of corrosion or foreign particles, do the procedure that follows:
 - 3.1. Fill the APU with oil, if necessary (refer to DM 89-A-49-20-00-00A-212A-A).
 - 3.2. Do the operational check of the APU (refer to DM 89-A-49-20-00-00A-320A-A).
 - 3.3. Drain the oil of the engine APU (refer to DM 89-A-49-20-00-00A-222A-A) and fill again (refer to DM 89-A-49-20-00-00A-212A-A) with new, clean oil.

3.2.3. Requirements after job completion

3.2.3.1. Close up procedure

<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
The access doors 461A, 462A, 463A and 481A must be closed.	n/a

3.2.4. Record

Not applicable.

3.2.5. Compliance certificate

Not applicable.

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Refer to paragraph 3.1.2.

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