



AIRCRAFT MAINTENANCE MANUAL

APU STARTER/GENERATOR - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove/install the APU starter/generator.
- B. The APU starter/generator is installed on the APU, in the aircraft tail cone.
- C. You can get access to the APU starter/generator through the APU cowling.
- D. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

| TASK NUMBER | DESCRIPTION | EFFECTIVITY |
|--------------------|---|-------------|
| 24-34-01-000-801-A | APU STARTER/GENERATOR - REMOVAL | ALL |
| 24-34-01-400-801-A | APU STARTER GENERATOR - INSTALLA- TION | ALL |



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TASK 24-34-01-000-801-A

EFFECTIVITY: ALL

2. APU STARTER/GENERATOR - REMOVAL

A. General

- (1) This task gives the procedure to remove the APU starter/generator.

B. References

| REFERENCE | DESIGNATION |
|---------------------------------|-----------------------|
| AMM TASK 49-11-00-000-801-A/400 | APU COWLING - REMOVAL |
| AMM TASK 49-15-00-000-801-A/400 | APU COWLING - REMOVAL |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|--------------------|
| 313 | | Aircraft Tail Cone |

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

| QTY | FUNCTION | PLACE |
|-----|---------------|--------------------|
| 1 | Does the task | Aircraft tail cone |

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the GPU pushbutton, on the electrical panel, on the overhead panel, is set at OFF.
- (2) Attach a DO-NOT-SET-ON tag to the GPU pushbutton.
- (3) Make sure that the BATT 1 and BATT 2 switches, on the electrical panel, on the overhead panel, are set at OFF.
- (4) Attach a DO-NOT-SET-AUTO tag to the BATT 1 and BATT 2 switches.
- (5) For Aircraft with APU T-62T-40C11, remove the APU cowling ([AMM TASK 49-11-00-000-801-A/400](#)).



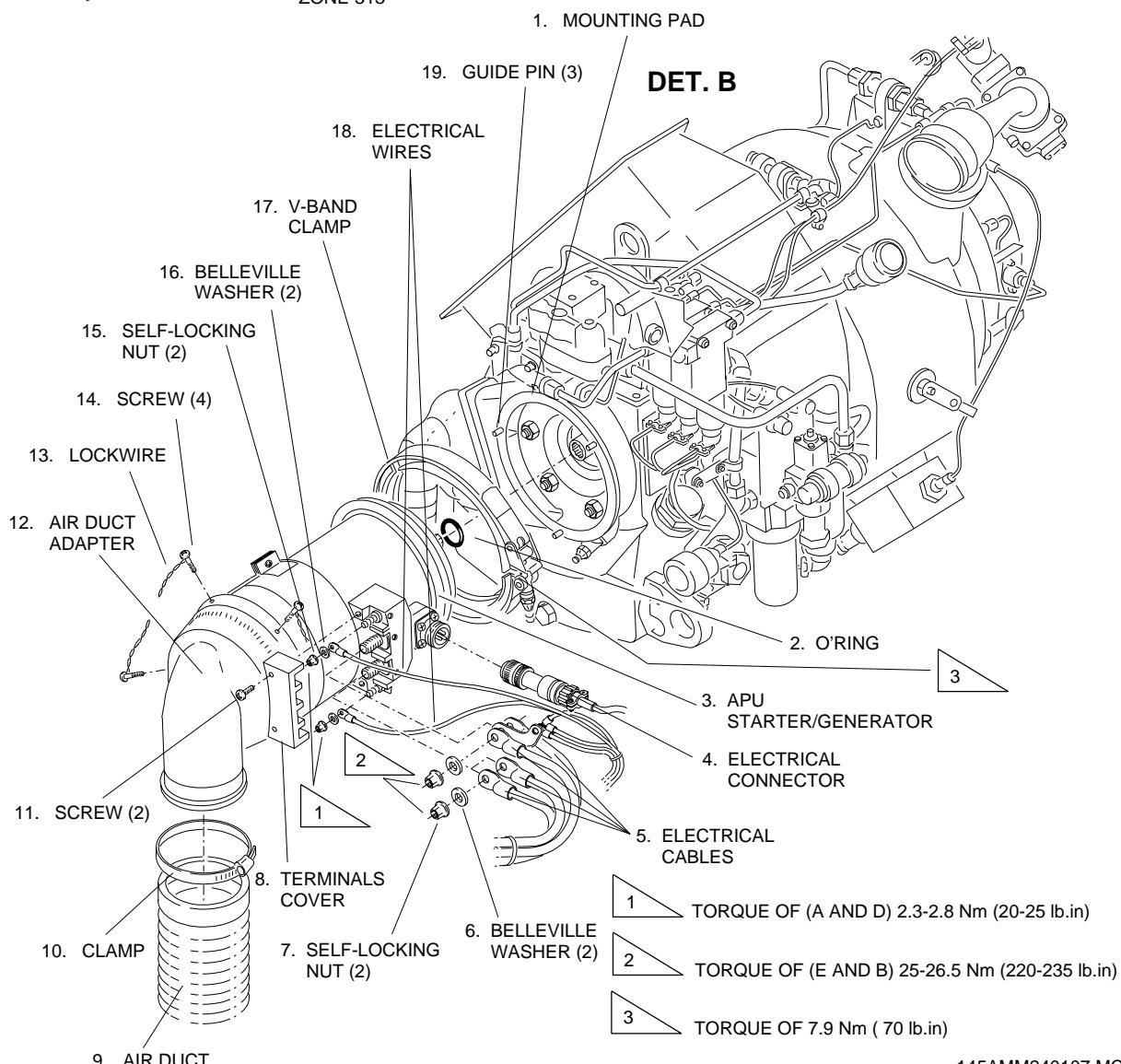
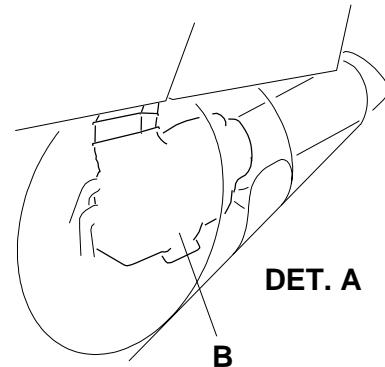
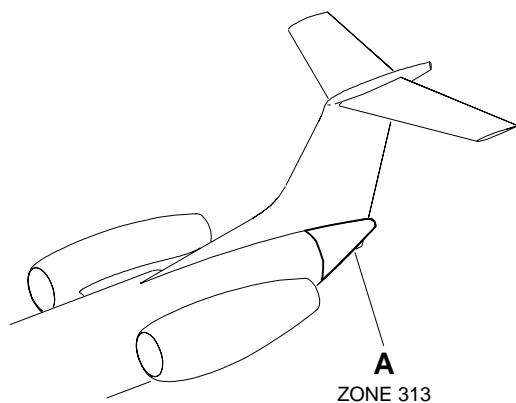
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- (6) For Aircraft with APU T-62T-40C14, remove the APU cowling (AMM TASK 49-15-00-000-801-A/400).

J. Removal (Figure 401)

SUBTASK 020-002-A

- (1) Disconnect the electrical connector (4).
- (2) Remove the screws (11) which attach the terminals cover (8).
- (3) Remove the self-locking nuts (7) and Belleville washers (6) which attach the electrical cables (5) to the APU starter/generator (3).
- (4) Disconnect the electrical cables (5) from the APU starter/generator (3).
- (5) Remove the self-locking nuts (15) and Belleville washers (16) which attach the electrical wires (18) to the APU starter/generator (3).
- (6) Disconnect electrical wires (18) from the APU starter/generator (3).
- (7) Loosen the clamp (10) which attaches the air duct (9) to the air duct adapter (12).
- (8) Disconnect the air duct (9) from air duct adapter (12).
- (9) Loosen the V-band clamp (17) which attaches the APU starter/generator (3) to the mounting pad (1).
- (10) Remove the APU starter/generator (3).
- (11) Discard the O-ring (2).
- (12) Cut the lockwire (13) from the screws (14) of the air duct adapter (12).
- (13) Remove the screws (14) which attach the air duct adapter (12) to the APU starter/generator (3).
- (14) Remove the air duct adapter (12) from the APU starter/generator (3).

EFFECTIVITY: ALL
APU Starter Generator - Removal/Installation
Figure 401


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TASK 24-34-01-400-801-A

EFFECTIVITY: ALL

3. APU STARTER GENERATOR - INSTALLATION

A. General

(1) This task gives the procedure to install the APU starter/generator.

B. References

| REFERENCE | DESIGNATION |
|---------------------------------|--|
| AMM TASK 24-34-00-700-803-A/500 | APU GENERATION SYSTEM - OPERATIONAL TEST |
| AMM TASK 49-11-00-400-801-A/400 | APU COWLING - INSTALLATION |
| AMM TASK 49-15-00-400-801-A/400 | APU COWLING - INSTALLATION |
| IPC 24-34-01 | APU STARTER GENERATOR |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|--------------------|
| 313 | | Aircraft Tail Cone |

D. Tools and Equipment

| ITEM | DESCRIPTION | PURPOSE | QTY |
|------------------------|---|-----------|-----|
| Commercially available | Torque wrench (For the torque range, refer to Figure 401) | To torque | |

E. Auxiliary Items

Not Applicable

F. Consumable Materials

| SPECIFICATION (BRAND) | DESCRIPTION | QTY |
|--------------------------|-----------------|--------------|
| MS20995C20 | Lockwire | 100 (mm) |
| MS20995C32 | Lockwire | 1200 (mm) |
| MIL-G-81322 | Mobil grease 28 | AR |

G. Expendable Parts

| ITEM | IPC REFERENCE (VENDOR REFERENCE) | QTY |
|--------|-------------------------------------|-----|
| O-ring | IPC 24-34-01 | 1 |



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H. Persons Recommended

| QTY | FUNCTION | PLACE |
|-----|---------------|--------------------|
| 1 | Does the task | Aircraft tail cone |

I. Installation (Figure 401)

SUBTASK 420-002-A

CAUTION: MAKE SURE THAT THE GPU PUSHBUTTON, BATT 1 AND BATT 2 SWITCHES, ON THE ELECTRICAL PANEL, ON THE OVERHEAD PANEL, ARE SET AT OFF.

- (1) Clean the APU starter/generator (3) shaft.
- (2) On aircraft with APU model C11 (APU 500), do as follows :

CAUTION: MAKE SURE THAT THE O-RING IS NEW. A REUSED O-RING CAN CAUSE DAMAGE TO THE APU STARTER/GENERATOR.

- (a) Lubricate the new O-ring (2) and the APU starter/generator (3) shaft with Mobil grease 28 and install the O-ring to the shaft.
- (3) On aircraft with APU model C14 (APU 500R), do as follows:

CAUTION: MAKE SURE THAT THE O-RING IS NEW. A REUSED O-RING CAN CAUSE DAMAGE TO THE APU STARTER/GENERATOR.

- (a) Install the new O-ring (2) to the APU starter/generator (3) shaft.
- (4) Put the air duct adapter (12) on the APU starter/generator (3) air inlet side.
- (5) Tighten the screws (14) and safety (lockwire P/N = MS20995C32) them.
- (6) Put the APU starter/generator (3) and V-band clamp (17) on the mounting pad.
- (7) Tighten the nut of the V-band clamp (17) to approximately 2/3 of the specified torque value.
- (8) Connect the air duct (9) to the air duct adapter (12).
- (9) Lightly hit the V-band clamp (17) at different locations around the outside diameter with a rubber mallet and a stick.
- (10) Tighten the nut of the V-band clamp (17) to the specified value.

NOTE: Do step (7) and then step (9) as many times as necessary to get a condition in which there is no reduction in torque.

- (11) Tighten the clamp (10) which attaches the air duct (9) to the air duct adapter (12).
- (12) Safety (lockwire P/N = MS20995C20) the clamp (10).
- (13) Connect the electrical connector (4) and electrical wires (18) to the APU starter/generator (3).
- (14) Connect the electrical cables (5) to the APU starter/generator (3).

- (15) Tighten the self-locking nuts (15) and Belleville washers (16), which attach the electrical wires (18) to the APU starter/generator (3), to the specified value.
- (16) Tighten the self-locking nuts (7) and Belleville washers (6), which attach the electrical cables (5) to the APU starter/generator (3), to the specified value.
- (17) Put the terminals cover (8) in its installation position.

NOTE: See their identification to make sure that the electrical cables are installed correctly. Incorrect installation of the cables will cause serious problems to the aircraft electrical equipment.
- (18) Tighten the screws (11) which attach the terminals cover (8).

J. Follow-on

SUBTASK 842-002-A

- (1) Remove the DO-NOT-SET-ON tag from the GPU pushbutton.
- (2) Remove the DO-NOT-SET-AUTO tag from the BATT 1 and BATT 2 switches.
- (3) Do the APU generation system operational test ([AMM TASK 24-34-00-700-803-A/500](#)).
- (4) For Aircraft with APU T-62T-40C11, install the APU cowling ([AMM TASK 49-11-00-400-801-A/400](#)).
- (5) For Aircraft with APU T-62T-40C14, install the APU cowling ([AMM TASK 49-15-00-400-801-A/400](#)).

