MAIN GENERATOR SHUNT - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to remove/install the main generator shunts.

   B. The main generator shunts are installed in the RH and LH pylons.

   C. 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*
24-31-06-000-801-A	MAIN GENERATOR SHUNT - REMOVAL	ALL
24-31-06-400-801-A	MAIN GENERATOR SHUNT - INSTALLATION	ALL

TASK 24-31-06-000-801-A
EFFECTIVITY: ALL

2. MAIN GENERATOR SHUNT - REMOVAL

A. General

(1) This task gives the procedure to remove the main generator shunts.

(2) The procedure to remove the main generator shunts is the same for the two pylons.

(3) Main generator 1 shunt and main generator 3 shunt installation positions are mirrored.

(4) Main generator 2 shunt and main generator 4 shunt installation positions are mirrored.

B. References

REFERENCE	*DESIGNATION*
SRM 51-20-01/1	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
410	414AB	Pylon
420	424AB	Pylon

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Polyethylene spatula	To remove the sealant	AR

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Pylon

I. Preparation

SUBTASK 841-002-A

(1) Make sure that the GPU pushbutton, on the electrical panel, located 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, located 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) Set the BACKUP pushbutton, on the electrical panel, located on the overhead panel, to OFF.

(6) Attach a DO-NOT-SET-AUTO tag to the BACKUP pushbutton.

(7) Make sure that the engines are not in operation.

(8) Open access panel 414AB to get access to main generator 1 shunt and main generator 3 shunt (AMM 06-43-01/101).

(9) Open access panel 424AB to get access to main generator 2 shunt and main generator 4 shunt (AMM 06-43-01/101).

J. Removal (Figure 401)

SUBTASK 020-002-A

CAUTION: MAKE MATCH MARKS ON ALL THE ELECTRICAL WIRES OR CABLES BEFORE YOU DISCONNECT THEM. INCORRECT CONNECTION OF WIRES OR CABLES WILL CAUSE MALFUNCTION OR DAMAGE TO EQUIPMENT.

(1) Put a label on the electrical cables (14), wires (6) (10), and connections (4) before you remove them from the shunt (5).

(2) Remove the screws (9), lock washers (8), and washers (7) that attach the electrical wires (6) and (10) to the shunt (5).

(3) Release the electrical wires (6) and (10).

(4) Remove the bolt (17), the lock washer (16), and the washer (15) that attach the electrical cable (14) to the shunt (5).

(5) Release the electrical cable (14).

(6) Remove the bolt (1), the lock washer (2), and the washer (3) that attach the connection bar (4) to the shunt (5).

(7) Remove the bolts (13), lock washers (12), washers (11) and (18), and nuts (19) that attach the connection bar (4) to the structure.

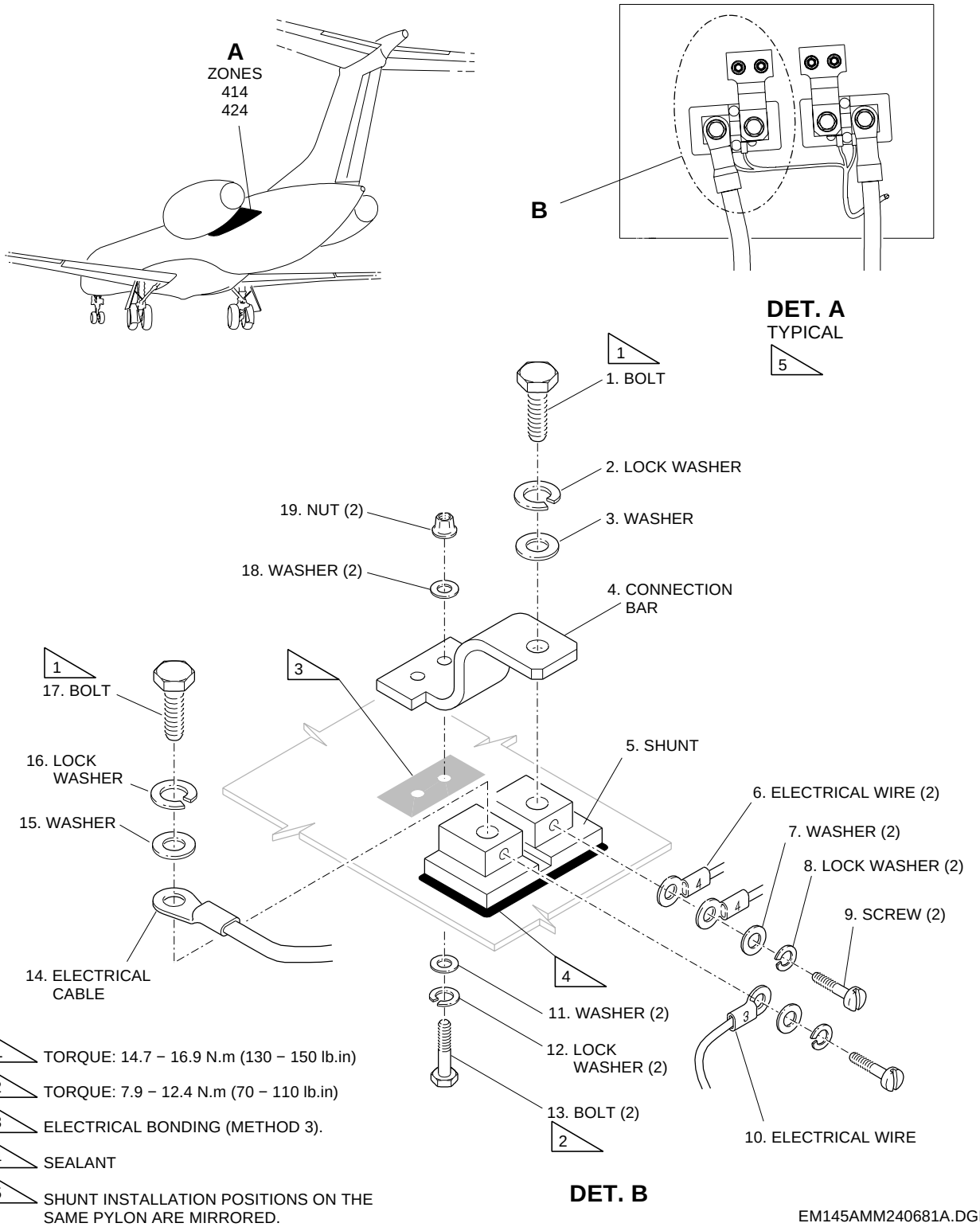
(8) Remove the connection bar (4).

(9) Remove the old sealant along the contour of the shunt (5). Use a polyethylene spatula, if necessary. Refer to SRM 51-20-01/1.

(10) Remove the shunt (5).

EFFECTIVITY: ALL

Main Generator Shunt - Removal/Installation
Figure 401



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TASK 24-31-06-400-801-A
EFFECTIVITY: ALL

3. MAIN GENERATOR SHUNT - INSTALLATION

A. General

(1) This task gives the procedure to install the main generator shunts.

(2) The procedure to install the main generator shunts is the same for the two pylons.

(3) Main generator 1 shunt and main generator 3 shunt installation positions are mirrored.

(4) Main generator 2 shunt and main generator 4 shunt installation positions are mirrored.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 20-13-21-700-801-A/200	ELECTRICAL BONDING TEST - STANDARD PROCEDURES
AMM TASK 20-13-21-910-801-A/200	TYPES OF ELECTRICAL BONDING AND SURFACE PREPARATION - STANDARD PROCEDURES
AMM TASK 20-13-21-910-802-A/200	ELECTRICAL BONDING PROTECTION - STANDARD PROCEDURES
AMM TASK 24-31-00-700-803-A/500	MAIN GENERATION SYSTEM - OPERATIONAL TEST
SRM 51-20-01/1	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
410	414AB	Pylon
420	424AB	Pylon

D. Tools and Equipment

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

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
PR1422 B-2 654 SEMKIT (AMS-S-8802)	Fuel Tank Sealant	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Pylon

I. Installation (Figure 401)

SUBTASK 420-002-A

(1) Do the bonding procedure, method 3 (AMM TASK 20-13-21-910-801-A/200) to install the connection bar (4) on the structure.

(2) Put the main generator shunt (5) in position.

CAUTION: REFER TO THE MATCH MARKS MADE DURING THE REMOVAL WHEN YOU CONNECT THE ELECTRICAL WIRES OR CABLES. INCORRECT CONNECTION OF WIRES OR CABLES WILL CAUSE MALFUNCTION OR DAMAGE TO EQUIPMENT.

(3) Before you connect the electrical cables (14), wires (6)(10), and connections (4) to the shunt (5), refer to the match marks made during removal procedure.

(4) Put the connection bar (4) in position.

CAUTION: DO NOT INSTALL WASHERS BELOW THE CONNECTION BAR. IF THE CONNECTION BAR IS NOT IN DIRECT CONTACT WITH THE SHUNT AND WITH THE AIRCRAFT STRUCTURE, LOCALIZED RESISTANCE HEATING CAN OCCUR AND CAUSE THE ASSEMBLAGE TO BURN.

CAUTION: MAKE SURE THAT YOU TORQUE THE CONNECTION BAR BOLTS TO THE CORRECT VALUE. INCORRECT TORQUE CAN CAUSE SERIOUS PROBLEMS TO THE EQUIPMENT.

(5) Tighten the two bolts (13), two lock washers (12), four washers (11) and (18), and two nuts (19) that attach the connection bar (4) to the structure. Apply a torque of 7.9 - 12.4 N.m (70 - 110 lb.in). Refer to (Figure 401).

CAUTION: DO NOT INSTALL WASHERS BELOW THE CONNECTION BAR. IF THE CONNECTION BAR IS NOT IN DIRECT CONTACT WITH THE SHUNT AND WITH THE AIRCRAFT STRUCTURE, LOCALIZED RESISTANCE HEATING CAN OCCUR AND CAUSE THE ASSEMBLAGE TO BURN.

CAUTION: MAKE SURE THAT YOU TORQUE THE CONNECTION BAR BOLTS TO THE CORRECT VALUE. INCORRECT TORQUE WILL CAUSE SERIOUS PROBLEMS TO THE EQUIPMENT.

(6) Tighten the bolt (1), lock washer (2), and washer (3) which attach the connection bar (4) to the shunt (5). Apply a torque of 14.7 - 16.9 N.m (130 - 150 lb.in). Refer to (Figure 401).

(7) Do the bonding test (AMM TASK 20-13-21-700-801-A/200) on the connection bar (4).

(8) Do the bonding protection (AMM TASK 20-13-21-910-802-A/200) of the area around the connection bar. Refer to (Figure 401).

(9) Put the electrical cable (14) in position.

CAUTION: DO NOT INSTALL WASHERS BELOW THE ELECTRICAL CABLE. IF THE ELECTRICAL CABLE IS NOT IN DIRECT CONTACT WITH THE SHUNT, LOCALIZED RESISTANCE HEATING CAN OCCUR AND CAUSE THE ASSEMBLAGE TO BURN.

CAUTION: MAKE SURE THAT YOU TORQUE THE ELECTRICAL CABLE BOLT TO THE CORRECT VALUE. INCORRECT TORQUE WILL CAUSE SERIOUS PROBLEMS TO THE EQUIPMENT.

(10) Tighten the bolt (17), lock washer (16), and washer (15) that attach the electrical cable (14) to the shunt (5). Apply a torque of 14.7 - 16.9 N.m (130 - 150 lbf.in). Refer to (Figure 401).

(11) Tighten the two screws (9), two lock washers (8), and two washers (7) that attach the electrical wires (6) and (10) to the shunt (5).

(12) Prepare and apply a thin layer of PR1422 B-2 654 SEMKIT along the contour of the shunt (5). Refer to SRM 51-20-01/1. Refer to (Figure 401).

J. Follow-on

SUBTASK 842-002-A

(1) If you installed main generator 1 shunt or main generator 3 shunt, close access panel 414AB (AMM 06-43-01/101).

(2) If you installed main generator 2 shunt or main generator 4 shunt, close access panel 424AB (AMM 06-43-01/101).

(3) Remove the DO-NOT-SET-ON tag from the GPU pushbutton.

(4) Remove the DO-NOT-SET-AUTO tag from the BATT 1 and BATT 2 switches.

(5) Remove the DO-NOT-SET-AUTO tag from the BACKUP pushbutton.

(6) Set the BACKUP pushbutton to AUTO.

(7) Do the operational test of the main generation system (AMM TASK 24-31-00-700-803-A/500).