



AIRCRAFT MAINTENANCE MANUAL

SIDE-HINGED MAIN-DOOR ACTUATING CAM - REMOVAL/INSTALLATION

EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR

1. General

- A. This section gives the procedures to remove and install the actuating cam of the side-hinged main-door mechanism.
- B. 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
52-18-01-000-801-A	SIDE-HINGED MAIN-DOOR ACTUATING CAM - REMOVAL	AIRCRAFT WITH SIDE-HINGED MAIN DOOR
52-18-01-400-801-A	SIDE-HINGED MAIN-DOOR ACTUATING CAM - INSTALLATION	AIRCRAFT WITH SIDE-HINGED MAIN DOOR



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-18-01-000-801-A

EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR

2. SIDE-HINGED MAIN-DOOR ACTUATING CAM - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the actuating cam of the side-hinged main-door mechanism.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-18-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 52-18-00-000-801-A/400	SIDE-HINGED MAIN DOOR - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Side-hinged main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the fuselage to remove the side-hinged main door	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

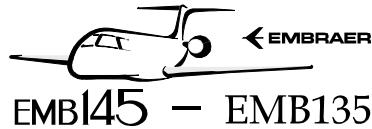
H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Side-hinged main door
1	Helps the other technician	Side-hinged main door

I. Preparation

SUBTASK 841-002-A

- (1) Open the side-hinged main door ([AMM SDS 52-18-00/1](#)).
- (2) Remove the lining panels from the side-hinged main door ([AMM TASK 25-23-04-000-801-A/400](#)).



J. Removal ([Figure 401](#))

SUBTASK 020-002-A

CAUTION: BEFORE YOU REMOVE THE BOLT FROM THE SUPPORT LINK, MAKE SURE THAT YOU KNOW THE CORRECT POSITIONS, QUANTITY, AND SIDE OF THE WASHERS.

- (1) Remove the side-hinged main door. Refer to [AMM TASK 52-18-00-000-801-A/400](#).
- (2) Put the internal actuating handle of the main door in the locked position.
- (3) Disconnect the connectors (38) and (39).
- (4) Release the electrical harness from the connectors (38) and (39) and the end of the bonding strap (36) from the support of the door structure.
 - (a) Remove the bolt (37), washers (32), (34), and (35), and nut (33), then release the end of the bonding strap (36).
- (5) Remove the support link as follows:
 - (a) Obey the CAUTION above and remove the cotter pin (2), nut (3), washer (4), and bolt (6) from the support link (1) and bellcrank (Ref.).
 - (b) Obey the CAUTION above and remove the cotter pin (11), nut (10), washers (9) and (8), and bolt (7) from the support link (1) and bellcrank (Ref.).
 - (c) Remove the support link (1) from the door structure.

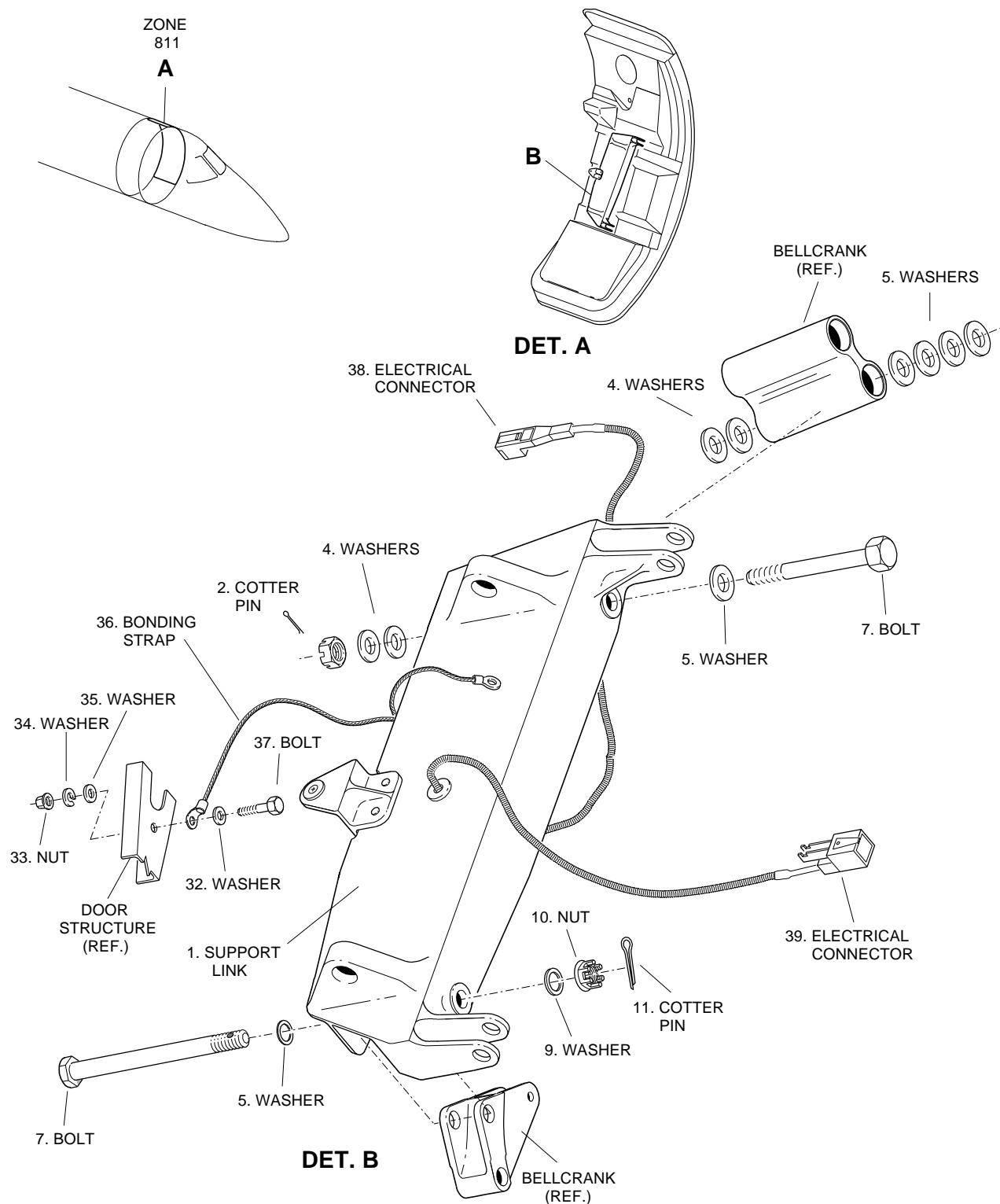
CAUTION: DO NOT CHANGE THE ADJUSTMENT OF THE RODS WHILE YOU DO THIS TASK.

- (6) Remove the nuts (17) and (20), washers (18) and (21), and bolts (19) and (21) from the torque tube (31) to release the torque tube (31).
- (7) Remove the nut (28), washer (29), bolt (12), and bushing (13) from the bellcrank (30) and disconnect the elevation cam (14) from the bellcrank (30).
- (8) Remove the nut (15), washer (16), and bolt (17) from the actuating cam (15) and release the actuating cam (15).
- (9) Remove the retaining rings (23) and (25) from the shaft (24).
- (10) Push the torque tube (31) to the left side of the door together with the shaft (24).
- (11) Push the torque tube (31) to the right side of the door.
- (12) Remove the torque tube (31).
- (13) Remove the shaft (24) and the actuating cam (14).

EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR

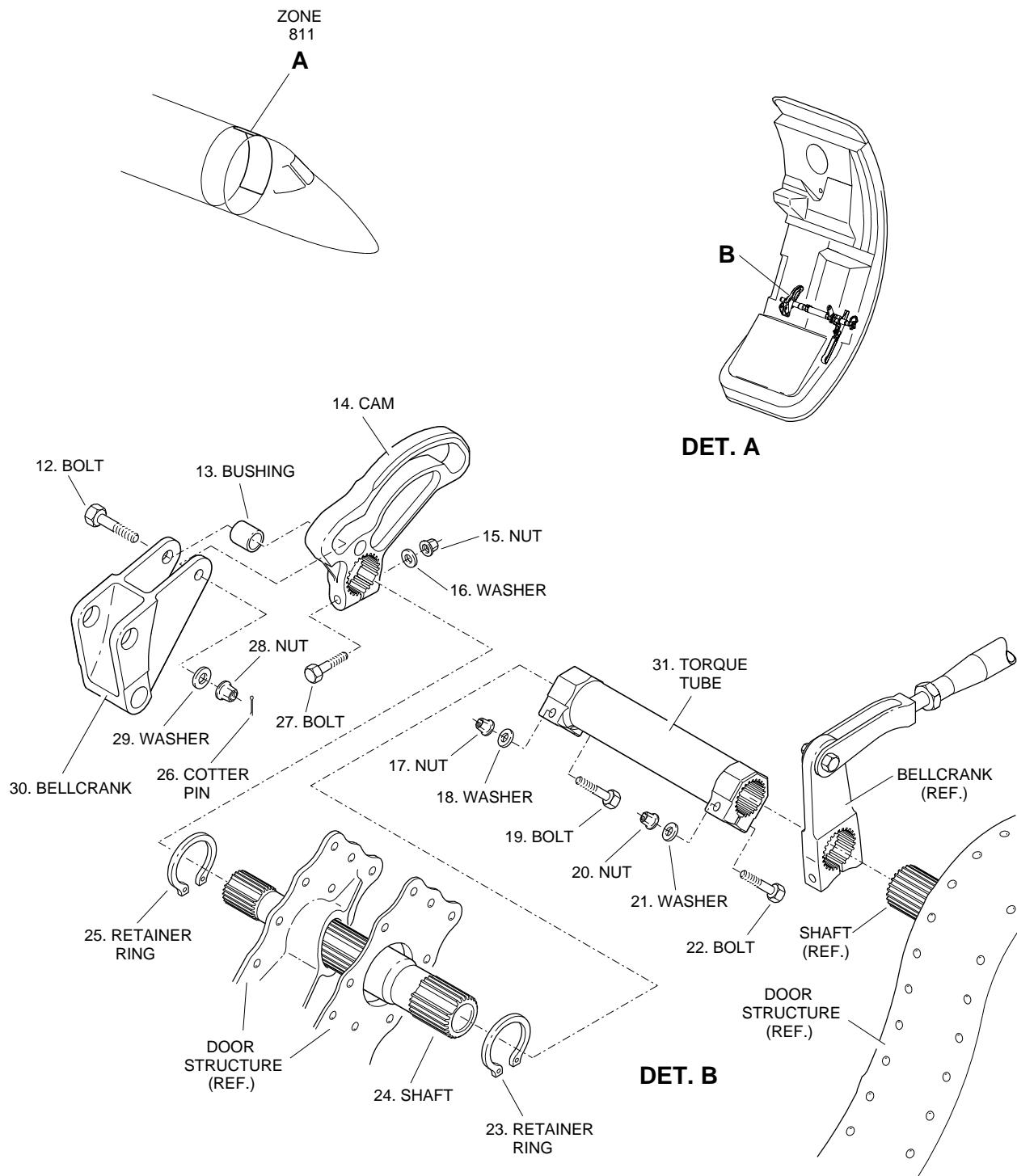
Actuating Cam - Removal/Installation

Figure 401 - Sheet 1



EM145AMM520625A.DGN

EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR
 Actuating Cam - Removal/Installation
 Figure 401 - Sheet 2



145AMM520220.MCE A



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-18-01-400-801-A

EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR

3. SIDE-HINGED MAIN-DOOR ACTUATING CAM - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the actuating cam of the side-hinged main-door mechanism.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-18-00/1	
AMM TASK 20-13-21-910-801-A/200	TYPES OF ELECTRICAL BONDING AND SURFACE PREPARATION - STANDARD PROCEDURES
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-18-00-400-801-A/400	SIDE-HINGED MAIN DOOR - INSTALLATION
AMM TASK 52-18-00-820-803-A/500	MAIN-DOOR LOCKING-MECHANISM CAMS - TEST

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Side-hinged main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Work stand	To get access to the fuselage to remove the side-hinged main door	

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	Side-hinged main door
1	Helps the other technician	Side-hinged main door

I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Put the internal actuating handle of the main door in the locked position.

CAUTION: DO NOT CHANGE THE ADJUSTMENT OF THE RODS WHILE YOU DO THIS TASK.

- (2) Put the actuating cam (14) on the shaft (24) in the door structure.
- (3) Put the torque tube (31) in the door structure (Ref.) between the shaft (24) and the external handle shaft.
- (4) Put the retainer rings (23) and (25) to attach the end shaft (24).
- (5) Install the retainer rings (23) and (25).
- (6) Install the bolt (27), washer (16), and nut (15) of the actuating cam (14) to attach the shaft (24).
- (7) Install the nuts (17) and (20), washers (18) and (21), and bolts (19) and (22) to the torque tube (31) to attach the shaft (24) and external handle shaft.
- (8) Put the bushing (13) in the actuating cam (14).
- (9) Install the bolt (12), washer (29), nut (28), and cotter pin (26) to attach the bellcrank (30) and actuating cam (14).
- (10) Install the support link (1) as follows:
 - (a) Assemble the support link (1) on the bellcranks (Ref.) of the door structure.
 - (b) Put the washers in the correct position. Refer to the CAUTION above.
 - (c) Install the bolt (6), washers (4) and (5), nut (3), and cotter pin (2) to attach the support link (1) to the bellcrank (Ref.).
 - (d) Install the bolt (7), washers (8) and (9), nut (10), and cotter pin (11) to attach the support link (1) to the bellcrank.
- (11) Connect the electrical connectors (38) and (39).
- (12) Connect the end of the bonding strap (36) and attach the support at the fuselage as follows:
 - (a) Make sure that the support is correctly prepared for bonding. Refer to [AMM TASK 20-13-21-910-801-A/200](#).
 - (b) Make sure that the length of the electrical harness is sufficient to permit free movement of the side-hinged main door.
 - (c) Instal the bolt (37) and washers (32), (34), and (35) and nut (33) to attach the support in the end of the bonding strap (36). Refer to [AMM TASK 20-13-21-910-801-A/200](#).
- (13) Install the side-hinged main door. Refer to [AMM TASK 52-18-00-400-801-A/400](#).



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

J. Follow-on

SUBTASK 842-002-A

- (1) Close and lock, unlock and open the door with the internal and external handles, to check its operation ([AMM TASK 52-18-00-820-803-A/500](#)).
- (2) Install lining panels of the side-hinged main door ([AMM TASK 25-23-04-400-801-A/400](#)).
- (3) Close the side-hinged main door ([AMM SDS 52-18-00/1](#)).