



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

MAIN DOOR ACTUATOR - REMOVAL/INSTALLATION

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

1. General

- A. This section gives the procedures to remove and install the actuators of the main-door.
- B. These procedures are applicable to the two actuators of the main-door.
- C. The actuators are installed in the center fuselage I, below the floor.
- 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
52-12-08-000-801-A	MAIN-DOOR ACTUATOR - REMOVAL	AIRCRAFT WITH AIR-STAIRS DOOR
52-12-08-400-801-A	MAIN-DOOR ACTUATOR - INSTALLATION	AIRCRAFT WITH AIR-STAIRS DOOR



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-12-08-000-801-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

2. MAIN-DOOR ACTUATOR - REMOVAL

A. General

(1) This procedure gives the instructions to remove the actuator of the main door.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
131	231BF	Below the Floor
131	231CF	Below the Floor
114	114CR	Nose Hydraulic Compartment

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the Hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the Eyes	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Center fuselage I
1	Helps the other technician	Center fuselage I



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

I. Preparation

SUBTASK 841-002-A

- (1) On the circuit breaker panel, open the ELEC PUMP 1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) Open access door 114CR of the nose hydraulic compartment (AMM MPP 06-41-01/100).
- (3) Depressurize the hydraulic system ([AMM TASK 29-10-00-860-802-A/200](#)).
- (4) Fully release the pressure in the fluid chamber of the hydraulic accumulator of the main door actuation system. For this, open the discharge valve and monitor the pressure gage until it shows the nitrogen precharge.
- (5) Release the pressure in the spring accumulator. For this, do the steps below:
 - (a) Open the main-door emergency valve in the cockpit.
 - (b) Manually open and close the main-door for two or three times.
- (6) Remove floor panels 231BF and 231CF (AMM MPP 06-41-02/100).

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

SUBTASK 020-002-A

WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

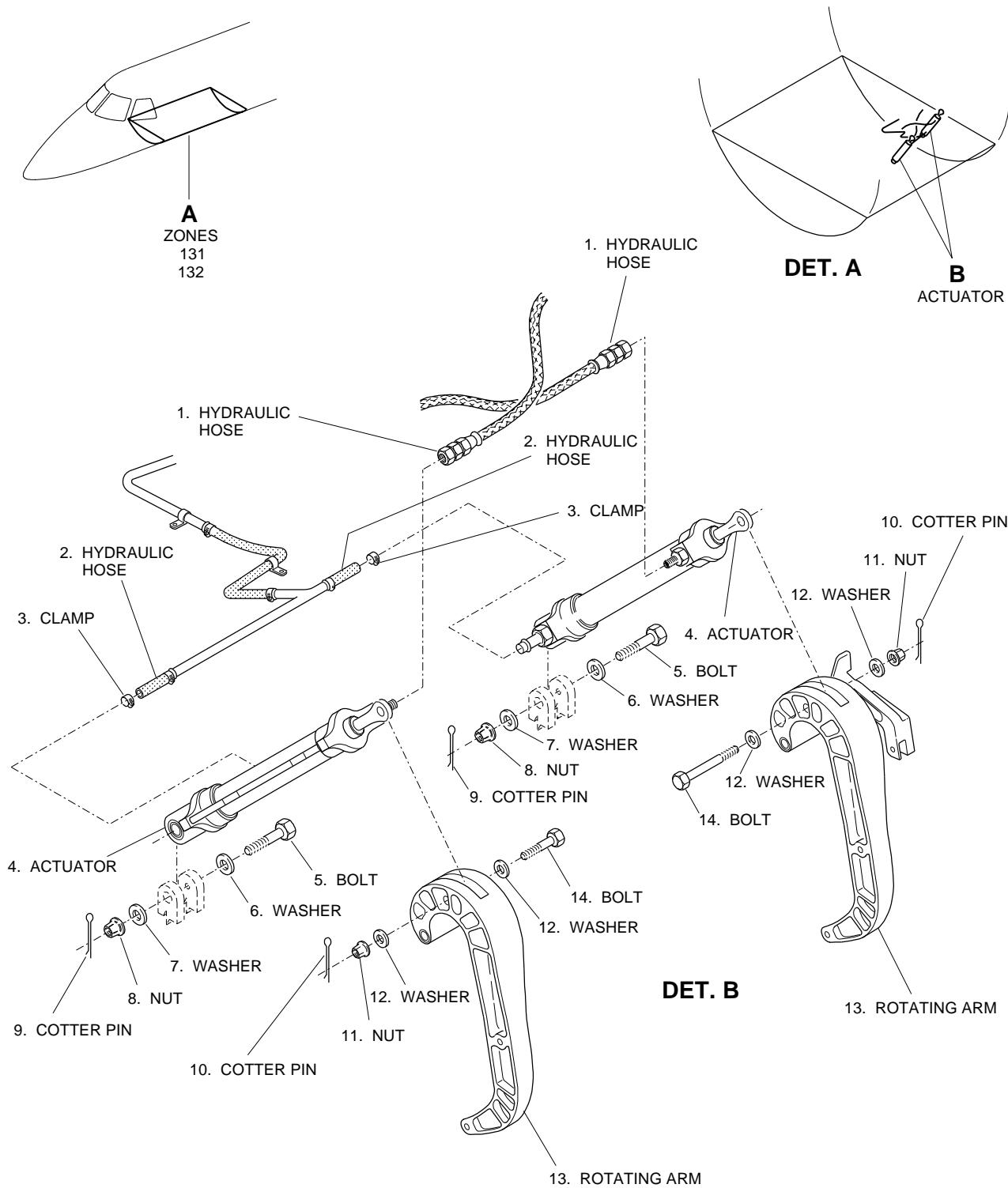
CAUTION: USE A CONTAINER TO COLLECT DROPS OF HYDRAULIC FLUID WHEN YOU DISCONNECT THE HYDRAULIC HOSES.

- (1) Disconnect the hydraulic hose (1).
- (2) Loosen the clamp (3) and disconnect the hydraulic hose (2).
- (3) Remove the cotter pin (9), nut (8), washers (6) and (7), and bolt (5) to disconnect the end of the actuator from the support at the fuselage structure.
- (4) Remove the cotter pin (10), nut (11), washer (12), and bolt (14) to disconnect the end of the actuator from the rotating arm (13).
- (5) Remove the actuator (4).

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

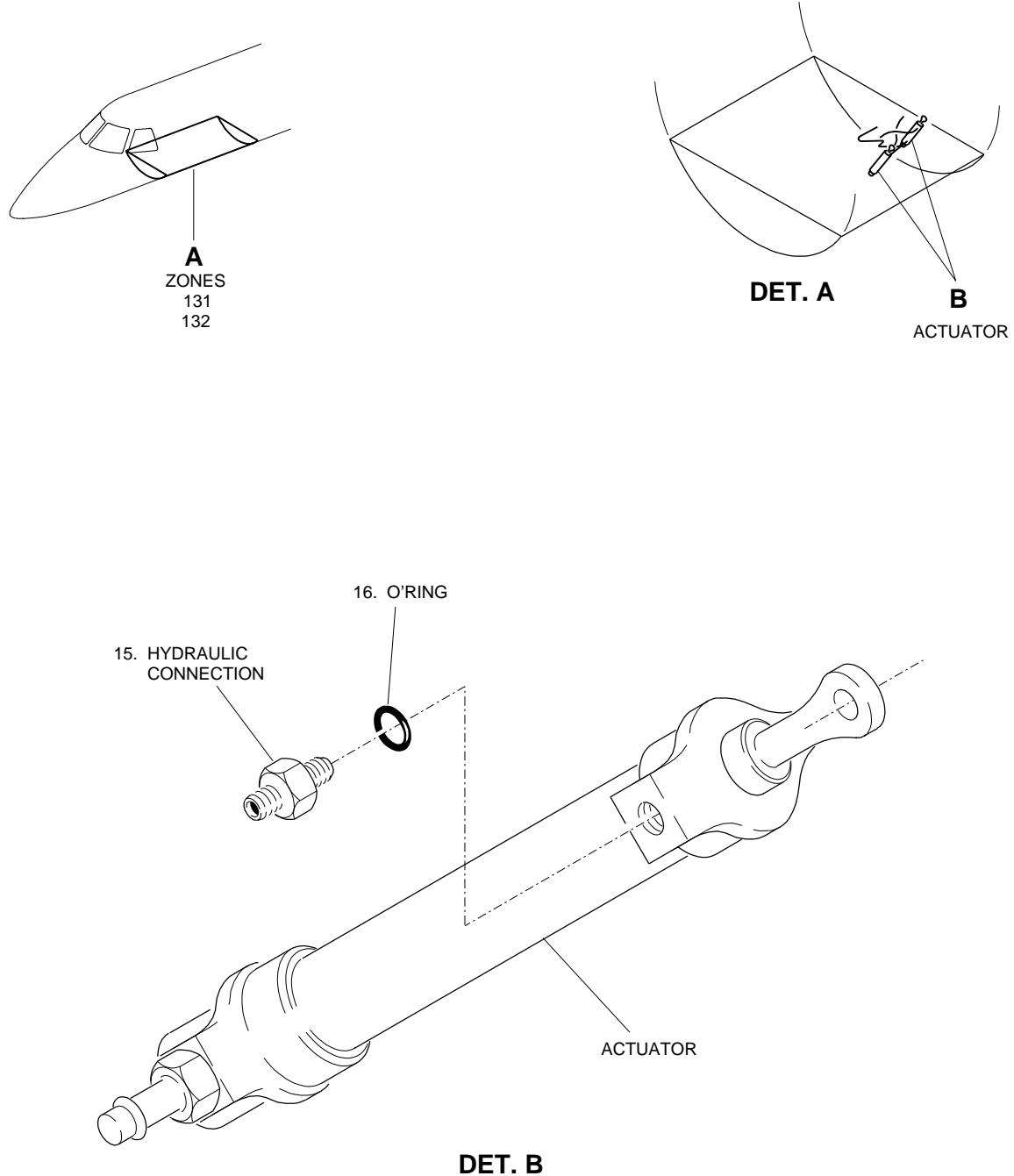
Main-Door Actuator - Removal/Installation

Figure 401



EM145AMM520021B.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door Actuator - Removal/Installation
Figure 402



145AMM520022.MCE A



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-12-08-400-801-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

3. MAIN-DOOR ACTUATOR - INSTALLATION

A. General

(1) This procedure gives the instructions to install the actuator of the main door.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
AMM TASK 52-12-08-700-801-A/500	MAIN DOOR ACTUATOR - OPERATIONAL TEST
AMM TASK 52-12-08-820-801-A/500	MAIN DOOR ACTUATOR - ADJUSTMENT
IPC 52-10-00	MAIN DOOR
IPC 52-12-00	MAIN DOOR - LIFTING AND LOWERING SYSTEM

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
131	231BF	Below the Floor
131	231CF	Below the Floor
114	114CR	Nose Hydraulic Compartment

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

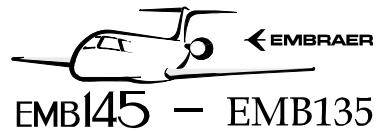
ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the Hands	1
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the Eyes	1

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 52-10-00	1



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 52-12-00	1

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Center fuselage I
1	Helps the other technician	Center fuselage I

I. Preparation (Figure 402)

SUBTASK 841-003-A

WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

- (1) Remove and keep the hydraulic connection (15).
- (2) Remove and discard the old O-ring (16).
- (3) Install the new O-ring (16).
- (4) Install the hydraulic connection (15).

J. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Put the actuator (4) in its installation position between rotating arm (13) and the support at the fuselage structure.
- (2) Install the bolt (5), washers (6) and (7), and nut (8) to attach the actuator (4) to the support at the fuselage structure.
- (3) Adjust the rod end of the actuator (4) ([AMM TASK 52-12-08-820-801-A/500](#)).
- (4) Install the bolt (14), washer (12), and nut (11) to attach the actuator (4) to the rotating arm (13).
- (5) Connect the hydraulic hose (1).
- (6) Connect the hydraulic hose (2) and tighten the clamp (3).
- (7) Install the cotter pins (9) and (10).

K. Follow-on

SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the ELEC PUMP 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (2) Pressurize hydraulic system 1 ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) Do an operational check of the main-door actuator ([AMM TASK 52-12-08-700-801-A/500](#)).
- (4) Do a check on the hydraulic connections of the actuator for leaks.
- (5) Do an inspection on the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

NOTE: The inspection of fuel quantity indication harness is part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

- (6) Install floor panels 231BF and 231CF (AMM MPP 06-41-02/100).
- (7) Close access door 114CR of the nose hydraulic compartment (AMM MPP 06-41-01/100).