



AIRCRAFT MAINTENANCE MANUAL

MAIN-DOOR ACTUATION-SYSTEM CHECK VALVE - REMOVAL/INSTALLATION

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

1. General

- A. This section gives the procedures to remove and install the check valves of the main-door actuation system.
- B. These procedures are applicable to the low pressure check valve and to the high pressure check valve of the main-door actuation system.
- 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
52-12-14-000-801-A	MAIN-DOOR ACTUATION-SYSTEM CHECK VALVE - REMOVAL	AIRCRAFT WITH AIR- STAIRS DOOR
52-12-14-400-801-A	MAIN-DOOR ACTUATION-SYSTEM CHECK VALVE - INSTALLATION	AIRCRAFT WITH AIR- STAIRS DOOR



EMB145 – EMB135

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TASK 52-12-14-000-801-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

2. MAIN-DOOR ACTUATION-SYSTEM CHECK VALVE - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the check valve of the main-door actuation system.

B. References

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

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
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	Nose hydraulic compartment

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) Totally release the pressure from the hydraulic system ([AMM TASK 29-10-00-860-802-A/200](#)).
- (4) Totally release the pressure from 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 from 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 two or three times.
- (6) Identify the check valve to be removed.

J. Removal (Figure 401)

SUBTASK 020-002-A

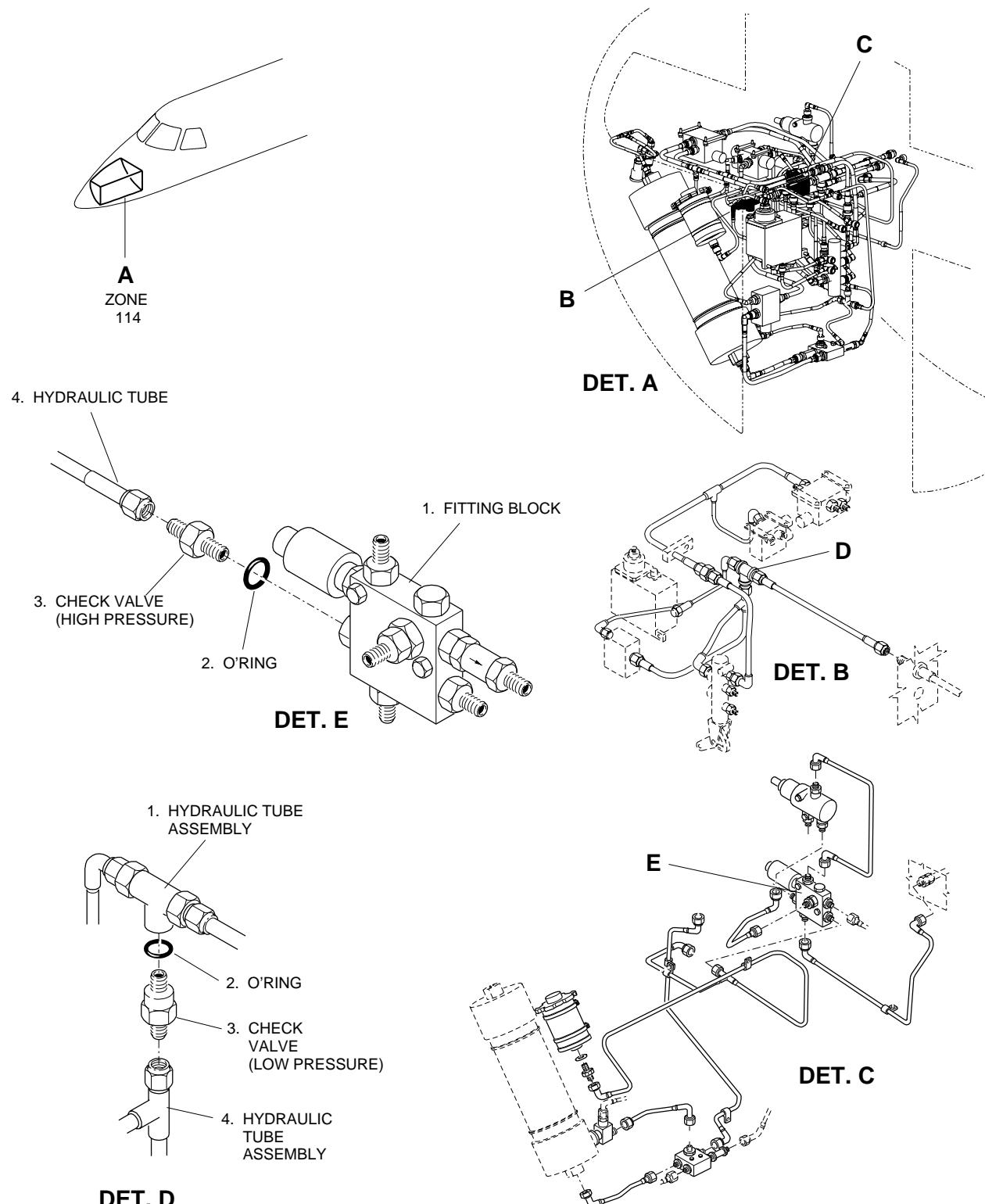
WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL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

- (1) Remove the low pressure check valve as follows:
 - (a) Disconnect the hydraulic tube assembly (4) from the check valve (3).
 - (b) Remove the check valve (3) from the hydraulic tube assembly (1).
 - (c) Remove and discard the old O'ring (2).
- (2) Remove the high pressure check valve as follows:
 - (a) Disconnect the hydraulic tube (4) from the check valve (3).
 - (b) Remove the check valve (3) from the fitting block (1).
 - (c) Remove and discard the old O'ring (2).

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Check Valve - Removal/Installation

Figure 401



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MAINTENANCE MANUAL

TASK 52-12-14-400-801-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

3. MAIN-DOOR ACTUATION-SYSTEM CHECK VALVE - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the check valve of the main-door actuation system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
IPC 29-11-00	FUSELAGE
IPC 52-12-00	MAIN DOOR - LIFTING AND LOWERING SYSTEM

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
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
O'ring	IPC 29-11-00	1
O'ring	IPC 52-12-00	1

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Nose hydraulic compartment



I. Preparation

SUBTASK 841-003-A

- (1) Identify the check valve to be installed.

J. Installation (Figure 401)

SUBTASK 420-002-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.

- (1) Install the low pressure check valve as follows:

- (a) Put a new O'ring (2) on the check valve (3).
 - (b) Install the check valve (3) on the hydraulic tube assembly (1).

NOTE: Make sure that the arrow marked in the valve body stays in a position where you can see it and that it is pointed down.

- (c) Connect the hydraulic tube assembly (4) to the check valve (3).

- (2) Install the high pressure check valve as follows:

- (a) Put a new O'ring (2) on the check valve (3).
 - (b) Install the check valve (3) on the fitting block (1).

NOTE: Make sure that the arrow marked in the valve body stays in a position where you can see it and that it is pointed to the fitting block.

- (c) Connect the hydraulic tube (4) to the check valve (3).

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.
- (2) Pressurize hydraulic system 1 ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) Do a check on the check valve for leaks.
- (4) Do an operational check of the main door.
- (5) Close access door 114CR of the nose hydraulic compartment (AMM MPP 06-41-01/100).