



## AIRCRAFT MAINTENANCE MANUAL

### PRESSURE EXTERNAL COUPLING CHECK VALVE - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

#### 1. General

- A. This section gives the procedures to remove/install the check valves of the pressure external coupling.
- B. This section gives the procedures to deactivate/reactivate the check valves of the pressure external coupling, when the aircraft is in service.
- C. The check valves of the pressure external coupling are installed one in each hydraulic manifold.
- D. You can get access to the check valve of system 1 through access panel 193BL (AMM MPP 06-41-01/100).
- E. You can get access to the check valve of system 2 through access panel 193CR (AMM MPP 06-41-01/100).
- F. 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
29-10-16-000-801-A	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - REMOVAL	ALL
29-10-16-400-801-A	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - INSTALLATION	ALL
29-10-16-040-801-A	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - DEACTIVATION PROCEDURES	ALL
29-10-16-440-801-A	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - REACTIVATION PROCEDURES	ALL



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TASK 29-10-16-000-801-A

EFFECTIVITY: ALL

2. CHECK VALVE OF PRESSURE EXTERNAL COUPLING - REMOVAL

A. General

- (1) This task gives the procedures to remove the check valves of the pressure external coupling.

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
193	193BL	Hydraulic System 1 compartment
193	193CR	Hydraulic System 2 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	Hydraulic System 1 and/or Hydraulic System 2 compartments

I. Preparation

**SUBTASK 841-002-A**

- (1) On the circuit breaker panel, open the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and attach a DO-NOT-CLOSE tag to it (them).



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- (2) Depressurize the related hydraulic system ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) Remove access panels 193BL and (or) 193CR (AMM MPP 06-41-01/100).

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

SUBTASK 020-002-A

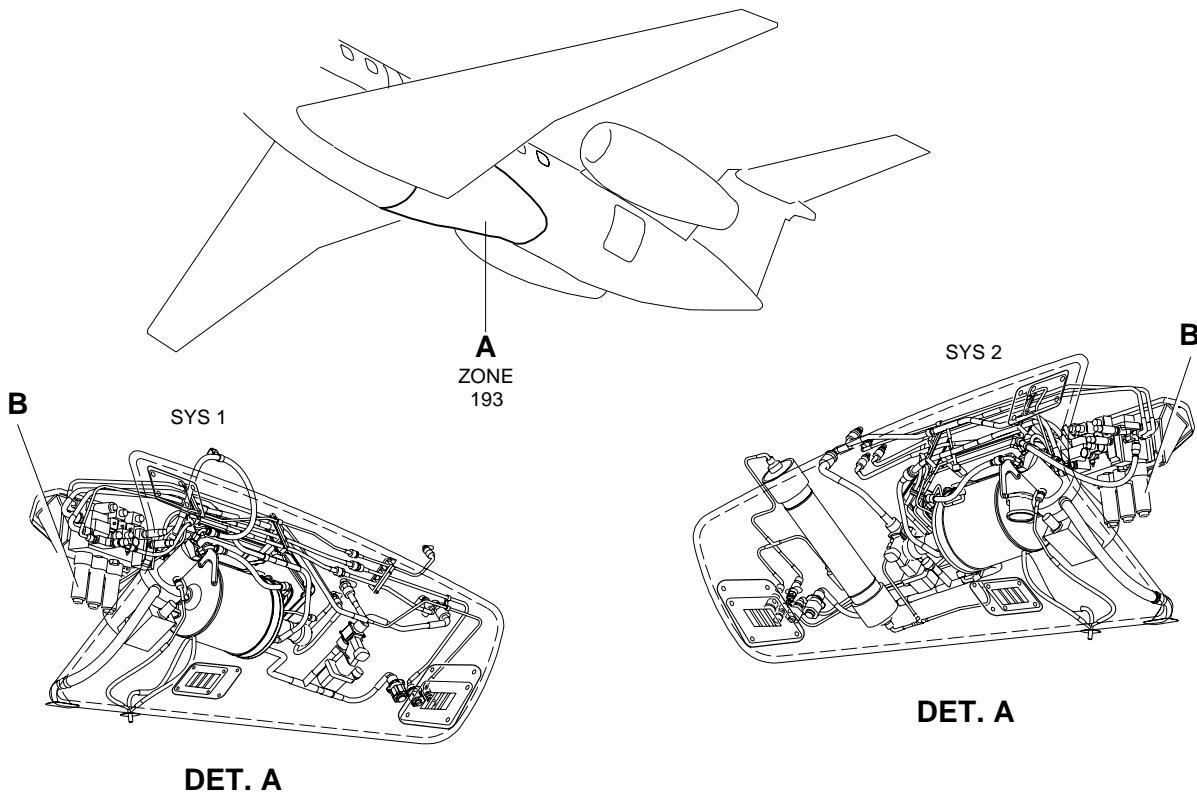
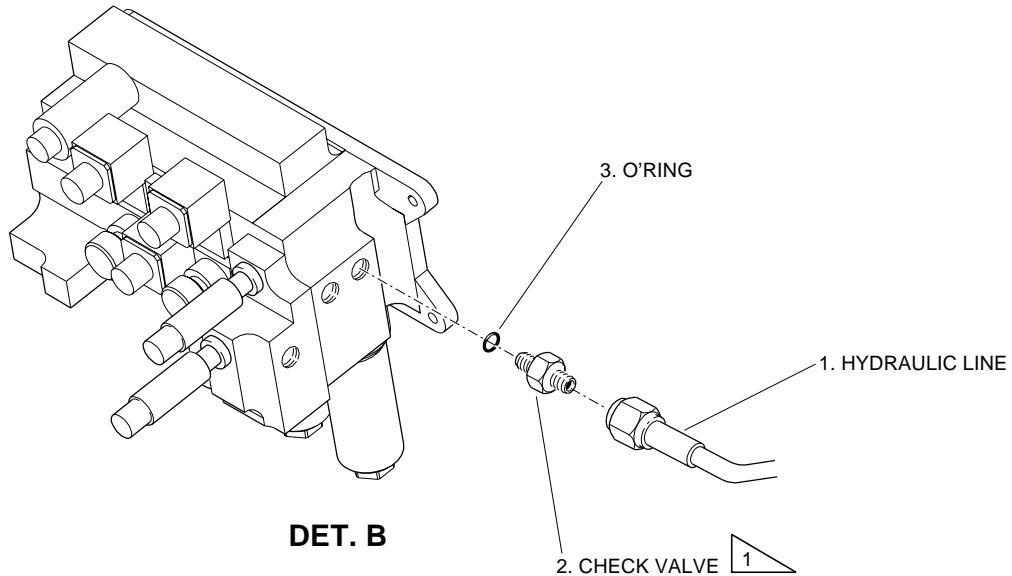
**WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE GOGGLES AND RUBBER GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL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

- (1) Disconnect the hydraulic line (1).
- (2) Remove the check valve (2) with the related O-ring (3).
- (3) Discard the O-ring (3) removed in step (2).

**EFFECTIVITY: ALL**

Check Valve of Pressure External Coupling - Removal/Installation

Figure 401


**DET. A**

**DET. B**

 TORQUE: 17.5 – 18.6 N.m (155 – 165 lb.in)

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TASK 29-10-16-400-801-A

EFFECTIVITY: ALL

### 3. CHECK VALVE OF PRESSURE EXTERNAL COUPLING - INSTALLATION

#### A. General

(1) This task gives the procedures to install the check valves of the pressure external coupling.

#### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
AMM TASK 29-10-00-860-803-A/200	HYDRAULIC SYSTEM - BLEED OF AIR
IPC 29-10-16	CHECK VALVE OF PRESSURE EXTERNAL COUPLING

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
193	193BL	Hydraulic System 1 compartment
193	193CR	Hydraulic System 2 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 29-10-16	1/LRU

#### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic System 1 and/or Hydraulic System 2 compartments



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I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Install the check valve (2) with the related new O-ring (3).
- (2) Connect the hydraulic line (1).
- (3) Torque the hydraulic line (1). Refer to (Figure 401).

J. Follow-on

SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and remove the DO-NOT-CLOSE tag from it (them).
- (2) Pressurize the related hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)) and make sure that there are no leaks in the check valve.
- (3) Bleed the air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (4) Install access panels 193BL and (or) 193CR back (AMM MPP 06-41-01/100).

**TASK 29-10-16-040-801-A**
**EFFECTIVITY: ALL**
**4. CHECK VALVE OF PRESSURE EXTERNAL COUPLING - DEACTIVATION PROCEDURES**
**A. General**

- (1) This task refers to item 29-10-16 - check valves of pressure external coupling of the DDPM.
- (2) The airplane can be dispatched with the check valves of the pressure external coupling inoperative open provided the failed valve is removed from the hydraulic system and the plumbing is plugged.
- (3) The airplane can be dispatched with the check valves of the pressure external coupling inoperative closed.

**B. References**

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 29-10-00-860-801-A/200</a>	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
<a href="#">AMM TASK 29-10-00-860-803-A/200</a>	HYDRAULIC SYSTEM - BLEED OF AIR
<a href="#">AMM TASK 29-10-16-000-801-A/400</a>	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - REMOVAL

**C. Zones and Accesses**

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
193	193BL	Hydraulic System 1 compartment
193	193CR	Hydraulic System 2 compartment

**D. Tools and Equipment**

Not Applicable

**E. Auxiliary Items**

Not Applicable

**F. Consumable Materials**

<i>SPECIFICATION (BRAND)</i>	<i>DESCRIPTION</i>	<i>QTY</i>
MS21913J6 or MS21913W6	Hydraulic Plug	AR
NAS1612-6	O-ring	AR

**G. Expandable Parts**

Not Applicable



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Hydraulic System 1 and/or Hydraulic System 2 compartments

I. Deactivation Procedures

SUBTASK 040-002-A

- (1) Remove the failed check valve(s) of the pressure external coupling as applicable ([AMM TASK 29-10-16-000-801-A/400](#)).
- (2) Plug the GND EQPT port of the filter manifold with a plug MS21913J6 or MS21913W6 and O-ring NAS1612-6. Torque the plug to 17.5 - 18.6 N.m (155 - 165 lb.in).
- (3) Plug the hydraulic line with plug MS21913J6 or MS21913W6. Torque the plug to 17.5 - 18.6 N.m (155 - 165 lb.in).
- (4) Attach a "CHECK VALVE REMOVED" placard to the affected plumbing.
- (5) Make an entry in the aircraft logbook to show that you did the Deactivation Procedure for the check valve(s) of the pressure external coupling.

J. Follow-on

SUBTASK 842-003-A

- (1) On the circuit breaker panel, close the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and remove the DO-NOT-CLOSE tag from it (them).
- (2) Pressurize the related hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)) and make sure that there are no leaks in the plug.
- (3) Bleed the air from the related hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (4) Install access panels 193BL and (or) 193CR back (AMM MPP 06-41-01/100).

**TASK 29-10-16-440-801-A**
**EFFECTIVITY: ALL**
**5. CHECK VALVE OF PRESSURE EXTERNAL COUPLING - REACTIVATION PROCEDURES**
**A. General**

(1) This task refers to item 29-10-16 - check valves of pressure external coupling of the DDPM.

**B. References**

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 29-10-00-860-802-A/200</a>	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
<a href="#">AMM TASK 29-10-16-400-801-A/400</a>	CHECK VALVE OF PRESSURE EXTERNAL COUPLING - INSTALLATION

**C. Zones and Accesses**

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
193	193BL	Hydraulic System 1 compartment
193	193CR	Hydraulic System 2 compartment

**D. Tools and Equipment**

Not Applicable

**E. Auxiliary Items**

Not Applicable

**F. Consumable Materials**

Not Applicable

**G. Expandable Parts**

Not Applicable

**H. Persons Recommended**

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Hydraulic System 1 and/or Hydraulic System 2 compartments

**I. Preparation**
**SUBTASK 841-003-A**

- (1) On the circuit breaker panel, open the ELEC PUMP 1 and (or) ELEC PUMP 2 circuit breaker(s) and attach a DO-NOT-CLOSE tag to it (them).
- (2) Depressurize the related hydraulic system ([AMM TASK 29-10-00-860-802-A/200](#)).
- (3) Remove access panels 193BL and (or) 193CR (AMM MPP 06-41-01/100).



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- (4) Remove the protective plugs and discard the O-rings, as applicable.

J. Reactivation Procedures

SUBTASK 420-003-A

- (1) Install a check valve of the pressure external coupling that you know that is in good condition as applicable ([AMM TASK 29-10-16-400-801-A/400](#)).
- (2) Make an entry in the aircraft technical logbook to show that you did the Reactivation Procedure for the check valves of pressure external coupling.