



AIRCRAFT  
MAINTENANCE MANUAL

**GSE EXTERNAL COUPLING (PRESSURE SUCTION) - REMOVAL/INSTALLATION**

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove/install the GSE External Couplings (pressure/suction).
- B. This section gives the procedures to deactivate/reactivate the GSE External Couplings (pressure/suction), when the aircraft is in service.
- C. An external pressure coupling is installed in the pressure lines of system 1 and system 2. The removal/installation procedures are equivalent for the two couplings.
- D. An external suction coupling is installed in the suction lines of system 1 and system 2. The removal/installation procedures are equivalent for the two couplings.
- E. You can get access to the external coupling of system 1 through access panel 193BL (AMM MPP 06-41-01/100).
- F. You can get access to the external coupling of system 2 through access panel 193CR (AMM MPP 06-41-01/100).
- G. 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
29-10-02-000-801-A	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - REMOVAL	ALL
29-10-02-400-801-A	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - INSTALLATION	ALL
29-10-02-040-801-A	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - DEACTIVATION PROCEDURES	ALL
29-10-02-440-801-A	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - REACTIVATION PROCEDURES	ALL



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TASK 29-10-02-000-801-A

EFFECTIVITY: ALL

2. GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - REMOVAL

A. General

(1) This task gives the procedures to remove the GSE External Couplings (pressure/suction).

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
Commercially Available	Drip Pan	To collect the hydraulic fluid when you remove the return external coupling	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

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



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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).
- (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

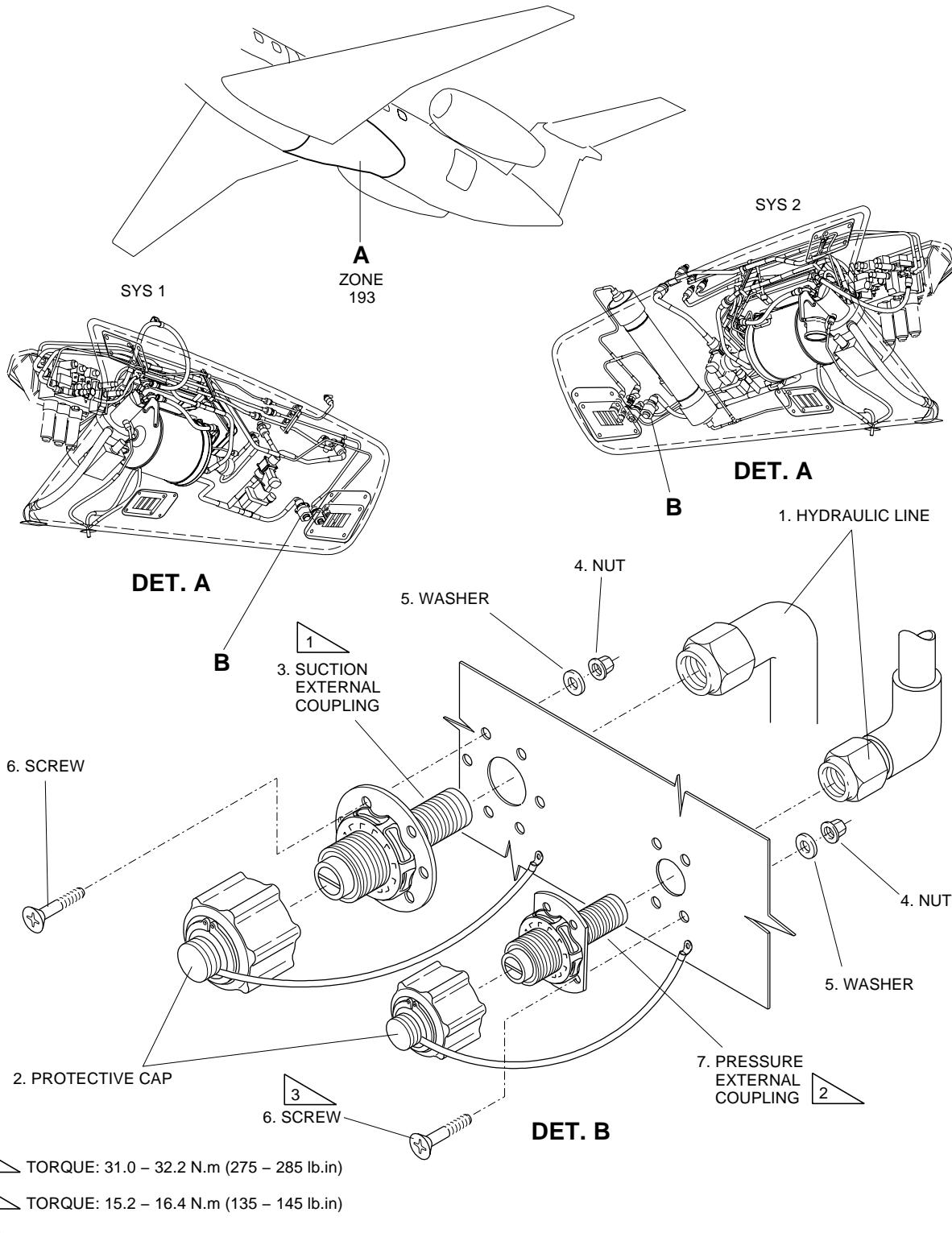
**WARNING:** THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE GOGGLES AND RUBBER GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL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

- (1) Disconnect the hydraulic lines (1).
- (2) Remove the protective caps (2) from the external couplings (3) and (7).
- (3) Remove the nuts (4), washers (5), and screws (6).
- (4) Remove the external couplings (3) and (7).

**EFFECTIVITY: ALL**

GSE External Couplings (Pressure/Suction) - Removal/Installation

Figure 401



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TASK 29-10-02-400-801-A

EFFECTIVITY: ALL

3. GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - INSTALLATION

A. General

(1) This task gives the procedures to install the GSE External Couplings (pressure/suction).

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

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
01	Does the task	Hydraulic System 1 and/or Hydraulic System 2 compartments

I. Installation (Figure 401)

SUBTASK 420-002-A

(1) Put the external couplings (3) and (7) on the servicing panel.



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- (2) Install the screws (6), washers (5), and nuts (4).
- (3) Connect the hydraulic lines (1).
- (4) Torque the hydraulic lines (1). Refer to (Figure 401).
- (5) Install the protective caps (2) to the external couplings (3) and (7).

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 external couplings.
- (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).



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TASK 29-10-02-040-801-A

EFFECTIVITY: ALL

4. GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - DEACTIVATION PROCEDURES

## A. General

- (1) This task refers to item 29-10-02 - GSE External Couplings (pressure/suction) of the DDPM.
- (2) The airplane can be dispatched with the GSE External Couplings (pressure/suction) inoperative provided the failed external coupling (or the associated plumbing) is isolated from the hydraulic system.

## 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
AMM TASK 29-10-02-000-801-A/400	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - REMOVAL

## 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

Not Applicable

## F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS21913J5 or MS21913W5	Hydraulic Plug	AR
MS21913J8 or MS21913W8	Hydraulic Plug	AR

## G. Expandable Parts

Not Applicable

## H. Persons Recommended

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



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I. Deactivation Procedures

SUBTASK 040-002-A

- (1) Remove the failed GSE External Coupling(s) (pressure/suction) as applicable ( [AMM TASK 29-10-02-000-801-A/400](#))
- (2) Plug the pressure hydraulic line with plug MS21913J5 or MS21913W5. Torque the plug to 15.2 - 16.4 N.m (135 - 145 lb.in).
- (3) Plug the suction hydraulic line with plug MS21913J8 or MS21913W8. Torque the plug to 31.0 - 32.2 N.m (275 - 285 lb.in).
- (4) Attach a "GSE COUPLING ISOLATED OR REMOVED" placard to the affected plumbing.
- (5) Make an entry in the aircraft logbook to show that you did the Deactivation Procedure for the GSE External Coupling(s) (pressure/suction).

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 29-10-02-440-801-A**
**EFFECTIVITY: ALL**
**5. GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - REACTIVATION PROCEDURES**
**A. General**

- (1) This task refers to item 29-10-02 - GSE External Couplings (pressure/suction) 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 29-10-02-400-801-A/400</a>	GSE EXTERNAL COUPLINGS (PRESSURE/SUCTION) - 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**

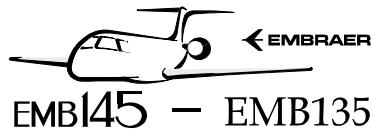
Not Applicable

**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 as applicable.

J. Reactivation Procedures

*SUBTASK 420-003-A*

- (1) Install a GSE External Coupling (pressure and/or suction) that you know that is in good condition as applicable ( [AMM TASK 29-10-02-400-801-A/400](#)).
- (2) Make an entry in the aircraft technical logbook to show that you did the Reactivation Procedure for the GSE External Coupling(s) (pressure and/or suction).