



AIRCRAFT MAINTENANCE MANUAL

DEFUELING SHUT-OFF VALVE - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures for removal/installation and deactivation/reactivation of the defueling shut-off valve.
- 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
28-23-07-000-801-A	DEFUELING SHUT-OFF VALVE - REMOVAL	ACFT WITH WET WINGSTUB
28-23-07-400-801-A	DEFUELING SHUT-OFF VALVE - INSTALLATION	ACFT WITH WET WINGSTUB
28-23-07-000-802-A	DEFUELING SHUT-OFF VALVE - REMOVAL	ACFT WITH DRY WINGSTUB
28-23-07-400-802-A	DEFUELING SHUT-OFF VALVE - INSTALLATION	ACFT WITH DRY WINGSTUB
28-23-07-040-801-A	DEFUELING SHUT-OFF VALVE - DEACTIVATION	ALL
28-23-07-440-801-A	DEFUELING SHUT-OFF VALVE - REACTIVATION	ALL



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TASK 28-23-07-000-801-A

EFFECTIVITY: ACFT WITH WET WINGSTUB

2. DEFUELING SHUT-OFF VALVE - REMOVAL

A. General

- (1) Obey the instructions below to remove the defueling shut-off valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 12-11-01-600-802-A/300	FUEL-TANK PRESSURE DEFUELING - SERVICING

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
155	155EZ	Landing gear bay
156	156EZ	Landing gear bay

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Containers	To collect residual fuel from open lines	AR

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Landing gear bay

I. Preparation

SUBTASK 841-002-A

WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- (1) Defuel the RH fuel tank ([AMM TASK 12-11-01-600-802-A/300](#)).



- (2) On the fuel panel, make sure that the XFEED switch is set at OFF.
- (3) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.
- (4) Remove access panels 155EZ/156EZ (AMM MPP 06-41-01/100) to get access to the defueling shut-off valve.

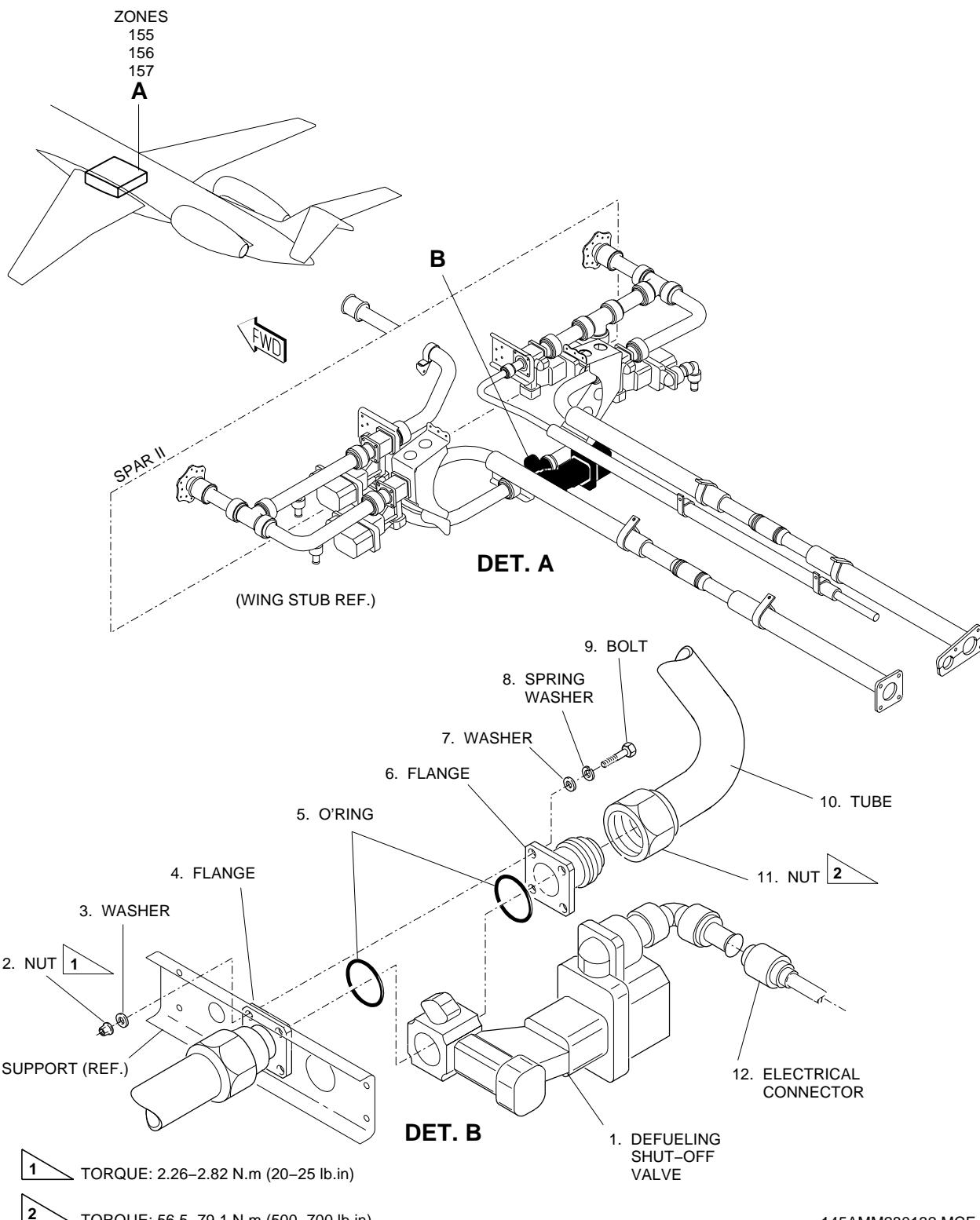
J. Removal ([Figure 401](#))

SUBTASK 020-002-A

WARNING: USE APPLICABLE CONTAINERS TO COLLECT THE REMAINING FUEL FROM THE OPEN LINES AND KEEP THE WORK AREA CLEAN AND SAFE.

- (1) Disconnect the electric connector (12) from the defueling shut-off valve (1).
- (2) Loosen the nut (11).
- (3) Remove the nuts (2), washers (3) and (7), spring washers (8), and bolts (9).
- (4) Turn the tube (10) and remove the flange (6).
- (5) Remove the defueling shut-off valve (1).
- (6) Remove and discard the O-rings (5).
- (7) Cover all disconnected points with applicable plugs or caps to prevent contamination.

EFFECTIVITY: ACFT WITH WET WINGSTUB
Defueling Shut-off Valve - Removal/Installation
Figure 401



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TASK 28-23-07-400-801-A

EFFECTIVITY: ACFT WITH WET WINGSTUB

3. DEFUELING SHUT-OFF VALVE - INSTALLATION

A. General

(1) Obey the instructions below to install the defueling shut-off valve.

B. References

REFERENCE	DESIGNATION
28-23-00	-
AMM MPP 06-41-01/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 12-11-01-600-801-A/300	FUEL-TANK PRESSURE REFUELING - SERVICING
AMM TASK 28-21-11-700-801-A/500	FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST
AMM TASK 28-23-07-700-801-A/500	DEFUELING SHUT-OFF VALVE - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
155	155EZ	Landing gear bay
156	156EZ	Landing gear bay

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench	To tighten the attachment nuts	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Molykote DC-33 Light	Lubricant	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	28-23-00	2



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Landing gear bay

I. Preparation

SUBTASK 841-003-A

- (1) On the circuit breaker panel, make sure that the circuit breakers below are open and with a DO-NOT-CLOSE tag attached to them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.
- (2) Remove the protection caps or plugs from the disconnected points, if applicable.
- (3) Lightly apply Molykote lubricant to the O-rings (5).

J. Installation (Figure 401)

SUBTASK 420-002-A

WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- (1) Install the O-rings (5) to the flanges (4) and (6).
- (2) Install the defueling shut-off valve (1) between the flanges (4) and (6).
- (3) Install the bolts (9), spring washers (8), washers (3) and (8), and nuts (2).
- (4) Turn the tube (10) and install the nut (11) to the flange (6).
- (5) Tighten the nuts (2) and (11).
- (6) Install the electric connector (12) on the defueling shut-off valve (1).

K. Follow-on

SUBTASK 842-002-A

- (1) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.



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- (2) Refuel the RH fuel tank ([AMM TASK 12-11-01-600-801-A/300](#)).
- (3) Do the Fuel-Feed-Line Leak Test ([AMM TASK 28-21-11-700-801-A/500](#)) and examine the valve and the connections for leakage. Correct as necessary.
- (4) Do the defueling shut-off valve operational test ([AMM TASK 28-23-07-700-801-A/500](#)).
- (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 a part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

- (6) Install access panels 155EZ/156EZ (AMM MPP 06-41-01/100).



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TASK 28-23-07-000-802-A

EFFECTIVITY: ACFT WITH DRY WINGSTUB

4. DEFUELING SHUT-OFF VALVE - REMOVAL

A. General

- (1) Obey the instructions below to remove the defueling shut-off valve.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 12-11-01-600-802-A/300	FUEL-TANK PRESSURE DEFUELING - SERVICING

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192AL	Center lower fairing

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Containers	To collect residual fuel from the open lines	AR

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Center lower fairing

I. Preparation

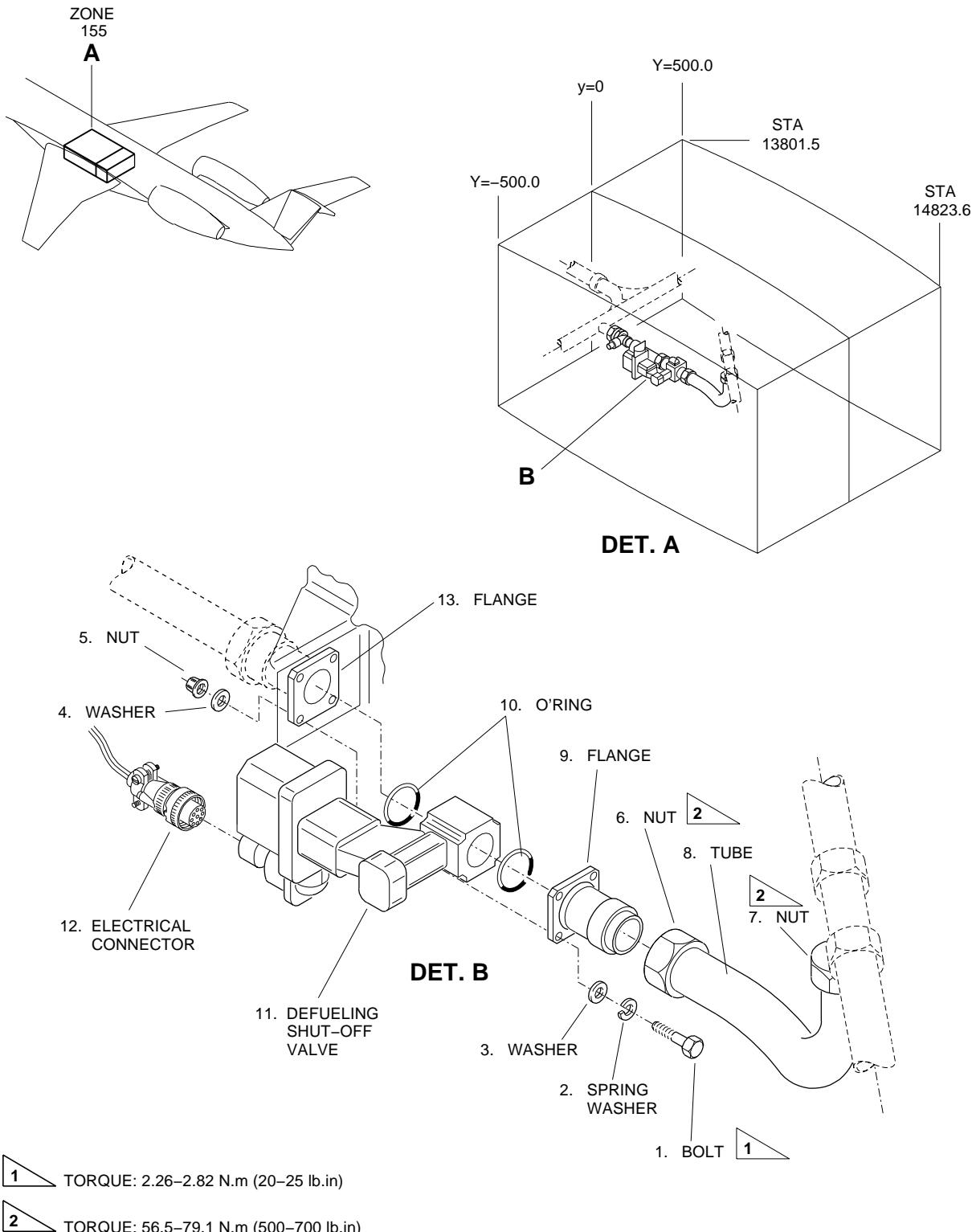
SUBTASK 841-004-A

WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

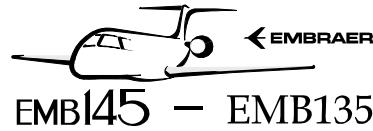
- (1) Defuel the RH fuel tank ([AMM TASK 12-11-01-600-802-A/300](#)).
- (2) On the fuel panel, make sure that the XFEED switch is set at OFF.

- (3) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.
 - (4) Open access panel 192AL (AMM MPP 06-41-01/100) to get access to the defueling shut-off valve.
- J. Removal ([Figure 402](#))
- SUBTASK 020-003-A**
- WARNING: USE APPLICABLE CONTAINERS TO COLLECT THE REMAINING FUEL FROM THE OPEN LINES AND KEEP THE WORK AREA CLEAN AND SAFE.**
- (1) Remove the bolts (1), spring washers (2), washers (3) and (4), and nuts (5).
 - (2) Loosen the nuts (6) and (7).
 - (3) Turn the tube (8) and remove the flange (9).
 - (4) Remove and discard the O-rings (10).
 - (5) Remove the defueling shut-off valve (11).
 - (6) Disconnect the electric connector (12) from the defueling shut-off valve (11).
 - (7) Cover all disconnected points with applicable plugs or caps to prevent contamination.

EFFECTIVITY: ACFT WITH DRY WINGSTUB
 Defueling Shut-off Valve - Removal/Installation
 Figure 402



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TASK 28-23-07-400-802-A

EFFECTIVITY: ACFT WITH DRY WINGSTUB

5. DEFUELING SHUT-OFF VALVE - INSTALLATION

A. General

- (1) Obey the instructions below to install the defueling shut-off valve.

B. References

REFERENCE	DESIGNATION
28-23-00	-
AMM MPP 06-41-01/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 12-11-01-600-801-A/300	FUEL-TANK PRESSURE REFUELING - SERVICING
AMM TASK 28-21-11-700-802-A/500	FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST
AMM TASK 28-23-07-700-802-A/500	DEFUELING SHUT-OFF VALVE - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192AL	Center lower fairing

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench	To tighten the attachment nuts	

E. Auxiliary Items

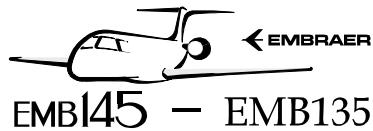
Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Molykote DC-33 Light	Lubricant	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	28-23-00	2



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Center lower fairing

I. Preparation

SUBTASK 841-005-A

- (1) On the circuit breaker panel, make sure that the circuit breakers below are open and with a DO-NOT-CLOSE tag attached to them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.
- (2) Remove the protection caps or plugs from the disconnected points, if applicable.
- (3) Lightly apply Molykote lubricant to the O-rings (10).

J. Installation (Figure 402)

SUBTASK 420-003-A

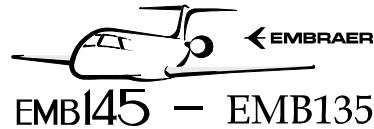
WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- (1) Install the O-rings (10) to the flanges (9) and (13).
- (2) Install the defueling shut-off valve (11) between the flanges (9) and (13).
- (3) Install the bolts (1), spring washers (2), washers (3) and (4), and nuts (5).
- (4) Turn the tube (8) and install the nut (6) to the flange (9).
- (5) Tighten the nuts (6) and (7).
- (6) Remove its protection cap and connect the electrical connector (12) to the defueling shut-off valve (11).

K. Follow-on

SUBTASK 842-003-A

- (1) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
 - FUEL PUMPS 1A/1B/1C.
 - FUEL PUMPS 2A/2B/2C.
 - DEFUELING.
 - FUEL CROSS-FEED.



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- (2) Refuel the RH fuel tank ([AMM TASK 12-11-01-600-801-A/300](#)).
- (3) Do the Fuel-Feed-Line Leak Test ([AMM TASK 28-21-11-700-802-A/500](#)) and examine the valve and the connections for leakage. Correct as necessary.
- (4) Do the defueling shut-off valve operational test ([AMM TASK 28-23-07-700-802-A/500](#)).
- (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 a part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.
- (6) Close access panel 192AL (AMM MPP 06-41-01/100).

TASK 28-23-07-040-801-A
EFFECTIVITY: ALL
6. DEFUELING SHUT-OFF VALVE - DEACTIVATION
A. General

- (1) This procedure refers to item 28-23-07 - DEFUELING SHUTOFF VALVE of the DDPM.
- (2) It is permitted to operate the aircraft with the defueling shut-off valve inoperative if it is secured closed.

B. References

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

<i>SPECIFICATION (BRAND)</i>	<i>DESCRIPTION</i>	<i>QTY</i>
MS20995C32	Lockwire	AR

G. Expandable Parts

Not Applicable

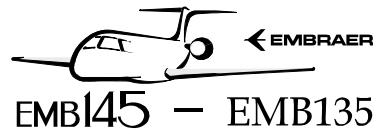
H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	At the valve location

I. Deactivation
SUBTASK 040-002-A

WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- (1) Install an "DEFUELING SHUTOFF VALVE INOP" placard on the refueling panel.
- (2) Get access to the defueling shut-off valve.
- (3) Remove, insulate, and stow the electrical connector.



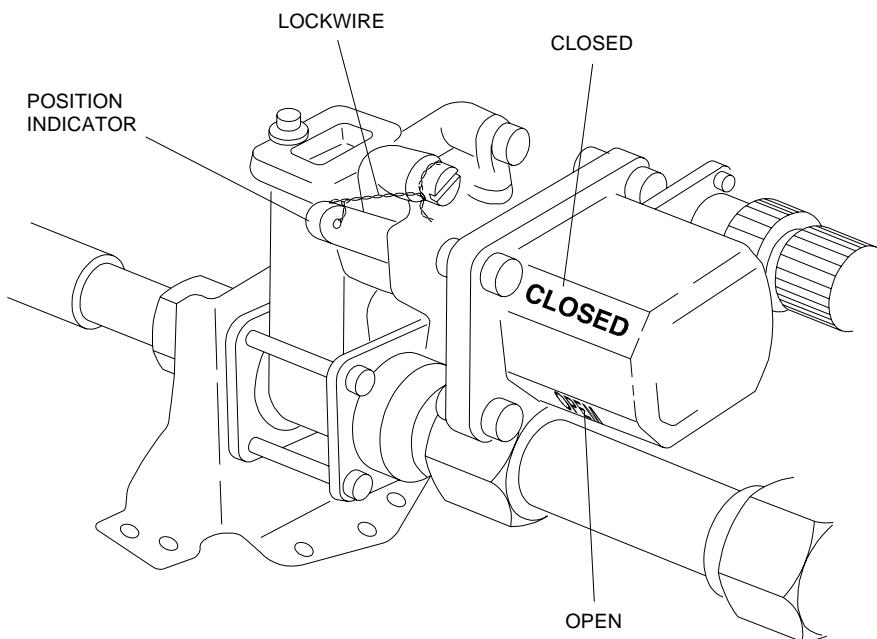
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- (4) Put the valve position indicator (override lever) in the CLOSED position and safety it with a lockwire.
- (5) Open and safety the DEFUELING circuit breaker.

EFFECTIVITY: ALL

Defueling Shut-off Valve - Deactivation

Figure 403

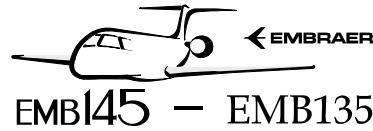


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TASK 28-23-07-440-801-A

EFFECTIVITY: ALL

7. DEFUELING SHUT-OFF VALVE - REACTIVATION

A. General

- (1) This procedure refers to item 28-23-07 - DEFUELING SHUTOFF VALVE of the DDPM.

B. References

REFERENCE	DESIGNATION
AMM MPP 28-23-07/400	- REMOVAL/INSTALLATION
AMM MPP 28-23-07/500	- ADJUSTMENT/TEST

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

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	At the valve location

I. Reactivation

SUBTASK 440-002-A

- (1) Replace the defueling shut-off valve ([AMM MPP 28-23-07/400](#)).
- (2) Do the defueling shut-off valve operational check ([AMM MPP 28-23-07/500](#)).
- (3) Remove the "DEFUELING SHUTOFF VALVE INOP" placard from the refueling panel.

