



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

FUEL FEED LINE - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do a test of the fuel feed line for leaks.
- 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            |
|--------------------|---|------------------------|
| 28-21-11-700-801-A | FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST | ACFT WITH WET WINGSTUB |
| 28-21-11-700-802-A | FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST | ACFT WITH DRY WINGSTUB |



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TASK 28-21-11-700-801-A

EFFECTIVITY: ACFT WITH WET WINGSTUB

2. FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST

A. General

- (1) The function of this test is to make sure that there is no leaks in the connections and valves of the fuel feed line.
- (2) This operational test does checks for leaks in the connections and valves in the wing stub, in the tail cone compartment, in the engines, and in the engine fuel-feed-line hose.

B. References

| REFERENCE                       | DESIGNATION  |
|---------------------------------|--|
| AMM MPP 06-41-01/100            | -  |
| AMM MPP 06-42-00/100            | -  |
| AMM MPP 06-43-00/100            | - COMPONENT LOCATION                                       |
| AMM MPP 28-00-00/200            | - MAINTENANCE PRACTICES                                    |
| AMM MPP 71-00-00/200            | - MAINTENANCE PRACTICES                                    |
| AMM TASK 20-40-01-860-801-A/200 | ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE |
| AMM TASK 28-21-10-700-801-A/500 | -  |
| AMM TASK 28-22-03-700-801-A/500 | -  |
| AMM TASK 71-12-01-000-801-A/400 | ENGINE LOWER COWLING - OPENING                             |

C. Zones and Accesses

| ZONE | PANEL/DOOR       | LOCATION              |
|------|------------------|-----------------------|
| 155  | 155DZ/155EZ      | Landing gear bay      |
| 156  | 156DZ/156EZ      | Landing gear bay      |
| 225  | 225ETC           | Overhead Panel        |
| 312  | 312AR            | Tail cone compartment |
| 413  | LH Lower Cowling | LH Engine             |
| 423  | RH Lower Cowling | RH Engine             |
| 414  | 414BB            | LH pylon underside    |
| 424  | 424BB            | RH pylon underside    |

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

| ITEM                   | DESCRIPTION | PURPOSE                     | QTY |
|------------------------|-------------|-----------------------------|-----|
| Commercially available | Workstand   | To get access to the engine | 1   |



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| ITEM                   | DESCRIPTION | PURPOSE                                    | QTY |
|------------------------|-------------|--|-----|
| Commercially available | Ladder      | To get access to the tail cone compartment | 1   |

## F. Consumable Materials

Not Applicable

## G. Expandable Parts

Not Applicable

## H. Persons Recommended

| QTY | FUNCTION  | PLACE  |
|-----|---|--|
| 1   | Turns on/off the pump power switch and the APU master switch, and opens the circuit breakers  | Cockpit  |
| 1   | Sees the position of the rods of the shut-off valves and finds a possible leak in the fuel feed line in the wing stub and in the fuel shroud drains | Landing gear bay   |
| 1   | Examines for possible leaks in the engine and engine pylons and in the APU fuel feed line   | LH-RH Engine/LH-RH Pylon Underside/Tail cone compartment |

## I. Preparation

SUBTASK 841-002-A

**WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 AND AMM MPP 71-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.**

- (1) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
  - APU CONTROL.
  - START 1/2.
- (2) Remove the access panels shown below to get access to the fuel feed line:
  - (a) Landing gear bay:
    - 155DZ/155EZ/156DZ/156EZ (AMM MPP 06-41-01/100).
  - (b) Tail cone compartment:
    - 312AR (AMM MPP 06-42-00/100).
  - (c) LH/RH pylon underside:
    - 414BB/424BB (AMM MPP 06-43-00/100).
- (3) Open the lower cowling (AMM TASK 71-12-01-000-801-A/400) to get access to the engine.
- (4) Put the workstand and the ladder in the work area.

- (5) Energize the aircraft with the DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).

**J. Fuel-Feed-Line Leak Test - Operational Test ([Figure 501](#)) ([Figure 502](#)) ([Figure 503](#))**

**SUBTASK 790-002-A**

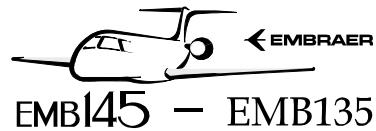
**CAUTION:** DO NOT TURN ON THE FUEL PUMPS WITHOUT FUEL IN THE TANK. IF YOU DO, THE FUEL PUMPS WILL BURN.

- (1) Set the two pump power switches (1) to the ON position.
- (2) Set the APU master switch (2) to the ON position.
- (3) Do a check to make sure that the position indicator of the defueling shut-off valve (3) and of the cross-feed valve (4) are in the CLOSED position.
- (4) Do a check to make sure that the indicator position of the APU fuel-shut-off valve (5) and of the right/left engine shut-off valves (6) and (7) are in the OPEN position.
- (5) Do a visual check on the connections and valves for leaks in the rear wing stub (8).
- (6) Do a visual check on the fuel-line shroud drain (9) for leaks.
- (7) Do a visual check on the engine fuel-feed line hose (10) for leaks.
- (8) Do a visual check on the fuel pumps and metering unit (FPMU) (11) for leaks.
- (9) Do a visual check on the engine low-pressure switches (12) for leaks.
- (10) Do a visual check on the APU fuel line (13) for leaks.
- (11) If applicable, repair the fuel feed line as necessary to remove the leak(s). Do the check again and make sure that there is no leak.

**K. Follow-on**

**SUBTASK 842-002-A**

- (1) If there is a leak in the fuel-line-shroud drain (9), do the engine fuel-feed-line-shroud leak test (AMM TASK 28-21-10-700-801-A/500) and the APU fuel-feed-line-shroud leak test (AMM TASK 28-22-03-700-801-A/500) to find the location of the leak and repair.
- (2) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
  - APU CONTROL.
  - START 1/2.
- (3) Set the two pump power switches (1) to the OFF position.
- (4) Set the APU master switch (2) to the OFF position.
- (5) Install the access panels shown below:
  - (a) Landing gear bay:

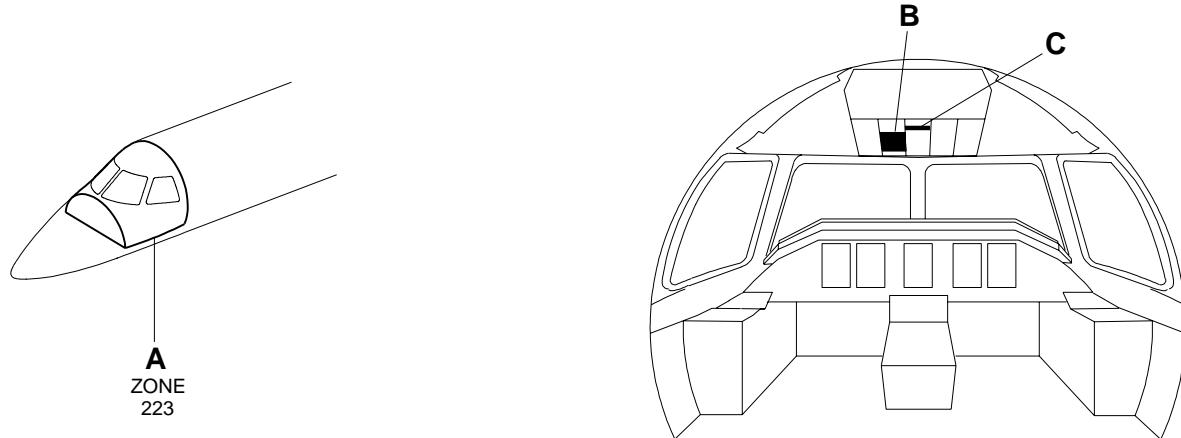
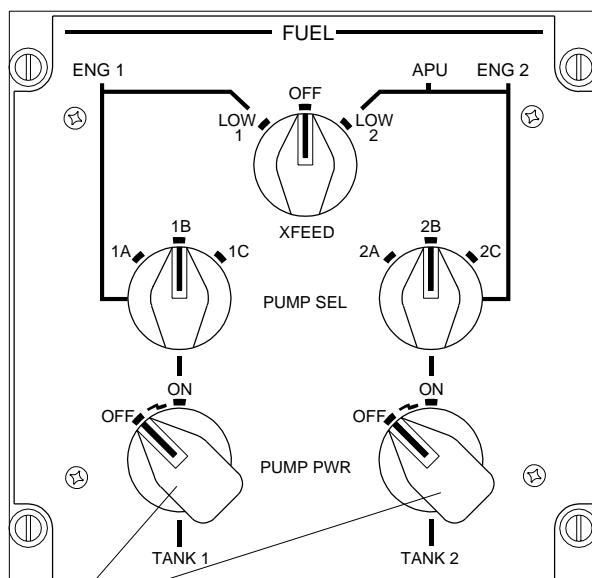
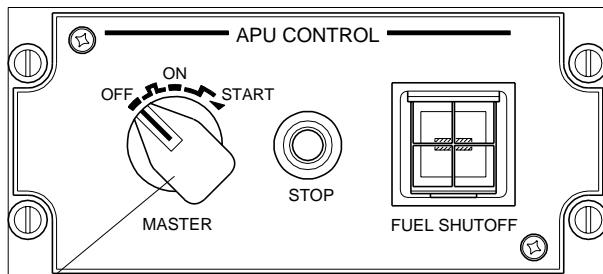


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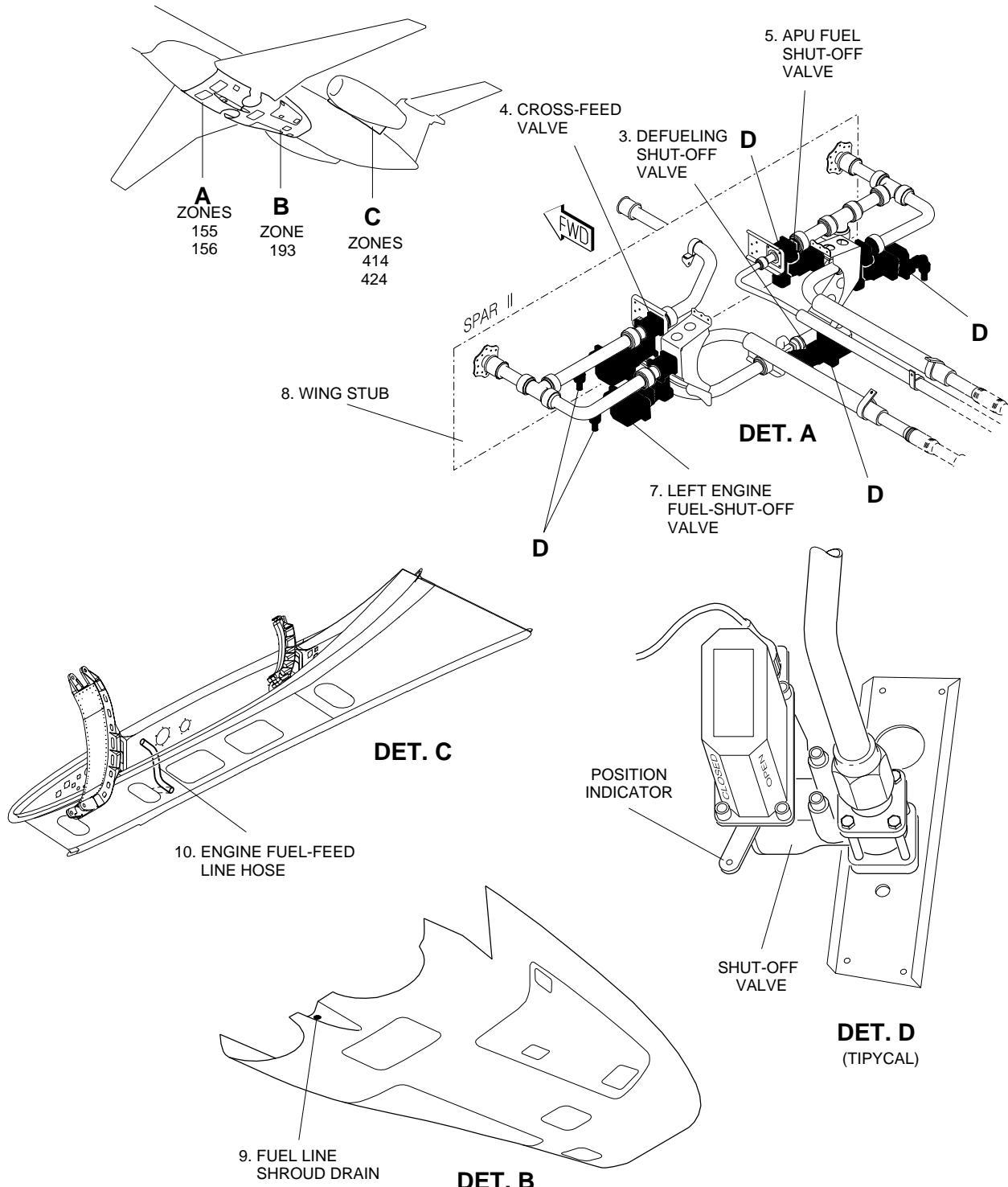
- 155DZ/155EZ/156DZ/156EZ (AMM MPP 06-41-01/100).
- (b) Tail cone compartment:
  - 312AR (AMM MPP 06-42-00/100).
- (c) LH/RH pylon underside:
  - 414BB/424BB ([AMM MPP 06-43-00/100](#)).
- (6) Close the lower cowling ([AMM TASK 71-12-01-000-801-A/400](#)).
- (7) Remove the workstand and the ladder from the work area.
- (8) Deenergize the aircraft and remove the DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).

**EFFECTIVITY: ACFT WITH WET WINGSTUB**  
 Fuel-Feed-Line Leak Test - Component Locations  
 Figure 501


**DET. A**

**1. PUMP POWER SWITCH**

**2. APU MASTER SWITCH**
**DET. C**

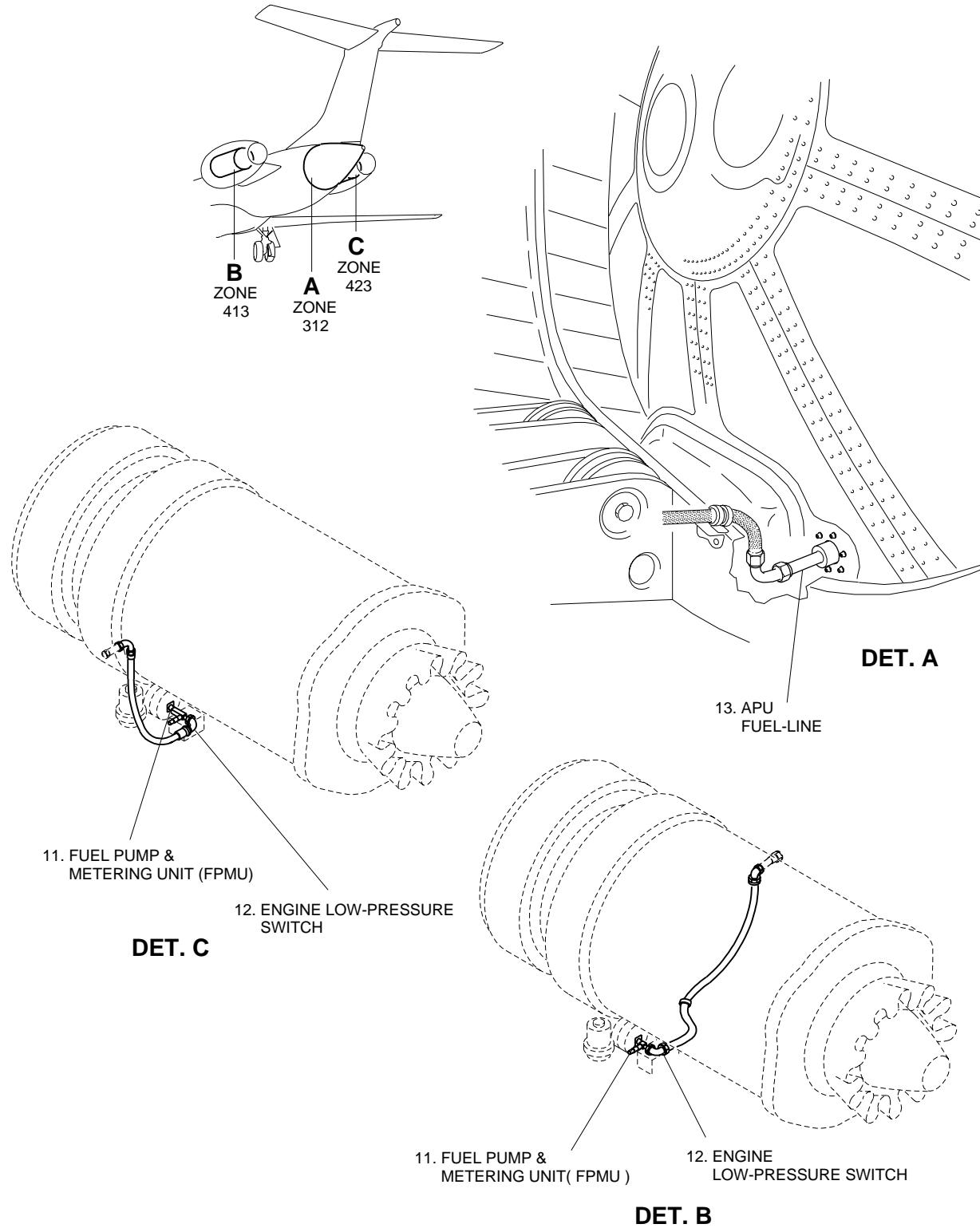
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**EFFECTIVITY: ACFT WITH WET WINGSTUB**  
**Fuel-Feed-Line Leak Test - Component Locations**  
**Figure 502**



145AMM280149.MCE C

**EFFECTIVITY: ACFT WITH WET WINGSTUB**  
 Fuel-Feed-Line Leak Test - Component Locations  
 Figure 503



**TASK 28-21-11-700-802-A**
*EFFECTIVITY: ACFT WITH DRY WINGSTUB*
**3. FUEL-FEED-LINE LEAK TEST - OPERATIONAL TEST**
**A. General**

- (1) The function of this test is to make sure that there is no leaks in the connections and valves of the fuel feed line.
- (2) This operational test does checks for leaks in the connections and valves in the wing stub, in the tail cone compartment, in the engines, and in the engine fuel-feed-line hose.

**B. References**

| <i>REFERENCE</i>                | <i>DESIGNATION</i>   |
|---------------------------------|--|
| AMM MPP 06-41-01/100            | -  |
| AMM MPP 06-42-00/100            | -  |
| AMM MPP 06-43-00/100            | - COMPONENT LOCATION                                       |
| AMM MPP 28-00-00/200            | - MAINTENANCE PRACTICES                                    |
| AMM MPP 71-00-00/200            | - MAINTENANCE PRACTICES                                    |
| AMM TASK 20-40-01-860-801-A/200 | ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE |
| AMM TASK 28-21-10-700-801-A/500 | -  |
| AMM TASK 28-22-03-700-801-A/500 | -  |
| AMM TASK 71-12-01-000-801-A/400 | ENGINE LOWER COWLING - OPENING                             |

**C. Zones and Accesses**

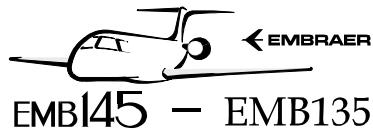
| <i>ZONE</i> | <i>PANEL/DOOR</i> | <i>LOCATION</i>       |
|-------------|-------------------|-----------------------|
| 192         | 192AL             | Center lower fairing  |
| 192         | 192BR             | Center lower fairing  |
| 225         | 225ETC            | Overhead Panel        |
| 312         | 312AR             | Tail cone compartment |
| 413         | LH Lower Cowling  | LH Engine             |
| 423         | RH Lower Cowling  | RH Engine             |
| 414         | 414BB             | LH pylon underside    |
| 424         | 424BB             | RH pylon underside    |

**D. Tools and Equipment**

Not Applicable

**E. Auxiliary Items**

| <i>ITEM</i>            | <i>DESCRIPTION</i> | <i>PURPOSE</i>              | <i>QTY</i> |
|------------------------|--------------------|-----------------------------|------------|
| Commercially available | Workstand          | To get access to the engine | 1          |



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| ITEM                   | DESCRIPTION | PURPOSE                                    | QTY |
|------------------------|-------------|--|-----|
| Commercially available | Ladder      | To get access to the tail cone compartment | 1   |

## F. Consumable Materials

Not Applicable

## G. Expandable Parts

Not Applicable

## H. Persons Recommended

| QTY | FUNCTION  | PLACE  |
|-----|---|--|
| 1   | Turns on/off the pump power switch and the APU master switch, and opens the circuit breakers  | Cockpit  |
| 1   | Sees the position of the rods of the shut-off valves and finds a possible leak in the fuel feed line in the wing stub and in the fuel shroud drains | Center lower fairing                                     |
| 1   | Find a possible leak in the engine and engine pylons and in the APU fuel feed line  | LH-RH Engine/LH-RH Pylon Underside/Tail cone compartment |

## I. Preparation

SUBTASK 841-003-A

**WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 AND AMM MPP 71-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.**

- (1) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
  - APU CONTROL.
  - START 1/2.
- (2) Remove the access panels shown below to get access to the fuel feed line:
  - (a) Center lower fairing:
    - 192AL/192BR (AMM MPP 06-41-01/100).
  - (b) Tail cone compartment:
    - 312AR (AMM MPP 06-42-00/100).
  - (c) LH/RH pylon underside:
    - 414BB/424BB (AMM MPP 06-43-00/100).
- (3) Open the lower cowling (AMM TASK 71-12-01-000-801-A/400) to get access to the engine.
- (4) Put the workstand and the ladder in the work area.

- (5) Energize the aircraft with the DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).

**J. Fuel-Feed-Line Leak Test - Operational Test ([Figure 504](#)) ([Figure 501](#)) ([Figure 503](#))**

**SUBTASK 790-003-A**

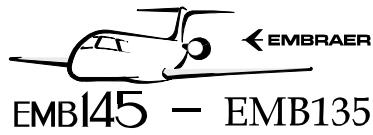
**CAUTION: DO NOT TURN ON THE FUEL PUMPS WITHOUT FUEL IN THE TANK. IF YOU DO, THE FUEL PUMPS WILL BURN.**

- (1) Set the two pump power switches (1) to the ON position.
- (2) Set the APU master switch (2) to the ON position.
- (3) Do a check to make sure that the position indicator of the defueling shut-off valve (3) and of the cross-feed valve (4) are in the CLOSED position.
- (4) Do a check to make sure that the position indicators of the APU fuel-shut-off valve (5) and of the right/left engine shut-off valves (6) and (7) are in the OPEN position.
- (5) Do a visual check on the connections and valves for leaks in the rear wing stub (8).
- (6) Do a visual check on the fuel-line shroud drain (9) for leaks.
- (7) Do a visual check on the engine fuel-feed line hose (10) for leaks.
- (8) Do a visual check on the fuel pumps and metering unit (FPMU) (11) for leaks.
- (9) Do a visual check on the engine low-pressure switches (12) for leaks.
- (10) Do a visual check on the APU fuel line (13) for leaks.
- (11) If applicable, repair the fuel feed line as necessary to remove the leak(s). Do the check again and make sure that there is no leak.

**K. Follow-on**

**SUBTASK 842-003-A**

- (1) If there is a leak in the fuel-line-shroud drain (9), do the engine fuel-feed-line-shroud leak test (AMM TASK 28-21-10-700-801-A/500) and the APU fuel-feed-line-shroud leak test (AMM TASK 28-22-03-700-801-A/500) to find the location of the leak and repair.
- (2) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
  - APU CONTROL.
  - START 1/2.
- (3) Set the two pump power switches (1) to the OFF position.
- (4) Set the APU master switch (2) to the OFF position.
- (5) Install the access panels shown below:
  - (a) Center lower fairing:

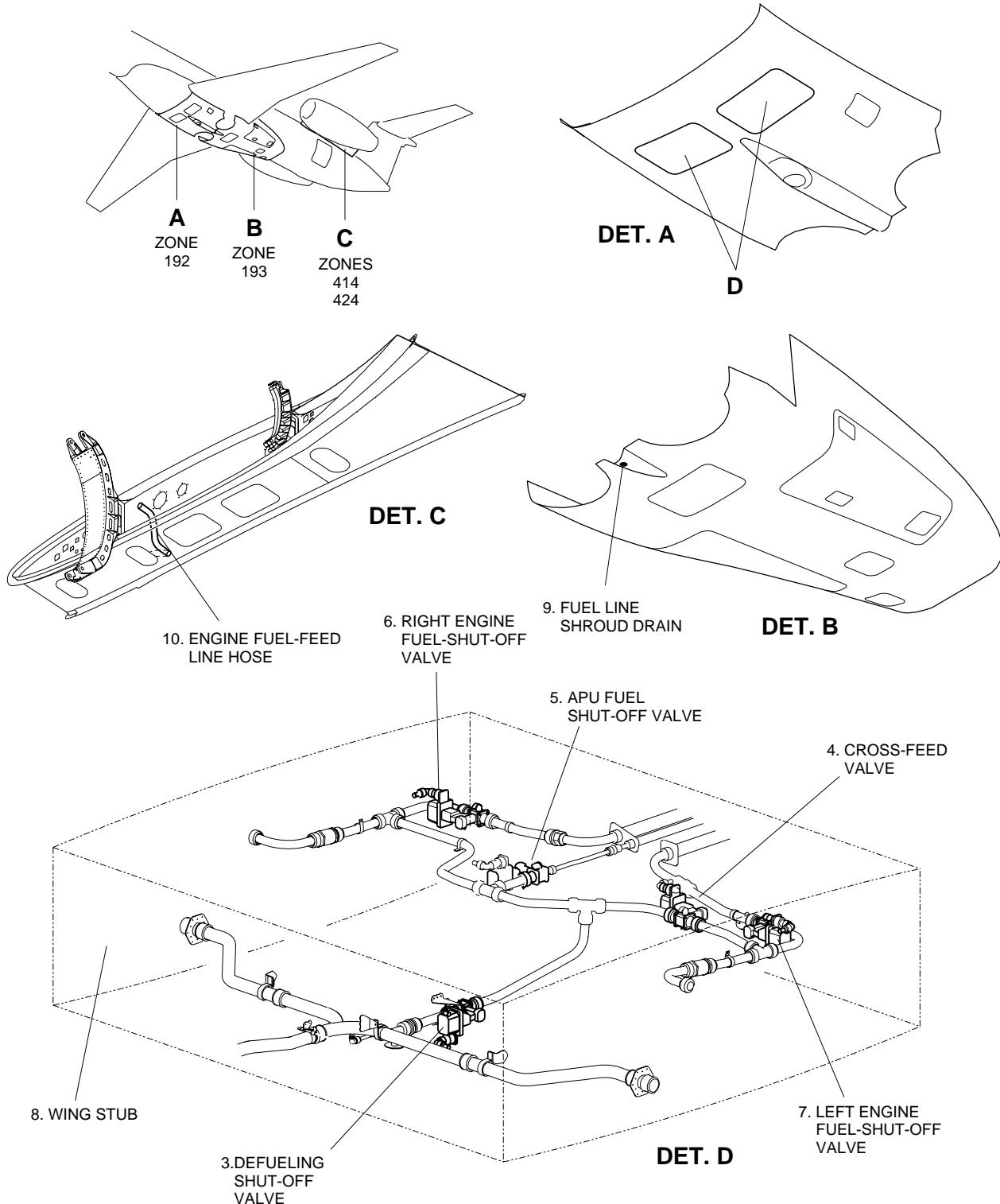


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- 192AL/192BR (AMM MPP 06-41-01/100).
  - (b) Tail cone compartment:
    - 312AR (AMM MPP 06-42-00/100).
  - (c) LH/RH pylon underside:
    - 414BB/424BB ( AMM MPP 06-43-00/100).
- (6) Close the lower cowling ( [AMM TASK 71-12-01-000-801-A/400](#)).
- (7) Remove the workstand and the ladder from the work area.
- (8) Deenergize the aircraft and remove the DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).

**EFFECTIVITY: ACFT WITH DRY WINGSTUB**  
**Fuel-Feed-Line Leak Test - Component Locations**  
**Figure 504**



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