

## SPEED BRAKE VALVE - REMOVAL/INSTALLATION

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to remove and install the Speed Brake 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
27-62-04-000-801-A	SPEED BRAKE VALVE - REMOVAL	ALL
27-62-04-400-801-A	SPEED BRAKE VALVE - INSTALLATION	ALL

TASK 27-62-04-000-801-A

EFFECTIVITY: ALL

## 2. SPEED BRAKE VALVE - REMOVAL

### A. General

(1) This task gives the procedures to remove the Speed Brake valve.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 29-10-00-860-801-A/200</a>	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192BR	Wing-to-fuselage fairing

### 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 pair
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1 pair

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing stub

### I. Preparation

#### SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Release the pressure of the hydraulic system ( [AMM TASK 29-10-00-860-801-A/200](#) ).
- (3) Do not do other tasks on the Speed Brake system.

- (4) On the Circuit Breaker Panel, open the FLAP 1, FLAP 2, SPEED BRAKE, GND SPLR INBD/OUTBD, ELEC PUMP 1 and ELEC PUMP 2 circuit breakers, and attach a DO-NOT-CLOSE tag to them.
- (5) Remove access panel 192BR (AMM MPP 06-41-01/100).

J. Removal (Figure 401) (Figure 402)

SUBTASK 020-002-A

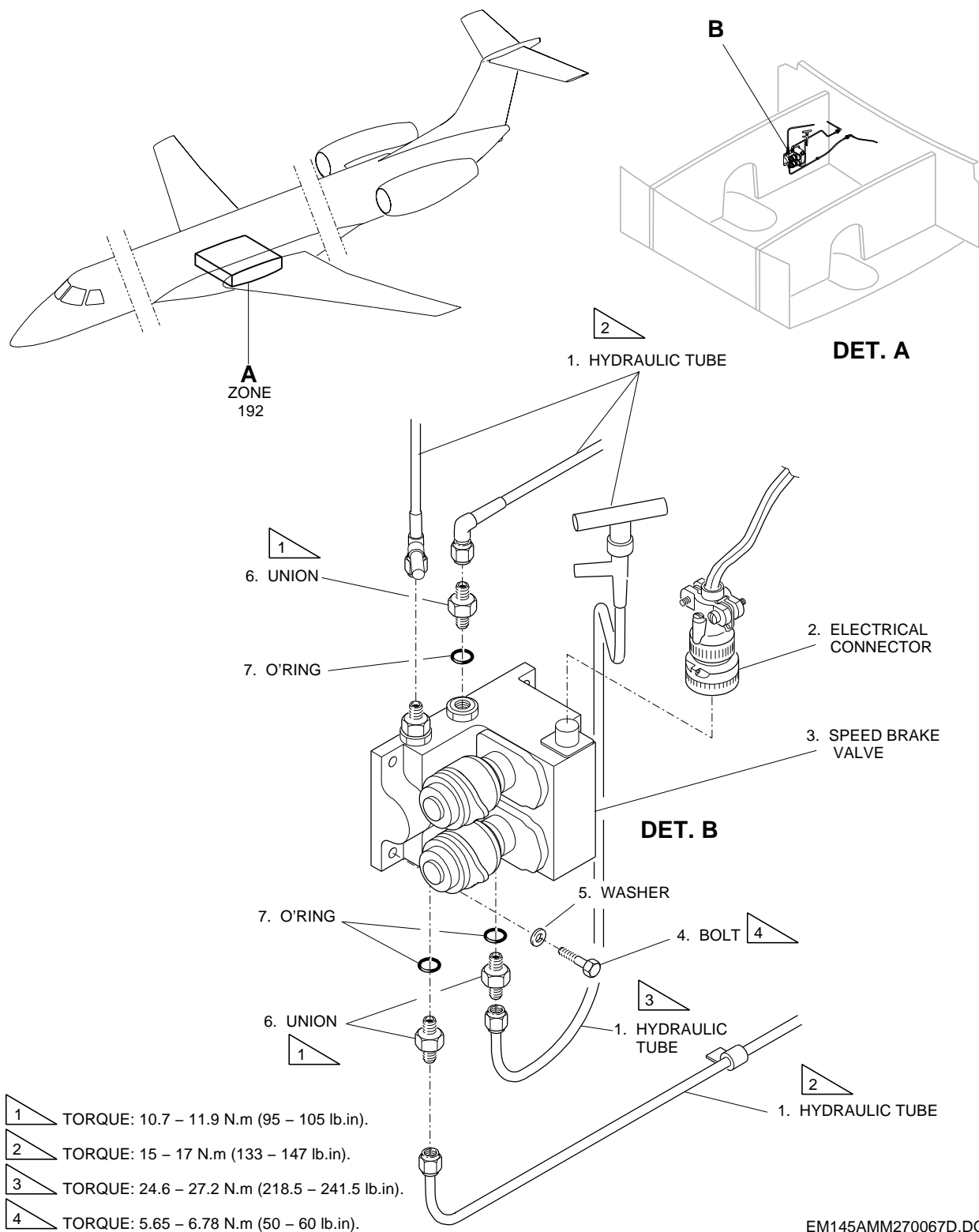
**WARNING:** • MAKE SURE THAT THERE THE HYDRAULIC SYSTEM IS NOT PRESSURIZED ( [AMM TASK 29-10-00-860-801-A/200](#)).

- 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 hydraulic tubes (1) from the Speed Brake Valve (3). Put the plugs on the tube ends and the valve.
  - (2) Disconnect the electrical connector (2) from the Speed Brake Valve (3).
  - (3) Remove the unions (6) from the Speed Brake Valve (3).
  - (4) Remove and discard the O-ring (7) from the unions (6).
  - (5) Loosen the bolts (4) and washer (5) to remove the Speed Brake Valve (3).
  - (6) Remove the Speed Brake Valve (3).

EFFECTIVITY: EMB-145ER/EP/EU AND EMB-135ER MODELS

Speed Brake Valve - Removal/Installation

Figure 401

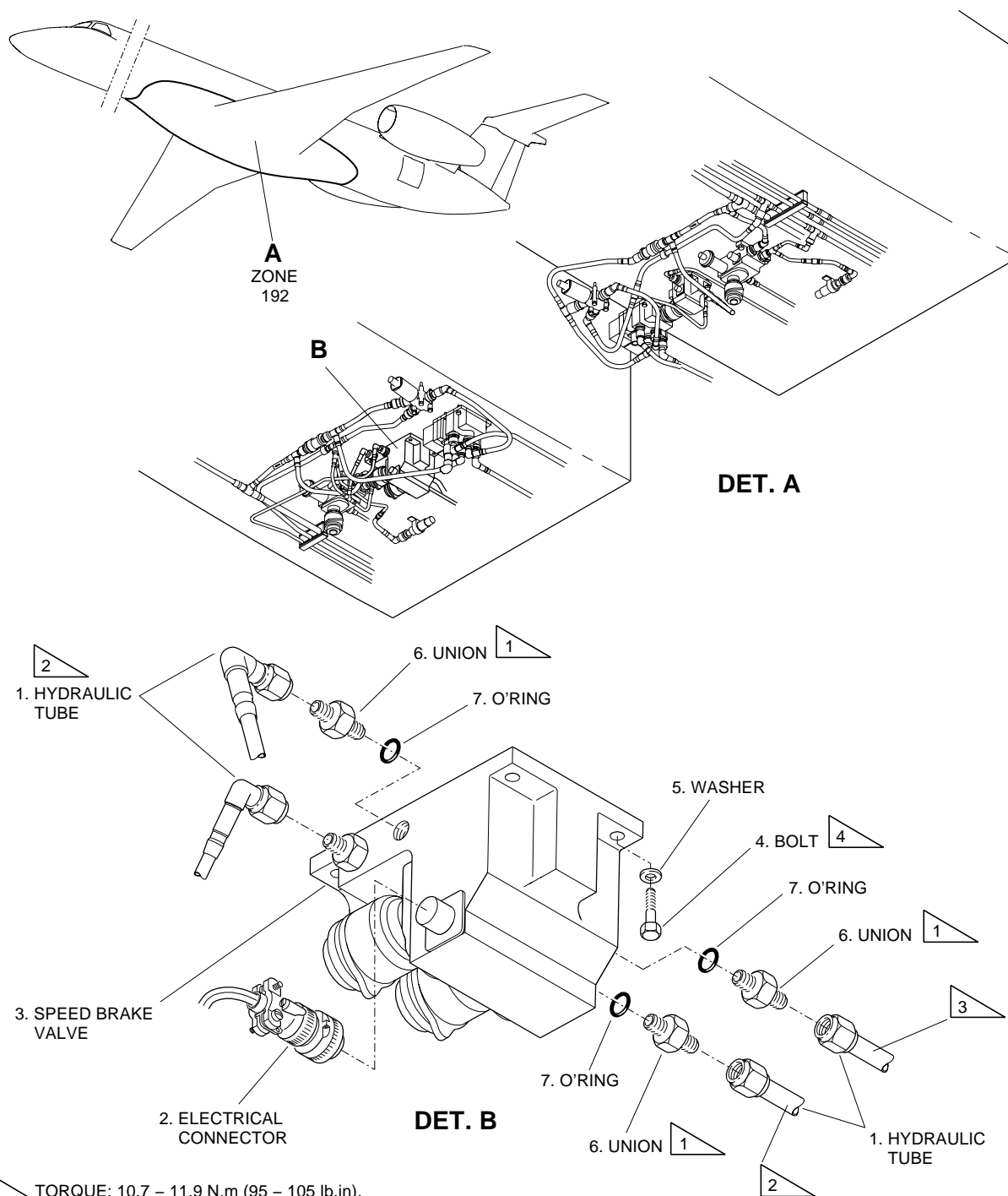


EM145AMM270067D.DGN

EFFECTIVITY: EMB-145LR/LU/MP AND EMB-135LR MODELS

Speed Brake Valve - Removal/Installation

Figure 402



EM145AMM270448B.DGN

TASK 27-62-04-400-801-A

EFFECTIVITY: ALL

### 3. SPEED BRAKE VALVE - INSTALLATION

#### A. General

(1) This task gives the procedures to install the Speed Brake valve.

#### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
<a href="#">AMM TASK 27-63-01-700-801-A/500</a>	SPOILER SYSTEM - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-
<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
IPC 27-62-03	SPEED BRAKE ACTUATOR

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
192	192BR	Wing-to-fuselage fairing

#### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially Available	Torque wrench	To apply the torques	

#### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber Gloves, Phosphate Ester-Base, Fluid-Resistant	Protection for the hands	1 pair
Commercially available	Rubber Goggles, Phosphate Ester-Base, Fluid-Resistant	Protection for the eyes	1 pair

#### F. Consumable Materials

Not Applicable

#### G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 27-62-03	3/LRU

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing stub

I. Installation (Figure 401) (Figure 402)

*SUBTASK 420-002-A*

**WARNING:** • **MAKE SURE THAT THERE THE HYDRAULIC SYSTEM IS NOT PRESSURIZED ( [AMM TASK 29-10-00-860-801-A/200](#)).**

- **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 Speed Brake valve (3) in the wing stub structure. Use the bolts (4) and washers (5). Torques as shown in (Figure 401) or (Figure 402) as applicable.
- (2) Install the union (6) in the Speed Brake valve (3). Use the O-ring (7). Torques as shown in (Figure 401) or (Figure 402) as applicable.
- (3) Install the hydraulic tubes (1) in the Speed Brake valve (3). Torques as shown in (Figure 401) or (Figure 402) as applicable.
- (4) Connect the electrical connector (2) on the Speed Brake valve (3).

J. Follow-on

*SUBTASK 842-002-A*

- (1) On the Circuit Breaker Panel, close the FLAP 1, FLAP 2, SPEED BRAKE, GND SPLR INBD/OUTBD, ELEC PUMP 1 and ELEC PUMP 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (2) 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 part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

- (3) Install access panel 192BR (AMM MPP 06-41-01/100).
- (4) Bleed the air from the hydraulic system lines ( [AMM TASK 29-10-00-860-803-A/200](#)).
- (5) Make sure that there are no leaks in the speed brake valve.
- (6) Do the operational check of the spoiler system ( [AMM TASK 27-63-01-700-801-A/500](#)).

