



AIRCRAFT
MAINTENANCE MANUAL

SPEED BRAKE SOLENOID VALVE - REMOVAL/INSTALLATION

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

1. General

- A. This section gives the procedures to remove and install the solenoid valve of the speed brake system.
- B. The solenoid valve is installed on the RH side of the wing stub.
- C. 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
27-62-08-000-801-A	SOLENOID VALVE - REMOVAL	JAA CERTIFIED AIR-CRAFT
27-62-08-400-801-A	SOLENOID VALVE - INSTALLATION	JAA CERTIFIED AIR-CRAFT



EMB145 - EMB135

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TASK 27-62-08-000-801-A

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

2. SOLENOID VALVE - REMOVAL

A. General

- (1) This task gives the instructions to remove the solenoid valve of the speed brake 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

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
156		RH Wing stub
192	192BR	Center lower 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 - RH side

I. Preparation

SUBTASK 841-002-A

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



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

SUBTASK 020-002-A

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

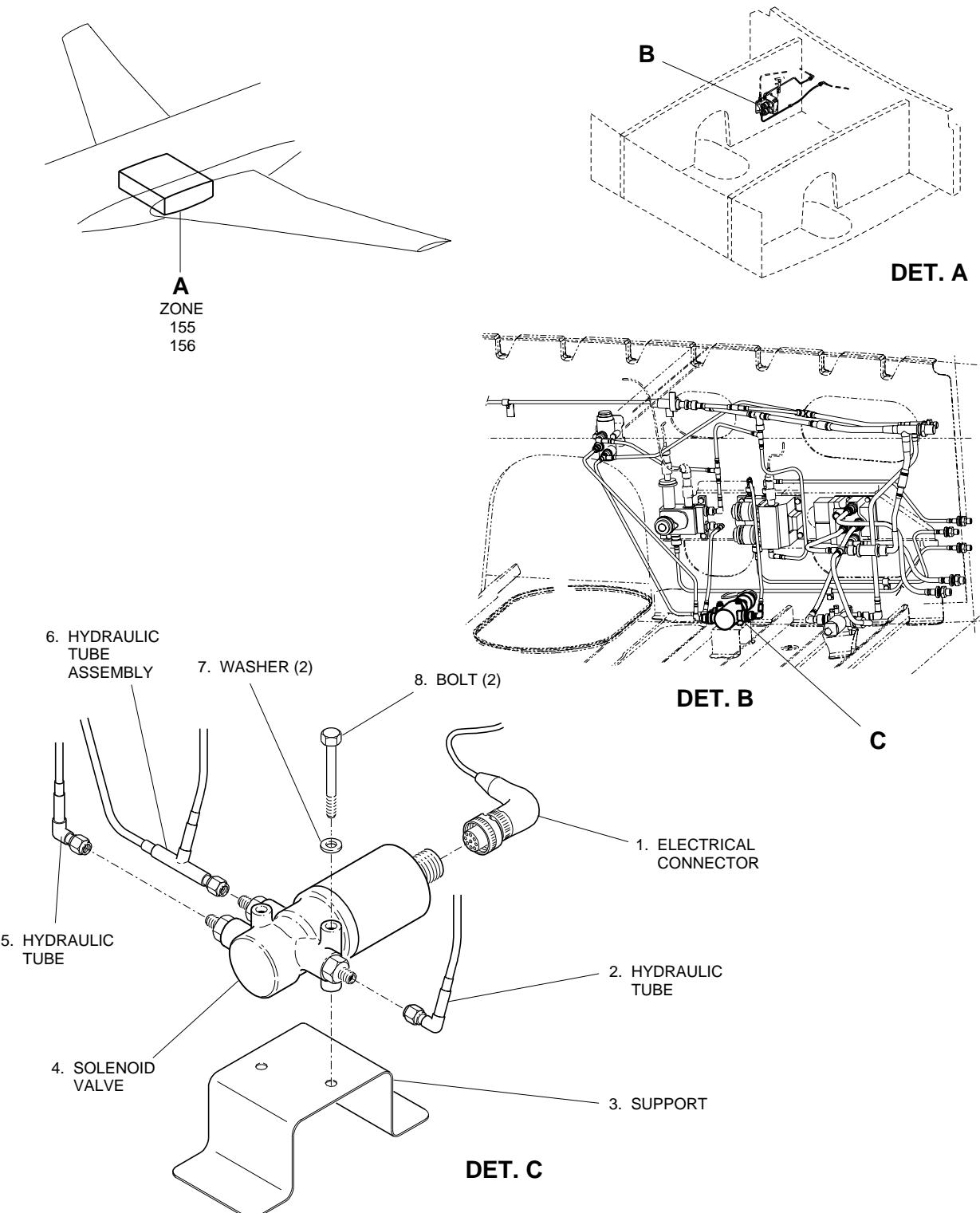
• THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE RUBBER GOGGLES AND GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

- (1) Disconnect the electrical connector (1) from the solenoid valve (4).
- (2) Disconnect the hydraulic tubes (2) and (5) from the solenoid valve (4).
- (3) Disconnect the hydraulic tube assembly (6) from the solenoid valve (4).
- (4) Remove the bolts (8) and washers (7) (2 positions) to release the solenoid valve (4) from the support (3).
- (5) Remove the solenoid valve (4).

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

Solenoid Valve of the Speed Brake System - Removal/Installation

Figure 401

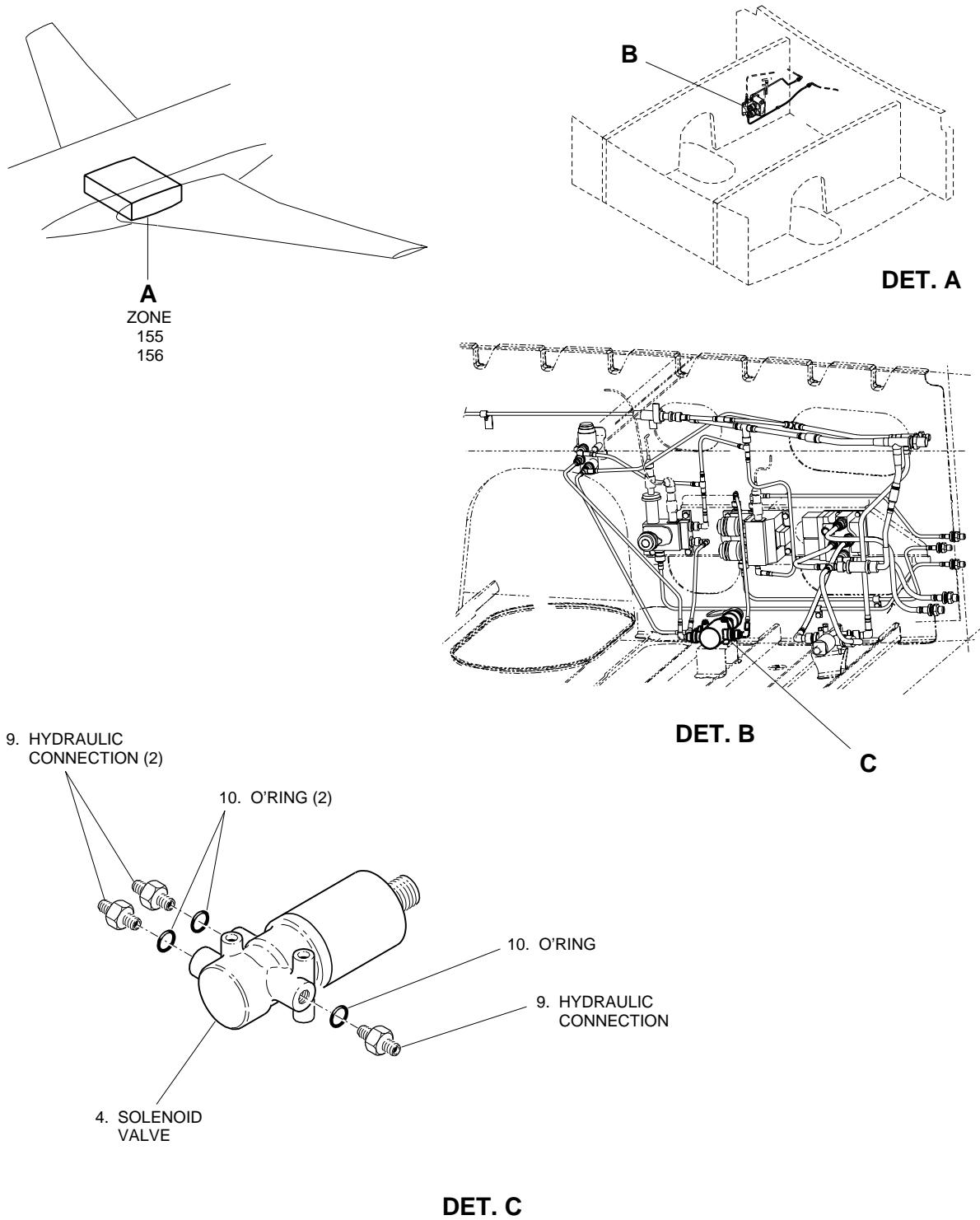


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EFFECTIVITY: JAA CERTIFIED AIRCRAFT

Hydraulic Connections of the Solenoid Valve - Removal/Installation

Figure 402



145AMM270306.MCE A



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TASK 27-62-08-400-801-A

EFFECTIVITY: JAA CERTIFIED AIRCRAFT

3. SOLENOID VALVE - INSTALLATION

A. General

(1) This task gives the instructions to install the solenoid valve of the speed brake system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 27-63-01-700-801-A/500	SPOILER SYSTEM - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-
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
156		RH Wing stub
192	192BR	Center lower 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

SPECIFICATION (BRAND)	DESCRIPTION	QTY
NAS1602-906	O-ring	3

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing stub - RH side



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I. Preparation (Figure 402)

SUBTASK 841-003-A

- (1) Remove the hydraulic connections (9) (3 positions) from the solenoid valve (4) and keep them.
- (2) Remove and discard the old O-rings (10) (3 positions).
- (3) Install the new O-rings (10) (3 positions) to the solenoid valve (4).
- (4) Install the hydraulic connections (9) (3 positions) to the solenoid valve (4).

J. Installation (Figure 401)

SUBTASK 420-002-A

WARNING: • **MAKE SURE THAT 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) Put the solenoid valve (4) on the support (3).
- (2) Attach the solenoid valve (4) to the support (3) with the bolts (8) and washers (7) (2 positions).
- (3) Connect the hydraulic tube assembly (6) to the solenoid valve (4).
- (4) Connect the hydraulic tubes (2) and (5) to the solenoid valve (4).
- (5) Connect the electrical connector (1) to the solenoid valve (4).

K. Follow-on

SUBTASK 842-002-A

- (1) On the Circuit Breaker Panel, close the SPEED BRAKE, ELEC PUMP 1, and ELEC PUMP 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.
- (2) Bleed the air from the hydraulic system lines ([AMM TASK 29-10-00-860-803-A/200](#)).
- (3) Make sure that there are no leaks in the solenoid valve.
- (4) Do the operational check of the spoiler system ([AMM TASK 27-63-01-700-801-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 part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.



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- (6) Install access panel 192BR (AMM MPP 06-41-01/100).