



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

AILERON DAMPER - SERVICING

EFFECTIVITY: ON AIRCRAFT POST-MOD SB 145-27-0063 OR FAA/CTA-CERTIFIED AIRCRAFT

1. General

- A. This section gives the procedures to do the Damper Bleeding.
- 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).

<i>TASK NUMBER</i>	<i>DESCRIPTION</i>	<i>EFFECTIVITY</i>
27-12-03-870-801-A	AILERON DAMPER BLEEDING	ON AIRCRAFT POST-MOD SB 145-27-0063 OR FAA/CTA-CERTIFIED AIRCRAFT



AIRCRAFT MAINTENANCE MANUAL

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TASK 27-12-03-870-801-A

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2. AILERON DAMPER BLEEDING

A. General

(1) This task gives the procedures to do the Damper Bleeding.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-44-00/100	- COMPONENT LOCATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS
AMM TASK 57-56-04-000-801-A/400	AILERON LOWER SHROUD - REMOVAL
AMM TASK 57-56-04-400-801-A/400	AILERON LOWER SHROUD - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
551	551CB	Wing lower skin
651	651CB	Wing lower skin

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 044	Headset - Ramp	For communications	

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	Container	To collect the hydraulic fluid	1

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C32	Lockwire	As necessary

G. Expandable Parts

Not Applicable

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Wing
1	Does the task	Cockpit

I. Preparation
SUBTASK 841-002-A

- (1) Do not do other tasks on the aileron system.
- (2) Remove the aileron lower shroud ([AMM TASK 57-56-04-000-801-A/400](#)).
- (3) Open access door 551CB and 651CB ([AMM MPP 06-44-00/100](#)).
- (4) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (5) Pressurize hydraulic system 2 only ([AMM TASK 29-10-00-860-801-A/200](#)). On the flight controls panel, on the overhead panel, the AILERON SHUTOFF SYS 2 pushbutton light must be OFF.

J. Bleeding of the Aileron Damper ([Figure 301](#))
SUBTASK 870-002-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 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) As a protection, put a dry cloth in the area next to the damper.
- (2) Use a container to collect the hydraulic fluid.
- (3) Insert the rig pin in the wing sector to lock the aileron in the neutral position. Insert it only in the wing side on which you will do this task. See [Figure 301](#).
- (4) Slowly open the bleed valve until the first drops comes out and continue to turn the bleed valve and stop to turn as soon as the fluid bleed streams. Then, let the fluid bleed for 10 to 20 seconds.

NOTE: If the bleed valve is removed completely, discard and replace the O-ring.

- (5) Depressurize hydraulic system 2 ([AMM TASK 29-10-00-860-801-A/200](#)). On the flight controls panel, on the overhead panel, the AILERON SHUTOFF SYS 2 pushbutton light must be ON.
- (6) Close the bleed valve.
- (7) Remove the rig pin from the aileron wing sector.



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- (8) Pressurize hydraulic system 2 only ([AMM TASK 29-10-00-860-801-A/200](#)). On the flight controls panel, on the overhead panel, the AILERON SHUTOFF SYS 2 pushbutton light must be OFF.

WARNING: MAKE SURE THAT THE BLEED VALVE OF THE DAMPER IS CLOSED.

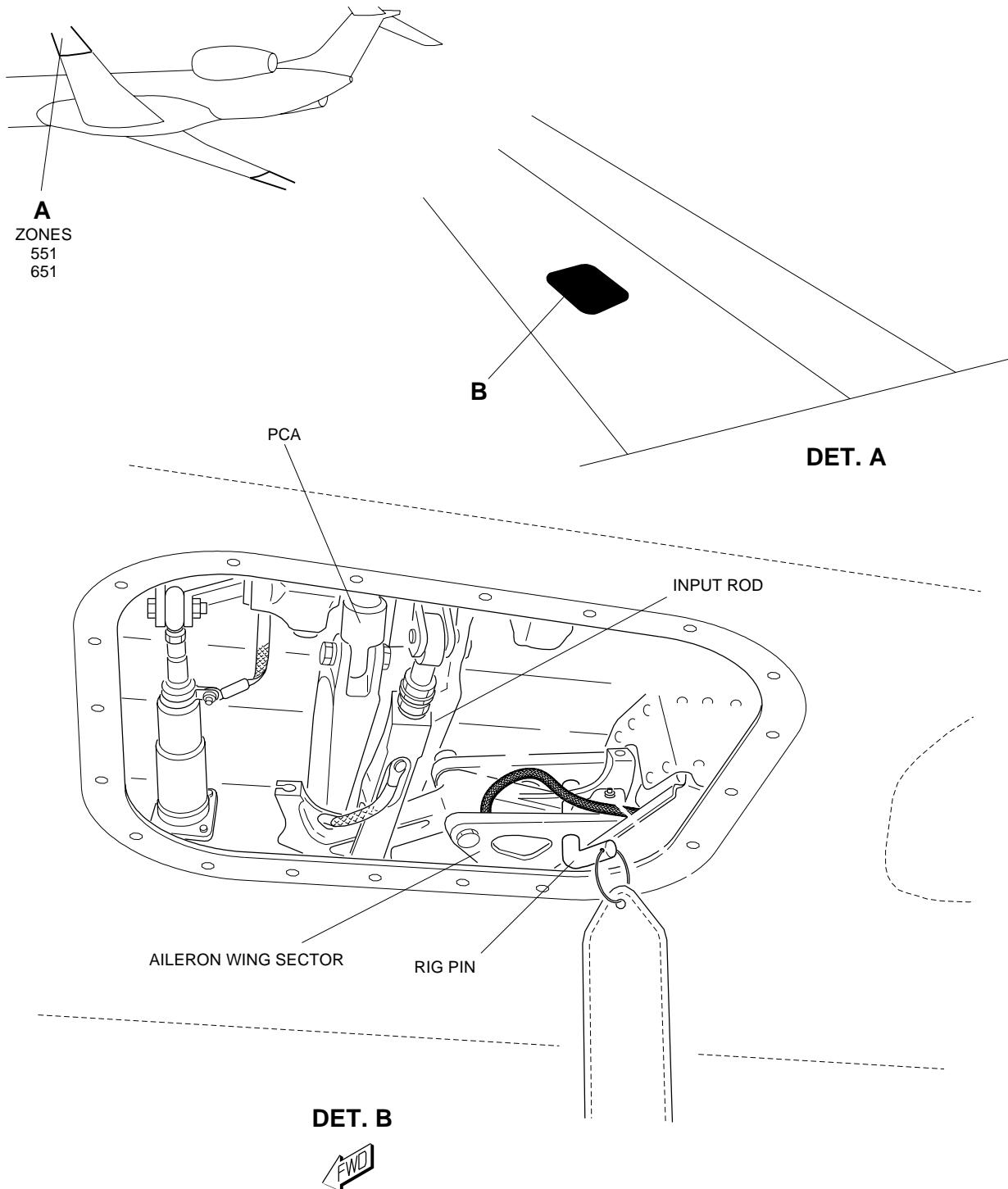
- (9) Do ten (10) aileron command cycles (fully left - neutral - fully right - neutral - for each cycle).
- (10) Do steps 4 thru 9 again.
- (11) Torque the bleed valve and safety it. Refer to [Figure 302](#).

K. Follow-on

SUBTASK 842-002-A

- (1) Make sure that the rig pin of the wing sectors are removed.
- (2) Close access doors 551CB and 651CB ([AMM MPP 06-44-00/100](#)).
- (3) Release the pressure of hydraulic system 2 ([AMM TASK 29-10-00-860-801-A/200](#)).
- (4) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (5) Install the aileron lower shroud ([AMM TASK 57-56-04-400-801-A/400](#)).

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Aileron Wing Sector - Rigging
Figure 301

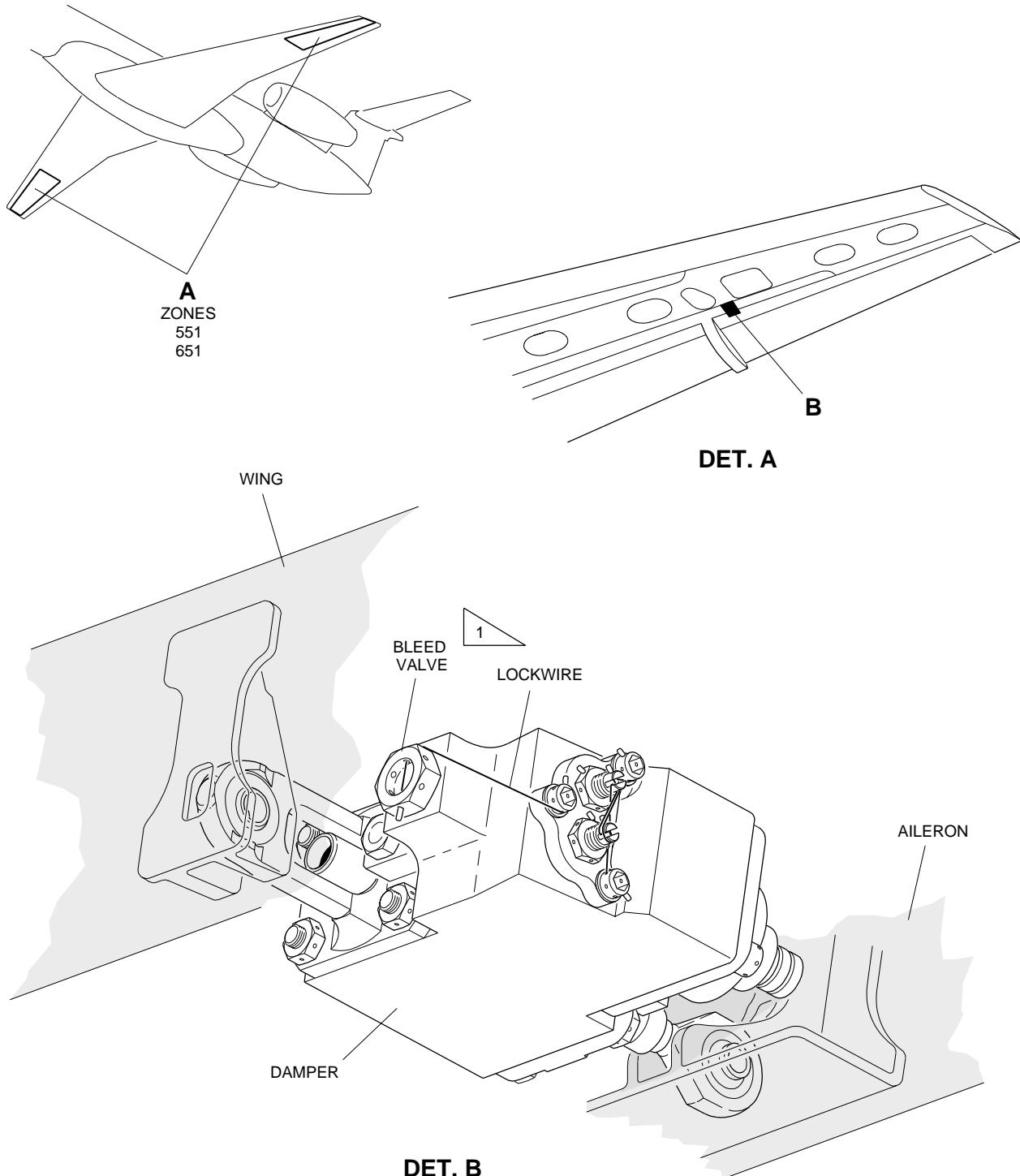


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Damper Bleed Valve - Location

Figure 302



TORQUE: 5.65-7.34 N.m (50-65 lbf.in)

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