



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

ENGINE BLEED-AIR CHECK VALVE - INSPECTION/CHECK

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to inspect the bleed-air check valves of the LH/RH engines.
- 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>
36-11-01-200-801-A	ENGINE BLEED-AIR CHECK VALVE - GENERAL VISUAL INSPECTION	ALL
36-11-01-200-802-A ♦	ENGINE LOW PRESSURE BLEED AIR CHECK VALVES - DETAILED/DIMENSIONAL	APPLICABLE TO AIRCRAFT WITH CHECK VALVE P/N 816603-3



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TASK 36-11-01-200-801-A

EFFECTIVITY: ALL

2. ENGINE BLEED-AIR CHECK VALVE - GENERAL VISUAL INSPECTION

A. General

- (1) There are two bleed-air check valves installed at the LH engine and two others at the RH engine that permit air flow from the engine to the bleed line.

B. References

REFERENCE	DESIGNATION
AMM TASK 36-11-01-000-801-A/400	ENGINE BLEED-AIR CHECK VALVE - REMOVAL
AMM TASK 36-11-01-200-802-A/600	ENGINE LOW PRESSURE BLEED AIR CHECK VALVES - DETAILED/DIMENSIONAL
AMM TASK 36-11-01-400-801-A/400	ENGINE BLEED-AIR CHECK VALVE - INSTALLATION
AMM TASK 71-11-01-000-801-A/400	ENGINE UPPER COWLING - REMOVAL
AMM TASK 71-11-01-400-801-A/400	ENGINE UPPER COWLING - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
412	412	LH engine upper cowling
422	422	RH engine upper cowling

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	LH and RH engines

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Remove the upper cowlings ([AMM TASK 71-11-01-000-801-A/400](#)).
- (3) Remove the engine bleed-air check valves ([AMM TASK 36-11-01-000-801-A/400](#)).



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J. General Visual Inspection of the Engine Bleed-Air Check Valves ([Figure 601](#))

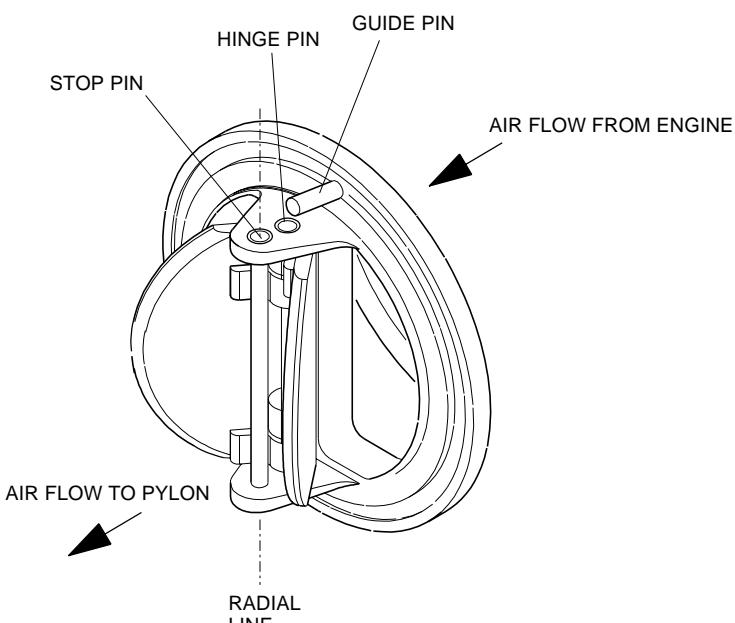
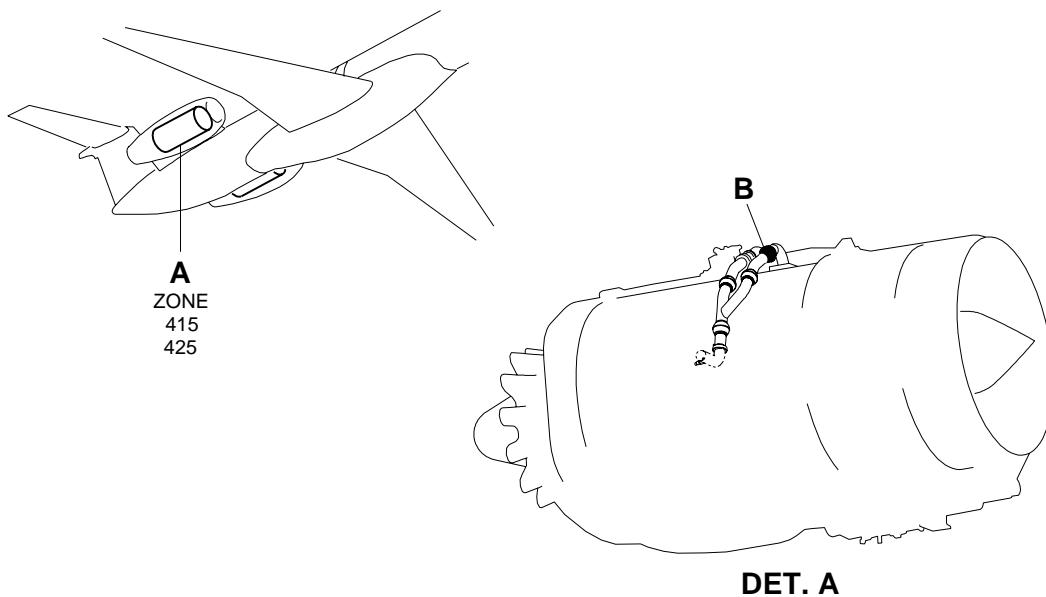
SUBTASK 212-002-A

- (1) Do a visual inspection of the valve for condition, which must include:
 - (a) Check for general condition of the spring (if applicable), wear, breakage, load and correct assembly.
 - (b) Integrity of the flappers.
 - (c) Check on the hinge pin for too much clearance from the flapper and swaged areas.
 - (d) Check on the pins for wear, deformation, signs of impact because of use and vertical play.
- (2) If a part of the check valve is damage, do [AMM TASK 36-11-01-200-802-A/600](#).

K. Follow-on

SUBTASK 842-002-A

- (1) Install the bleed-air check valves ([AMM TASK 36-11-01-400-801-A/400](#)).
- (2) Install the upper cowling ([AMM TASK 71-11-01-400-801-A/400](#)).

EFFECTIVITY: ALL
Engine Bleed-Air Check Valve - Inspection
Figure 601

DET. B

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TASK 36-11-01-200-802-A

EFFECTIVITY: APPLICABLE TO AIRCRAFT WITH CHECK VALVE P/N 816603-3

3. ENGINE LOW PRESSURE BLEED AIR CHECK VALVES - DETAILED/DIMENSIONAL

A. General

- (1) This task gives the procedures to do the detailed inspection of the engine low-pressure bleed air check valves.
- (2) There is one bleed-air check valve installed at the LH and RH engines that permit air from low pressure bleed air.

B. References

REFERENCE	DESIGNATION
AMM TASK 36-11-01-000-801-A/400	ENGINE BLEED-AIR CHECK VALVE - REMOVAL
AMM TASK 36-11-01-400-801-A/400	ENGINE BLEED-AIR CHECK VALVE - INSTALLATION
AMM TASK 71-11-01-000-801-A/400	ENGINE UPPER COWLING - REMOVAL
AMM TASK 71-11-01-400-801-A/400	ENGINE UPPER COWLING - INSTALLATION

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

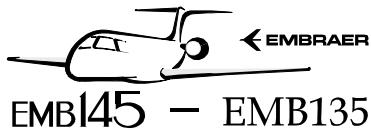
H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	LH and RH engines

I. Preparation

SUBTASK 841-003-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Remove the upper cowlings (AMM TASK 71-11-01-000-801-A/400).
- (3) Remove the engine low pressure bleed-air check valves (AMM TASK 36-11-01-000-801-A/400).



AIRCRAFT MAINTENANCE MANUAL

J. Inspect (Detailed Inspection) Engine Low-Pressure Bleed-Air Check Valve

SUBTASK 220-002-A

- (1) Examine the stop pin for wear, as follows:

- (a) Inspect the stop pin for wear at the LOC 1, LOC 2, LOC 3, and LOC 4 positions and record the smallest value measured at each location. Refer to [Figure 602](#), DET. B and VIEW C.

Result:

- 1 If the measured diameter across the stop pin is less than 4.52 mm (0.178 inch) in a location, replace the check valve with a new valve with the same configuration.
 - 2 If the measured diameter across the stop pin is greater than or equal to 4.52 mm (0.178 inch) in all locations, install the check valve back.

- (2) Do the Flap Actuation Test, as follows:

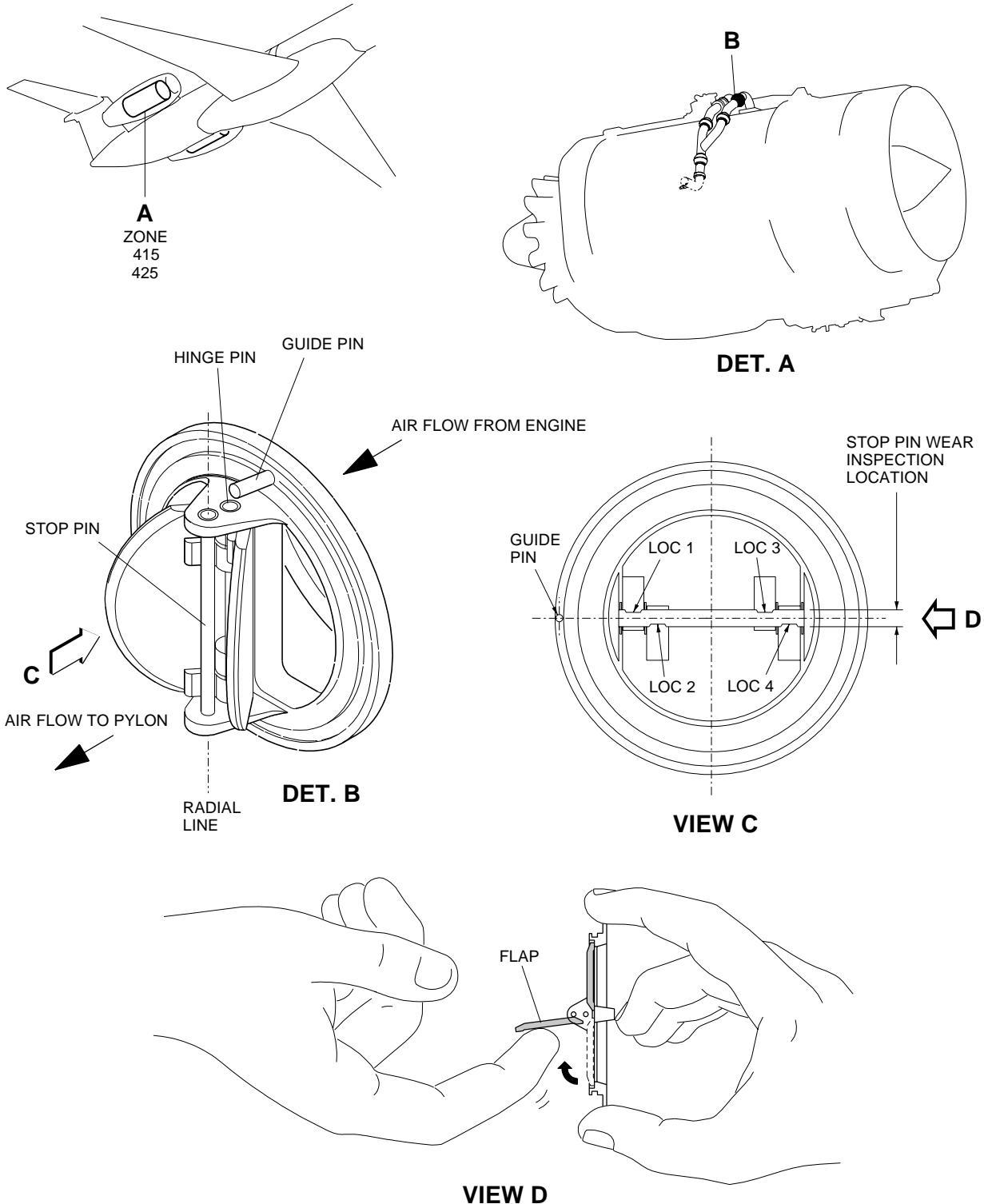
- (a) Manually hold the engine bleed valve with the flap mounting surface in a vertical position. Refer to [Figure 602](#), VIEW D.
 - (b) Manually open one flap at a time to the full, open position.
 - (c) Make sure that the flap assembly moves freely and does not bind up.

K. Follow-on

SUBTASK 842-003-A

- (1) Install the bleed-air check valves ([AMM TASK 36-11-01-400-801-A/400](#)).
- (2) Install the upper cowling ([AMM TASK 71-11-01-400-801-A/400](#)).

EFFECTIVITY: APPLICABLE TO AIRCRAFT WITH CHECK VALVE P/N 816603-3
Engine Bleed-Air Check Valve - Detailed Inspection
Figure 602



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