



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

DUCTS - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to remove/install the ATS ducts.
- 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
80-10-03-000-801-A	ATS DUCTS - REMOVAL	ALL
80-10-03-400-801-A	ATS DUCTS - INSTALLATION	ALL



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TASK 80-10-03-000-801-A

EFFECTIVITY: ALL

2. ATS DUCTS - REMOVAL

A. General

- (1) This task is applicable to the LH and RH engines.

B. References

REFERENCE	DESIGNATION
AMM MPP 71-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 71-12-01-000-801-A/400	ENGINE LOWER COWLING - OPENING

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH Engine
423	Lower cowling	RH Engine

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	To get access to the ATS ducts	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

I. Preparation

SUBTASK 841-002-A

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

- (1) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them.
- START 1/2.



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- (2) Put the ladder in the work area.
- (3) Open the lower cowling ([AMM TASK 71-12-01-000-801-A/400](#)) to get access to the ATS ducts.

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

SUBTASK 020-002-A

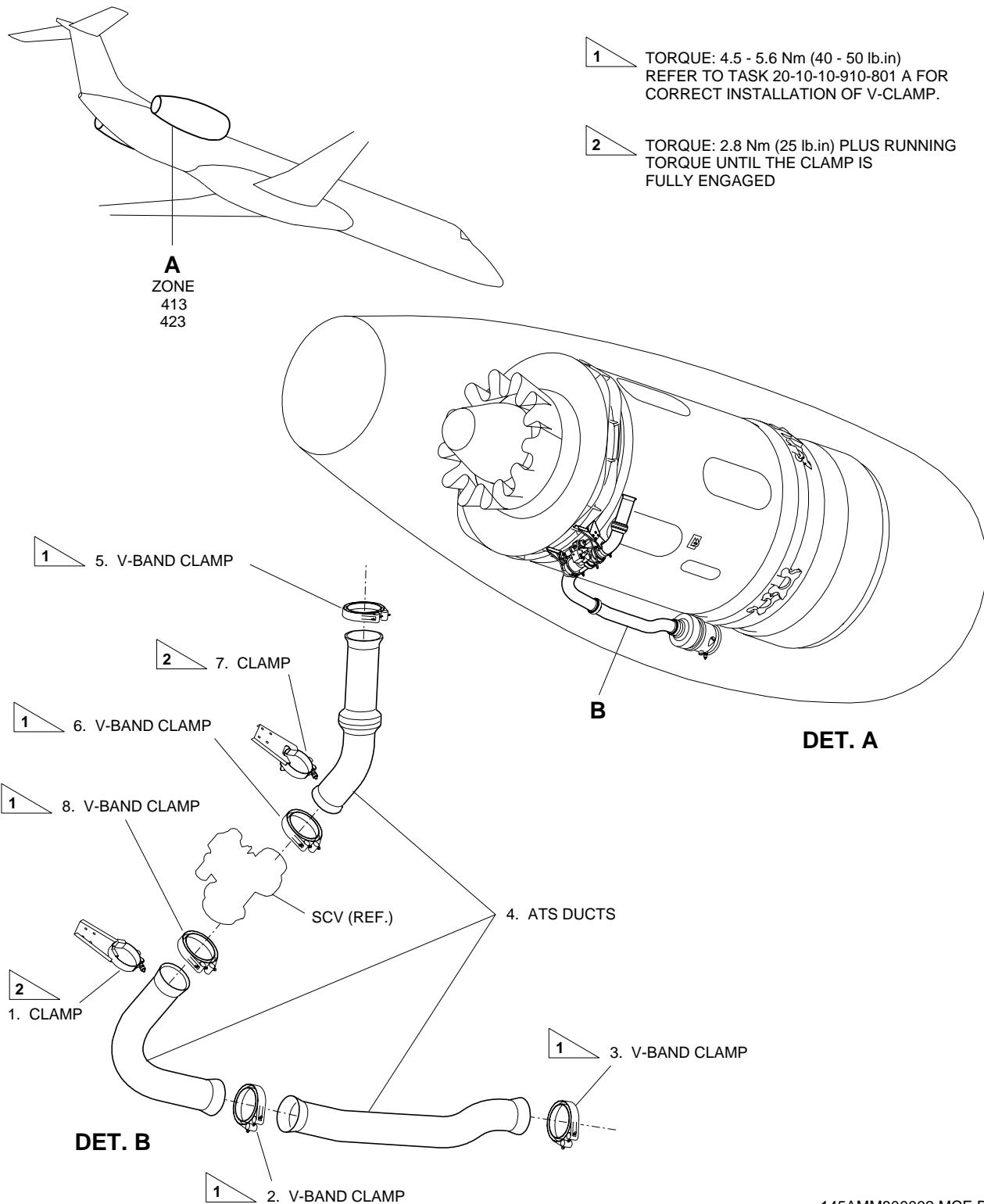
WARNING: INJURY TO PERSONS COULD OCCUR IF THE REMAINING PRESSURE IN THE DUCT IS NOT RELEASED BEFORE THE STARTER CONTROL VALVE IS REMOVED.

- (1) Open the starter control valve to release the remaining pressure in the duct. For this, turn the manual override control counterclockwise.
- (2) Loosen the V-band clamps (2), (3), (5), (6), and (8) which attach the ATS ducts (4).
- (3) Remove the clamps (1) and (7) which attach the ducts to the engine supports.
- (4) Remove the ATS ducts (4).
- (5) Install protection caps to the disconnected points.

EFFECTIVITY: ALL

ATS Ducts - Removal/Installation

Figure 401





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TASK 80-10-03-400-801-A

EFFECTIVITY: ALL

3. ATS DUCTS - INSTALLATION

A. General

(1) This task is applicable to the LH and RH engines.

B. References

REFERENCE	DESIGNATION
AMM MPP 71-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 71-12-01-400-801-A/400	ENGINE LOWER COWLING - CLOSING

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
413	Lower cowling	LH Engine
423	Lower cowling	RH Engine

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque Wrench (Torque Range - Ref. Figure 401)	To apply torque	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	To get access to the ATS ducts	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Engine

I. Installation (Figure 401)

SUBTASK 420-002-A

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

- (1) Remove the protection caps from the disconnected points, if applicable.

CAUTION: • THE INCORRECT ALIGNMENT OF THE DUCTS WILL MAKE IT NECESSARY TO APPLY TOO MUCH TORQUE AND CAUSE AN UNWANTED PRELOAD.
• WHILE YOU TIGHTEN THE V-BAND CLAMP, HAVE THE DUCT WEIGHTS MANUALLY HELD.

- (2) Put the ducts (4) in position and connect their ends.

CAUTION: MAKE SURE THAT THERE IS A MINIMUM GAP OF 0.1 in (2.54 mm) BETWEEN THE V-BAND CLAMP (8) AND THE AIR COOLED OIL COOLER LINE, TO PREVENT A POSSIBLE CHAFING WHICH COULD RESULT IN AN OIL LEAKAGE.

- (3) Install the V-band clamps (2), (3), (5), (6), and (8) to attach the ATS ducts (4). Tighten the clamps to the torque shown in Figure 401.

NOTE: To get the minimum gap of 0.1 in (2.54 mm), if necessary, loosen the clamps and/or the support bolts of the ATS duct. Then adjust the gap and tighten the assembly again.

CAUTION: MAKE SURE THAT THE BOLT OF THE CLAMP (2) IS INSTALLED IN A HORIZONTAL POSITION TO PREVENT CHAFING, WHICH COULD RESULT IN DAMAGE TO THE LOWER ENGINE COWLING.

- (4) Install the clamps (1) and (7) to attach the ducts to the engine supports. Tighten the clamps to the torque shown in Figure 401 to the clamps.

J. Follow-on

SUBTASK 842-002-A

- (1) Close the lower cowling ([AMM TASK 71-12-01-400-801-A/400](#)).
- (2) Remove the ladder.
- (3) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
 - START 1/2.