

## 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

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
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-000-801-A/400</a>	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.

- (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*

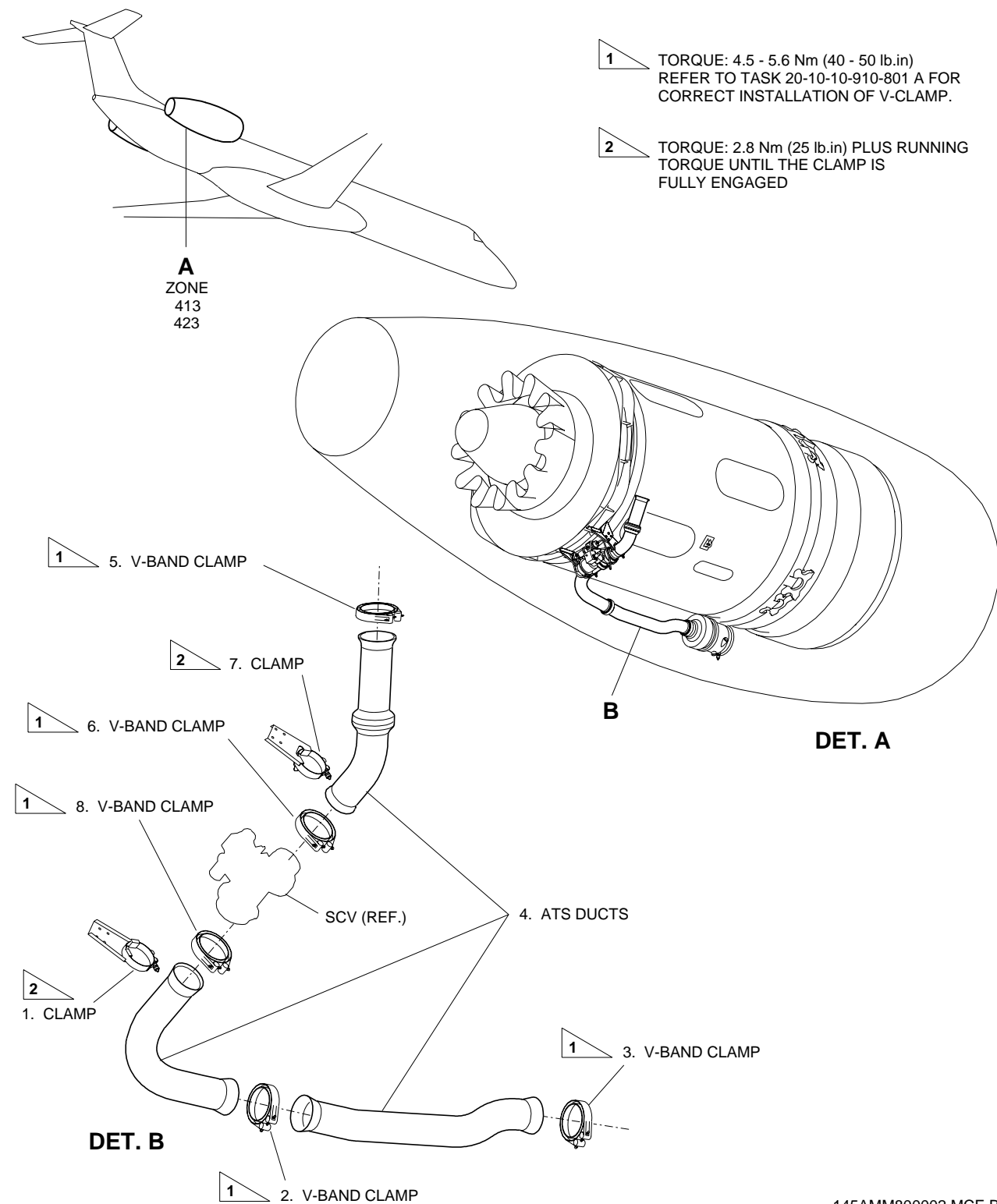
**WARNING: INJURY TO PERSONS COULD OCCUR IF THE REMAINING PRESSURE IN THE DUCT IS NOT RELEASED BEFORE THE STARTER CONTROL VALVE IS REMOVED.**

- (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
<a href="#">AMM MPP 71-00-00/200</a>	- MAINTENANCE PRACTICES
<a href="#">AMM TASK 71-12-01-400-801-A/400</a>	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.