

## DIRECTION CONTROL UNIT (DCU) - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

### 1. General

- A. This section gives the procedures to remove and install the direction control unit - DCU.
- B. These procedures are applicable to the LH and RH thrust reverser.
- 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
78-33-05-000-801-A	DIRECTION CONTROL UNIT - DCU - RE-MOVAL	ALL
78-33-05-400-801-A	DIRECTION CONTROL UNIT - DCU - INSTALLATION	ALL

TASK 78-33-05-000-801-A

EFFECTIVITY: ALL

## 2. DIRECTION CONTROL UNIT - DCU - REMOVAL

### A. General

(1) Obey the instructions below to remove the direction control unit - DCU.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-43-00/100	- COMPONENT LOCATION
AMM MPP 78-30-00/200	- MAINTENANCE PRACTICES
AMM TASK 78-33-01-980-801-A/200	ISOLATION CONTROL UNIT - INHIBITION PROCEDURES

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
225	225DTC	Cockpit
416	416AB	LH Thrust Reverser
426	426AB	RH Thrust Reverser

### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the thrust reverser	
Commercially available	Container	To catch oil	

### 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

### F. Consumable Materials

Not Applicable

### G. Expandable Parts

Not Applicable

### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	In the work area

I. Preparation

SUBTASK 841-002-A

**WARNING:** • REFER TO THE GROUND SAFETY PRECAUTIONS GIVEN IN [AMM MPP 78-30-00/200](#) WHEN YOU DO THE THRUST REVERSER MAINTENANCE PROCEDURES.

- MAKE SURE THAT THE THRUST REVERSERS ARE DEENERGIZED. ENERGIZED CIRCUITS CAN CAUSE INJURY TO PERSONS.
- MAKE SURE THAT THE HYDRAULIC TEST STAND IS NOT CONNECTED.
- THE PHOSPHATE-ESTER-BASE OIL IS HIGHLY CORROSIVE AND CAUSES INJURY TO THE EYES AND SKIN. BE CAREFUL NOT TO TOUCH THIS OIL. YOU MUST USE GLOVES AND GOGGLES.

**CAUTION:** • ALWAYS CLEAN THE HYDRAULIC FLUID THAT FALLS FROM THE THRUST REVERSERS. DAMAGE COULD COME FROM ITS CORROSIVE ACTION.

- USE APPLICABLE CONTAINERS TO COLLECT THE REMAINING FLUIDS FROM THE OPEN LINES, TO KEEP THE WORK AREA CLEAN AND SAFE.

- (1) Put the workstand under the engine thrust reverser.
- (2) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
  - THRUST REVERSER 1/2.
  - HYD. ELEC. PUMP 1/2.
- (3) Put a DO-NOT-OPERATE-THE-THRUST-REVERSERS sign on the instrument panel, in the cockpit.
- (4) Manually operate the ICU to prevent the operation of the thrust reverser ([AMM TASK 78-33-01-980-801-A/200](#)).

**WARNING:** DO NOT APPLY HYDRAULIC POWER TO THE AIRCRAFT, AND DO NOT OPERATE THE THRUST REVERSER WHILE THE MAINTENANCE PERSONS ARE AT WORK.

- (5) Remove access panels 416AB or 426AB ( [AMM MPP 06-43-00/100](#)) as applicable, to get access to the direction control unit - DCU.

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

SUBTASK 020-002-A

**CAUTION:** BE VERY CAREFUL WHEN YOU DISCONNECT HYDRAULIC LINES. SKYDROL FLUID IS HIGHLY DANGEROUS.

- (1) Disconnect the electrical connectors (1) and install protection caps on them.
- (2) Loosen the nuts (2), disconnect the hydraulic lines, and install applicable caps in the tubes and in the DCU ports.

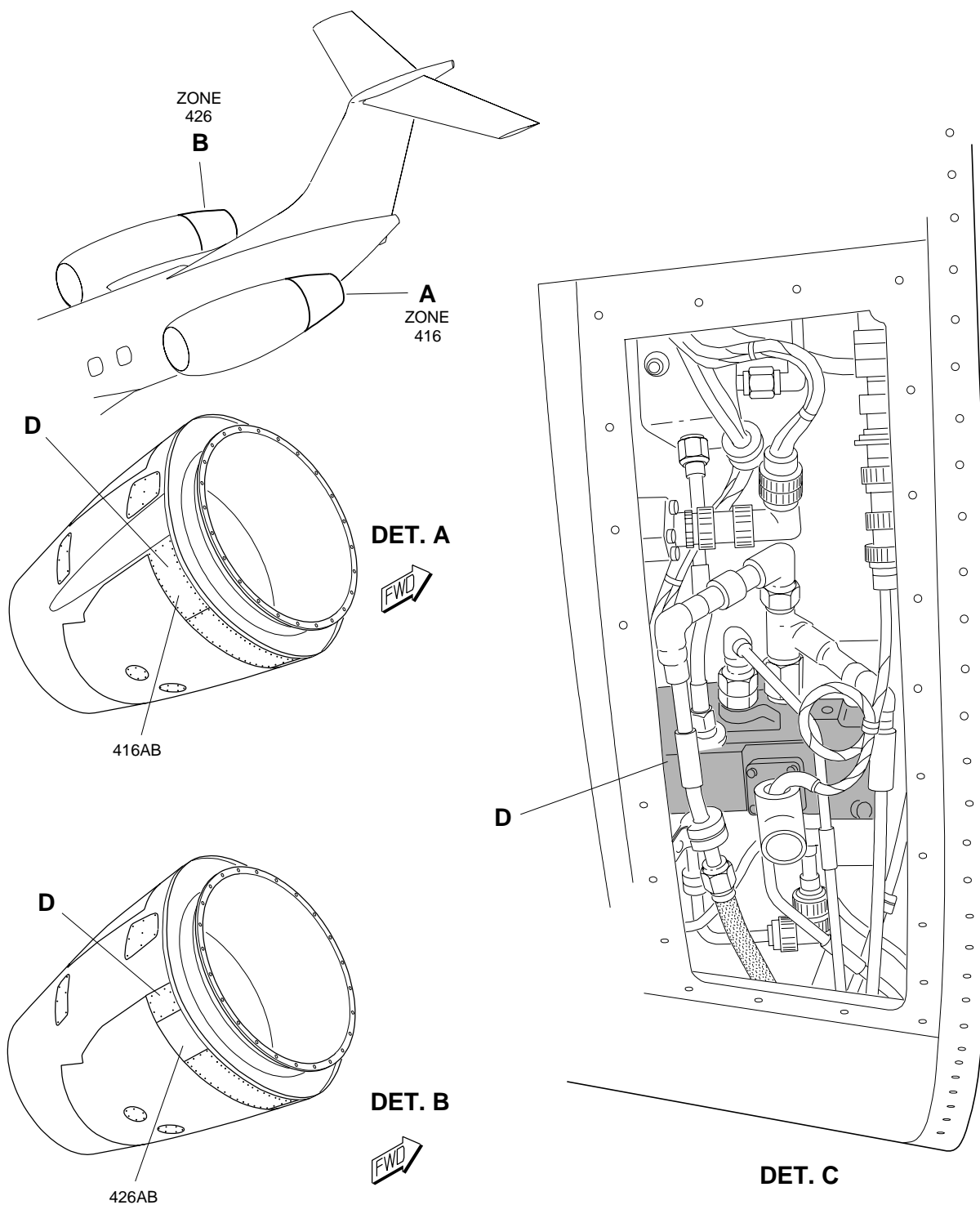


- (3) Remove the bolts (3), and washers (4).
- (4) Remove the DCU (5) from its support.

**EFFECTIVITY: ALL**

Direction Control Unit - DCU - Removal/Installation

Figure 401 - Sheet 1

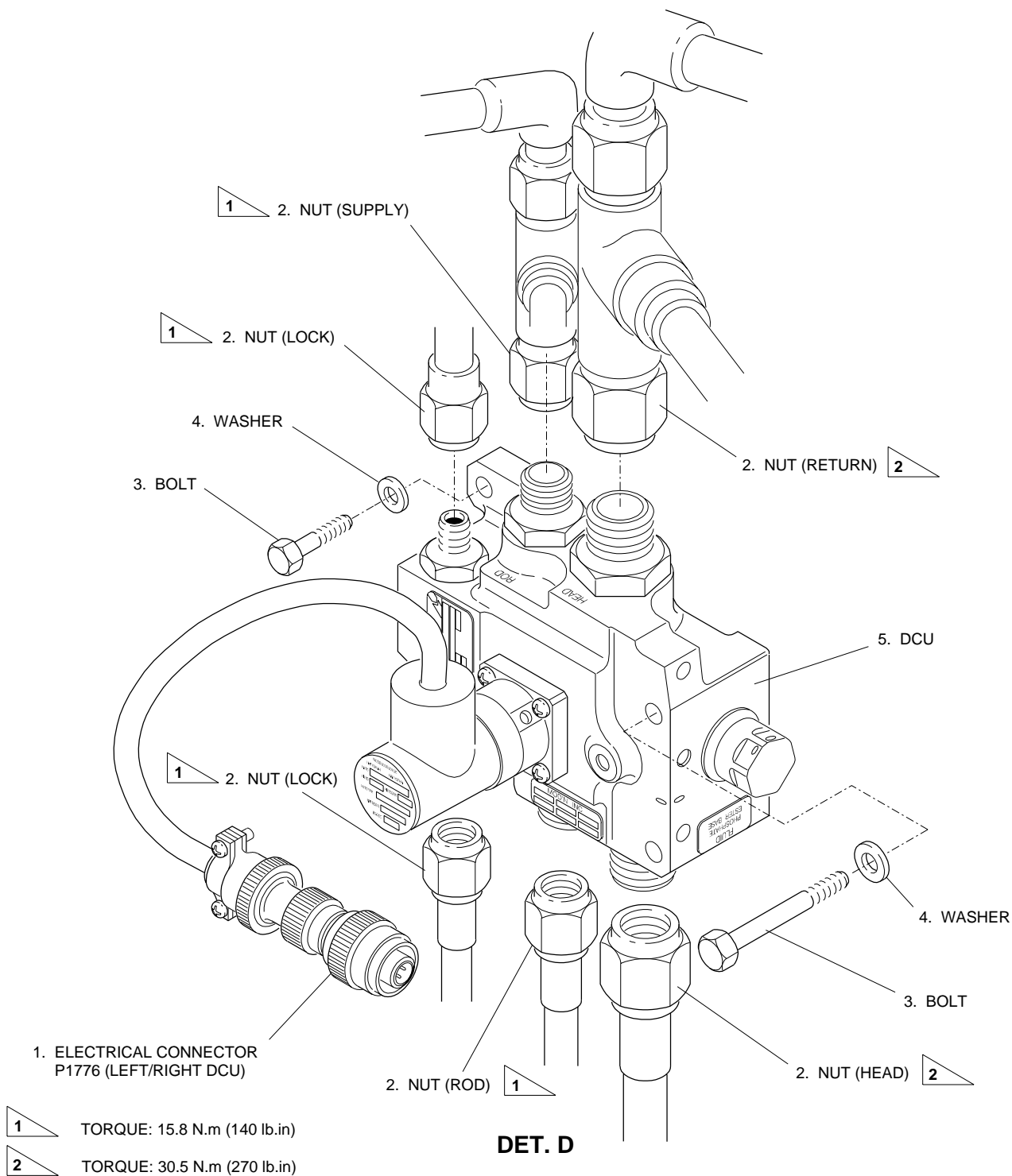


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EFFECTIVITY: ALL

Direction Control Unit - DCU - Removal/Installation

Figure 401 - Sheet 2



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TASK 78-33-05-400-801-A  
EFFECTIVITY: ALL

### 3. DIRECTION CONTROL UNIT - DCU - INSTALLATION

#### A. General

(1) Obey the instructions below to install the direction control unit - DCU.

#### B. References

REFERENCE	DESIGNATION
AMM MPP 06-43-00/100	- COMPONENT LOCATION
AMM MPP 78-30-00/200	- MAINTENANCE PRACTICES
AMM TASK 78-31-01-700-801-A/500	THRUST REVERSER - OPERATIONAL CHECK
AMM TASK 78-33-01-980-801-A/200	ISOLATION CONTROL UNIT - INHIBITION PROCEDURES

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
225	225DTC	Cockpit
416	416AB	LH Thrust Reverser
426	426AB	RH Thrust Reverser

#### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the thrust reverser	
Commercially available	Torque wrench	To tighten the attachment nuts	

#### 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	Thrust reverser

I. Installation (Figure 401)

*SUBTASK 420-002-A*

**WARNING:** • REFER TO THE GROUND SAFETY PRECAUTIONS GIVEN IN [AMM MPP 78-30-00/200](#) WHEN YOU DO THE THRUST REVERSER MAINTENANCE PROCEDURES.

- MAKE SURE THAT ELECTRICAL POWER SUPPLY IS REMOVED FROM THE THRUST REVERSERS. ENERGIZED CIRCUITS CAN CAUSE INJURY TO PERSONS.
- MAKE SURE THAT THE HYDRAULIC TEST STAND IS NOT CONNECTED.

- (1) Install the DCU (5) on its support with the bolts (3) and washers (4).
- (2) Remove the caps from the DCU ports and hydraulic lines and connect the nuts (2) and torque them as shown in figure 401.
- (3) Remove the caps from the electrical connectors (1) and connect them.

J. Follow-on

*SUBTASK 842-002-A*

- (1) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them:
  - THRUST REVERSER 1/2.
  - HYD. ELEC. PUMP 1/2.
- (2) Remove the DO-NOT-OPERATE-THE-THRUST-REVERSERS sign from the instrument panel, in the cockpit.
- (3) Manually operate the ICU to put the thrust reverser back to the serviceable condition ([AMM TASK 78-33-01-980-801-A/200](#)).
- (4) Do the engine thrust reverser operational check ( [AMM TASK 78-31-01-700-801-A/500](#) - two cycles minimum), and check the system for leaks.
- (5) Install access panels 416AB or 426AB ( [AMM MPP 06-43-00/100](#)), as applicable.
- (6) Remove the workstand from the work area.