



AIRCRAFT
MAINTENANCE MANUAL

THRUST-REVERSER DOOR PRIMARY-LOCK ACTUATOR - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the engine thrust-reverser door primary lock actuator.
- B. These procedures are applicable to the LH and RH thrust reversers.
- 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
78-32-02-000-801-A	ENGINE THRUST-REVERSER DOOR PRI- ALL MARY LOCK ACTUATOR - REMOVAL	
78-32-02-400-801-A	ENGINE THRUST-REVERSER DOOR PRI- ALL MARY LOCK ACTUATOR - INSTALLATION	



AIRCRAFT MAINTENANCE MANUAL

TASK 78-32-02-000-801-A

EFFECTIVITY: ALL

2. ENGINE THRUST-REVERSER DOOR PRIMARY LOCK ACTUATOR - REMOVAL

A. General

(1) Obey the instructions below to remove the engine thrust-reverser door primary lock actuator.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-43-00/100	- COMPONENT LOCATION
AMM MPP 78-30-00/200	- MAINTENANCE PRACTICES
AMM TASK 78-31-01-980-801-A/200	LOCK/UNLOCK THE TR EXHAUST DOOR - STOWED POSITION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
416	416QL/416PR	LH Thrust Reverser
426	426QL/426PR	RH Thrust Reverser

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the engine nacelle	
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	Thrust reverser

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 ENGINE. 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) 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.
- (2) Put a DO-NOT-OPERATE-THE-THRUST-REVERSERS sign on the instrument panel, in the cockpit.
- (3) Put the workstand under the engine thrust reverser.
- (4) Lock the thrust-reverser exhaust door (stowed position) ([AMM TASK 78-31-01-980-801-A/200](#)).
- (5) Remove access panels 416QL, 416PR, 426QL, or 426PR ([AMM MPP 06-43-00/100](#)), as applicable, to get access to the thrust-reverser door primary lock actuator.

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

SUBTASK 020-002-A

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

- (1) To unload the primary door lock, tighten the inhibition bolts ([AMM TASK 78-31-01-980-801-A/200](#)) until you have the door overstow position.
- (2) Remove the split pin (1), nut (2), washer (3), and the actuator-link special bolt (4).

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



EMB145 - EMB135

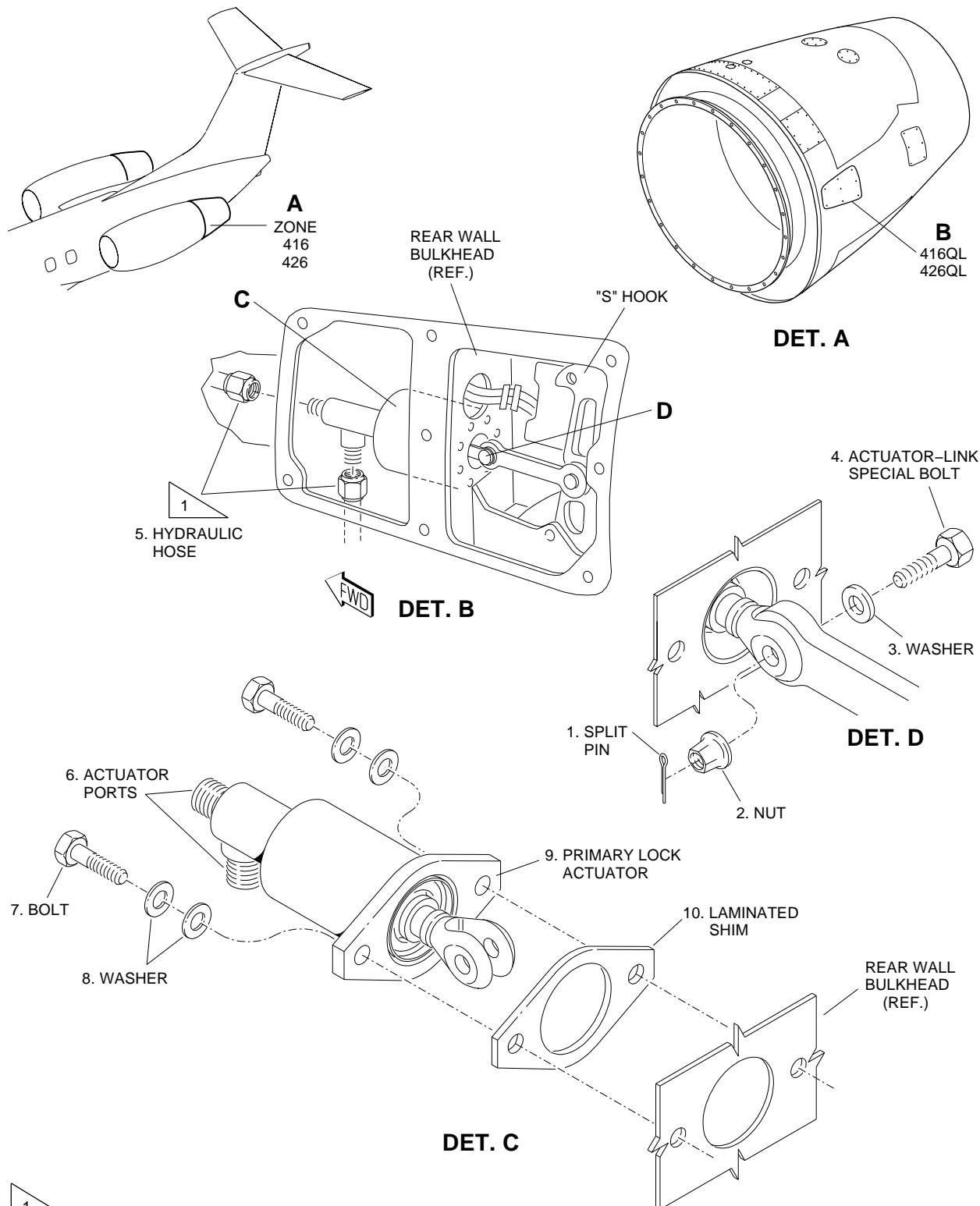
AIRCRAFT
MAINTENANCE MANUAL

- (3) Remove the two hydraulic hoses (5) from the actuator head. Be careful with the Skydrol fluid.
- (4) Install applicable caps in the hoses (5) and also in the actuator ports (6).
- (5) Remove the bolts (7) and washers (8).
- (6) Remove the thrust-reverser door primary lock actuator (9) and laminated shim (10) and put it in a safe location.

EFFECTIVITY: ALL

Engine Thrust-Reverser Door Primary Lock Actuator - Removal/Installation

Figure 401



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EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 78-32-02-400-801-A

EFFECTIVITY: ALL

3. ENGINE THRUST-REVERSER DOOR PRIMARY LOCK ACTUATOR - INSTALLATION

A. General

(1) Obey the instructions below to install the engine thrust-reverser door primary lock actuator.

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 78-31-01-980-801-A/200	LOCK/UNLOCK THE TR EXHAUST DOOR - STOWED POSITION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
416	416QL/416PR	LH Thrust Reverser
426	426QL/426PR	RH Thrust Reverser

D. Tools and Equipment

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

E. Auxiliary Items

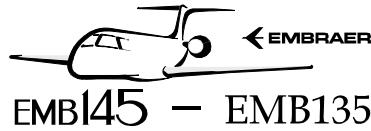
ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rubber gloves, phosphate ester base, fluid-resistant	Protection for the hands	1
Commercially available	Rubber goggles, phosphate ester base, fluid-resistant	Protection for the eyes	1

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Split pin	-	1



AIRCRAFT MAINTENANCE MANUAL

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 THE THRUST REVERSERS ARE DEENERGIZED. ENERGIZED CIRCUITS CAN CAUSE INJURY TO PERSONS.
- MAKE SURE THAT THE HYDRAULIC TEST STAND IS NOT CONNECTED.

- (1) Install the laminated shim (10) and the thrust-reverser door primary lock actuator (9) on the rearwall bulkhead.
- (2) Install the washers (8) and bolts (7).
- (3) Install the actuator-link special bolt (4), washer (3), nut (2), and the split pin (1).
- (4) Remove the caps from the actuator ports (6) and hoses (5).
- (5) Connect the hoses (5) to the actuator ports (6) and torque them.

J. Follow-on

SUBTASK 842-002-A

- (1) Close access panels 416QL, 416PR, 426QL, or 426PR ([AMM MPP 06-43-00/100](#)), as applicable.
- (2) 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.
- (3) Unlock the thrust reverser exhaust doors (stowed position) ([AMM TASK 78-31-01-980-801-A/200](#)).
- (4) Remove the DO-NOT-OPERATE-THE-THRUST-REVERSERS sign from the instrument panel, in the cockpit.
- (5) Remove the workstand from the work area.
- (6) Do the engine thrust-reverser operational check ([AMM TASK 78-31-01-700-801-A/500](#)) (two cycles minimum).

