



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

RUBBER SEALS - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the thrust-reverser rubber seals.
- 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
78-31-04-000-801-A	THRUST-REVERSER RUBBER SEALS - REMOVAL	ALL
78-31-04-400-801-A	THRUST-REVERSER RUBBER SEALS - INSTALLATION	ALL



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 78-31-04-000-801-A

EFFECTIVITY: ALL

2. THRUST-REVERSER RUBBER SEALS - REMOVAL

A. General

- (1) Obey the instructions below to remove the thrust-reverser rubber seals.

B. References

REFERENCE	DESIGNATION
AMM MPP 78-30-00/200	- MAINTENANCE PRACTICES
AMM TASK 78-31-01-940-801-A/200	THRUST REVERSER - OPENING PROCEDURE
AMM TASK 78-31-02-000-801-A/400	THRUST-REVERSER UPPER DOOR - REMOVAL
AMM TASK 78-31-03-000-801-A/400	THRUST-REVERSER LOWER DOOR - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
416	LH Thrust Reverser	Engine Nacelle
426	RH Thrust Reverser	Engine Nacelle

D. Tools and Equipment

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

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Remove the thrust-reverser door	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 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.

**CAUTION:** MAKE SURE THAT ALL THE HYDRAULIC LINES ARE CONNECTED NOT TO PERMIT THE HYDRAULIC OIL TO FALL OUT.

- (1) Put the workstand below the engine thrust reverser.
- (2) Open the thrust-reverser doors ([AMM TASK 78-31-01-940-801-A/200](#)).
- (3) If necessary, remove the applicable thrust-reverser door ([AMM TASK 78-31-02-000-801-A/400](#)) ([AMM TASK 78-31-03-000-801-A/400](#)).

**NOTE:** It is only necessary to remove the thrust-reverser door if you will replace the complete seal or there is no access to a damaged part of the seal to do the repair.

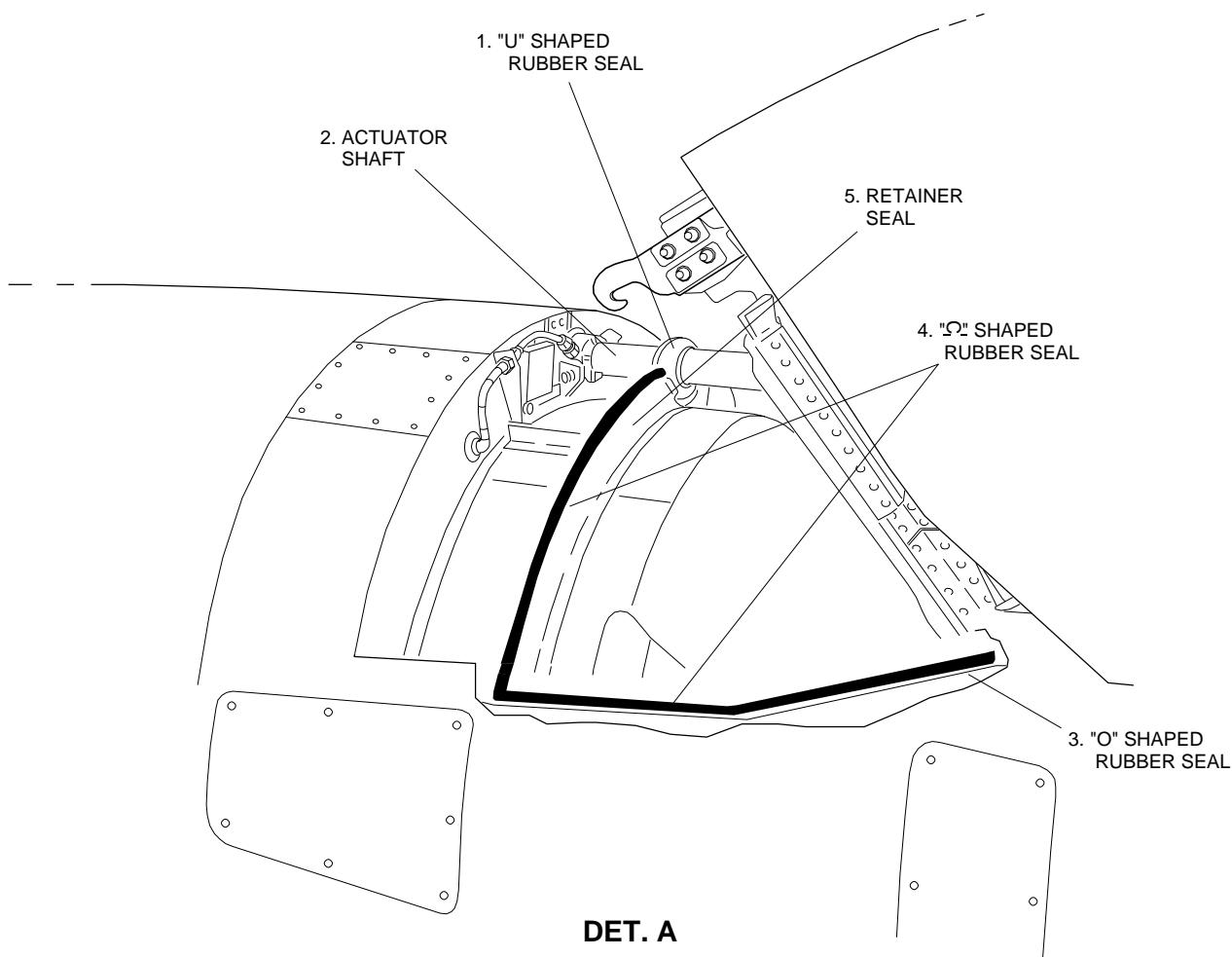
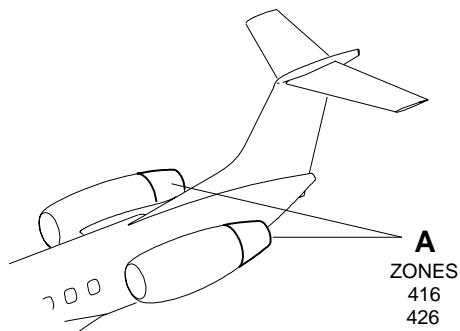
- (4) On the circuit breaker panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them:
  - THRUST REVERSER 1/2.
  - HYD. ELEC. PUMP 1/2.
- (5) Put a DO-NOT-OPERATE-THE-THRUST-REVERSERS sign on the instrument panel, in the cockpit.

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) Remove the U-shaped rubber seal (1) installed at the actuator body. For this, pull it out from the thrust-reverser door actuator shaft (2).
- (2) Remove the O-shaped rubber seal (3) installed at the pivot bearing surrounding area of the thrust-reverser fixed structure. For this, pull it out through the thrust-reverser door open holes from its C-shaped support attached to the structure.
- (3) Remove the Ω-shaped rubber seal (4) installed around the largest part of the fixed structure contour and installed on the retainer seal (5) of the fixed structure. For this, pull it from along the retainer seal (5). Remove as much Ω-shaped rubber seal (4) as necessary to remove the affected area.

**EFFECTIVITY: ALL**
**Thrust-Reverser Rubber Seals - Removal/Installation**
**Figure 401**


145AMM780063.MCE A



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 78-31-04-400-801-A

EFFECTIVITY: ALL

3. THRUST-REVERSER RUBBER SEALS - INSTALLATION

A. General

(1) Obey the instructions below to install the thrust-reverser rubber seals.

B. References

REFERENCE	DESIGNATION
AMM MPP 78-30-00/200	- MAINTENANCE PRACTICES
AMM TASK 78-31-01-700-801-A/500	THRUST REVERSER - OPERATIONAL CHECK
AMM TASK 78-31-01-940-802-A/200	THRUST REVERSER - CLOSURE PROCEDURE
AMM TASK 78-31-02-400-801-A/400	THRUST-REVERSER UPPER DOOR - INSTALLATION
AMM TASK 78-31-03-400-801-A/400	THRUST-REVERSER LOWER DOOR - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
416	LH Thrust Reverser	Engine nacelle
426	RH Thrust Reverser	Engine nacelle

D. Tools and Equipment

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

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-A-46106 or equivalent	Silicone adhesive (RTV 106)	AR
ASTM-D-740	Solvent (Methyl -ethyl-ketone)	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Thrust reverser

I. Preparation

SUBTASK 841-003-A

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

- **CLEANING PRODUCTS ARE TOXIC AND FLAMMABLE. A GOOD FLOW OF AIR MUST BE AVAILABLE WHEN THE WORK IS DONE IN A CLOSED AREA.**

**CAUTION:** • MAKE SURE THAT ALL THE HYDRAULIC LINES ARE CONNECTED NOT TO PERMIT THE HYDRAULIC OIL TO FALL OUT.

- DO NOT PERMIT THE CLEANING PRODUCT TO TOUCH PAINT-FINISH SURFACES NOT TO CAUSE DAMAGE TO THEM.
- USE CLEAN, SOFT (COTTON), NON-SYNTHETIC AND LINT-FREE CLOTHS ONLY. DO NOT PUT REMAINING CLEANING MATERIAL BACK INTO ORIGINAL CONTAINERS TO PREVENT CONTAMINATION.
- DO NOT POUR CLEANING PRODUCT DIRECTLY ON THE SURFACE TO BE CLEANED.
- DO NOT PERMIT CLEANING PRODUCT TO EVAPORATE BEFORE IT IS DRIED WITH THE CLOTH.

(1) On the circuit breaker panel, make sure that the circuit breakers below are open and with a DO-NOT-CLOSE tag attached to them:

- THRUST REVERSER 1/2.
- HYD. ELEC. PUMP 1/2.

(2) Remove all the remaining old attaching silicone adhesive from the areas where the new silicone adhesive will be applied to install the rubber seals. Soak a cloth with solvent and clean these areas.

(3) Dry the area with other clean and dry cloth before the solvent evaporates.

(4) Do steps 2 and 3 again. Replace the cloths when they become dirty. Stop only when no signs of discoloration stay in the dry cloth.

J. Installation (Figure 401)

SUBTASK 420-002-A

**WARNING:** • **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 U-shaped rubber seal (1) to the thrust-reverser actuator shaft (2). For this, push the rubber seal into the actuator rubber seal support.

- (2) With silicone adhesive, wet-assemble the O-shaped rubber seal (3) on the C-shaped support installed at the pivot bearing surrounding area.
- (3) To install the Ω-shaped rubber seal (4), with the seal wet with silicone adhesive, put it into one of the retainer seal ends and pull it.
- (4) With a little plastic hammer, softly hit the wet-assembled rubber seals to attach them correctly.

**K. Follow-on**

**SUBTASK 842-002-A**

**CAUTION:** • LET THE SILICONE ADHESIVE CURE FULLY.

- EXAMINE ALL THE WORK ZONES TO MAKE SURE YOU DID NOT LET TOOLS OR OTHER EQUIPMENT STAY BEHIND.

- (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) If you removed the thrust-reverser door, install it again in its initial configuration. To do this, refer to [AMM TASK 78-31-02-400-801-A/400](#) or [AMM TASK 78-31-03-400-801-A/400](#).
- (4) If applicable, close the thrust-reverser doors ([AMM TASK 78-31-01-940-802-A/200](#)).
- (5) Remove the workstand from the work area.
- (6) Do the thrust reverser operational check ([AMM TASK 78-31-01-700-801-A/500](#)).

