

## ANGLE GEAR BOX - REMOVAL/INSTALLATION

*EFFECTIVITY: ALL*

### 1. General

- A. This section gives the procedures to remove and install the flap angle gear boxes.
- B. There are two flap angle gear boxes in the flap control system with different shaft angles, as follows:
- The 30-degree flap angle gear box is installed on the Inboard flap root actuator (FSA 1).
  - The 50-degree flap angle gear box is installed on the outboard flap root actuator (FSA 3).
- 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
27-51-02-000-801-A	FLAP ANGLE GEAR BOX - REMOVAL	ALL
27-51-02-400-801-A	FLAP ANGLE GEAR BOX - INSTALLATION	ALL

TASK 27-51-02-000-801-A

EFFECTIVITY: ALL

## 2. FLAP ANGLE GEAR BOX - REMOVAL

### A. General

(1) This task gives the procedures to remove the flap angle gear box.

### B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 57-56-01-000-801-A/400	INBOARD AND OUTBOARD FLAP LOWER SHROUDS - REMOVAL
SRM 51-20-01	-

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
5711		Inboard flap lower shroud
5721		Inboard flap lower shroud
6711		Outboard flap lower shroud
6721		Outboard flap lower shroud

### D. Tools and Equipment

Not Applicable

### 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	Wing trailing edge

### I. Preparation

SUBTASK 841-002-A

**WARNING: MAKE SURE THAT THERE ARE NO PERSONS OR EQUIPMENT IN THE FLAP TRAVEL AREA.**

(1) Make sure that the aircraft is safe for maintenance.

- (2) Energize the aircraft with the External DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Set the flaps to the 45-degree position.
- (4) On the circuit breaker panel, open the FLAP 1 and FLAP 2 circuit breakers and attach a DO-NOT-CLOSE tag to them.

**CAUTION:** WHEN YOU OPEN THE INBOARD-FLAP LOWER SHROUD, IF IT IS NECESSARY TO MOVE THE FLAPS, DO AS FOLLOWS (IT WILL PREVENT DAMAGE TO THE INBOARD-FLAP LOWER SHROUD AND INBOARD-FLAP LEADING EDGE):

- RELEASE THE SPRINGS FROM THE ROOT AND TIP SUPPORTS OF THE INBOARD-FLAP LOWER SHROUD.
  - REMOVE THE TIP AND ROOT SUPPORTS ONLY FROM THE INBOARD-FLAP LOWER SHROUD ([AMM TASK 57-56-01-000-801-A/400](#)).
- (5) Open the Inboard-flap lower shroud to get access to the 30-degree flap angle gear box and the outboard-flap lower shroud to get access to the 50-degree flap angle gear box ([AMM TASK 57-56-01-000-801-A/400](#)).

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

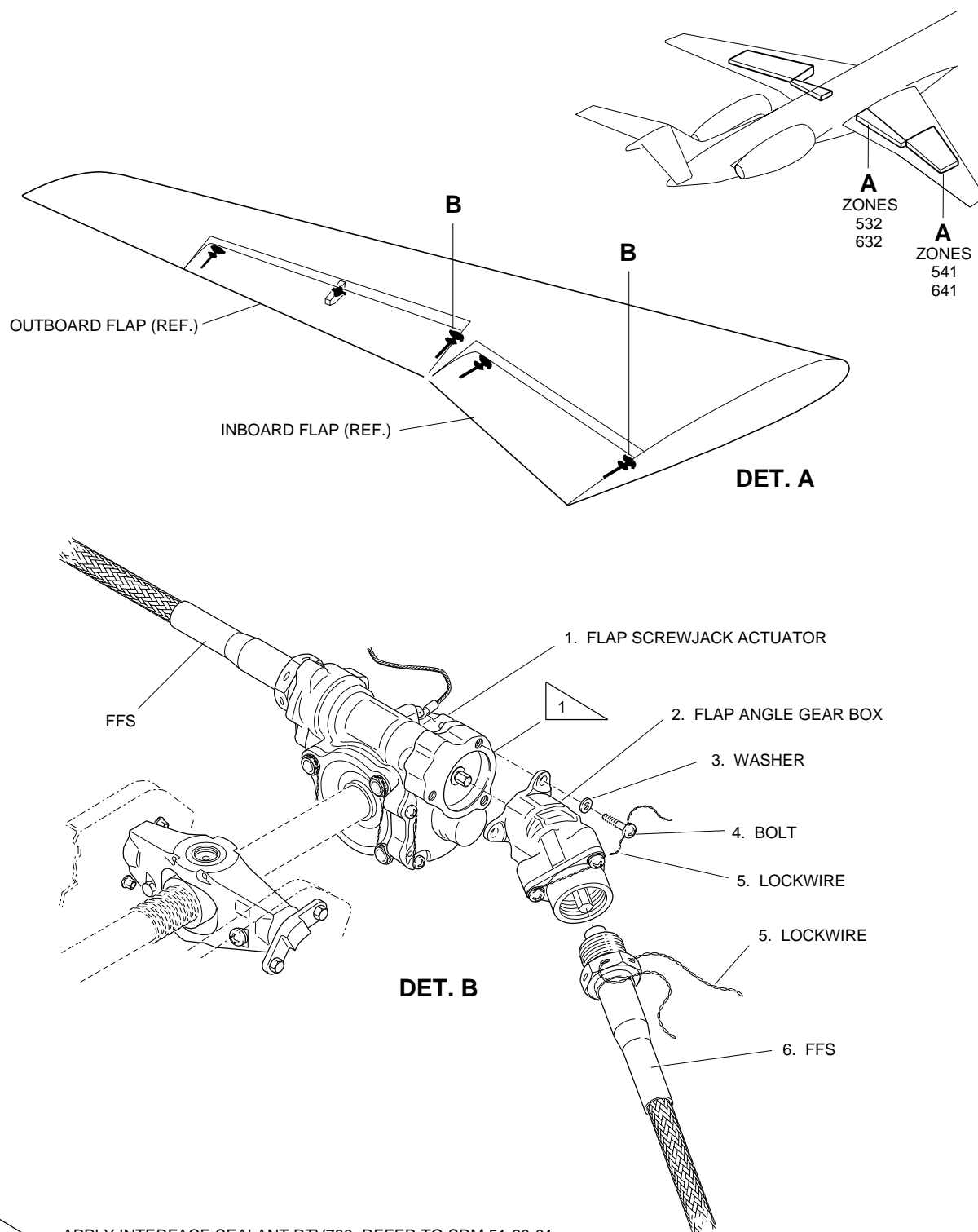
*SUBTASK 020-002-A*

- (1) Cut the lockwire (5) that safety the FFS (6) to the flap angle gear box (2).
- (2) Cut the lockwire (5) that safety the flap angle gear box (2) to the flap screwjack actuator (1).
- (3) Remove the FFS (6) from the flap angle gear box (2).
- (4) Remove the bolts (4) and washers (3) to release the flap angle gear box (2).
- (5) Remove the flap angle gear box (2).
- (6) Remove old sealant from the flap angle gear box (2) and the flap screwjack actuator (1). Refer to ([Figure 401](#)) and SRM 51-20-01.

EFFECTIVITY: ALL

Flap Angle Gear Box - Removal/Installation

Figure 401



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TASK 27-51-02-400-801-A

EFFECTIVITY: ALL

### 3. FLAP ANGLE GEAR BOX - INSTALLATION

#### A. General

(1) This task gives the procedures to install the flap angle gear box.

#### B. References

REFERENCE	DESIGNATION
AMM TASK 27-51-00-700-801-A/500	FLAP CONTROL SYSTEM - OPERATIONAL CHECK
AMM TASK 57-56-01-400-801-A/400	INBOARD AND OUTBOARD FLAP LOWER SHROUDS - INSTALLATION
SRM 51-20-01	-

#### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
5711		Inboard flap lower shroud
5721		Inboard flap lower shroud
6711		Outboard flap lower shroud
6721		Outboard flap lower shroud

#### D. Tools and Equipment

Not Applicable

#### E. Auxiliary Items

Not Applicable

#### F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C32	Lockwire	As necessary
Fed. Spec. ASTM C-920	Silicone Sealant - RTV 780	As necessary

#### G. Expandable Parts

Not Applicable

#### H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Wing trailing edge

I. Installation (Figure 401)

*SUBTASK 420-002-A*

- (1) Apply sealant to the flap angle gear box (2) and the flap screwjack actuator (1). Refer to (Figure 401) and SRM 51-20-01.
- (2) Install the flap angle gear box (2) in the flap screwjack actuator (1). Use the bolts (4) and washers (3).
- (3) Install the FFS (6) to the flap angle gear box (2).
- (4) Safety the flap angle gear box (2) to the flap screwjack actuator (1).
- (5) Safety the FFS (6) to the flap angle gear box (2).

J. Follow-on

*SUBTASK 842-002-A*

- (1) On the circuit breaker panel, close the FLAP 1 and FLAP 2 circuit breakers and remove the DO-NOT-CLOSE tag from them.
  - (2) Close the inboard-flap lower shroud after you install the 30-degree flap angle gear box ([AMM TASK 57-56-01-400-801-A/400](#)).
- NOTE: If you removed the tip and root supports from the inboard-flap lower shroud, install them now ([AMM TASK 57-56-01-400-801-A/400](#)).
- (3) Close the outboard flap lower shroud after you install the 50-degree flap angle gear box ([AMM TASK 57-56-01-400-801-A/400](#)).
  - (4) Do the operational check of the flap control system ( [AMM TASK 27-51-00-700-801-A/500](#)).