



## 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



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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](#))**

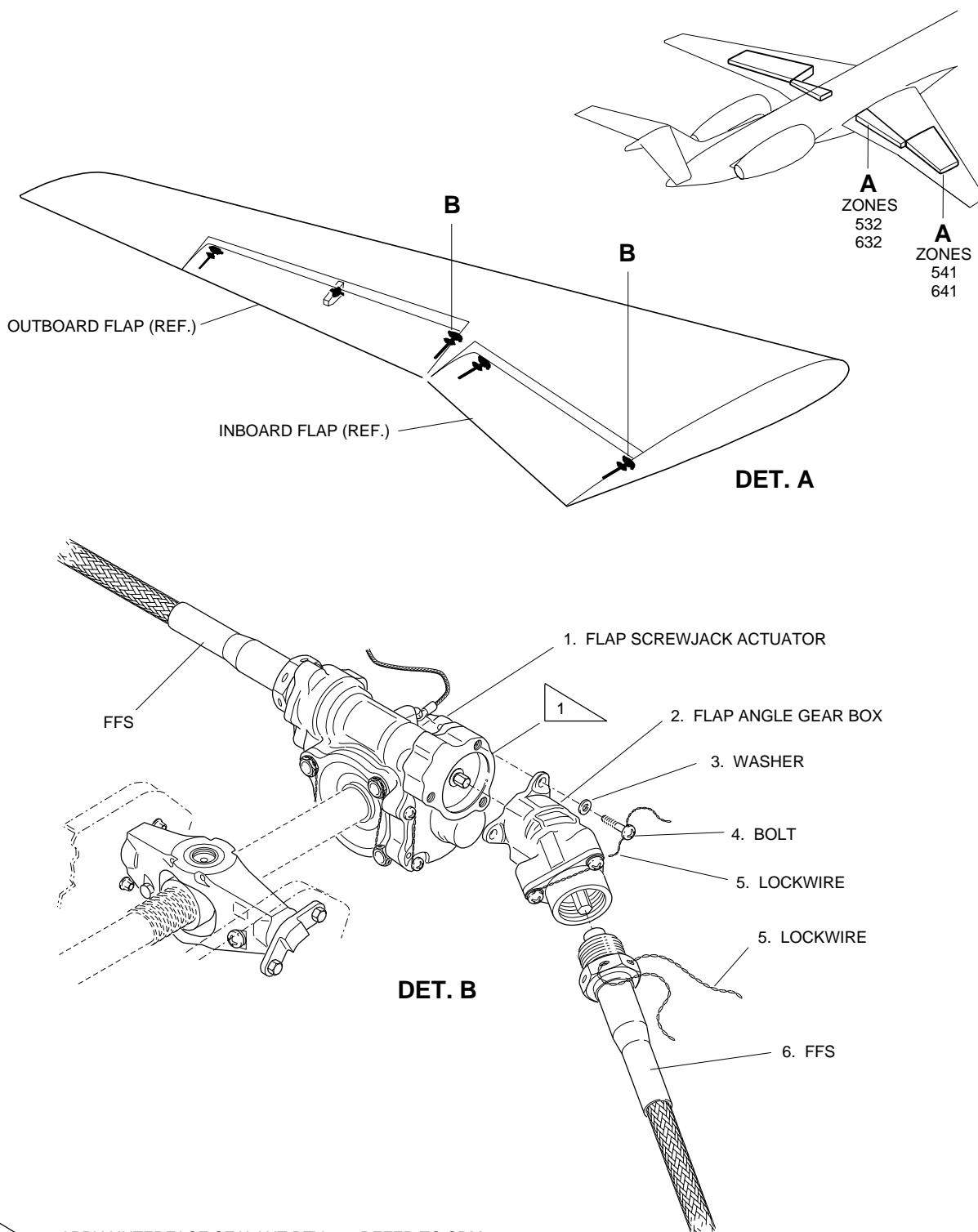
**SUBTASK 020-002-A**

- (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



1. APPLY INTERFACE SEALANT RTV780. REFER TO SRM 51-20-01.  
FOR ALTERNATIVE SEALANTS, REFER TO AMM 20-30-03/201.

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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



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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](#)).