



## AIRCRAFT MAINTENANCE MANUAL

### HORIZONTAL-STABILIZER HINGE PIN - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

#### 1. General

- A. This section gives the procedures to remove and install the internal horizontal-stabilizer hinge pin from the external hinge pin.
- B. The horizontal-stabilizer hinge-pin assembly is installed in the top rear portion of the vertical stabilizer where the horizontal stabilizer is installed.
- 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
55-10-01-000-801-A	INTERNAL HORIZONTAL-STABILIZER HINGE PIN - REMOVAL	ALL
55-10-01-400-801-A	INTERNAL HORIZONTAL-STABILIZER HINGE PIN - INSTALLATION	ALL



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TASK 55-10-01-000-801-A

EFFECTIVITY: ALL

2. INTERNAL HORIZONTAL-STABILIZER HINGE PIN - REMOVAL

A. General

- (1) This task gives the procedures to disassemble the internal horizontal-stabilizer hinge pin from the external hinge pin.

B. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
337	337 AZ/BZ/CZ	Horizontal Stabilizer

C. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 145	Lifter, Horizontal Stabilizer	To support the horizontal stabilizer	
GSE 271	Puller-Hinge Pin, Stabilizer	To remove the horizontal stabilizer hinge pin	
Commercially available	Hydraulic hoist	To remove the horizontal stabilizer	

D. Auxiliary Items

Not Applicable

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Horizontal Stabilizer

H. Preparation

**SUBTASK 841-002-A**

- (1) On the circuit breaker panel, open the pitch trim 1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) On the left electrical power control/distribution box, open the pitch trim 1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (3) On the right electrical power control/distribution box, open the pitch trim 2 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (4) Put a DO-NOT-OPERATE-THE-HORIZONTAL-STABILIZER sign on the pitch trim panel, in the cockpit.



- (5) Install the horizontal stabilizer lifter GSE 145 and keep it under tension with the hydraulic hoist.

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

SUBTASK 020-002-A

- (1) Remove The cotter pin (2) or (10), as applicable.

**NOTE:** Remove one horizontal-stabilizer hinge-pin assembly at a time to avoid displacement of the horizontal stabilizer.

- (2) Remove the castellated nut (6) or (9), as applicable, that holds the hinge pin assembly.

- (3) Remove the washers (3) or (8), as applicable.

**CAUTION:** THE BUSHINGS ARE NOT FIXED IN THE HOLES. BE CAREFUL NOT TO LOSE THEM DURING THE HINGE PIN ASSEMBLY REMOVAL.

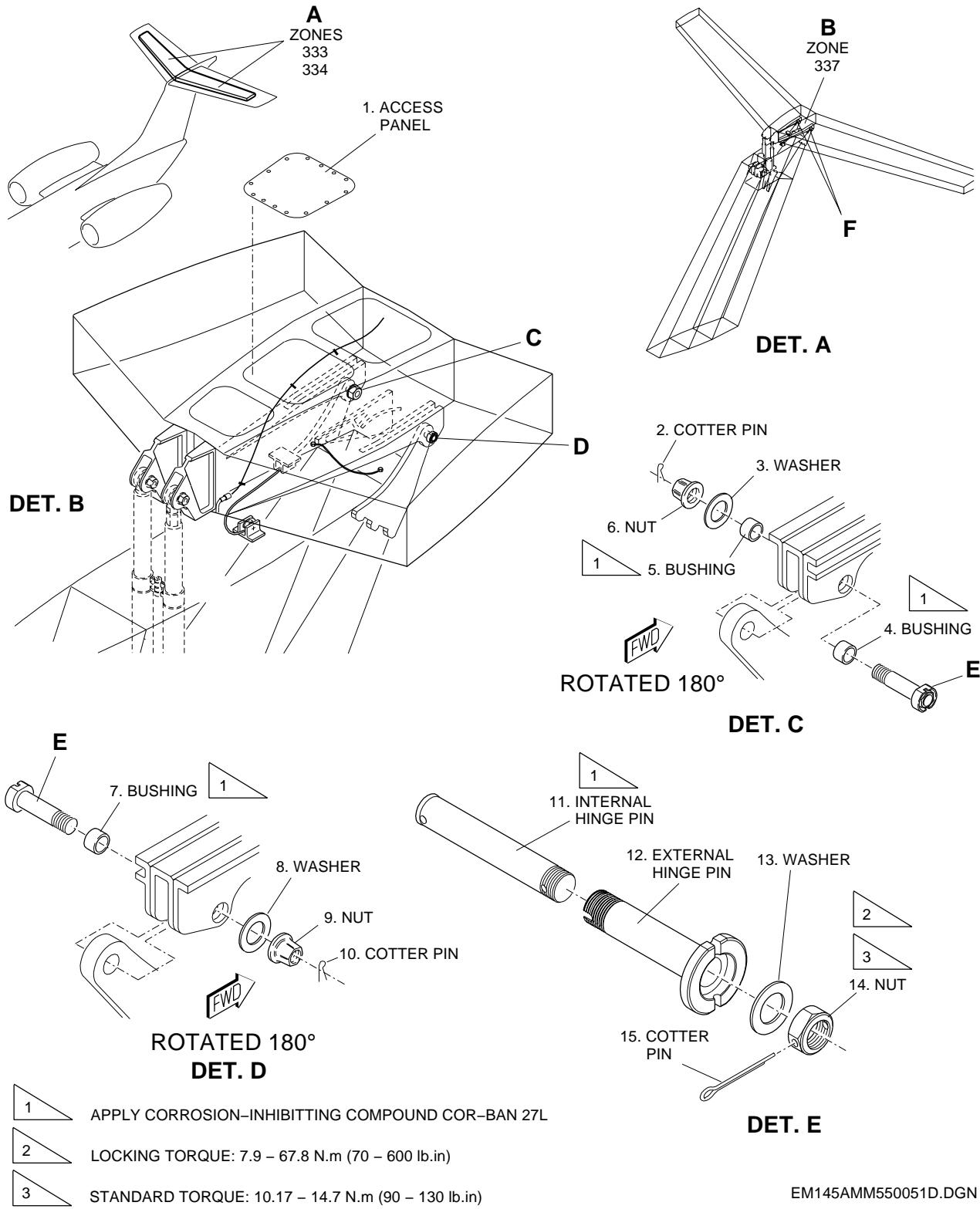
- (4) Pull the hinge pin assembly.

- (5) Remove and discard the cotter pin (15).

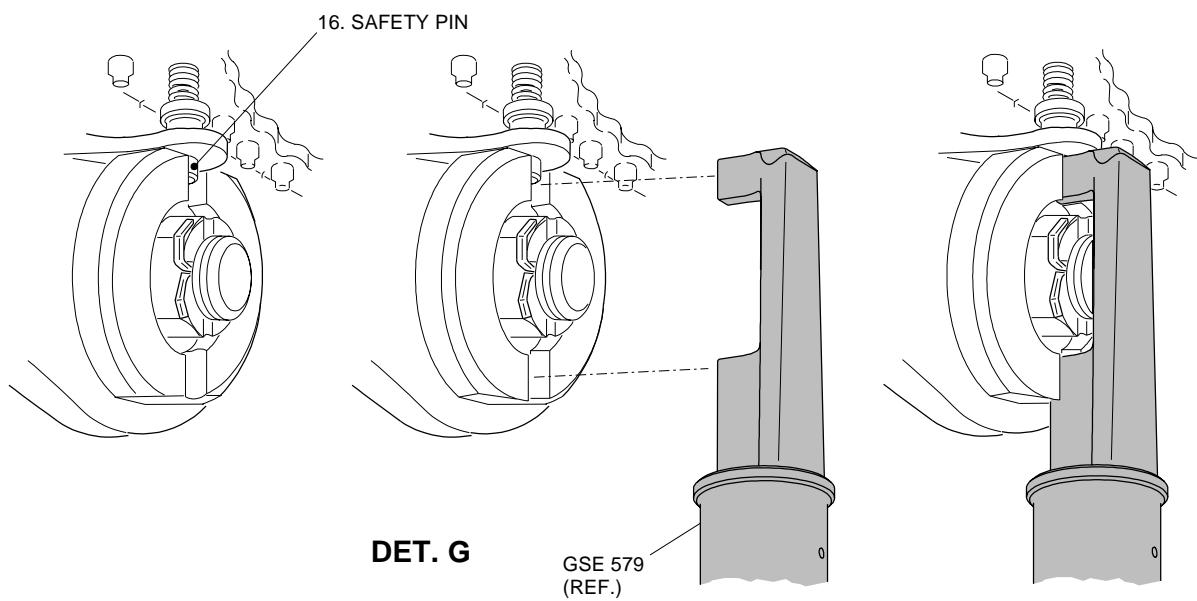
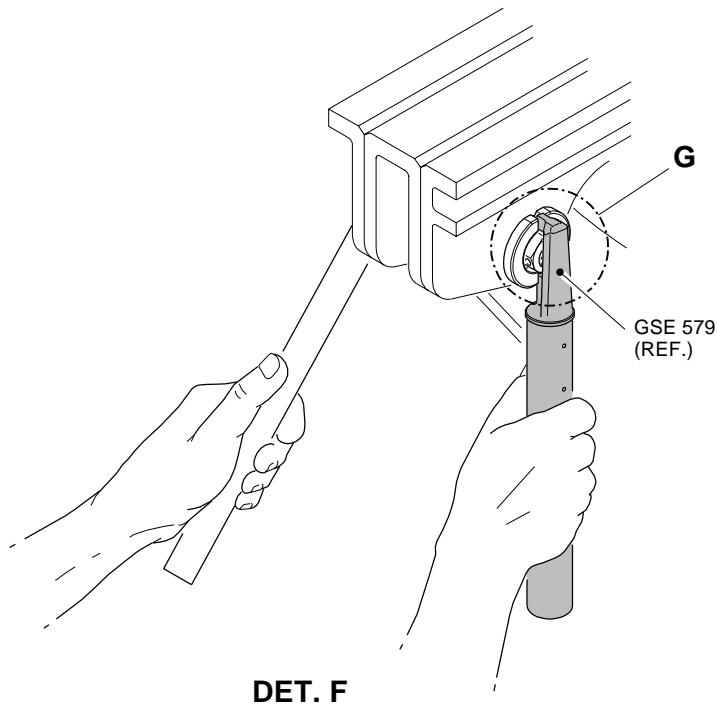
- (6) Remove the nut (14) and washer (13) that hold the internal horizontal-stabilizer hinge pin.

- (7) Pull the internal hinge pin (11) from the external hinge pin (12).

**EFFECTIVITY: ALL**  
Horizontal-Stabilizer Hinge Pin  
Figure 401 - Sheet 1



**EFFECTIVITY: ALL**  
 Horizontal-Stabilizer Hinge Pin  
 Figure 401 - Sheet 2



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TASK 55-10-01-400-801-A

EFFECTIVITY: ALL

3. INTERNAL HORIZONTAL-STABILIZER HINGE PIN - INSTALLATION

A. General

- (1) This task gives the procedures to assemble the internal horizontal-stabilizer hinge pin on the external hinge pin.

B. References

REFERENCE	DESIGNATION
AMM TASK 55-10-00-400-801-A/400	HORIZONTAL STABILIZER - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
337	337 AZ/BZ/CZ	Horizontal Stabilizer

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 145	Lifter, Horizontal Stabilizer	To support the horizontal stabilizer	
GSE 579	Hinge Stabilizer, Assy	Used to torque the horizontal stabilizer	
Commercially available	Hydraulic hoist	To remove the horizontal stabilizer	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench (0-700 lb.in)	To torque the castellated nuts	

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MEP 09-075	Corrosion-Inhibiting Compound (COR-BAN 27L)	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Horizontal Stabilizer



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I. Installation (Figure 401)

SUBTASK 420-002-A

**WARNING:** CORROSION PREVENTIVE COMPOUND TYPE COR-BAN 27L IS TOXIC TO SKIN, EYES, AND RESPIRATORY TRACT. USE PVC GLOVES AND EYE PROTECTION. USE ONLY IN WELL VENTILATED AREAS. OBEY THE MANUFACTURER'S HEALTH AND SAFETY INSTRUCTIONS.

- (1) Apply COR-BAN 27L over the internal horizontal stabilizer hinge pin (11).
- (2) Assemble the internal hinge pin (11) on the external hinge pin (12).
- (3) Install the washer (13).
- (4) Tighten the nut (14) to hold the internal horizontal-stabilizer hinge pin (11).

**NOTE:** • The nut must be tightened from 10.17 to 14.7 N.m (90 to 130 lb.in) more than the locking torque.

- The locking torque of each nut must be from 7.9 to 67.8 N.m (70 to 600 lb.in).
- If the locking torque is below or above the permitted values, replace the nut(s).

- (5) Install the cotter pin (15).
- (6) Place the bushings (4) and (5) or (7), as applicable, in their respective holes.
- (7) Push the stabilizer hinge-pin assembly.
- (8) Install the washers (3) or (8), as applicable.
- (9) Refer to [AMM TASK 55-10-00-400-801-A/400](#) to tighten the castellated nut (6) or (9), as applicable, that holds the hinge pin assembly. Make sure that the hinge pins (11) and (12) do not rotate.

**NOTE:** You can use the GSE 579 and the sequence below to prevent the rotation during the torque of the hinge-pin (11).

- (a) Lift the safety pin (16) and put the GSE 579 in the correct position.
  - (b) Hold the GSE 579 to guarantee that hinge-pin (11) do not rotate.
  - (c) Apply the torque to the castellated nut (6) or (9).
- (10) Install the cotter pin (2) or (10), as applicable.

**NOTE:** It is not necessary that the safety pin (16) be exactly in the groove of the stabilizer hinge-pin assembly. Because of adjustment tolerances of the safety pin (16), it is possible that the safety pin (16) be more outboard than the stabilizer hinge-pin assembly groove. Refer Figure 401 - DET. F.



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J. Follow-on

SUBTASK 842-002-A

- (1) Remove horizontal stabilizer lifter GSE 145 and the hydraulic hoist.
- (2) On the circuit breaker panel, close the pitch trim 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (3) On the left power control/distribution box, close the pitch trim 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (4) On the right power control/distribution box, close the pitch trim 2 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (5) Remove the DO-NOT-OPERATE-THE-HORIZONTAL-STABILIZER sign from the pitch trim panel, in the cockpit.