

CESSNA AIRCRAFT COMPANY
MODEL 172 SERIES (1969 - 1976)
SERVICE MANUAL

SUPPLEMENTAL INSPECTION NUMBER: 55-10-01

1. **TITLE:**
Horizontal Stabilizer, Elevators and Attachments Inspection

2. **EFFECTIVITY**
17257162 thru 17267584
F17200560 thru F17201514

INSPECTION COMPLIANCE

ALL USAGE: INITIAL 10,000 Hours or 20 Years **(NOTE)**

REPEAT 3,000 Hours or 5 Years **(NOTE)**

NOTE: Refer to Note 1, Section 2A-14-00.

3. **PURPOSE**
To inspect horizontal stabilizer, elevator and attachments for signs of damage, fatigue or deterioration.

4. **INSPECTION INSTRUCTIONS**

- A. Open all stabilizer and elevator access panels, including the stinger and stabilizer to horizontal tail fairings. Refer to the applicable Model 172 Service Manual.
- B. Visually inspect stabilizer and elevator for condition, cracks and security; hinge bolts, hinge bearings for condition and security; bearings for freedom of rotation; attach fittings for evidence of damage, wear, failed fasteners and security. Refer to Figure 1.
 - (1) Clean area before inspecting if grime or debris is present.
- C. Visually inspect the torque tube for corrosion and rivet security. Pay particular attention to the flange riveted onto the torque tube near the airplane centerline for corrosion.
 - (1) Clean area before inspecting if grime or debris is present.
- D. Visually inspect forward and aft stabilizer and elevator spars, ribs and attach fittings for cracks, corrosion, loose fasteners, elongated fastener attach holes and deterioration. Pay particular attention to the skins at the location where stringers pass through ribs and at the leading edge skin close to the fuselage. Apply finger pressure at the stringer intersection or the rib to spar juncture to check for free play indicating a broken rib. Visually inspect the forward stabilizer attachment bulkhead for cracks.
 - (1) Clean area before inspecting if grime or debris is present.
- E. If corrosion or a frozen bearing is found, conduct a surface eddy current inspection for cracks of each elevator hinge attach fitting. Refer to Section 2A-13-01, Nondestructive Inspection Methods and Requirements, Eddy Current Inspection – Surface Inspection, for additional instructions. The inspection is for the aluminum structure outside of the bearing, so set the instrument for aluminum.
- F. Visually inspect the trailing edge portion of the elevator for indications of cracks, corrosion or deterioration. Visually inspect the attachment of the trim tab horn to the trim tab.
- G. Install all previously removed access panels. Refer to the applicable Model 172 Service Manual.

5. **ACCESS AND DETECTABLE CRACK SIZE**

ACCESS/LOCATION

Horizontal Tail

DETECTABLE CRACK SIZE

Not Allowed

6. **INSPECTION METHOD**
Visual with Eddy Current if required.

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7. REPAIR/MODIFICATION

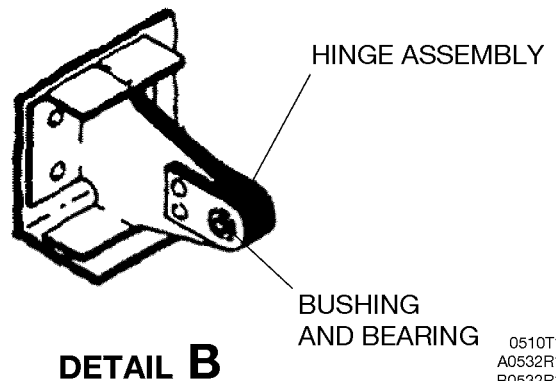
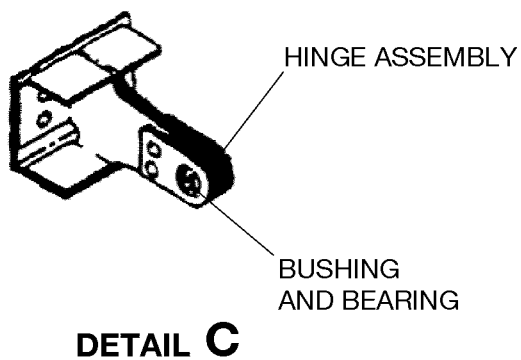
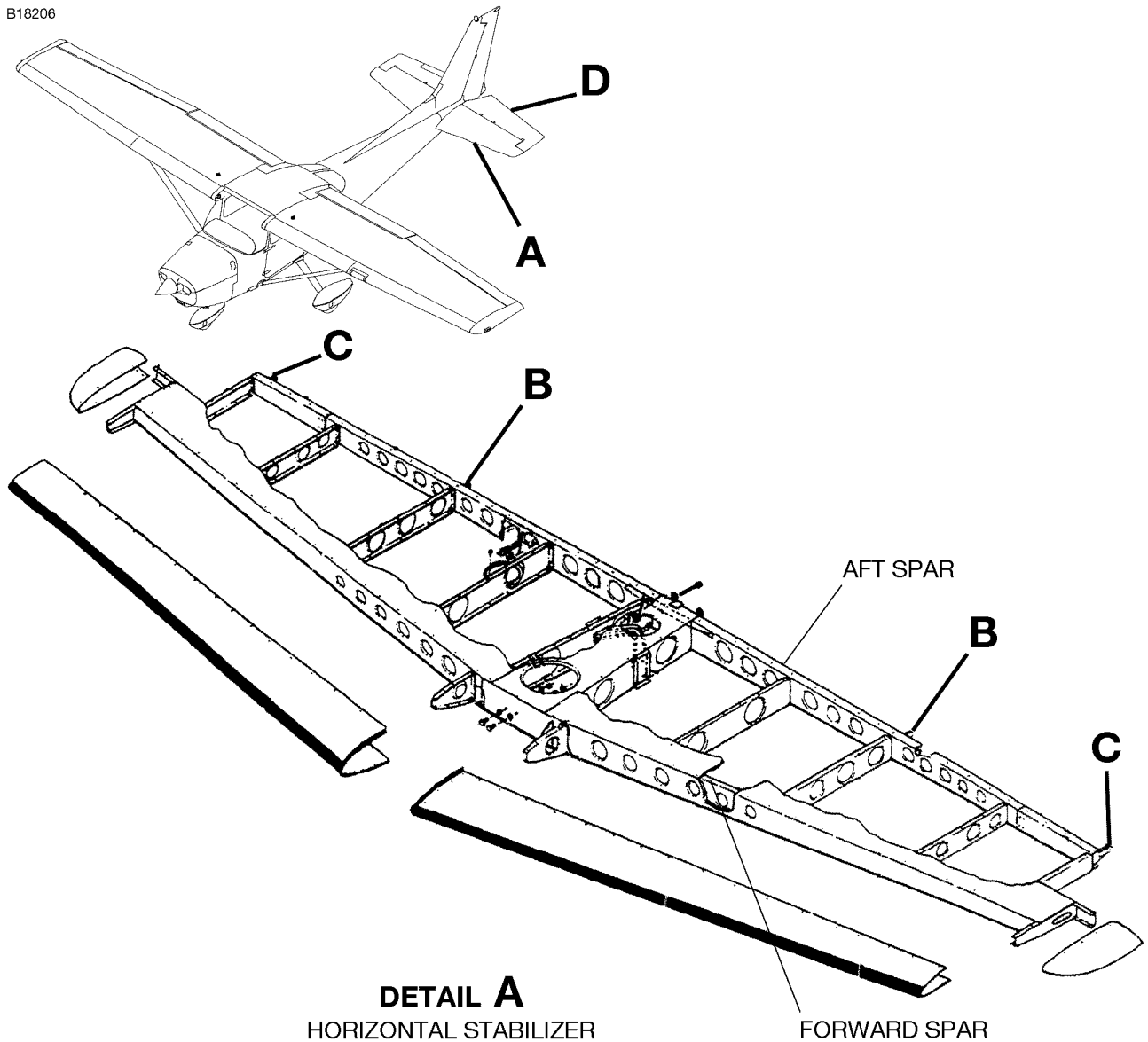
Replace damaged bolts and nuts. Replace damaged fittings and small parts. Replace damaged or loose rivets. Hinge bearings are pre-packed with grease, which will eventually oxidize and harden after years of service. Several applications of penetrating oil will help free up a stiff bearing. It is the owner's/operator's option to replace stiff bearings. Repairs may be made in accordance with Section 18 (Structural Repair) of the applicable Model 172 Service Manual. Any repair not available in Section 18 should be coordinated with Cessna Customer Service prior to beginning the repair.

8. COMMENTS

Coordinate this inspection with SID 55-30-01, Vertical Stabilizer, Rudder and Attachments Inspection.

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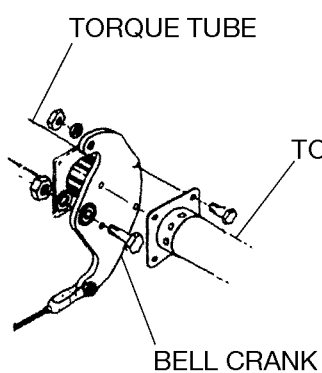
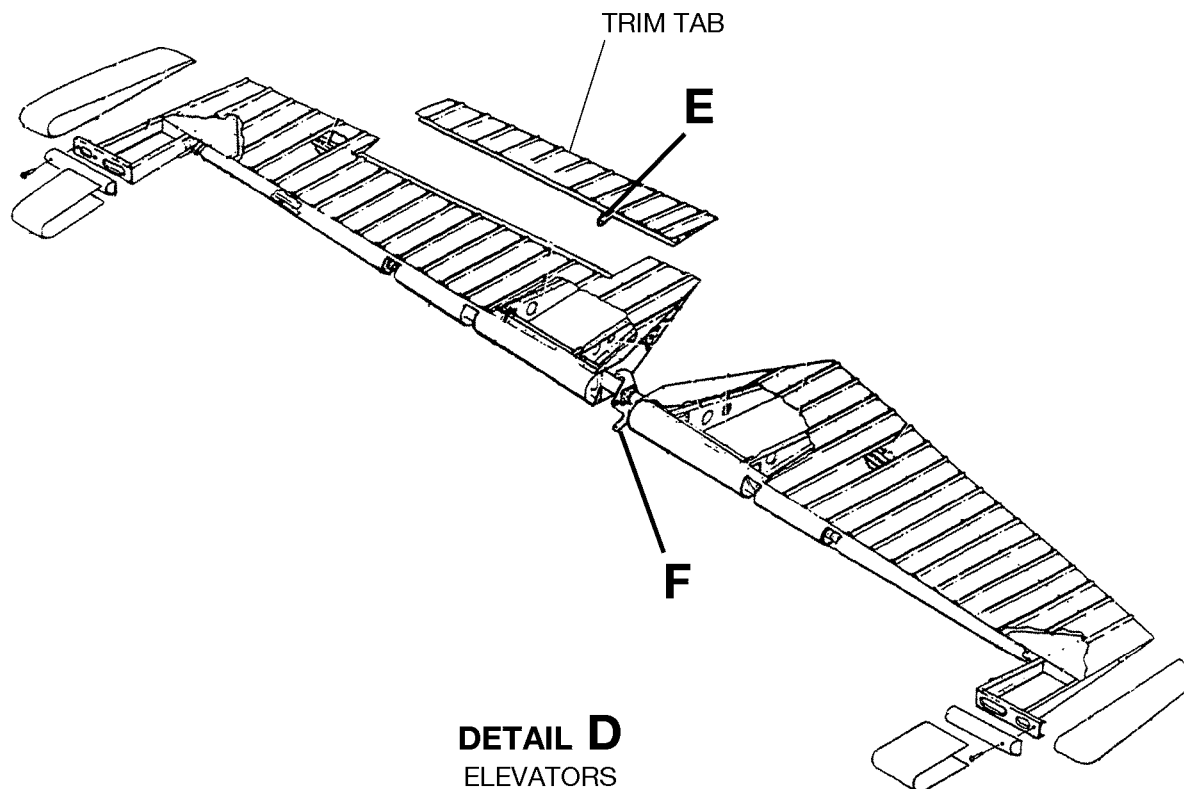


0510T1007
 A0532R1006
 B0532R1006
 C0532R1006

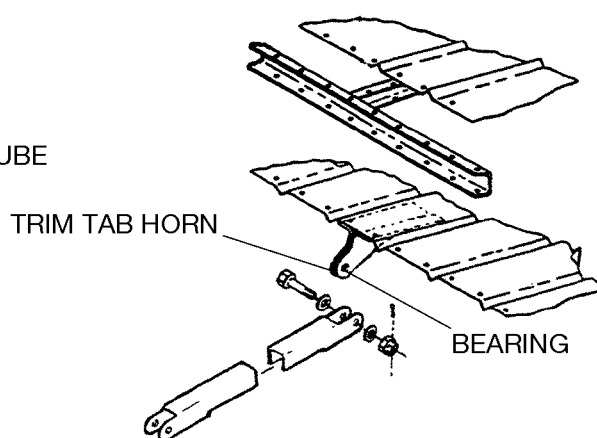
HORIZONTAL STABILIZER, ELEVATORS AND ATTACHMENTS INSPECTION
 Figure 1 (Sheet 1)

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DETAIL F



DETAIL E

0510T1007
 D0534R1007
 E0534R1007
 F0534R1007

HORIZONTAL STABILIZER, ELEVATORS AND ATTACHMENTS INSPECTION
 Figure 1 (Sheet 2)