

CESSNA AIRCRAFT COMPANY  
**MODEL 100 SERIES (1953 - 1962)**  
SERVICE MANUAL

**SUPPLEMENTAL INSPECTION NUMBER: 55-10-01**

**1. TITLE:**

Horizontal Stabilizer, Elevators and Attachments Inspection - All Models

**2. EFFECTIVITY**

Model 150 Serial Numbers 617, 628, 17001 thru 17999, 59001 thru 59018, 15059019 thru 15059700,  
Model 172 Serial Numbers 610, 612, 615, 622, 625, 630, 28000 thru 29999, 36000 thru 36999, 46001  
thru 47746, 17247747 thru 17249544,

Model 175 Serial Numbers 619, 626, 55001 thru 56777, 17556778 thru 17557119,

Model 180 Serial Numbers 604, 614, 624, 30000 thru 32999, 50001 thru 50911, 18050912 thru  
18051183,

Model 182 Serial Numbers 613, 631, 33000 thru 34999, 51001 thru 53007, 18253008 thru 18254423,

Model 185 Serial Numbers 632, 185-0001 thru 185-0512

**INSPECTION COMPLIANCE**

**ALL USAGE: INITIAL**                      5,000 Hours   or   20 Years **(NOTE)**

**REPEAT**                      2,000 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 vertical stabilizer to horizontal tail fairings. Refer to the Model 100 Series Service Manual.
- B. Visually inspect stabilizer and elevator for condition, cracks and security; elevator hinges, 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 Model 100 Series Service Manual.

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**5. ACCESS AND DETECTABLE CRACK SIZE**

**ACCESS/LOCATION**

Horizontal Tail

**DETECTABLE CRACK SIZE**

Not Allowed

**6. INSPECTION METHOD**

Visual with Eddy Current if required.

**7. REPAIR/MODIFICATION**

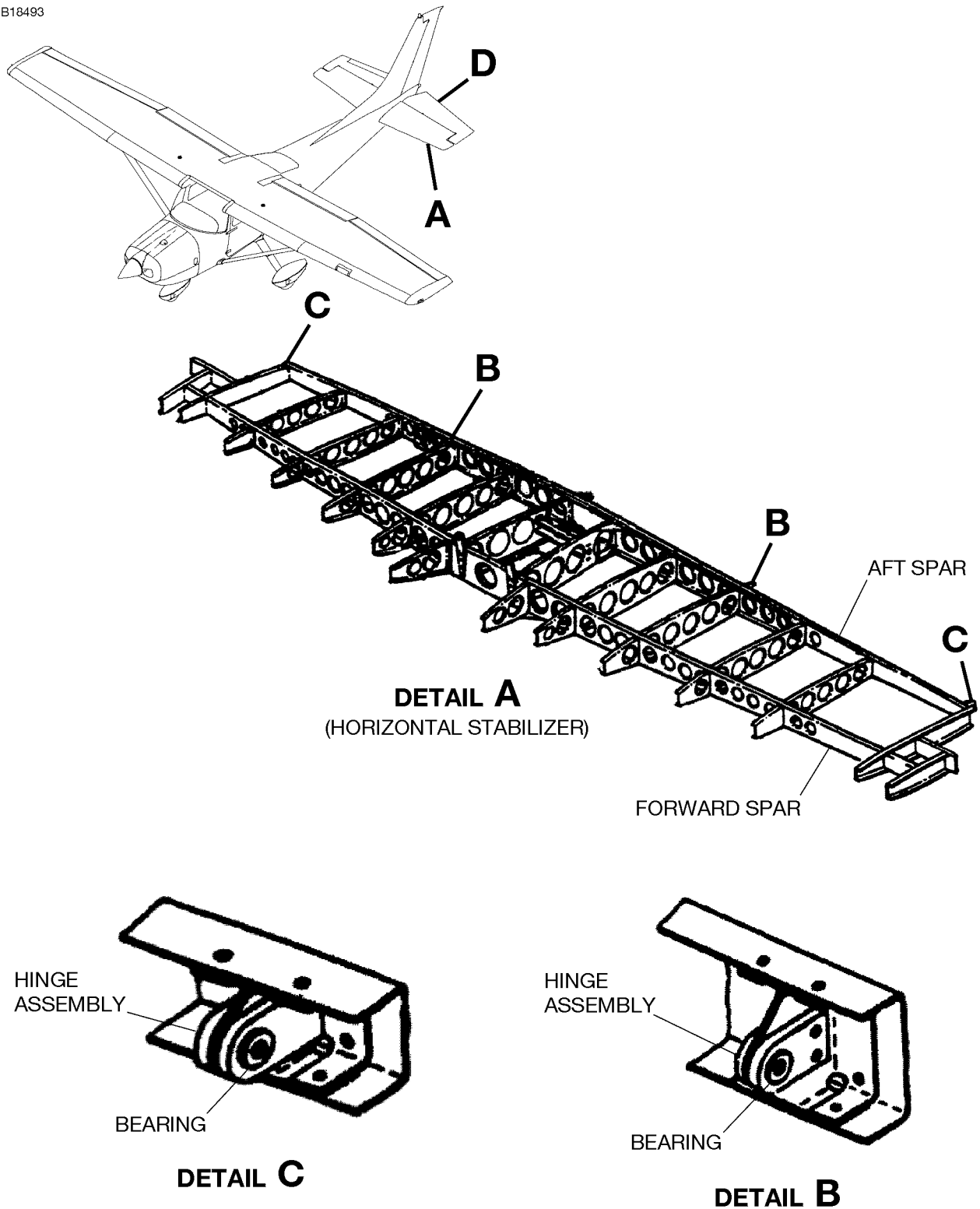
Replace damaged bolts and nuts. Replace damaged fittings and small parts. Replace damaged or loose rivets. Hinge bearings are pre-packed with grease, which will eventually oxidize and harden after years of service. Several applications of penetrating oil will help free up a stiff bearing. It is the owner's/operator's option to replace stiff bearings. Repairs may be made in accordance with Section 19 (Structural Repair) of the Model 100 Series Service Manual. Any repair not available in Section 19 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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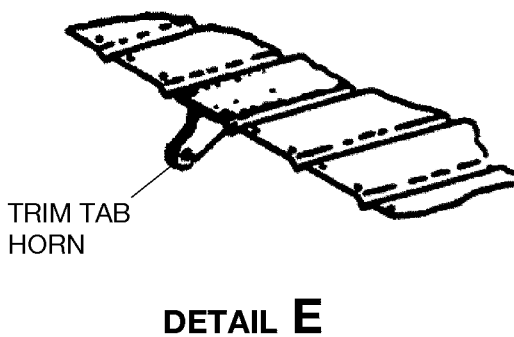
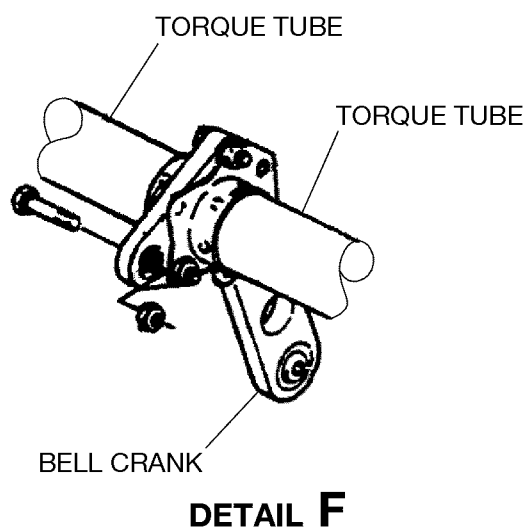
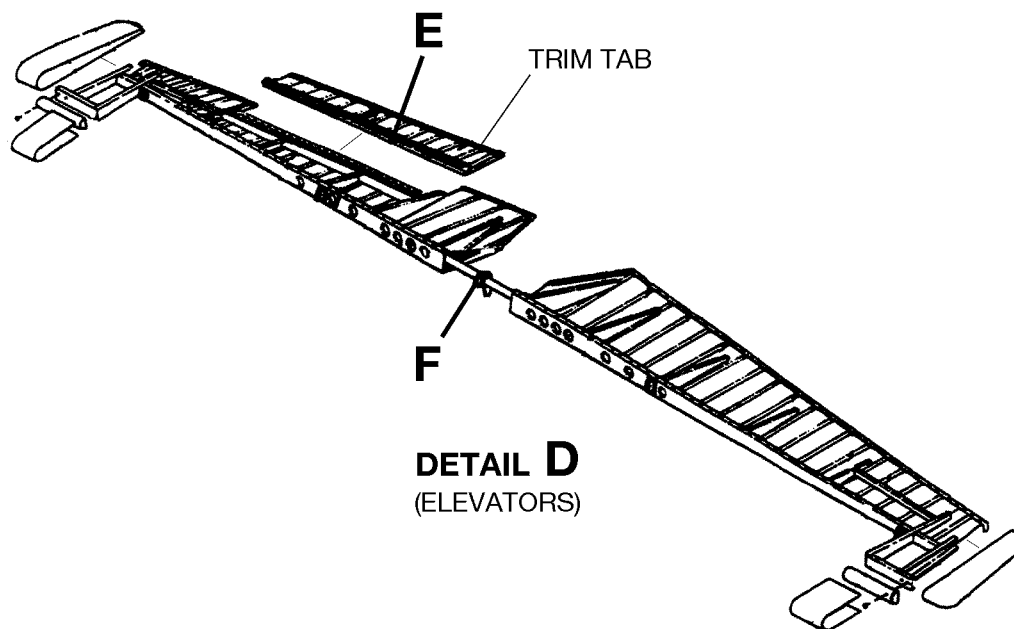
**NOTE:** MODEL 182 SHOWN, OTHER MODELS TYPICAL.

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

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**NOTE:** MODEL 182 SHOWN, OTHER MODELS TYPICAL.

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