Attachment Nine Workcard: 27-30-01

#### **Elevator Cables - Maintenance Practices**

# ELEVATOR CABLES - MAINTENANCE PRACTICES (EFFECTIVITY: ALL)

ELEVATOR CONTROL CABLE REMOVAL (EFFECTIVITY: ALL) (FIGURE 201)

NOTE: Take care not to drop the cables or the lead lines into the vertical stabilizer since recovery is difficult. Secure the lead lines with tape or ties when the cables are disconnected from the lead lines.

- Remove the flight compartment seats, carpet, and floorboards on the copilot's side. Refer to <u>Chapters 6</u> and 25.
- b. Remove the passenger seats, carpet, and floorboards on the right side of the passenger compartment. Refer to Chapters 6 and 25.
- c. Remove the aft floorboards and the large floor panel inside of the aft cabin entrance door. Refer to Chapter 6.
- d. Remove the tail section access panels (311C and 312CL), and all access plates from the vertical and horizontal stabilizers. Refer to Chapter 6.
- e. Identify and tag both forward elevator cable ends in relation to their attaching points on the bellcrank.
- f. Remove the cable retaining pins from all pulley brackets and remove the cable seals from the aft pressure bulkhead.
- g. Disconnect the elevator autopilot servo from the cables in the aft fuselage section (if installed).
- h. Disconnect the elevator cables from the bellcrank.
- i. Disconnect the front cables from the aft cables at the turnbuckles in the aft fuselage section.
- j. Connect lead lines at the forward ends of the cables and remove the cables through the aft fuselage section.
- k. Identify and tag the cables for proper reinstallation.
- Connect the lead lines at the turnbuckles of the aft elevator cables in the aft fuselage section.
- m. Tag identify the cables for proper reinstallation.
- Morking through the access openings on top of the horizontal stabilizer, disconnect the cables from the bellcrank and remove the cables.

Beech 1900D Airliner Maintenance Manual (UE-1 and After)

### **Elevator Cables - Maintenance Practices**

ELEVATOR CONTROL CABLE INSTALLATION (EFFECTIVITY: ALL) (FIGURE 201)

NOTE: If a used cable is installed, the cable should be dipped in corrosion preventive compound (4, Chart 2, 27-00-00). Excess should be removed by wiping with a clean cloth.

- a. Connect the cables to the lead lines and route the aft (elevator-up) cable from the aft slot of the elevator bellcrank down through the vertical stabilizer and into the aft fuselage section.
- b. Connect the cable end to the bellcrank.

NOTE: The interior of all turnbuckles should be coated or filled with grease (1, Chart 2, 27-00-00) for corrosion protection.

- c. Route the aft (elevator-down) cable from the forward slot of the elevator bellcrank down through the vertical stabilizer and into the aft fuselage section.
- d. Connect the cable end to the bellcrank.
- e. Attach the forward cables to the forward bellcrank, route them through the pulleys and attach the forward and aft cables at the turnbuckles.
- f. Install the pulley retaining pins.
- g. Using solvent (2, Chart 2, 27-00-00), clean the cables the length of travel through the pressure bulkhead cable seals. Lubricate one inch beyond the cleaned area with grease (1, Chart 2, 27-00-00).
- h. Fill the pressure bulkhead cable seals with grease (1, Chart 2, 27-00-00) and install the seals. Refer to Figure 201.
- Perform ELEVATOR CONTROL SYSTEM RIGGING procedures. Refer to Chapter 27-30-02.
- j. Install safety clips on all turnbuckles.
- k. Connect and rig the autopilot servo cables (if installed). Refer to Chapter 22.
- Replace all access panels, floor coverings and seats. Refer to Chapters 6 and 25.

## ELEVATOR FREE PLAY CHECK (EFFECTIVITY: ALL)

a. Ensure the elevator control system rigging procedure has been accomplished. Refer to Chapter 27, ELEVATOR CONTROL SYSTEM RIGGING.

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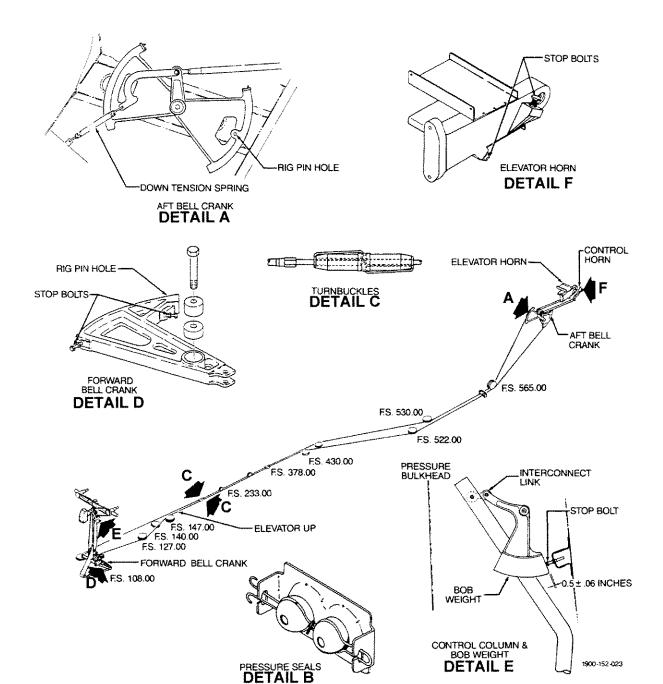
NOTE: It may be necessary to jack the airplane to prevent motion during the following test.

- b. Visually inspect the elevator for any damage, for integrity of the hinge attach points, and for tightness of the actuating system.
- c. Install the elevator travel board (5, Chart 1, 27-00-00) on the upper horizontal stabilizer surface.
- d. Install the elevator aft rig pin. Refer to Figure 201.
- e. Attach a scale or dial indicator to the travel board so the up and down movement can be measured at the trailing edge.
- f. Gently push up and down on the elevator. Use only enough force to measure the free play without any flex components. Movement should not exceed .06 inch in either direction, for a maximum free play travel limit of .12 inch.
- g. Repeat this check on the opposite elevator.
- h. Excess movement must be corrected.
- i. Remove the travel board.
- i. Remove the rig pin.

### **Elevator Cables - Maintenance Practices**



### Beech 1900D Airliner Maintenance Manual (UE-1 and After) Elevator Cables - Maintenance Practices



**Elevator Control System (Effectivity: All)**