



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0093

Revision 1

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DATE: December 9, 2003

1. SUBJECT: Tail Rotor Control Cable Inspection
2. MODEL: F-28A, F-28C(-2), F-28F, 280, 280C, 280F, and 280FX
3. EFFECTIVITY: All serial numbers equipped with tail rotor control cable pulleys installed in the tailcone (Refer to paragraph 4)
4. BACKGROUND:

Enstrom has received reports from inspection personnel in the field of frayed and worn tail rotor control cables. The reports indicate that the wear is occurring at the pulleys (See Figure 1) in the tailcone located aft of the horizontal stabilizers. These pulleys are installed in tailcone assemblies installed on all 280FX model aircraft and F-28F model aircraft, S/N 744 and subsequent.

280, 280C, and 280F model aircraft and F-28A, F-28C(-2), and F-28F (other than the previously listed F-28F serial numbers) model aircraft may have had the pulleys installed as a modification to their tailcones.

Failure of a tail rotor control cable could result in partial or complete loss of tail rotor control. The maintenance manual applicable to the models listed above requires inspecting the tail rotor control cables for "Wear at pulleys, fairleads, proper alignment and tension (30/40#)" during the 100 hour/annual inspection. While very general in terms, the inspection requirement may call for a more detailed inspection of the tail rotor control cables if the condition of the cables cannot be adequately determined. This Service Directive Bulletin requires a one time inspection of the tail rotor control cables and provides more detailed guidance for inspecting tail rotor control cables.

5. COMPLIANCE:

For aircraft with more than 200 hours total time, within the next 10 flight hours, inspect the tail rotor control cables in accordance with paragraph 5.1 of this Service Directive Bulletin.

For aircraft with less than 200 hours total time, at the next 100 hour/annual inspection, inspect the tail rotor control cables in accordance with paragraph 5.1 of this Service Directive Bulletin.

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5.1. INSPECTION:

NOTE

Perform all maintenance procedures in accordance with applicable maintenance manual for the aircraft model.

1. Remove the access panel located aft of the horizontal stabilizer on the left side of the tailcone (See Figure 2) and determine if the tailcone is equipped with the pulleys.

NOTE

Figure 1 shows the latest tail rotor control cable pulley installation. On earlier installations, the left side pulley installation is a mirror image of the right side pulley installation.

2. If the tailcone is not equipped with the pulleys, reinstall the access panel and return the aircraft to service. Proceed to the next paragraph if the tailcone is equipped with the pulleys.

NOTE

The inspection requirements of this Service Directive Bulletin do not apply to aircraft that do not have the pulleys installed in the tailcone; however, Enstrom recommends, at a minimum, a visual inspection of the tail rotor control cables in the vicinity of the fairleads since the access panel is now already removed from the tailcone.

3. Disconnect the tail rotor control cables from the tail rotor pitch change assembly and attach strings to the end of the cables.

4. Partially pull the tail rotor control cables out of the tailcone through the access opening and inspect the areas of the tail rotor control cables that pass over the pulleys and inspect the pulleys in accordance with FAA Advisory Circular 43.13-1B, paragraph 7-149, Cable System Inspection (Appendix A to this Service Directive Bulletin). If the pulleys are rubbing on the mounting brackets, AN960-10L Washers may be used as shims to eliminate the interference.

5. Replace/Reinstall the tail rotor control cables and/or pulleys as required. Set the control cable tension and tail rotor rigging in accordance with the maintenance manual.

6. Reinstall the access panel.

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5.2. PARTS:

Refer to the applicable Illustrated Parts Catalog for replacement parts as required.

6. SPECIAL TOOLS:

<u>Tool Number</u>	<u>Description</u>
T-0080 (C and F Models)	Tail Rotor Rigging Tool
T-0012 (A Models)	Tail Rotor Rigging Tool
-----	Cable Tensiometer

7. MAN-HOURS:

1 Man-hour for inspection, 4 Man-hours for inspection and cable replacement.

8. WARRANTY: Standard Enstrom Warranty

9. WEIGHT CHANGE: None

10. LOG BOOK ENTRY: Enter compliance with this Service Directive Bulletin.

11. REPETITIVE INSPECTIONS: None

NOTE

Maintenance personnel should pay particular attention to this area during subsequent 100 hour/annual inspections. Enstrom recommends using the procedure outlined in paragraph 5.1 for cable inspections in this area. This is especially important on aircraft which have a history of cable wear.

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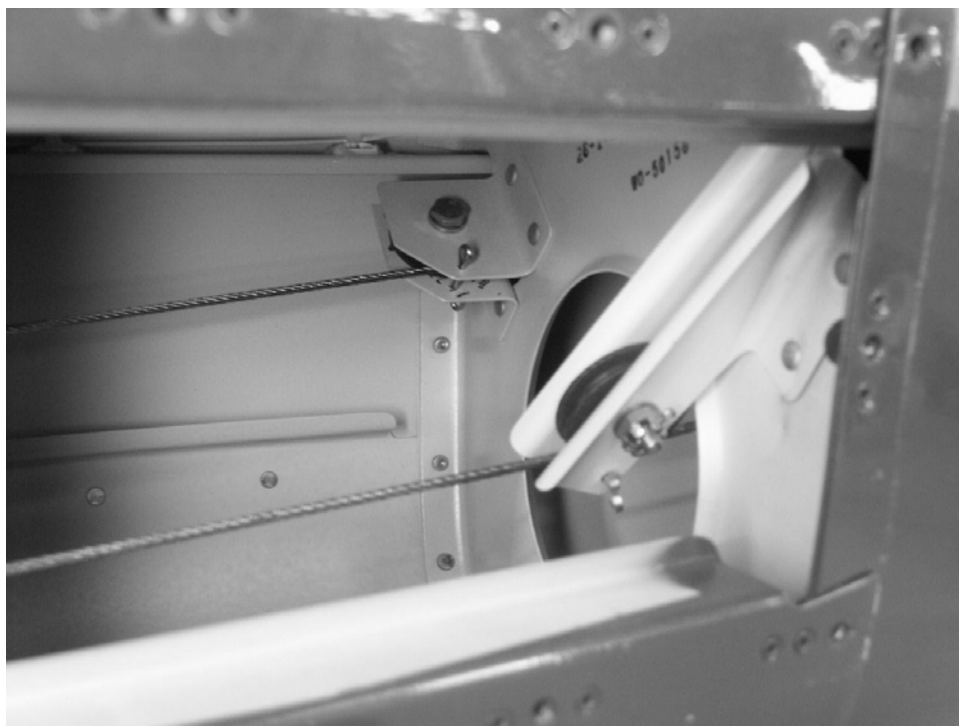


Figure 1. Tail Rotor Control Cable Pulley Installation

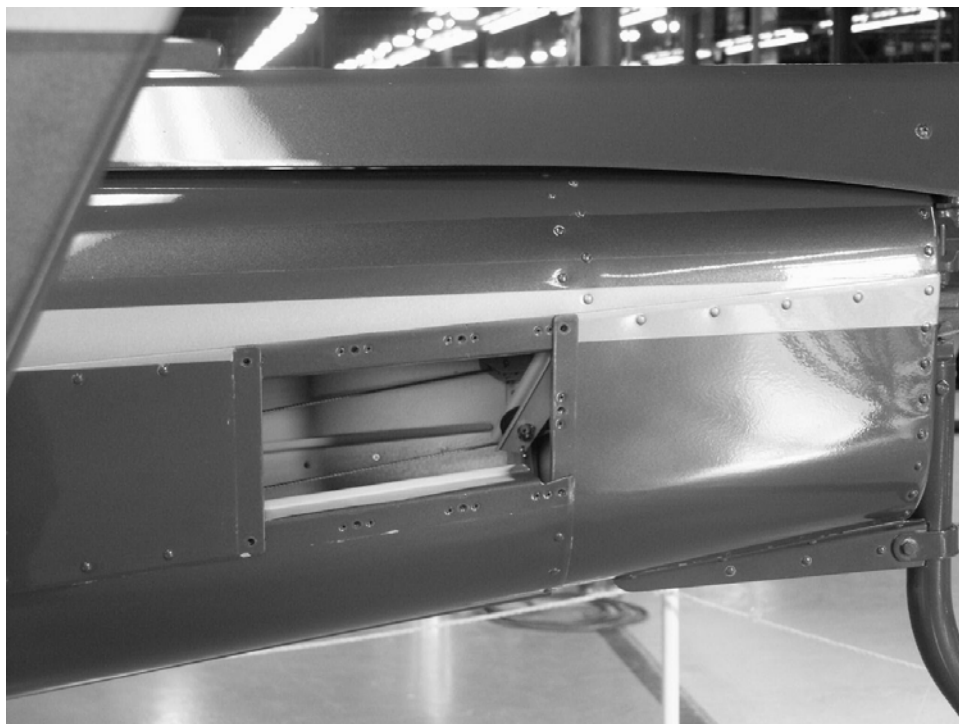


Figure 2. Access Panel Location