ENSTROM HELICOPTER CORPORATION
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SERVICE DIRECTIVE BULLETIN

DATE: October 6, 2008

1. SUBJECT: Possible Interference Involving Main Rotor Pitch Change Bellcrank (Cyclic Walking Beam)

2. MODEL: F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX

3. EFFECTIVITY: All Serial Numbers

4. BACKGROUND:

Enstrom received a field report of damaged pitch change bellcranks, P/N 28-14207-101. The damage was caused by interference between the pitch change bellcranks and the end fitting in the main rotor control rods. This interference only occurs if the collective system is mis-rigged. If the collective system is mis-rigged, the interference may be encountered when the collective is in the full down position and the cyclic stick is moved through a full travel control system check as part of a preflight check.

This Service Directive Bulletin (SDB) requires a one time inspection of the pitch change bellcranks, repair/replacement of the pitch change bellcranks, if required, and a rigging check of the collective system.

Technical aspects of this SDB have been coordinated with the FAA.

5. COMPLIANCE:

Within the next 25 hours time in service, visually inspect the ears of the pitch change bellcranks for damage caused by contact with the main rotor control rods in accordance with (IAW) paragraph 5.1.A. If contact damage is found, inspect the rigging of the collective system at the bottom of main rotor gearbox IAW paragraph 5.1.B.

At or before the next 100 hour/annual inspection, inspect rigging of the collective system at the bottom of the main rotor gearbox IAW paragraph 5.1.B.

5.1 INSPECTION:

A. Inspect the pitch change bellcranks for contact damage by moving the collective to the mid-range position and using a mirror to inspect for damage or disconnect the pitch change bellcranks from the main rotor control rods and the bellcrank brackets. Follow the procedures for collective friction use and removing the pitch change bellcranks as found in the applicable F-28/280 Series Maintenance Manual. If contact damage is found (see Figure 1 for example), refer to paragraph 5.2 for repair procedures and check the rigging of the collective system at the bottom of the main rotor gearbox IAW paragraph 5.1.B. If no contact damage is found, perform the collective system rigging check at the next 100 hour/annual inspection.

B. Inspect the rigging of the collective system at the bottom of the main rotor gearbox for 1/8" to 3/16" (.125" to .1875" / 3.18mm to 4.76mm) clearance between the collective bearing housing and the swashplate mount flange (See Figure 2). Refer to the applicable F-28/280 Series Maintenance Manual for the rigging procedures.

NOTE

The collective rigging procedures in the F-28A/F-28C and 280/280C Maintenance Manuals do not list the dimensional requirements found in paragraph 5.1.B of this SDB. When performing the collective rigging check on the F-28A/F-28C and 280/280C model helicopters, include the dimensional requirements in paragraph 5.1.B as part of the collective rigging requirements. The dimensional clearance is set by adjusting the length of the control rod connecting the collective torque tube bellcrank to the collective walking beam.

5.2. REPAIR:

A. Remove the Pitch Change Bellcranks from the helicopter following the procedures in the applicable F-28/280 Series Maintenance Manual.

B. Replace pitch change bellcranks with damage exceeding .040" / 1.01mm in depth. Using a small file or other suitable device remove the contact damage from the ears of the pitch change bellcranks; blend the repair area over the length of the ear (the repair cannot exceed 0.040" / 1.01mm in depth). Apply a protective coating of epoxy primer (Desoto #593 X 300 or equivalent) to the repair area.

C. Reinstall the Pitch Change Bellcranks following the procedures in the applicable F-28/280 Series Maintenance Manual.

6. SPECIAL TOOLS: None

7. MAN-HOURS: Inspection - 20 minutes; Repair - 1 hour; Rigging Check - 2 hours

8. WARRANTY: Per Enstrom New Helicopter Warranty policy

9. WEIGHT CHANGE: None

10. LOG BOOK ENTRY: Enter compliance with this SDB in the aircraft maintenance records.

11. REPETITIVE INSPECTIONS: None

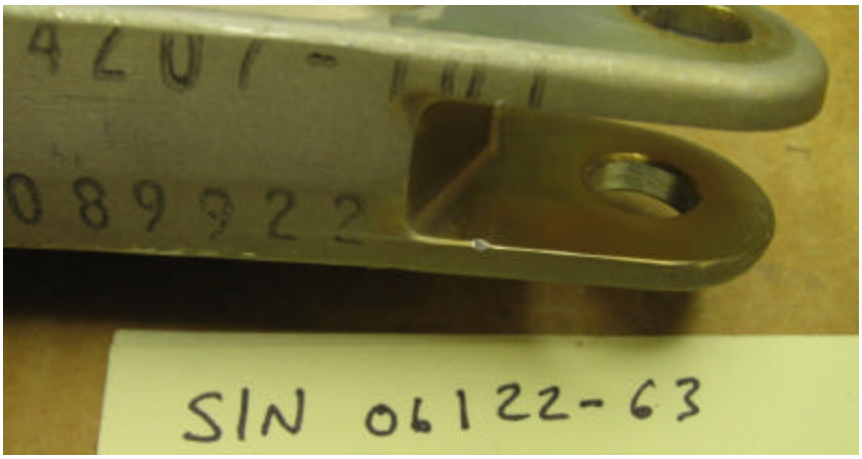

Figure 1. Damage to ear of bellcrank.

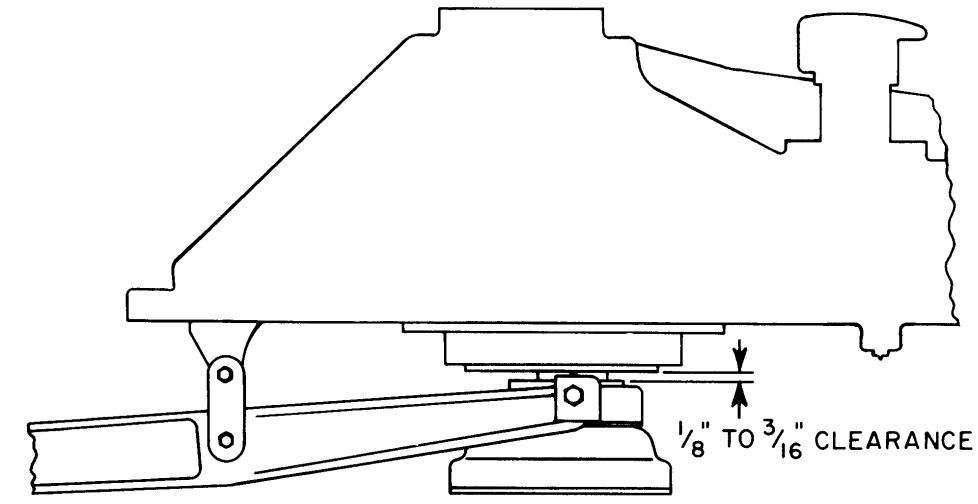

Figure 2. Required clearance between the collective bearing housing and the swashplate mount flange