THE ENSTROM HELICOPTER CORPORATION
TWIN COUNTY AIRPORT, P.O. BOX 490, MENOMINEE, MICHIGAN 49858

SERVICE INFORMATION LETTER

DATE: September 11, 1995

1. SUBJECT: Pinion Nut Torque and Upper Jack Strut Bearing Adaptor Inspection.

2. MODELS: F28A, 280, F28C, 280C, F28C-2, F28F, 280F/280FX Helicopters

3. EFFECTIVITY: At the next 50 or 100 hour inspection whichever occurs first.

4. BACKGROUND:

Two instances of damage to the upper jack strut bearing adaptor and pinion retaining nut have been found during field inspections of the upper drive system. The damage was the result of either the improper use of LocTite on the inside diameter of bearing adaptor (P/N 28-13323-11) which restricted its ability to move when the pinion nut was torqued, or a loose fit resulting from tolerance variations on the adapter. If this condition is allowed to continue, fretting damage to the upper jack strut bearing adaptor, bearing assembly and pinion can occur. This can result in a premature and costly overhaul of the main rotor gear box and upper jack strut assembly.

5. COMPLIANCE:

In order to reduce the possibility of an occurrence of this problem in the field, Enstrom is requesting all owners and operators to conduct the following inspection:

5.1 Remove safety wire or locking ring from the pinion retention nut.

5.2 Check torque prior to removing nut. Low torque may indicate a possible fretting condition exists.

5.3 Remove the pinion retention nut and check the contact surface for signs of fretting or wear between it and the upper jack strut bearing adaptor surface.

5.4 If any fretting or wear is found, the upper jack strut bearing adaptor and clutch should be removed and inspected. Particular attention should be given to inspection of mating surfaces subject to pinion shaft stack up and/ or torque.

NOTE: Removal and inspection of these items are covered in the "Enstrom F28F and 280F series Maintenance Manual, Section "C" page MM-11-28 thru Section "H" page MM-11-35. For F-28A, 280, and C model helicopters see Section 8, pages MM-8-7 thru MM-8-10 in the Enstrom F-28A and 280 series Maintenance Manuals.

5.5 Reference Maintenance Manual page MM-11-34, Item 4, P/N 28-13129 is superseded by P/N 28-13323-11 if replacement is required. Dimension requirements are:

Outside Diameter	1.5749 1.5742	Maximum Limit
Inside Diameter	1.3120 1.3116	Maximum Limit

Anything over maximum limits should be replaced.

NOTE: LocTite is not to be used on the inside diameter or the pinion retention nut threads. LocTite can be utilized on the outside diameter to improve the fit into the bearing. Special care must be taken, if LocTite is used, to insure the bushing is fully seated into the bearing. Any excess residue must be removed prior to curing to preclude improper clamp up of the final assembly stack upon torquing the pinion nut.

5.6 After inspecting components per items (5.1 through 5.5) and replacing or repairing items, as required, the components should be reassembled and the pinion nut torqued to 175 ft pounds for the thin spanner type nut P/N SLN-3045. The heavy hex pinion nut P/N 28-13184-11 should be torqued to 250 ft pounds and safetied accordingly.

6. CONTINUING PINION RETENTION NUT TORQUE CHECK:

6.1 The pinion torque shall be checked after the first 25 hours and at 100 hour intervals thereafter as noted in the 100 hour checklist.

7. MAN HOURS REQUIRED:

Approximately 2.5 hours for this one time inspection.

8. WARRANTY/SPECIAL PRICING:

Standard warranty applies as published for overhaul main rotor gear boxes and new gear boxes.

9. WEIGHT CHANGE: Not applicable.

10. LOG BOOK ENTRY:

A one-time log book entry should be made.

11. REPETITIVE INSPECTIONS:

As noted in paragraph (6 & 6.1) and maintenance manual 100 hour checklist.