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# SERVICE INFORMATION LETTER

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SERVICE INFORMATION LETTER NO. 0112

Revision 1

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DATE:            March 14, 2018

1.    SUBJECT:    Tolerance Fit on Main Rotor Gearbox Pinion Drive Key
2.    MODEL:        F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, and  
                          280FX Helicopters
3.    EFFECTIVITY:    Models equipped with keyed pinion

4.    BACKGROUND:

Because of production tolerances on the main rotor gearbox input pinion shaft, the keyway may be found to be slightly oversize. When replacing the over-running clutch assembly on a gearbox, the drive key fit in the pinion should be checked for an oversize condition to determine if shimming is required. Shimming the keyway may be accomplished by the method described in paragraph 6.

Revision 1 updates this Service Information Letter (SIL) to the current standard format, updates the list of helicopter models affected by the contents of this SIL, revises the effectivity, and adds compliance, man-hours, and log book entry information.

5.    COMPLIANCE:

At owner/operator option, the keyway may be shimmed as required in accordance with the procedure provided in paragraph 6.

6.    PROCEDURE:

Before installing the 28-13142-1 key into the slot in the pinion, check that the key slides free through the keyway in the clutch. If it does not slide through, the key must be filed slightly on one side to allow proper fit. There should be 0.0005 to 0.001 inch clearance between key and clutch housing keyway.

Then place the key in the pinion slot; using a feeler gauge, measure the gap between the side of the key and the keyway. Divide this measurement in half to give the thickness of shim stock required as the key will be placed between the shim stock. Example: Measurement of 0.004 uses 0.002 shim stock.

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Cut shim stock 2 inch long x 1-1/4 inch wide. Place the key in the center of shim stock and tap the assembly into the keyway with a plastic mallet. The shim stock should fold up on each side of the key. When key is seated, trim the shim stock with a razor knife following the edge of keyway on the pinion shaft. The razor edge will score the shim stock which can then be removed by bending it back and forth.

NOTE: There must be a firm press fit between the key and the pinion key slot. If not, increase shim thickness and reinstall to obtain the required fit.

7. PARTS: N/A
8. SPECIAL TOOLS: N/A
9. MAN-HOURS: 1 hour
10. WARRANTY: N/A
11. WEIGHT CHANGE: N/A
12. LOG BOOK ENTRY: Record action taken per this SIL in the log book.
13. REPETITIVE ACTION: N/A