

# **Bell Helicopter** **TEXTRON**

A Subsidiary of Textron, Inc.

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**INFORMATION LETTER 222-02-17  
222U-02-12  
230-02-07  
430-02-32**

**TO:** All Owners/Operators of Bell 222/230/430 Helicopters

**SUBJECT: TAIL ROTOR PITCH CONTROL ASSEMBLY INSPECTION**

This Information letter is issued to advise owners and operators of a recent occurrence affecting the tail rotor pitch control assembly on a 430 helicopter.

Bell Helicopter Textron has received one report that a tail rotor pitch control assembly had to undergo extensive repairs, which resulted in significant aircraft downtime. Secondary damage requiring removal of the T/R gearbox for the replacement of the wear sleeve on the T/R gearbox output shaft was also reported. The costly repairs and the lost revenue hours associated with the reported problem could have been prevented through careful attention while performing routine scheduled maintenance.

Operators are reminded that an inspection of the tail rotor pitch control assembly for condition and security is specified in the preflight check contained in the rotorcraft flight manual and in the 150-hour scheduled inspection contained in the maintenance manual.

If the condition of the tail rotor pitch control assembly is determined to be suspect when performing the 150-hour scheduled inspection or during the preflight check, a more detailed inspection should be carried out.

When inspecting the condition of the tail rotor pitch control assembly and its interfacing parts, particular attention should be paid to the following areas:

- Excessive radial play between the pitch control assembly and the tail rotor gearbox output shaft due to a worn guide bearing P/N 222-312-712-001 or due to the liner being debonded from the guide bearing outer race. Radial play of 0.018 inch (0.5080 mm) and above (measured on the O.D. of the housing assembly P/N 222-012-716-005) is considered excessive
- Worn area(s) on the T/R gearbox output shaft wear sleeve P/N 222-042-443-103
- Worn or rough crosshead bearing set P/N 222-312-719-001
- Binding or rough T/R counterweight bellcrank(s) due to worn bearings P/N 222-312-718-001
- Unbonded bearing P/N MS27641-4 (upper) in the lever assembly P/N 222-012-715-101
- Worn inner race P/N 222-012-714-001 in the idler assembly P/N 222-012-713-001
- Worn bearings in the T/R counterweight links
- Worn bearings in the T/R pitch links

Any evidence of wear on the T/R gearbox output shaft wear sleeve or excessive radial play of the tail rotor pitch control assembly on the T/R gearbox output shaft requires disassembly of the tail rotor pitch control assembly for a detailed inspection of the guide bearing P/N 222-312-712-001.