

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

A Subsidiary of Textron, Inc.

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## **INFORMATION LETTER 407-01-66**

**TO: All Owners/Operators of Bell 407 series Helicopters**

**SUBJECT: TAIL ROTOR DRIVESHAFT BEARINGS 407-340-339-101 AND –  
103, GREASING FREQUENCY OF**

It has come to the attention of Bell Helicopter that some operators have possibly over greased the tail rotor driveshaft bearings 407-340-339-101/-103. The purpose of this bulletin is to clarify the greasing schedule of the subject bearings and reduce the possibility of over greasing the bearings. Excessive greasing can create an undesirable condition in the bearing and should be avoided.

First, some operators believe that if greasing the tail rotor driveshaft bearings every 25 hour is good, then greasing at every 5 hours is better. This maintenance practice is acceptable (example: swashplate bearings or a 206 main rotor hub when the helicopter is flying in rain). However in this specific situation it is not recommended to reduce the published interval as it will lead to over-greasing the bearing.

An over-greased bearing will run hotter initially and will run hotter for a longer period of time compared to an adequately greased bearing. This can cause damage to the bearing components and deteriorate the grease lubricating agents.

Second, it is also important for the bearing not to be over-filled with grease at each greasing interval. The following instructions will provide the correct amount of grease to the tail rotor driveshaft bearings and eliminate possible over-filling.

1. At each schedule servicing-interval, grease the bearing 407-340-339-101/-103 with the grease ROYCO 13 per MIL-G-25013 as follows:
  - a. Use a dean lint-free cloth and wipe away the dirt and the accumulated grease that has come out from around the seal lips during operation. Apply a light pressure so that the dirt and used grease is not forced back into the bearing.

**CAUTION**

DO NOT USE AN AIR-OPERATED GREASE GUN.  
DO NOT OVER-FILL THE BEARING WITH GREASE.

- b. Make sure the grease gun you use is thoroughly clean of contaminants or grease other than ROYCO 13.
- c. Use a clean lint-free cloth and clean the hanger grease fitting.

- NOTE -

Do not turn the tail rotor driveshaft during greasing.

- d. Use a smooth low pressure stroke and inject the grease into the grease fitting until the first sign of purging is seen. Cease further lubrication at this point.
- e. Turn the tail rotor driveshaft through three to four turns.
- f. Use a lint-free cloth and clean the excess grease that has come out the bearing seal plate lips. Apply a light pressure so that the expelled grease is not forced back into the bearing.

- INFORMATION NOTE -

It is normal for bearings that have just been greased to run hotter initially. After some run-in time the bearings should stabilize at a lower temperature.