

Bell Helicopter **TEXTRON**

A Subsidiary of Textron, Inc.

December 16, 2003

INFORMATION LETTER 214ST-03-18

TO: All Owners/Operators of Bell 214ST Helicopters

SUBJECT: P/N 214-040-825-001 OIL SEAL REPLACEMENT

The P/N 214-040-825-001 Seal is utilized in three locations on the 214ST helicopter, in the transmission tail rotor output quill (P/N 214-040-023-101), the intermediate gearbox input quill (P/N 214-040-009-103), and the intermediate gearbox output quill (P/N 214-040-009-105).

As part of Bell Helicopter's efforts of improving the performance and serviceability of its gearbox seals, the P/N 209-340-260 Seal has been developed to replace the P/N 214-040-825-001. This new seal incorporates an improved compound and design highlighted by a helical ribbed seal lip. The helical ribs, coupled with the direction of rotation of the component on which the lip rides, creates a "pumping" action that directs the oil back into the gearbox during operation. This movement keeps a continuous flow of "fresh" oil on the lip and helps prevent the coking which can occur in conventional seal designs where the oil is left, more or less, static against the lip.

P/N 209-340-260-101 Seal replaces the 214-040-825-001 Seal in the transmission tail rotor output quill and the intermediate gearbox output quill applications only. P/N 209-340-260-103 Seal replaces the 214-040-825-001 Seal in the intermediate gearbox input seal application only. Due to the helical rib lip design, installing the -101 Seal in the -103 location or the -103 seal in the -101 locations will result in oil leakage.

Application of a small amount of Mobil 28 grease between the sealing (inner) lip and the dust (outer) lip continues to be recommended to help prevent lip burning during start-up.