

INFORMATION LETTER

206L-18-102 15 October 2018

TO: All owners and operators of Model 206L-1, 206L-3 and 206L-4 helicopters

SUBJECT: AIR COMM CORPORATION SERVICE BULLETIN 206EC-18-07, BELL 206 AIR CONDITIONER SPLINE INSPECTION

The purpose of this Information Letter is to achieve complete distribution of the attached supplier bulletin SB 206EC-18-07 Revision A to the current affected model Technical Publications distribution list on record by Bell.

For any questions regarding this letter, please contact:

Air Comm Corporation Email: <u>service@aircommcorp.com</u> Phone: +1-303-440-4075



Service Bulletin

Title: SB206EC-18-07; Bell 206 Air Conditioner Spline Inspection

Date: July 24, 2018

Applicability:	Bell Model 206 L-4 (including 206L-1+ and 206L-3+) equipped with the Air Comm Corporation air-conditioning system installation part numbers: 206EC-204-1, 206EC-204-2, 206EC-208-1, 206EC-208-2 206EC-210-1, 206EC-210-2, 206EC-210-3 206EC-212-3, 206EC-212-4
Reference:	FAA / STC # SH2750NM, Bell 206L4 Air Conditioning System.

Compliance: Recommended inspection within 50 hours.

A. Discussion:

This service bulletin requires removal of the Air Comm Corporation Drive Ring p/n S-3522EC-2 for inspection of the drive ring spline teeth and the mating spline teeth of the oil cooler shaft p/n 206-040-320-xx.

Field reports have found a number of Bell Model 206 L-4 aircraft with the Air Comm Corporation air conditioning system that have had excessive spline tooth wear and/or damage of both the ACC drive ring spline and to the respective mating area of the oil cooler shaft spline. The reported wear did not affect the tail rotor drive adapter spline or the respective mating area on the oil cooler shaft spline.

The ACC drive ring normally acts only as a secondary locking feature for the ACC drive pulley that is threaded and torqued onto the oil cooler shaft. The compressor load on the pulley is in the direction of tightening and the pulley was found to be secure and operating normally on the installations with reported ACC drive ring spline wear.

The design of the drive pulley and drive ring has been in service since year 1993. The root cause of the wear is still under investigation and Air Comm Corp requests feedback on any prior issues, repairs or replacements with the ACC drive ring and oil cooler shaft.

B. Approval:

The technical aspects of this Service Bulletin are based on FAA approved data.

C. Weight & Balance:

This service bulletin has no effect on the weight and balance.

Revision	Issue Date	Inserted By	Approved by	Description of Changes
NC	July 24, 2018	CRP/TLW	MFK	Initial Release
А	August 2, 2018	CRP/TLW	MFK	Incorporated comments from Bell



D. Procedure:

Inspection:

- 1. Inspect the air-conditioning compressor drive belt tension and condition per the ACC maintenance manual. Note whether the belt tension is below, in or above specification.
- 2. Inspect the general condition of the drive pulley and surrounding components. Remove the belt tension prior to disassembly of the drive line components.
- 3. Remove the forward short shaft assembly and the spline adapter per the Bell 206 BHT-206L1-MM, BHT-206L3-MM, or BHT-206L4-MM maintenance manual as applicable.

NOTE: Due to the close proximity of the drive coupler to the compressor drive ring and pulley assembly, it is necessary to disassemble the driveshaft per the aircraft's maintenance manual to perform the inspection.

- 4. Remove the drive ring p/n S-3522EC-2 and visually inspect the drive ring spline teeth for signs of fretting or wear. Use the Bell wear criteria in the BHT-206L-CR&O component repair and overhaul manual for the drive adapter spline as the evaluation criteria for the ACC drive ring spline.
- 5. If no unacceptable wear is found on the drive ring, then proceed to step 6, else proceed to step 9.
- 6. Visually inspect the mating area spline teeth on the oil cooler shaft assembly for signs of fretting or wear per the Bell wear criteria. Ensure the spline is within the wear tolerances of the Bell BHT-206L1-MM, BHT-206L3-MM, or BHT-206L4-MM maintenance manual or the BHT-206L-CR&O component repair and overhaul manual as applicable.
- 7. If no unacceptable wear is found on the shaft assembly, then proceed to step 8, else proceed to step 9.
- 8. If no damage or unacceptable wear is found, then reassemble all of the components per the Bell BHT-206L1-MM, BHT-206L3-MM, or BHT-206L4-MM maintenance manual as applicable and ACC maintenance manual for return to service and proceed to step 10.
- If unacceptable wear is found on the drive ring or oil cooler shaft assembly, then replace the worn components per the Bell BHT-206L1-MM, BHT-206L3-MM, or BHT-206L4-MM maintenance manual or the BHT-206L-CR&O component repair and overhaul manual as applicable and the Air Comm Corp service manual prior to return to service.
- 10. Make log entry that this service bulletin SB206EC-18-07 has been performed.
- Contact Air Comm Corporation Service Department to report the results of the inspection whether damage or no damage is found. ACC requests additional information including
 aircraft serial number and the flight hours since original STC installation, 2) the flight hours since last hanger bearing replacement or ACC drive ring replacement and 3) any supporting information such as belt tension, wear photos, or other data.
- 12. Please email inspection results to ACC service department at: <u>service@aircommcorp.com</u>.





Figure 1: Drive shaft assembly