ACC AIR COMM CORPORATION

Service Letter

FAA-DER APPROVED

Service Letter: No. 346

Subject: Bell 427 Air Conditioner Alternate Compressor Belt.

Date: 10 June, 2004

Applicability: Bell Helicopter Model 427equipped with ACC Air Conditioner system S/N 56022 & S/N 56029.

Reference: F.A.A. / S.T.C.

Compliance: At the discretion of the operator.

Discussion: In an effort to extend the operational life of the Compressor Drive belts on the Bell 427, Air Comm Engineering has selected an alternate drive belt.

Approval: The Technical aspects of this Service Letter are FAA / DER approved.

Bill of Materials of Item to be **removed**:

Item	Part Number	Description / Nomenclature	Remove
1	3VX500K (Gates)	Air Conditioner Compressor Drive Belt	1

Bill of Materials of item to be **installed**:

Item	Part Number	Description / Nomenclature	Install
1	15506 (Goodyear)	Air Conditioner Compressor Drive Belt	1

Contact the ACC Service Department to obtain the parts listed above to complete this Service Letter at: Phone 303-440-4075, or Fax 303-440-6355.

1. REMOVAL, REPLACEMENT & ADJUSTMENT OF COMPRESSOR DRIVE BELT

REMOVAL

A. It is necessary to remove the main rotor transmission cowling to gain access to the Compressor and Drive Belt for replacement and adjustment procedures.

B. Cut safety wire on the Compressor Belt Tensioning Link and the Belt Tensioning Bolt, and loosen the respective Jam Nut(s).

C. Before attempting to adjust the drive belt tension, insure that the compressor mounting / attaching bolts have been loosened to allow free movement of the compressor body on the compressor mount.

D. Remove the first tail rotor driveshaft segment in accordance with the Bell Helicopter, BHT-427MM, Chapter 63-00.

E. Adjust the Belt Tension Link to loosen the belt, and remove from aircraft.

(303) 440-4075 Boulder Municipal Airport, 3300 Airport Road, Boulder, CO 80301 Fax (303) 440-6355

REPLACEMENT

A. Replace the first tail rotor driveshaft segment in accordance with item D, above.

B. Replace the drive belt in the reverse order of its removal.

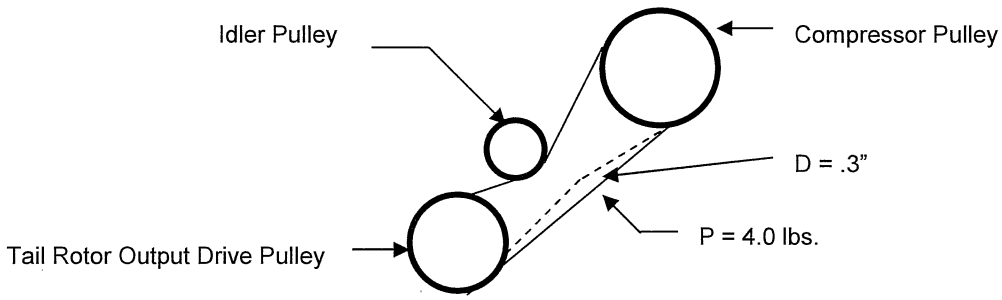
ADJUSTMENT

NOTE

Proper belt tension is important to insure a long belt service life and to avoid excessive loads on the compressor, and bearing assemblies.

A. The correct belt tension for the 3/8" (10mm) belt is 49 lbs. (22 kg.) This can be achieved with the aid of a **belt tensioning tool** (Kent-Moore® BT-33-73F Belt Tension Gauge, or Equivalent). (This is the preferred method of obtaining proper belt tensioning).

B. An alternate method is to observe a .3" (7.6 mm) belt deflection when 4 lbs (1.8 kg.) is applied to the midpoint of the belt span.



C. Tighten the Belt Tension Link Check Nuts and the Compressor pivot bolt nut after setting the belt tension.

D. The belt tension should be reset after four to six hours of operation of a new belt.

Weight and Balance

The weight difference between the 3VX500K Belt and the 15506 Belt is negligible and therefore no adjustment in the weight and balance is necessary.

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