

Service Bulletin

Document No.:	SB-EC120-111815		
Title:	Airbus EC120 Air Conditioner Compressor Drive Pulley		
Date:	20 November, 2015		
Applicability:	Airbus Helicopter model EC120 Equipped with the Air Comm Corporation AC kit no. EC120-200-1 thru -5, kit serial numbers EC120-011 and subsequent, or EC120-202-1 thru -4.		
Reference:	 FAA / STC # SR00491DE, Airbus Helicopter EC120 Air Conditioning System. ICA EC120-200M-1 		
Compliance:	Mandatory inspection upon receipt of this bulletin to be accomplished before further flight. Mandatory re-inspection each 100 flight hours subsequently.		

A. Discussion:

The air conditioning compressor drive pulley, mounted to the Thomas coupling just aft of the main rotor brake caliper, is an integral piece of the power transmission components for the tail rotor. A field report has indicated that the spline joint on the compressor drive pulley can wear beyond its capability to ensure power transmission to the tail rotor shaft. It is believed to be an isolated occurrence, however since the integrity of the installation is flight critical it is required that the pulley-drive shaft interface be inspected. If excessive wear is found, the aircraft must be made inoperable until the effected parts are replaced.

B. Action:

If the pulley shows excessive wear, contact Air Comm Corporation Service Department. Note that the kit serial number is located on the compressor mount. Phone 303-440-4075, Fax 303-440-6355, or E-mail service@aircommcorp.com

C. Approval:

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

D. Weight & Balance:

There is no impact to the weight and balance.

Revision	Issue Date	Inserted By	Approved by	Description of Changes
NC	11/18/15	JMB	NS	Initial Release
A	11/20/15	JMB	t TO	Changed compliance instructions, added reporting info to steps 4 & 5, step 5 required drive shaft inspection, now requires replacement.

E. Inspection Procedure

1) Access the air conditioning compressor and loosen the tensioning linkage on the compressor mount in order to allow the belt to be removed from the drive pulley. Refer to Chapter 7 of Air Comm Corporation ICA document EC120-200M-1.

2) Remove the 3 sets of bolts, cotter pins, and nuts that secure the flange of the compressor pulley to the Thomas coupling. Slide the pulley forward on the drive shaft enough to ensure disengagement from contact with the coupling. Refer to Figure 1 below.

3) Visually inspect the pulley and drive shaft spline for indications of excessive wear or chatter. Inspect the fit of the pulley on the drive shaft by manually twisting the pulley in all axes. There should be no perceptible backlash. If backlash is found, proceed to step 5.

4) If no backlash is found, the inspection is complete and the coupling fasteners and compressor belt may be re-installed and the aircraft returned to service. Report the findings including the information in the list below to ACC per the information provided in section B.

5) Except for allowable fore-aft movement of the pulley on the drive shaft splines, if any detectable motion is found (looseness of the joint), indicating wear of the splined joint, the pulley and drive shaft must be removed and replaced. Remove the Thomas coupling from the TRD shaft as shown in Figure 2. The forward tail rotor shaft must also be removed per Airbus service instructions in order to gain enough clearance to remove the pulley. Remove the pulley and contact ACC for a replacement. Contact Airbus for a replacement drive shaft and instructions for replacement procedures. Report the findings including the information in the list below to ACC per the information provided in section B.

Report the information below to Air Comm Corporation per steps 4 & 5 above:

1) Condition of the splined joint

2) Flight hours since the AC kit was installed

3) Aircraft Serial Number

4) Pulley Serial Number (etched on the face of the pulley)

5) Splined drive shaft serial number

6) Primary operating location of the aircraft

7) Approximate average percentage of time the air conditioner is used

8) Operator and maintenance facility contact information

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Figure 1. Compressor pulley installed



Figure 2. Compressor pulley installed, Thomas coupling removed