

Service Letter

FAA-DER APPROVED

Service Letter: No. 312

Subject: Air conditioning system Condenser Blower Motor Assembly change

Date: June 17, 1996

Applicability: Bell Helicopter Model 407

Reference:

1. F.A.A./S.T.C. # SR00222DE, Bell 407 Air Conditioning System.
2. Drawing # : 407EC-700.

Compliance: Optional, at the discretion of the operator.

Background: Air Comm Corporation maintains a program to refine and upgrade its entire product line. To improve the condenser blower operation, an alternate condenser blower assembly has been developed. The new condenser blower assembly will be offered as a replacement for previous installations when the existing blower motor assembly needs replaced. This document provides a Bill of Material listing and Instructions to install the condenser blower assembly in the air conditioning system.

Condenser Blower Assembly Installation:

Purpose: To improve the performance of the condenser in the Bell 407 Series helicopters, and offer a replacement assembly when required.

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Condenser Blower Assembly Installation Continued :

Bill of Materials:

Item	Part Number	Description	Qty.
1	ES73186-1	BLOWER ASSY.	1
2	MS24693-S-50	SCREW	6
3	AN364-832	NUT	6
4	AN960-8L	WASHER	6
5	S-7520EC-20	BRACKET	2
6	AN3H-3A	BOLT	4
7	AN960-10	WASHER	6
8	MS24693-S-271	SCREW	2
9	AN970-3	WASHER	2
10	AN364-1032	NUT	2
11	CTB-4	TYWRAP	6

Condenser Blower Assembly Installation Instructions:

1. Disconnect power to the condenser blower motor by pulling the condenser blower circuit breaker.
2. Remove the 13 screws around the perimeter of the scoop assembly, located in front of the condenser coil cut-out. (aft belly of the helicopter)
3. Once screws are removed, the condenser blower/scoop assembly should swing forward on the hinge allowing access to the blower motor assembly.

NOTE: If replacing an existing blower assembly with a plastic fan shroud, remove the four AN3H-3A bolts holding the shroud to the brackets. Install the new blower assembly in the same position as the one removed, safety wire the bolts, then skip to note 13.

4. Remove the two cotter pins and nuts holding the air scoop in position on the actuating arm. You may want to note the position of the washers between the scoop mounting brackets and the adjusting clevises so that it may be reassembled in the same manner.
5. If the hinges for the actuating arm are mounted to the blower assembly, the bolts holding the hinges in place must be removed.
6. Swing scoop open and remove the six screws holding the blower shroud in place on the base plate assembly.

NOTE: Discard existing blower mounting brackets and replace with S-7520EC-20 Brackets.

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Condenser Blower Assembly Installation Instructions: (cont)

7. Remove the wires leading from the blower motor to the molex connector by pushing the two male pins from the existing connector.
8. Remove the blower motor / shroud assembly and replace with the new assembly provided.

NOTE: six (6) AN960-10 washers have been provided as spacers for the area between the ES73186-1 Blower assy. and the S-7520EC-20 Bracket. These are used to insure that the blower housing is not deformed in a manner that would allow the fan blade assy. to contact the inside of the blower housing.

9. Bolt new shroud with motor in place, and confirm adequate clearance between the air scoop side panels and the new shroud.
10. Place actuator arm hinges in position as shown and match drill location for new screws.
11. Counter-sink holes on scoop side for the flush screws used to mount the hinges. Bolt the hinges in place using the MS24693-S-271 flush screws, AN970-3 Washers and AN364-1032 nuts.
12. Reassemble the actuator arm and scoop. Confirm scoop side panel clearance in slots by adding the washers on the appropriate sides of the clevises.
13. Connect wires to motor temporarily, and check operation of blower. The blower motor should pull air through the air scoop assembly and into the fuselage when operating. In addition, Check the operation of the scoop actuator for binding or rubbing on the base plate.
14. Once motor and scoop operation is satisfactory, push male pins on the ends of the motor wires in to the molex connector permanently then tywrap to shroud and actuator wires. (Black wire to point of connector - confirm motor direction)
15. Confirm assembly is complete and operating satisfactory, then close the blower motor assembly and bolt back in place with the 13 screws.

Weight & Balance: There is negligible change to the weight of the new blower motor assembly as compared to the one removed.

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If the existing blower had a plastic fan shroud, remove the four AN3H-3A Bolts and replace existing blower assembly with the new assembly. You will not need to remove the scoop from the actuating arm.

ES73186-1 Blower Assy

MS24693-5-50 Screw
AN364-832 Nut
AN960-8L Washer
(6 Places)

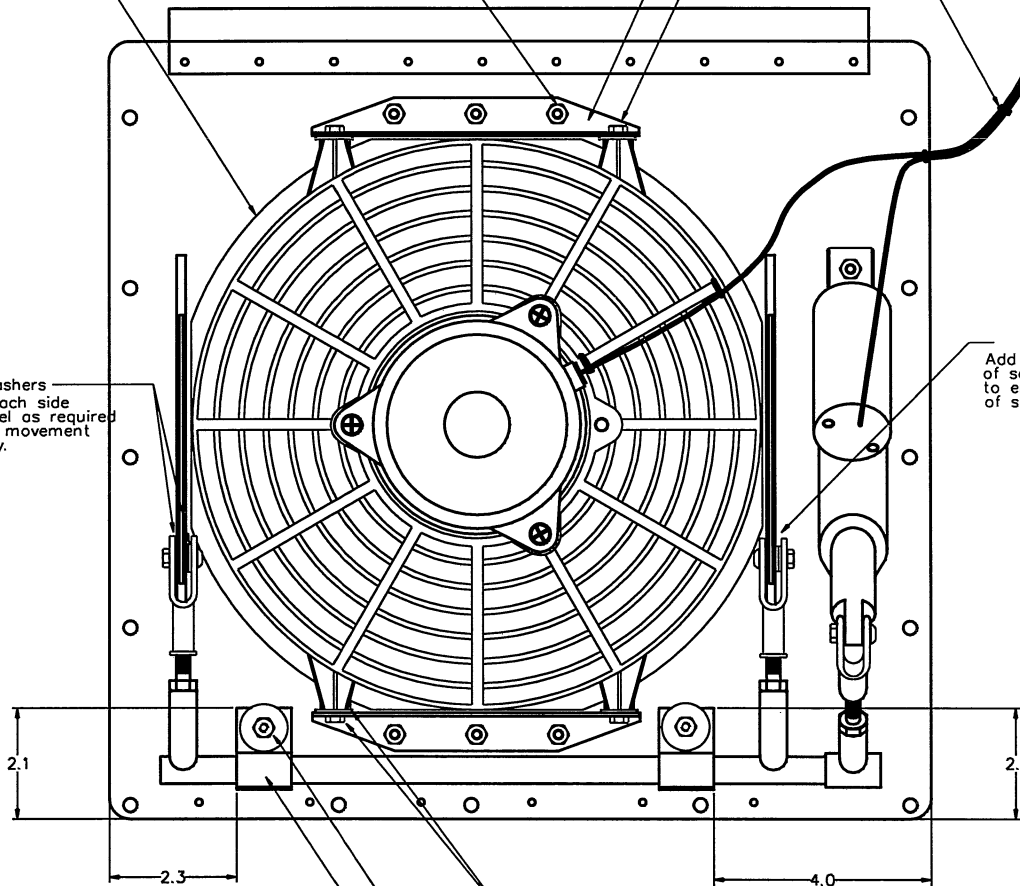
S-7520EC-20 Bracket
(2 Pls ref)

CTB4 Tywrap
(as Req)

BLACK BLUE

AN960-10 Washers
Add Washers to each side of scoop side panel as required to ensure smooth movement of scoop assembly.

AN960-10 Washers
Add Washers to each side of scoop side panel as required to ensure smooth movement of scoop assembly.



AN3H-3A Bolt (4 Places)
Add AN960-10 Washers on shroud side as required to ensure blower shroud is not deformed when bolts are torqued.

MS24693-5-271 Screw (Csk for side)
AN970-3 Washer
AN364-1032 Nut
(2 Places)

If the existing blower had a metal fan shroud, the scoop hinges must be relocated as shown.

If the existing blower had a plastic fan shroud, the scoop hinges will not need relocated.

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