



S.A. 31T-8

February 14, 1983

Modification FAA Approved

To: Piper Corporate Aircraft Centers/Owners

Subject: Airconditioning Condenser Fan Impeller Replacement

Models Affected: PA-31T3 T-1040

Serial Numbers Affected: 31T-8275001 through 31T-8275011, 31T-8275015, 31T-8275017, 31T-8275025

Compliance Time: (Affects only aircraft with airconditioning installed).
Within the next 100 hours of operation or at the next scheduled inspection event, whichever occurs first.

Purpose:

Field reports indicate that a number of Cheyenne I's and II's have experienced failures of the condenser fan impeller, Piper Part Number 55299-02. Due to the similarity of installation in the T-1040 aircraft, it is possible that the affected aircraft may also be susceptible to this problem. Failure of this impeller may cause damage to the condenser and other installations in the vicinity of the fan.

This Service Release announces the availability of a new improved Condenser Fan Impeller, Piper Part Number 460 102 (29E57-1), to replace the existing impeller, Piper Part Number 55299-02.

Instructions:

1. Remove the top section of cowl from the right engine.
2. Remove the condenser discharge/access panel from the top of the right nacelle.
3. Disconnect the electrical leads from the fan motor (Part Number 51349-00) and loosen the set screw on the impeller (Part Number 55299-02).
4. Remove the firewall motor cover (Part Number 51128-00).
5. Make a slip mark on the motor and clamp at the forward end of the clamp.
6. Loosen the motor clamp, slide the motor forward, and remove the tinnerman nut from the end of the shaft.
7. Replace the old impeller with the new Part Number 460 102 (29E57-1) impeller, making sure the fan shaft boss is toward the condenser. Remove any rust as necessary to facilitate installation.
8. Align the impeller on the motor shaft so that one of the set screws will center on the flat of the shaft. Lightly tighten the set screws so as to allow movement fore and aft on the motor shaft.
9. Position the motor in its clamp at its previously marked location, and lightly tighten the clamp.

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10. Position the impeller on the motor shaft so that aft "face" of the impeller is not less than 1 7/8 inches from the condenser. Make a slip mark on the motor shaft at the impeller's location.
11. Loosen the motor clamp and again slide the motor forward, making sure the impeller doesn't slide on the motor shaft.
12. Tighten the set screws in the fan boss and install a new Part Number 506 501 tinnerman nut (C9635-012-1) on the end of the motor shaft.
13. Reposition the motor in its clamp back to its originally marked position and tighten the clamp. Make sure the face of the impeller is 1 7/8 inches from the condenser, reposition the motor in its clamp as necessary. Refer to sketch for dimensional reference.
14. Reinstall firewall motor cover, and reconnect the motor wires. Make sure wires are connected as shown in the affected wiring diagram in the Service Manual.
15. Make appropriate logbook entry stating compliance with this release.

Material Required:

One (1) each per aircraft, Condenser Fan Impeller, Piper Part Number 460 102 (29E57-1).

One (1) each per aircraft, C9365-012-1 Tinnerman Nut, Piper Part Number 506 501.

Availability of Parts:

Your Piper Field Service Facility.

Effectivity Date:

This Service Release is effective upon receipt.

Summary:

Please contact your Piper Field Service Facility to arrange compliance with this Service Release in accordance with the Compliance Time, above.

Credit is available for material and for up to three (3) hours labor for a period of time not to exceed 180 days from the date of this Service Release. Comply with Product Condition/Compliance Report Procedure.

