

Engine Fan Dynamic Balancing Procedure

(Vibrex 2000 and Enstrom Photocell Bracket, T-0153-1)

1. Remove baggage box.
2. Install photo cell and bracket (T-0153-1) on pylon. (Refer to Figure 1)

WARNING

Prior to moving cooling fan, ensure the magneto switch is OFF and the mixture is in the idle cutoff (ICO)/full out position.

3. Install reflective tape on the fan as from center as possible, but not on the fan blade.
4. Install velocimeter on Starter mount stud with the connector pointing down.
5. Connect the photo cell and velocimeter to the balancing equipment in accordance with manufacture's instructions.
6. Apply power to the photocell and verify alignment with the reflective tape. Adjust the position of the photocell as required.
7. Secure the photocell and velocimeter cables to the aircraft structure.

CAUTION

Ensure the fan area is clear and free of debris.

8. Run engine and check balance at 2500 rpm with the rotor disengaged.
9. Record ips and clock angle.
10. Shut engine off.

WARNING

Prior to moving cooling fan, ensure the magneto switch is OFF and the mixture is in the idle cutoff (ICO)/full out position.

11. Position fan assembly so that the reflective tape fires the photocell. This is the 12 o'clock position.

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NOTE

When determining clock angle position, remember that the fan rotates counter-clockwise.

12. The clock angle which was read from the balancing equipment is the heavy point. Opposite this clock angle is the light side.
13. Add or Subtract weight as required to achieve an ips value to below .2 ips.
14. Weight is placed on forward side of fan. Remove the bolts, nuts, and washers from the heavy side and replace with AN3-5A bolt, two (2) AN960-10L washers, and a AN364-1032A nut and/or remove the AN960-10L washers from the light side and replace with AN960-10 washers. Do not use more than three (3) AN960-10 washers per bolt. Ensure that there is proper bolt length.

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Figure 1

CAUTION

Secure the photocell and velocimeter cables to the structure and ensure the fan area is clear and free of debris.

NOTE

Position the photocell and bracket on pylon so that the photocell will “fire” with the reflective tape at the low point on the fan.