

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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<http://www.faa.gov/aircraft/safety/alerts/SAIB>

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you of an airworthiness concern regarding **Piper Models PA-28R-200 Arrow**, serial numbers 28R-35001 through 28R-35820 or 28R-7135001 through 28R-7135229; and **PA-28R-200 Arrow II** serial numbers 28R-7235001 through 28R-7635545 airplanes. This SAIB explains and clarifies information between the requirements of Airworthiness Directive (AD) 2002-09-08 and Piper Service Bulletin 1164 concerning remarking of the tachometer to avoid continuous operation between 2,000 and 2,350 revolutions per minute (rpm).

Background

On May 5, 2006, The New Piper Aircraft, Inc. released Service Bulletin 1164 addressing a discrepancy between the tachometer marking for restricted continuous operation and the limitations contained in the airplane and propeller type certificate data sheets on certain Arrow and Arrow II aircraft. Both the propeller and airplane data sheets restrict continuous operations between 2,000 and 2,350 rpm due to adverse vibratory characteristics between the engine and propeller, while the tachometer may have been marked with a restricted range from 2,100 to 2,350 rpm.

Appropriate tachometer marking and placarding is presently required by AD 2002-09-08 for the PA-28R-200 aircraft in paragraph (c), which states:

(c) If airplanes with propeller models ()HC-C2YK-() () / () ()7666A-(), installed on (undampere) 200 horsepower Lycoming IO-360 series engines, have not been modified in accordance with AD 77-12-06R2, then modify the airplane instrument panel according to the following subparagraphs before further flight. Airplanes include, but are not limited to, Mooney M20E and M20F (normal category), Piper PA-28R-200 (normal category), and Pitts S-1T and S-2A (acrobatic category).

(1) For normal category airplanes, before further flight, remove the present vibration placard and affix a new placard near the engine tachometer that states:

"Avoid continuous operation:
Between 2000 and 2350 rpm."

(2) For utility and acrobatic category airplanes, before further flight, remove the present vibration placard and affix a new placard near the engine tachometer that states:

"Avoid continuous operation:
Between 2000 and 2350 rpm.
Above 2600 rpm in acrobatic flight."

(3) For normal category airplanes, re-mark the engine tachometer face or bezel with a red arc for the restricted engine speed range, between 2000 and 2350 rpm.

(4) For acrobatic and utility airplanes, re-mark the engine tachometer face or bezel with a red arc for each restricted engine speed range, i.e., between 2000 and 2350 rpm and between 2600 and 2700 rpm (red line).

Piper released Service Bulletin 1164 regarding installation of a tachometer placard or the replacement of the tachometer with a correctly marked tachometer. The service bulletin also indicates the availability of airplane flight manual revisions covering the expanded restricted engine speed range.

Recommendation

In that the applicability of AD 2002-09-08 is to Hartzell compact series propellers of a

specific hub and blade design and generally lists multiple aircraft makes and models, we want to highlight the specific requirements for engine speed limitations that apply to Piper PA-28R-200 aircraft. We would also like to recommend compliance with the requirements of Piper Service Bulletin 1164 by installing a placard adjacent to the tachometer clearly identifying the restricted operating range of 2,000 to 2,350 rpm, installing a properly marked tachometer, or by remarking the tachometer for the correct restricted range. We further recommend that the applicable Airplane Flight Manual revisions be incorporated as stated in the Service Bulletin.

For Other Information Contact

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