



SAIB: CE-13-26

Date: March 27, 2013

SUBJ: Engine Air Intake System; Air Box Vanes

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners and operators of all **Lavia Argentina S.A. (LAVIASA) Model PA-25 (type certificate formerly held by Piper Aircraft, Inc.) airplanes and Piper Aircraft, Inc. Models PA-25, PA-28-140, -150, -160 and -180** airplanes, of an airworthiness concern, specifically that the vanes of induction system air boxes can break off in flight and lodge into carburetors, which would restrict air flow and reduce engine power.

At this time, this airworthiness concern has not been determined to be an unsafe condition that would warrant AD action under Title 14 of the Code of Federal Aviation Regulations (14 CFR) part 39.

Background

The vanes in the air boxes of the airplanes referenced above are welded into the throat of the air box by the air box's carburetor mount. The vanes are essential to reducing turbulent air flow entering the carburetor in flight. Without their presence, an engine may run rough at altitude. The vanes are not for structural support and their removal is not recommended.

In September of 2012, a vane broke off from the air box of an affected airplane used for agricultural purposes and lodged into the airplane's carburetor, which resulted in a forced landing and substantial structural damage. The report we received indicated the time in service (TIS) of the air box had exceeded the engine time between overhaul (TBO). We have since received a report of pilots preemptively removing air box vanes to prevent such incidents in other airplanes. Currently, there are no requirements or recommendations to inspect vane welds in air boxes that have a TIS greater than engine TBO.

Recommendations

For the owners and operators of Model PA-25 airplanes, all serial numbers, and Models PA-28-140, -150, -160 and -180 airplanes with serial numbers 28-1 thru 28-1760, the FAA recommends the following when the air box TIS reaches engine TBO or before further flight if air box TIS is already over engine TBO, and thereafter at each annual inspection:

1. Remove the air box. .
2. Visually inspect all vane welds with a light source and mirror and record results and airplane TIS.
3. Replace or repair an air box exhibiting cracks within and/or adjacent to the vane welds and record the airplane TIS.
4. Do not remove the vanes from the air boxes of airplanes so equipped.

For Further Information Contact

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