

Service Letter: 455

Date: August 08, 2022

Title: Air box Screw/Bolt Abrasion

Models: All American Champion / Bellanca 8KCAB, 8GCBC, 7KCAB, 7GCBC, 7GCAA, and 7ECA aircraft manufactured prior to 07-15-2022. Excluding any models that have been modified with either, 3-1776 revision C (Assembly - Airbox) or later approved revision, or 4-1637 revision Q (Assembly Carb. Air Box) or later approved revision.

Description: Abrasion of the screws which hold the valve to the shaft in the air box and the bolt which connects the control cable to the valve arm has been reported on several aircraft. This service letter provides for inspection of the air box and replacement of the air box if abrasion is found.

The inspection procedures described herein are not intended to be a substitute for a properly performed 100-hour / annual inspection. Refer to Advisory Circular (AC) 43.13-1B Acceptable Methods, Techniques, and Practices: Aircraft Inspection and Repair.

Inspection: Inspect air box hardware for abrasion within the next 10 hours and at every 100-hour or annual inspection

1. Remove upper cowl.
2. Remove cable ties securing landing light harness to lower cowl if necessary.
3. Remove lower cowl.
4. Remove filter box from air box (210 H.P. 8GCBC or 210 H.P. 8KCAB only).
5. Remove air box. In order to remove the air box the control cable must be disconnected from the valve shaft arm. To disconnect the control cable remove bolt 1-9995. Inspect bolt 1-9995 for abrasion or wear. Working on the air box, remove the two MS35206-247 screws holding the shaft to the valve. Inspect screws for abrasion or wear. Examples of abrasion are shown in Figure 1.
6. If abrasion is noted, replace the air box per the following sections depending on the air box equipped to your aircraft.
7. If abrasion or wear is not present, inspect at next 100-hour or annual inspection.
8. Reinstall air box.
9. Actuate cockpit control. Verify valve is free from binding and full travel is achieved.
10. Reinstall lower cowl in accordance with AMM. Secure landing light harness with VUVT-06M or equivalent cable ties as required.
11. Reinstall upper cowling in accordance with AMM.



Figure 1: Example of Abrasion/Wear of Air Box Hardware

Replacement of 3-1776 Air Box (210 H.P. 8GCBC or 210 H.P. 8KCAB only):

1. Remove air box.
2. Install new 3-1776 revision C or later revision air box. When connecting the control cable to the 11-1075 shaft arm, install the 1-9995 bolt according to Detail B on either 7-1614 revision B or later approved revision for an 8GCBC or 7-1617 revision A or later approved revision for an 8KCAB. See AC-1583 for the updated depiction of Detail B if working off of 7-1614 revision B or 7-1617 revision A.
3. Actuate cockpit control. Verify valve is free from binding and full travel is achieved.

Table I: Parts Required for 3-1776 Air Box Replacement

Part Number	Description	Quantity
3-1776	Assembly-Airbox (revision C or later approved revision)	1

Replacement of 4-1637 Air Box:

1. Remove air box.
2. Install new 4-1637 revision Q or later approved revision air box. Reconnect the control cable to the 1-8950 shaft arm according to the engine installation drawing pertaining to your specific model.
3. Actuate cockpit control. Verify valve is free from binding and full travel is achieved.

Table 2: Parts Required for 4-1637 Air Box Replacement

Part Number	Description	Quantity
4-1637	Assembly Carb Air Box (revision Q or later approved revision)	1

Inspection of Replacement Air Box: Inspect at every 100-hour or annual inspection.