

Service Letter: 439

Date: January 22, 2016

Title: Airbox Inspection

Models: Models 7ECA (S/N 1109-75 and up), 7GCAA (S/N 320-75 and up), 7GCBC (S/N 860-75 and up), 7KCAB (S/N 533-75 and up), 8KCAB (S/N 205-75 and up), and 8GCBC (S/N 182-75 and up) that were originally equipped with a 4-1637 or 4-1637-1 airbox utilizing a 2-2142 valve assembly.

Models 7ECA (S/N 985-74 thru 1108-75), 7GCAA (S/N 280-74 thru 319-75), 7GCBC (S/N 604-74 thru 859-75), 7KCAB (S/N 405-74 thru 532-75), 8KCAB (S/N 120-74 thru 204-75), and 8GCBC (S/N 1-74 thru 181-75) previously modified to current design by installing Service Kit 248A.

Description: This service letter provides for visual inspection the airbox and verification that Service Kit 248A has been installed. The inspection procedures described herein are not intended to be a substitute for a properly performed 100-hour/annual inspection. Refer to Advisory Circular 43.13-1B: Acceptable Methods, Techniques, and Practices: Aircraft Inspection and Repair.

Procedure: Verify following components are installed (reference Figure 1):

- 1) Stamped Steel Cover
- 2) 1-10527 Angle Bracket (2 Req'd)
- 3) 1-10500 Support
- 4) MS21045-08 High Temperature Nut (2 Req'd)

If the above listed items are not present, replace with new 4-1637 (7ECA, 7GCAA, 7GCBC, 7KCAB, 8KCAB) or 4-1637-1 (7GCAA-180, 7GCBC-180, 8GCBC) airbox.

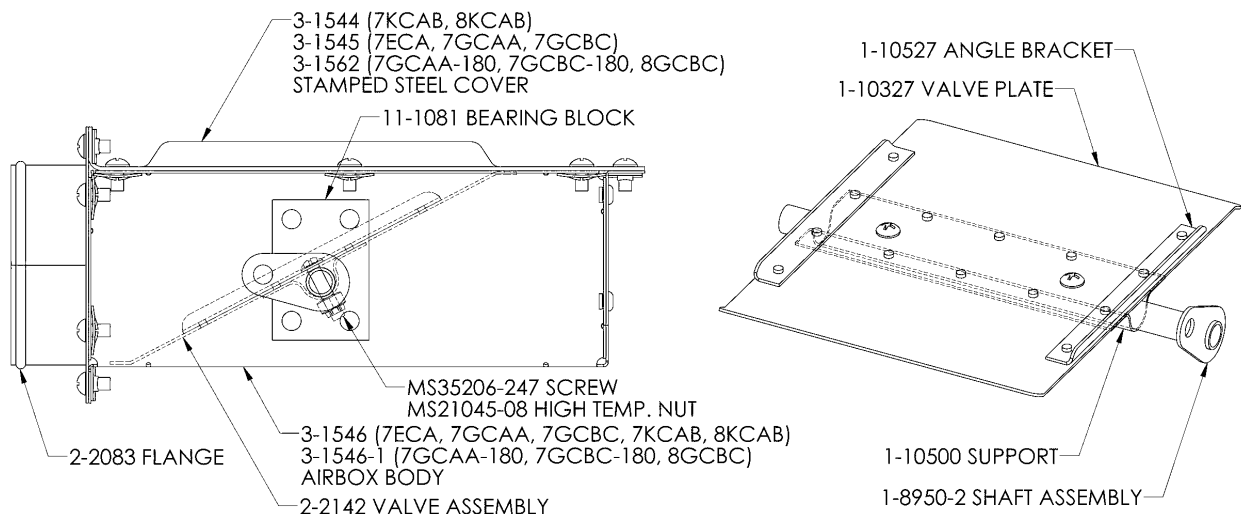


Figure 1, Airbox Assembly / Valve and Shaft Assembly

Visually inspect airbox at every 100-hour or annual inspection. Inspection should be conducted with the valve in the open, mid, and closed positions to assure all components are fully visible. It may be necessary to use a mirror for inspection of the cover to carburetor/servo attachment. Replace damaged or worn components with items listed in Table I.

Inspect airbox as follows:

1. Inspect flange, cover, and airbox body for cracks and fastener security. Cracks may occur at bends in the airbox body and at bearing block attach rivets.
2. Inspect valve assembly for cracks and security of the 1-10527 angle brackets and 1-10500 support. Cracks may occur in the valve plate at spot weld/rivet locations or at the shaft attach points.
3. Verify security of valve to shaft attachment; high temperature nuts must be used.
4. Inspect shaft arm for excess wear at the cable attach hole. Lubricate with LPS 2 or equivalent.
5. Inspect bushing and shaft for excess wear at pivot locations. Lubricate bushings with LPS 2 or equivalent.
6. Actuate cockpit control. Verify valve is free from binding and full travel is achieved.

Table I: Replaceable Components (Order from American Champion as necessary)

Part Number	Description	Quantity
1-8950-2	Shaft Assembly	1
11-1081	Bearing Block	2
2-2083	Flange	1
2-2142	Valve Assembly	1
3-1544	Cover	1 (7KCAB, 8KCAB)
3-1545	Cover	1 (7ECA, 7GCAA, 7GCBC)
3-1546	Airbox Body	1 (7ECA, 7GCAA, 7GCBC, 7KCAB, 8KCAB)
3-1546-1	Airbox Body	1 (7GCAA-180, 7GCBC-180, 8GCBC)
3-1562	Cover	1 (7GCAA-180, 7GCBC-180, 8GCBC)
MS21045-08	Nut	2
MS35206-247	Screw	2