

Service Letter: 440

Date: January 22, 2016

Title: Airbox Inspection

Models: 8KCAB (with a Lycoming AEIO-390 engine)
8GCBC (with a Lycoming IO-390 engine)

Description: This service letter provides for visual inspection of the airbox. 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.

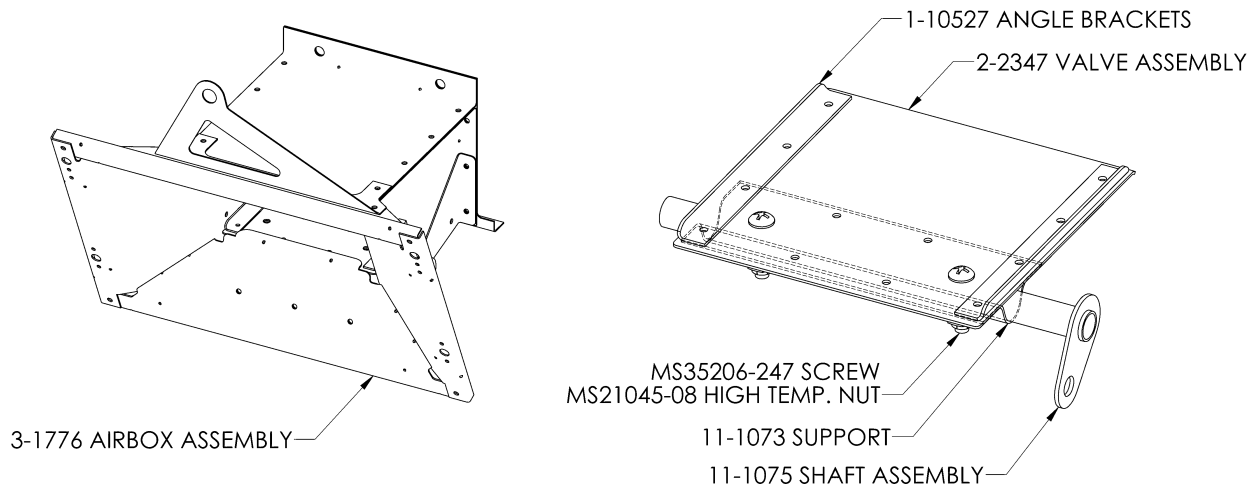


Figure 1, Airbox Assembly / Valve and Shaft Assembly

Visually inspect airbox at every 100-hour or annual inspection. Use a mirror while valve is partially actuated for inspection of lower bearing block attach rivets, the 11-1073 support, and valve to shaft attachment. Replace damaged or worn components with items listed in Table I. If other components are damaged or worn, replace entire 3-1776 airbox assembly with new.

Inspect airbox as follows:

1. Inspect airbox for cracks and fastener security. Cracks may occur at bends and fastener locations. Inspect side panels at bearing block attach rivets. Inspect lower panel using mirror.
2. Inspect valve assembly for cracks and security of the 1-10527 angle brackets and 11-1073 support. Cracks may occur in the valve plate at rivet locations or at the shaft attach points. Inspect 11-1073 support for cracks and security. In addition to viewing support using a mirror, remove lower exhaust shroud screws and view through heat inlet flange.

3. Inspect heat inlet flange for wear and clearance with exhaust shroud. Verify that there is .060 inch or greater clearance between exhaust shroud and heat inlet flange.
4. Verify security of valve to shaft attachment using a mirror while valve is partially actuated; high temperature nuts must be used.
5. Inspect shaft arm for excess wear at the cable attach hole. Lubricate with LPS 2 or equivalent.
6. Inspect bushing and shaft for excess wear at pivot locations. Lubricate bushings with LPS 2 or equivalent.
7. 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
11-1075	Shaft Assembly	1
2-2347	Valve Assembly	1
3-1776	Airbox Assembly	1
MS21045-08	Nut	2
MS35206-247	Screw	2