



- Subject:** Carburetor air box part number 101600
- Models Affected:** PA-18 with STC #SA92NW installed.
- Compliance Time:** At the next regularly scheduled inspection not to exceed the next fifty (50) hours time in service.
- Approval:** The technical contents of the Service Bulletin have been approved by the Federal Aviation Administration (FAA).
- Purpose:** Cub Crafters has determined that there is the possibility of the flapper valve in the carburetor airbox separating from the shaft and lodging itself on the carburetor throat, choking the engine and causing an engine failure. This Service Bulletin will provide instructions for inspection of the airboxes to ensure that they are airworthy.

Instructions:

- 1) Remove engine air filter to gain access to the airbox (Cub Crafters P/N 101600). (Figure 1).



Figure 1 View looking at airbox with filter removed

- 2) Determine the style of airbox installed in the aircraft. There are two styles of airboxes.
 - In the older style, the flapper valve 101610 passes **over** the shaft part number 101608.
 - In the newer style of airboxes, flapper valve 101610 passes **under** the shaft part number 101608.



In order to determine what type of flapper valve is installed on the aircraft, look into the airbox from the front of the aircraft, with the air filter removed.

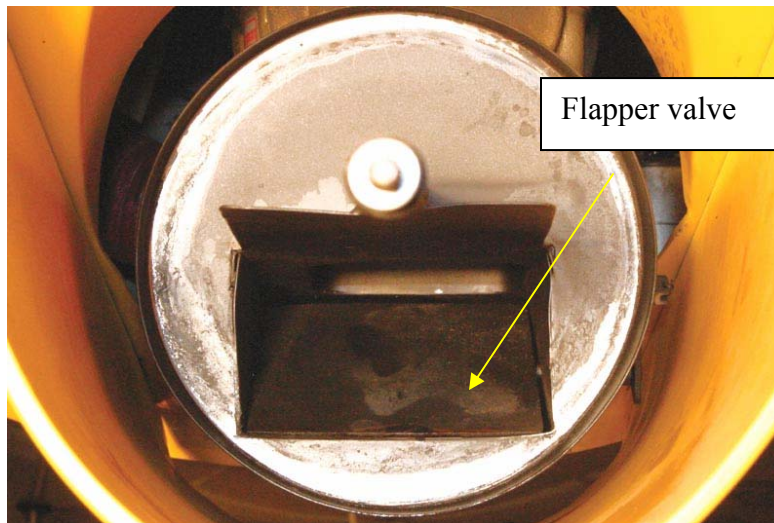


Figure 2 Old style airbox with carburetor heat in cold position

- With the carburetor control in the **cold** position, if the shaft and attachment tabs are **not** visible, it is an **old** style airbox. The flapper valve will appear flat.

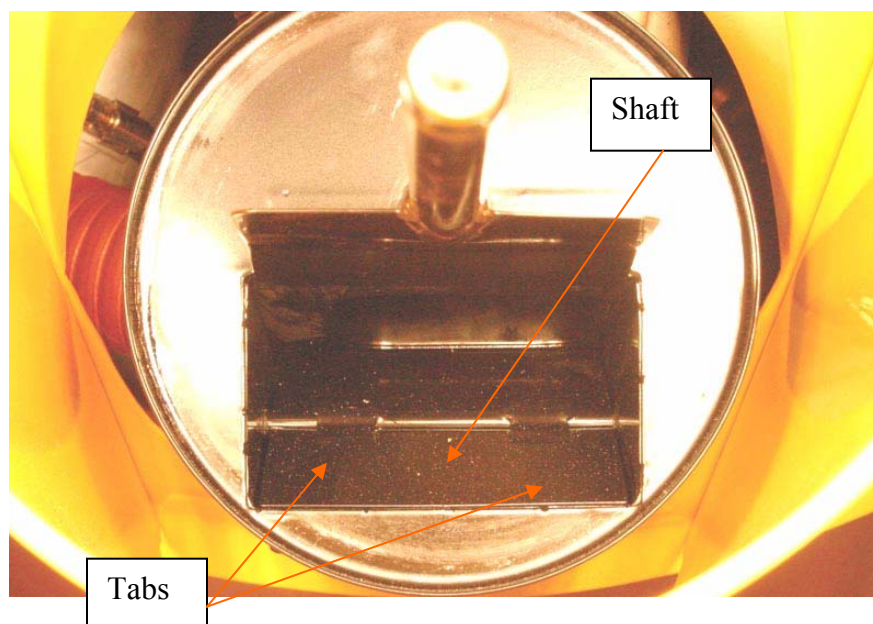


Figure 3 New style airbox with carburetor heat control in cold position



- With the carburetor control in the **cold** position, if the shaft and attachment tabs **are** visible, it is a **new** style airbox.
- 3) Inspect the carburetor heat flapper valve (P/N 101610) for attachment to shaft (P/N 101608) under a strong light and 10x magnification.
- 4) If there is any indication of cracking in the welds that attach the flapper valve to the shaft, remove box and return to Cub Crafters for repair.
- 5) If the airbox is of the **old** style and there is no cracking in the welds that attach the flapper valve to the shaft, inspect every 50 hours thereafter or annually, whichever comes first.
- 6) If the airbox is of the **new** style, and there is no cracking in the welds that attach the flapper valve to the shaft, continue to perform subsequent inspections accordance with latest revision of the instructions for continued airworthiness for the Piper PA-18. (Item B26, Page 1 of Piper document 230 202. For latest version of this document contact nearest New Piper Aircraft Company distributor. A copy of the version printed on December 16, 1988 is attached to this Service Bulletin for reference purposes only).
- 7) Check travel of carburetor heat control. Ensure that the control operates smoothly and stops with no more that 1/4" cushion in the full cold position.

Materials required: None

Availability of Parts: Cub Crafters will exchange old style boxes for new ones at \$388.88, plus the cost of shipping. This is a special 30% discount below list price. In order to qualify for this special price, orders must be placed before July 31, 2004 and the old boxes must be returned to:
Cub Crafters Inc.
1918 South 16 Avenue
Yakima WA 98903

Effective Date: This Service Bulletin is effective March 3, 2004

NOTE: If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify Cub Crafters, Inc. of the address and ownership corrections. Changes may be directed to Cub Crafters, Inc. PO Box 9823, Yakima, WA 98909 or by e-mail to vera@cubcrafters.com and should include the aircraft registration number, aircraft make/model, aircraft serial number, current name and address of owner/operator.

| PIPER AIRCRAFT CORPORATION | | | | | | | | | | | | | | | | | | |
|--|-----------------|--|--|--|-------------|----------------|-----|------|--|---|-----|-----|------|-----------|---|---|---|---|
| INSPECTION REPORT | | | | | | | | | | | | | | | | | | |
| THIS FORM MEETS REQUIREMENTS OF FAR PART 43 | | | | | | | | | | | | | | | | | | |
| Make | PIPER SUPER CUB | | | | Model | PA-18 & PA-18A | | | Serial No. | Registration No. | | | | | | | | |
| Circle Type of Inspection (See Note 1, Page 3) | | | | | Inspector | | | | | Perform all inspections or operations at each of the inspection intervals as indicated by a circle (O). | | | | | | | | |
| 50 100 500 1000 Annual | | | | | 50 | 100 | 500 | 1000 | | | | | | | | | | |
| DESCRIPTION | | | | | DESCRIPTION | | | | | 50 | 100 | 500 | 1000 | Inspector | | | | |
| A. PROPELLER GROUP | | | | | | | | | | | | | | | | | | |
| 1. Inspect spinner and back plate for damage and security | | | | | O | O | O | O | 27. Inspect intake seals for leaks and clamps for tightness | | | | | | | | | |
| 2. Inspect blades for nicks and cracks | | | | | O | O | O | O | 28. Remove, drain and clean fuel filter bowl and screen (drain and clean every 90 days) | | | | | O | O | O | O | |
| 3. Inspect spinner mounting brackets for damage and security | | | | | O | O | O | O | 29. Inspect condition of flexible fuel and primer lines | | | | | | O | O | O | |
| 4. Inspect propeller mounting bolts and safety (Check torque if safety is broken.) | | | | | | | O | O | 30. Replace flexible fuel lines (See AD68-05-01) | | | | | | O | O | O | |
| 5. Recondition propeller (See Note 10.) | | | | | | | O | O | 31. Inspect fuel system for leaks | | | | | | O | O | O | |
| B. ENGINE GROUP | | | | | | | | | | | | | | | | | | |
| CAUTION: Ground magneto primary circuit before working on engine. | | | | | | | | | | 32. Inspect and lubricate fuel selector valve | | | | | | O | O | O |
| 1. Remove engine cowl | | | | | | O | O | O | 33. Inspect vacuum pump, lines and separator | | | | | | O | O | O | |
| 2. Clean and inspect cowling for cracks, distortion and loose or missing fasteners | | | | | | O | O | O | 34. Overhaul or replace vacuum pump (see note 5) | | | | | | | | O | |
| 3. Drain oil sump (see note 6) | | | | | O | O | O | O | 35. Inspect throttle, carburetor heat, and mixture controls for travel and operating condition | | | | | | O | O | O | |
| 4. Clean suction oil strainer at oil change, inspect strainer for foreign particles (see note 6) | | | | | O | O | O | O | 36. Inspect exhaust stacks, connections and gaskets (replace exhaust gaskets as required) | | | | | O | O | O | O | |
| 5. Clean pressure oil strainer, inspect strainer for foreign particles (see note 6) | | | | | O | O | O | O | 37. Inspect muffler, heat exchanger and baffles | | | | | | O | O | O | |
| 6. Inspect oil temperature sender unit for leaks and security | | | | | | O | O | O | 38. Inspect exhaust stack braces | | | | | | O | O | O | |
| 7. Inspect oil lines and fittings for leaks, security, chafing, dents and cracks (see note 12) | | | | | | O | O | O | 39. Inspect breather tube for obstructions and security | | | | | | O | O | O | |
| 8. Clean and inspect oil radiator cooling fins for damage | | | | | | O | O | O | 40. Inspect crankcase for cracks, leaks and security of seam bolts | | | | | | O | O | O | |
| 9. Remove and flush oil radiator | | | | | | O | O | O | 41. Inspect engine mounts for cracks and loose mountings | | | | | | O | O | O | |
| 10. Fill engine with oil per lubrication chart | | | | | O | O | O | O | 42. Inspect all engine baffles for damage and security | | | | | | O | O | O | |
| 11. Clean engine | | | | | | O | O | O | 43. Inspect rubber engine mount bushings for deterioration (see note 5) | | | | | | O | O | O | |
| 12. Inspect condition of spark plugs (clean and adjust gap as required, adjust per Lycoming Service Instruction No. 1042) (see note 7) | | | | | | O | O | O | 44. Inspect condition of fire wall seals | | | | | | O | O | O | |
| 13. Check cylinder compression (Ref. AC 43.13-1A) | | | | | | O | O | O | 45. Inspect condition and tension of generator or alternator drive belt | | | | | | O | O | O | |
| 14. Inspect cylinders for cracked or broken fins | | | | | | O | O | O | 46. Inspect condition of generator or alternator and starter | | | | | | O | O | O | |
| 15. Inspect wiring to engine and accessories. Replace damaged wires and clamps. Inspect terminals for security and cleanliness | | | | | | O | O | O | 47. Lubricate all controls | | | | | | O | O | O | |
| 16. Inspect ignition harness and insulators (high tension leakage and continuity) | | | | | | O | O | O | 48. Complete overhaul of engine or replace with factory rebuilt (see note 5) | | | | | | O | O | O | |
| 17. Check magneto points for proper clearance (maintain clearance at 0.018 + 0.006) | | | | | | O | O | O | 49. Reinstall engine cowl | | | | | | O | O | O | |
| 18. Inspect magneto for oil seal leakage | | | | | | O | O | O | C. CABIN GROUP | | | | | | | | | |
| 19. Inspect breaker felts for proper lubrication | | | | | | O | O | O | 1. Inspect cabin entrance, doors and windows for damage and operation | | | | | | O | O | O | |
| 20. Inspect distributor block for cracks, burned areas or corrosion, and height of contact springs | | | | | | O | O | O | 2. Inspect all plexiglas for cracks | | | | | | O | O | O | |
| 21. Check magnetos to engine timing | | | | | | O | O | O | 3. Inspect upholstery for tears | | | | | | O | O | O | |
| 22. Overhaul or replace magnetos (see note 5, page 3) | | | | | | | | O | 4. Inspect seats, seat belts, security brackets and bolts | | | | | | O | O | O | |
| 23. Check valve clearance at 0.010 on O-290-D engine only (see Lycoming Service Instruction No. 1068A.) | | | | | | O | O | O | 5. Inspect trim operation and adjustment | | | | | | O | O | O | |
| 24. Remove air filter and clean (refer to Owner's Handbook.) (replace as required.) | | | | | | O | O | O | 6. Inspect rudder pedals | | | | | | O | O | O | |
| 25. Drain carburetor and clean inlet line fuel strainer | | | | | | O | O | O | 7. Inspect control stick, torque tube, pulleys and cables | | | | | | O | O | O | |
| 26. Inspect condition of carburetor heat air door and box | | | | | | O | O | O | 8. Inspect flap lever for adjustment and safety | | | | | | O | O | O | |
| | | | | | | | | | | 9. Inspect controls for ease of operation | | | | | | O | O | O |
| | | | | | | | | | | 10. Check landing, navigation, cabin and instrument lights | | | | | | O | O | O |
| | | | | | | | | | | 11. Inspect for burned out fuses. Inspect condition of circuit breakers | | | | | | O | O | O |
| | | | | | | | | | | 12. Inspect instruments, lines and attachments | | | | | | O | O | O |
| | | | | | | | | | | 13. Inspect gyro operated instruments (overhaul or replace as required.) | | | | | | O | O | O |
| | | | | | | | | | | 14. Replace filters on gyro horizon and directional gyro | | | | | | O | O | O |
| | | | | | | | | | | 15. Inspect or replace vacuum regulator filter | | | | | | O | O | O |

Owner _____