

- EFFECTIVE DATE:** This Service Instruction is effective June 6th, 2012.
- SUBJECT:** Oil Breather Tube Residue Buildup
- MODELS AFFECTED:** CC11-160 S/N 00093 AND ON
- COMPLIANCE TIME:** Inspection at the next maintenance action.
- CONTINUED INSPECTION:** Recommended inspection every 50 hours.
- PURPOSE:** There have been instances of solid residue buildup inside the oil breather tube. This service instruction has been created to increase inspection frequency as well as outline the standard cleaning procedure.
- PARTS LISTS:** None required for inspection.

### INSTRUCTIONS FOR INSPECTION:

1. With the aid of a flashlight, inspect the exit of the oil breather tube. It is the small tube located inside of the main exhaust pipe exiting the engine cowling underneath the aircraft. See Figure 1 below.



**Figure 1 – Oil Breather Tube in Exhaust: View Looking Forward**

2. Determine if hard black residue has developed around the interior surface of the oil breather tube. If not, no further action is required.
3. If residue is present, proceed to clean the tube as described in the following section.

### CLEANING OF BREATHER TUBE:

1. Remove engine cowling to gain access to the oil breather hose.
2. Disconnect the breather hose fitting from the engine. Disconnect the breather hose from the oil breather tube/exhaust by loosening the hose clamp. Remove breather hose for access to the oil breather tube. See Figure 2.

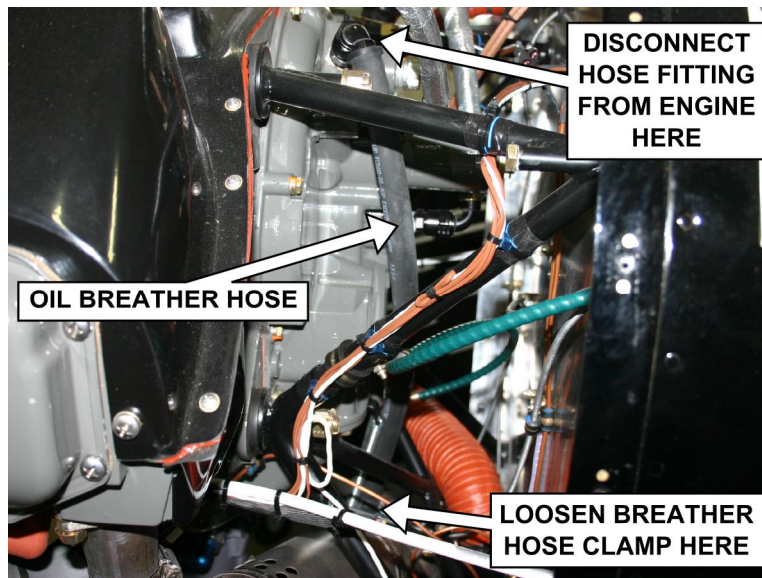
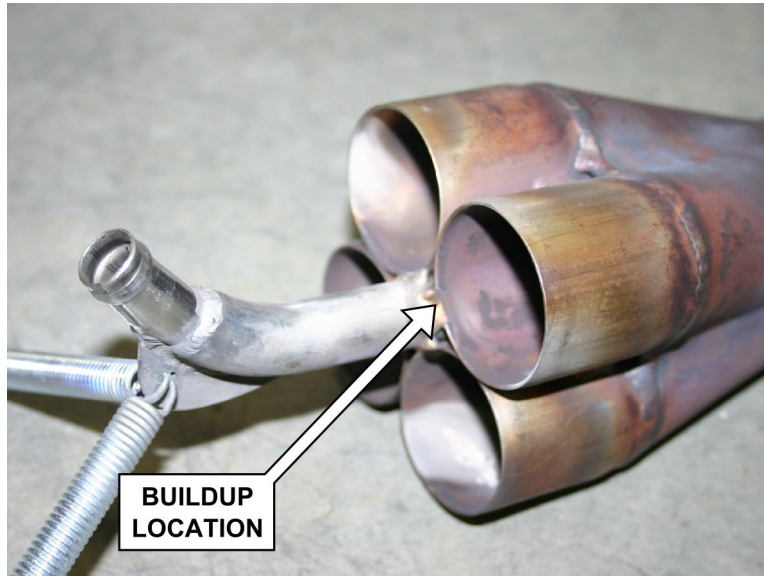


Figure 2 - Oil Breather Hose Removal: Left Side View

3. Proceed to remove any buildup inside of the tube. At its narrowest the oil breather tube's inner diameter is 0.5 inches and 0.6 inches at the widest. Some suggested methods include:
  - Use a handheld stiff wire brush/pipe cleaner to attempt to break up the solid. This method can be used from both ends of the tube.
  - Attach a wire or stiff bristled pipe cleaner, at least 12 inches in length, to an electric drill and access the pipe from the aft (exhaust) end of the breather tube. Work the rotating bristles back and forth, making sure the pipe cleaner does not extend too far past the tube into the engine area.
  - Use a sturdy length of wire and attempt to chip away at the obstruction.

The residue tends to accumulate at the point where the oil breather tube joins the exhaust pipe. This is likely due the sudden change in temperature at this point. See Figure 3.



**Figure 3 – Residue Typically Located Internally Near Point Shown**

4. Compressed air can then be used to clear out any remaining particulates. Blow the air in the direction of exhaust flow (aft) so as to prevent sending residue pieces into the engine area.
5. Inspect weld between oil breather tube and exhaust 4 into 1 to check for cracks. Notify Cub Crafters if crack is found.
6. After cleaning and inspecting the oil breather tube, reattach the oil breather hose and engine cowling.

### UPDATE AIRCRAFT MAINTENANCE MANUAL

1. Change the inspection interval for the Engine: Oil Breather Tube from 100 hours, to Special: 50 Hours and add SI0023 to the "Ref." column. The forms for inspection are located in Section 6.A, Appendix A of the CC11-160 Aircraft Maintenance Manual.

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 of the current owner at:

Cub Crafters, Inc.  
1918 S. 16th Avenue  
Yakima, WA 98903  
1-877-484-7865 or 1-509-248-9491  
[support@cubcrafters.com](mailto:support@cubcrafters.com)

Please include the aircraft registration number, serial number, current name, and address of the owner and/or operator.