

# SERVICE INSTRUCTION

SI0031 Rev NC

Page 1 of 7

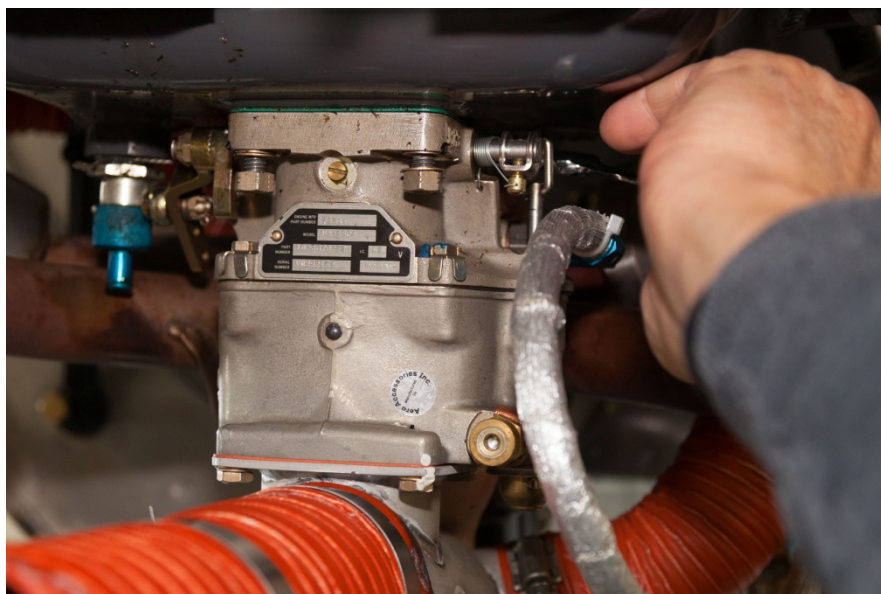
**EFFECTIVE DATE:** This SERVICE INSTRUCTION is effective **"February 13, 2014"**.  
**SUBJECT:** *Insert, Updraft Tube, Oil Sump Installation*  
**MODELS AFFECTED:** *CC11-160 S/N 00093 through S/N 00293*  
**COMPLIANCE TIME:** *Compliance with this Service Instruction is optional*  
**PURPOSE:** *Enhance engine performance and equalize EGT temperatures.*

**PARTS LIST:**

| <u>PART</u>       | <u>DESCRIPTION</u>             | <u>QTY</u> |
|-------------------|--------------------------------|------------|
| SC50364-001       | Insert, Updraft Tube, Oil Sump | 1          |
| AEL66224-00       | Carb Gasket                    | 2          |
| SC50365-001       | Oil Sump Stud                  | 4          |
| MS51967-6         | Hex Nut, Engine, 5/16-18       | 2          |
| AN936-A-516       | Washer, Lock                   | 4          |
| Customer Supplied | Loctite 271 (Red Loctite)      | AR         |

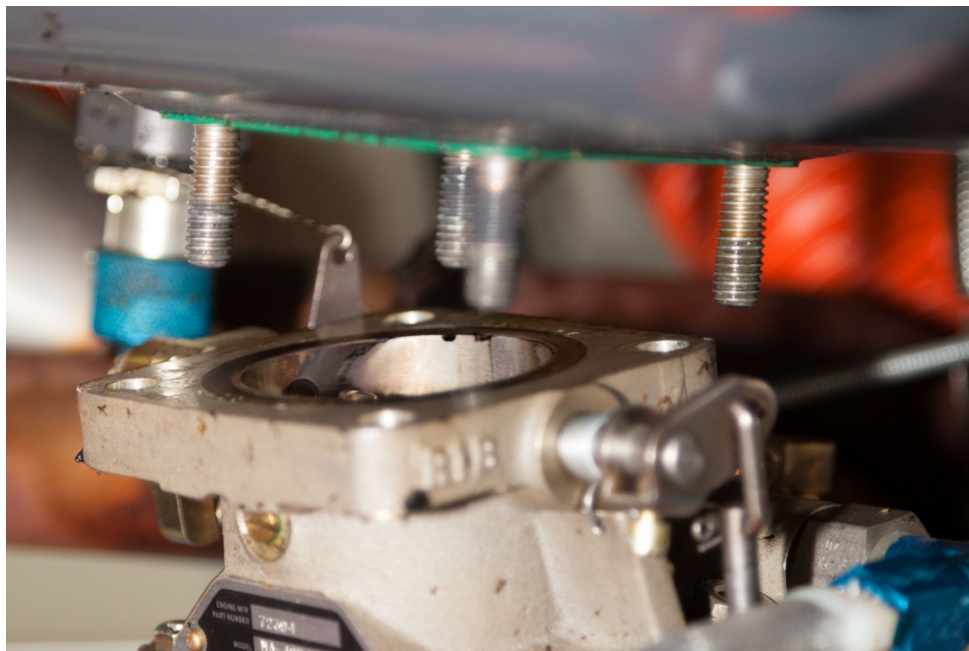
**INSTRUCTIONS:**

1. Remove upper and lower cowls per Aircraft Maintenance Manual (AMM), Section 6.3.14.
2. Remove the four carburetor attaching nuts and washers. See Figure 1.



**Figure 1 - Carburetor Attaching Nuts**

3. Lower the carburetor as far as possible and suspend using safety wire if necessary. See Figure 2.



**Figure 2 - Carburetor Removal**

4. Before starting this process, place a shop towel over the top of the carburetor. Using the nuts supplied screw the nuts onto the stud far enough that there is stud showing beyond the second nut. Tighten the first and second nut together, using a wrench on the upper nut unscrew the stud from the oil sump. If the studs do not unscrew, it is allowable to use a heat gun to heat up the sump area around the stud. Repeat this process for the remaining three studs. See Figure 3.

**CAUTION**

**DO NOT USE ANY KIND OF EXPOSED FLAME.**

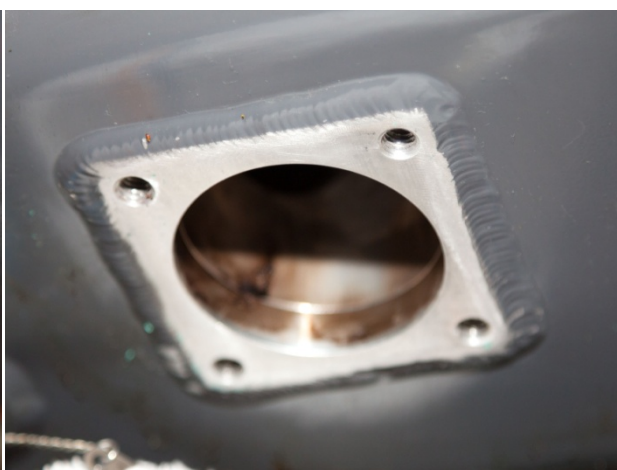


**Figure 3 - Stud Removal**

5. Once the studs are removed, clean the old gasket from the bottom of the sump and top of the carburetor. Make sure all of the old gasket is removed. See Figure 4 and 5.

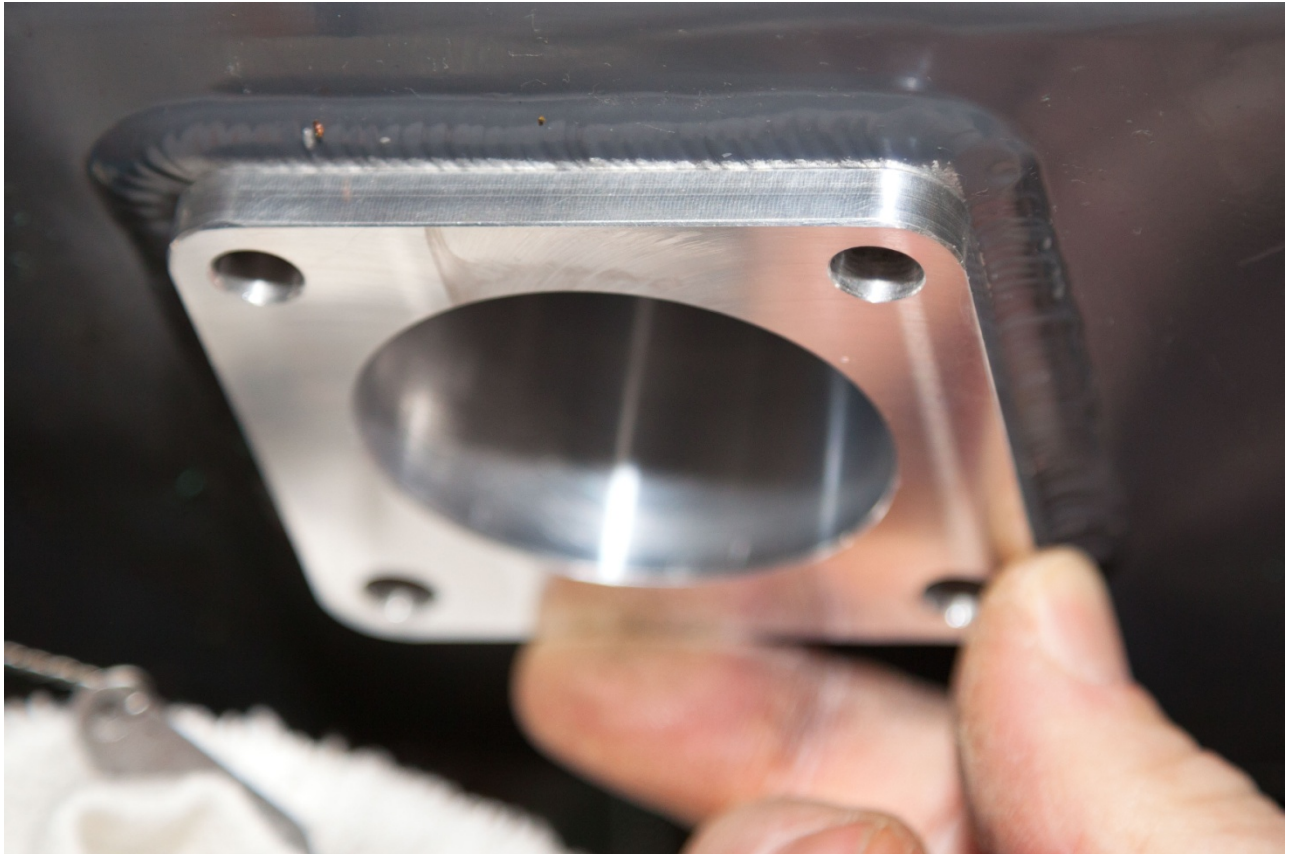


**Figure 4 - Gasket Removal**



**Figure 5 - Clean Sump Boss**

6. Test fit the insert as shown in Figure 6. If the insert does not fit all of the way into the sump, you may need to sand the upper step slightly. Use 320 grit sand paper and test fit the insert until it fits into the sump.

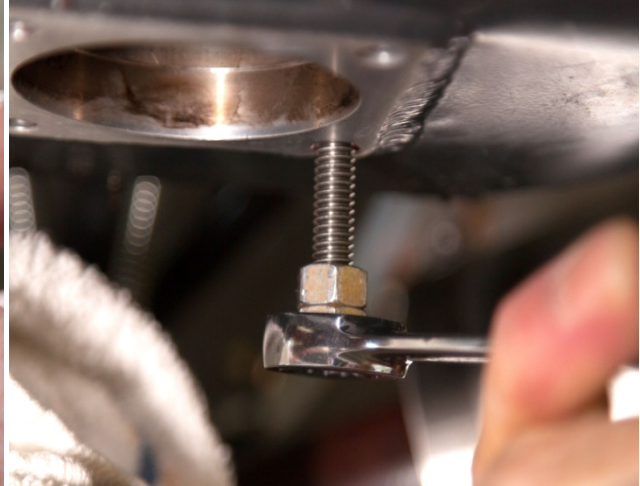


**Figure 6 – Insert Fit Check**

7. Make sure a nut will thread onto each end of the stud before installation. Place a drop of Loctite 271 (Red Loctite) on the end of the stud that will screw into the sump. See Figure 7 and 8. Using the double nut technique install all four studs provided in this kit. Screw the studs into the sump until they bottom out and torque to 25 in-lbs.

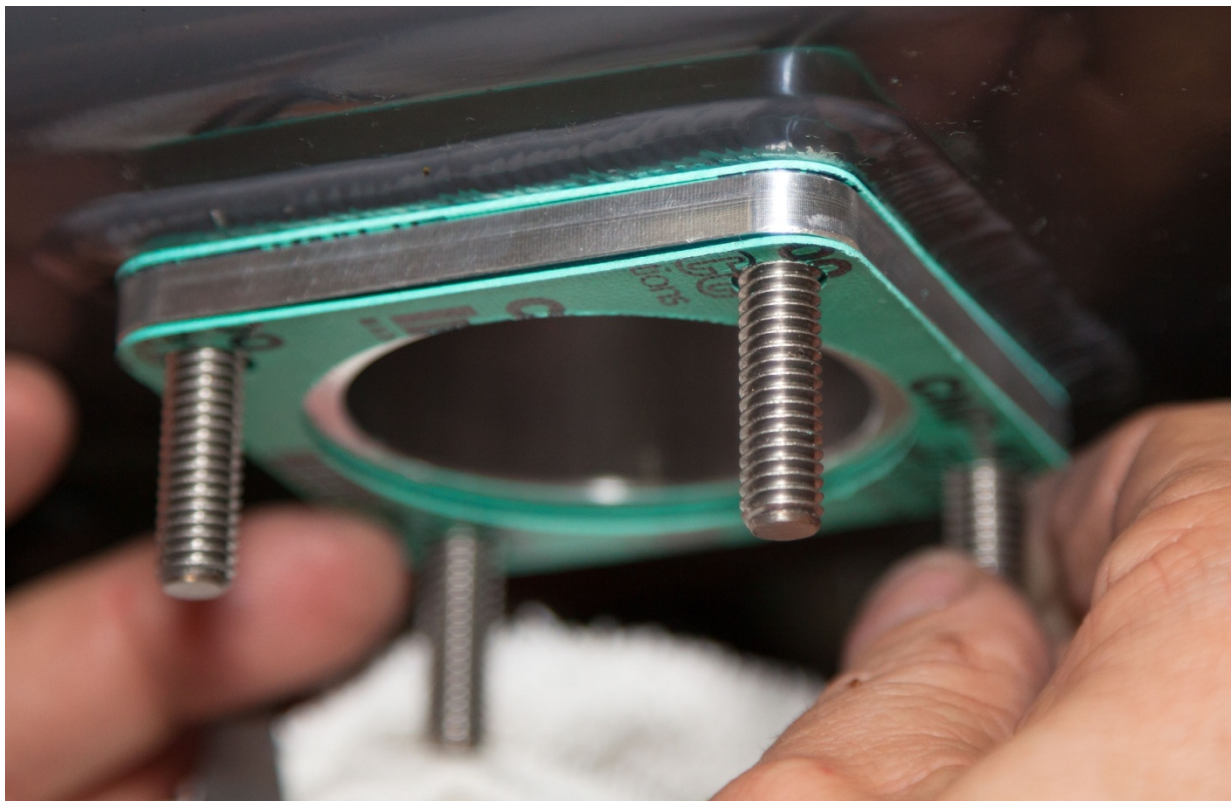


**Figure 7 - Loctite Application**



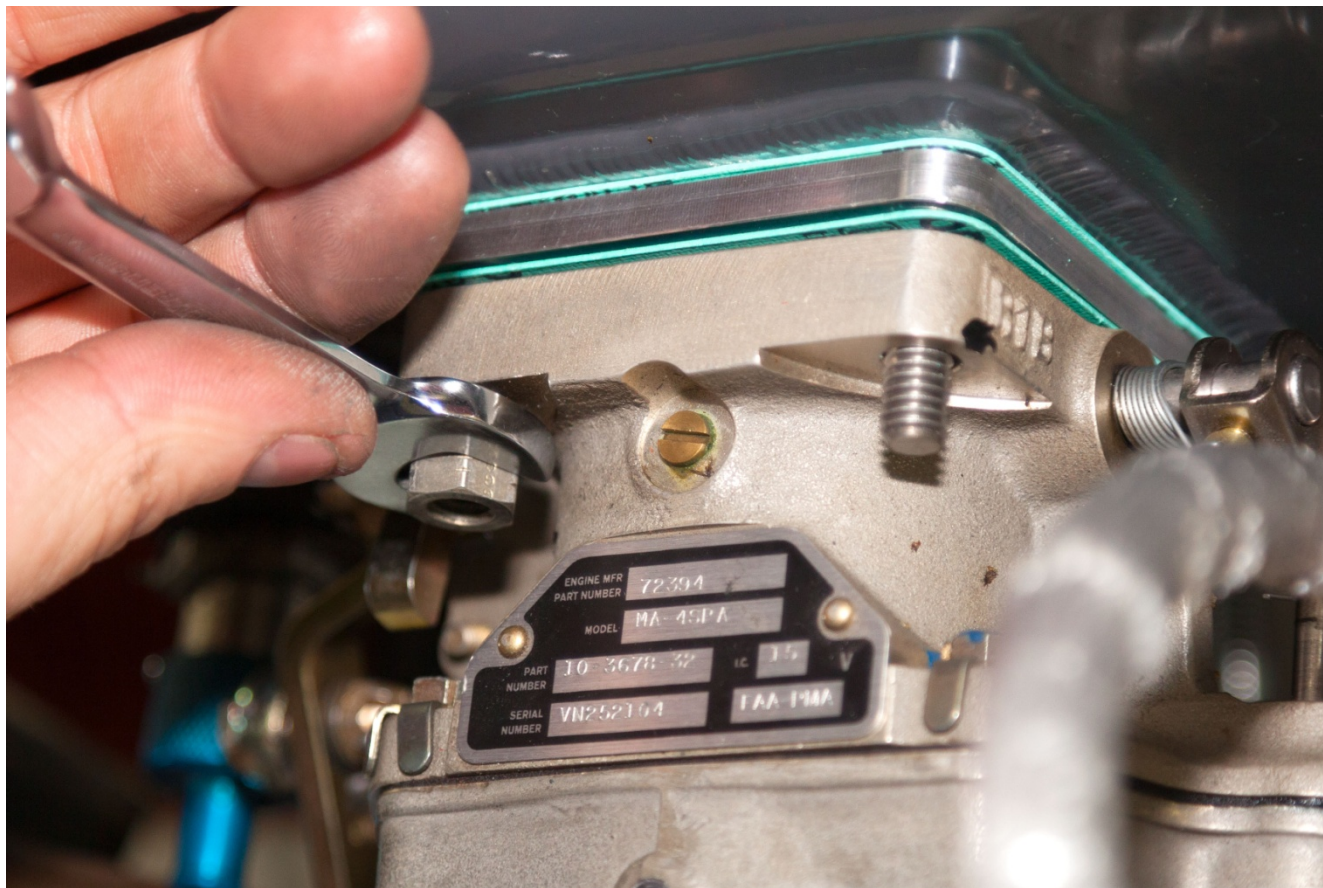
**Figure 8 - Stud Installation**

8. Place the first of the supplied carburetor gasket over the insert and slide the insert into the sump, now place the second supplied gasket onto the bottom side of the insert. See Figure 9.



**Figure 9 - Gasket/ Insert Installation**

9. Replace the lock washers with the supplied lock washers and reinstall the carburetor using the remaining original hardware. Torque the carburetor attaching nuts to 175 in-lbs. See Figure10.



**Figure 10 – Carburetor Installation**

10. Check the cable travels (Throttle, Mixture, and Carburetor Heat) making sure that full travel is achieved. If full travel has not been achieved, adjust to full travel.
11. Test run engine, adjust idle if necessary to 600-650 RPM. Check for fuel leaks.
12. Reinstall upper and lower cowls per AMM, Section 6.3.14.



# SERVICE INSTRUCTION

SI0031 Rev NC

Page 7 of 7

## WEIGHT AND BALANCE

This modification has a negligible effect on weight and balance.

## FORMS AND DOCUMENTATION:

Make entry in aircraft log book indicating the Insert, Updraft Tube, Oil Sump has been installed in accordance with this Service Instruction.

## MAJOR REPAIR OR ALTERATION

Installation of this service instruction is a major alteration per ASTM F2483 Section 9. A Major Repair or Alteration (MRA) form is not required for installation in an SLSA aircraft per Section 6.5.2 of SSC10000AMM.