

N867TC Engine Air Filter

Adding an air filter for my Lycoming IO-390 Lycoming engine required:

- Fabricating an air inlet on the outside of cowl,
- Fabricating the interface on the inside of the cowl to fit air filter and air filter box,
- Fabricating the air filter box, (I used a K&N 33-2143 filter approximately 6" x 7-1/2")
- Fabricating the injector box to interface with the air filter box and the injector.



Fabricate air inlet on the outside of cowl so the inlet is in line with injector inlet. (approximately 4" dia.)



Fabricate air inlet on the outside of cowl so the leading edge of inlet is 3/8 inches from prop.



Fabricate inside of cowl to fit filter. One hole on each side with 10/32 nut flats fiber glassed in place for securing filter box.



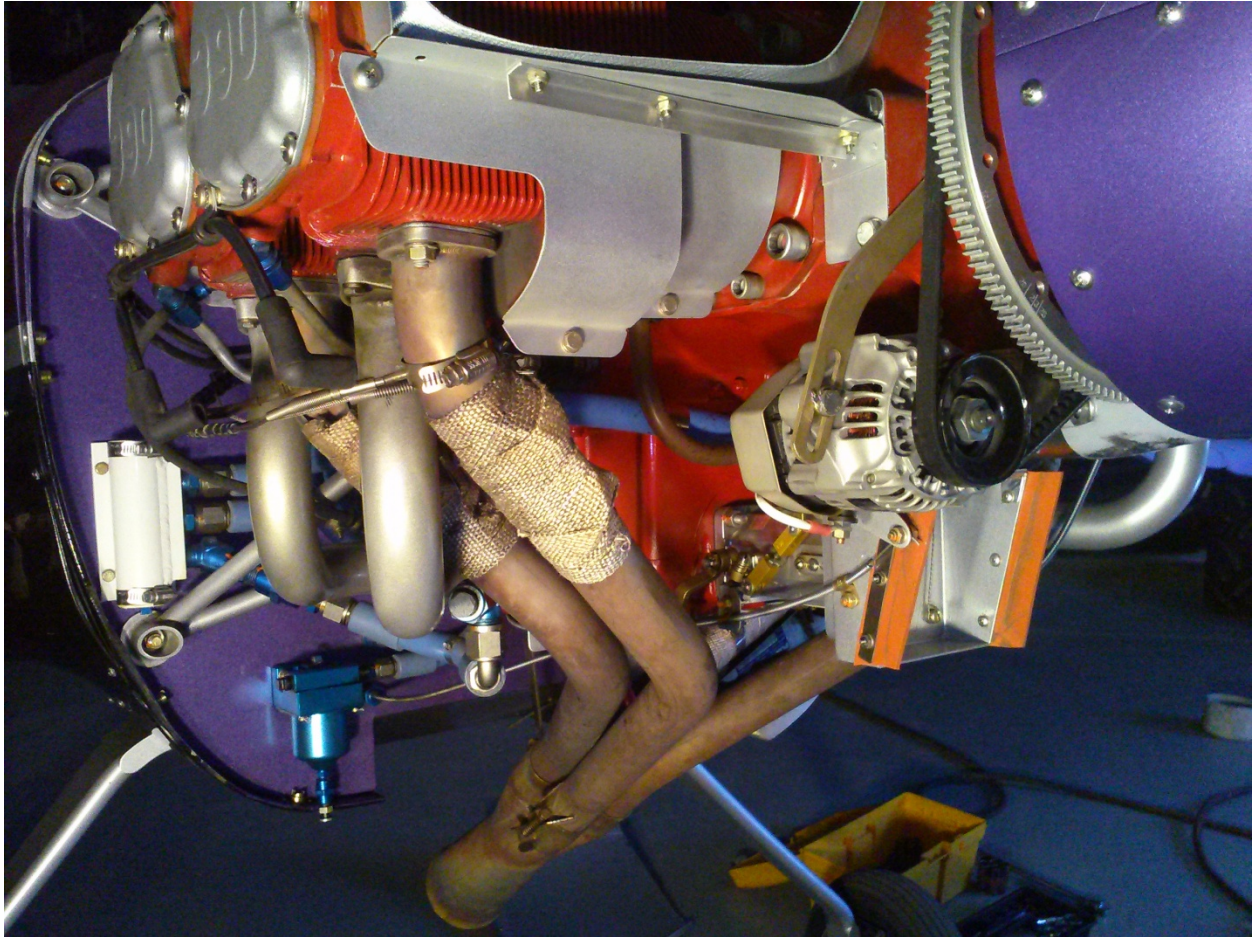
Filter fitted in place prior to installing filter box.



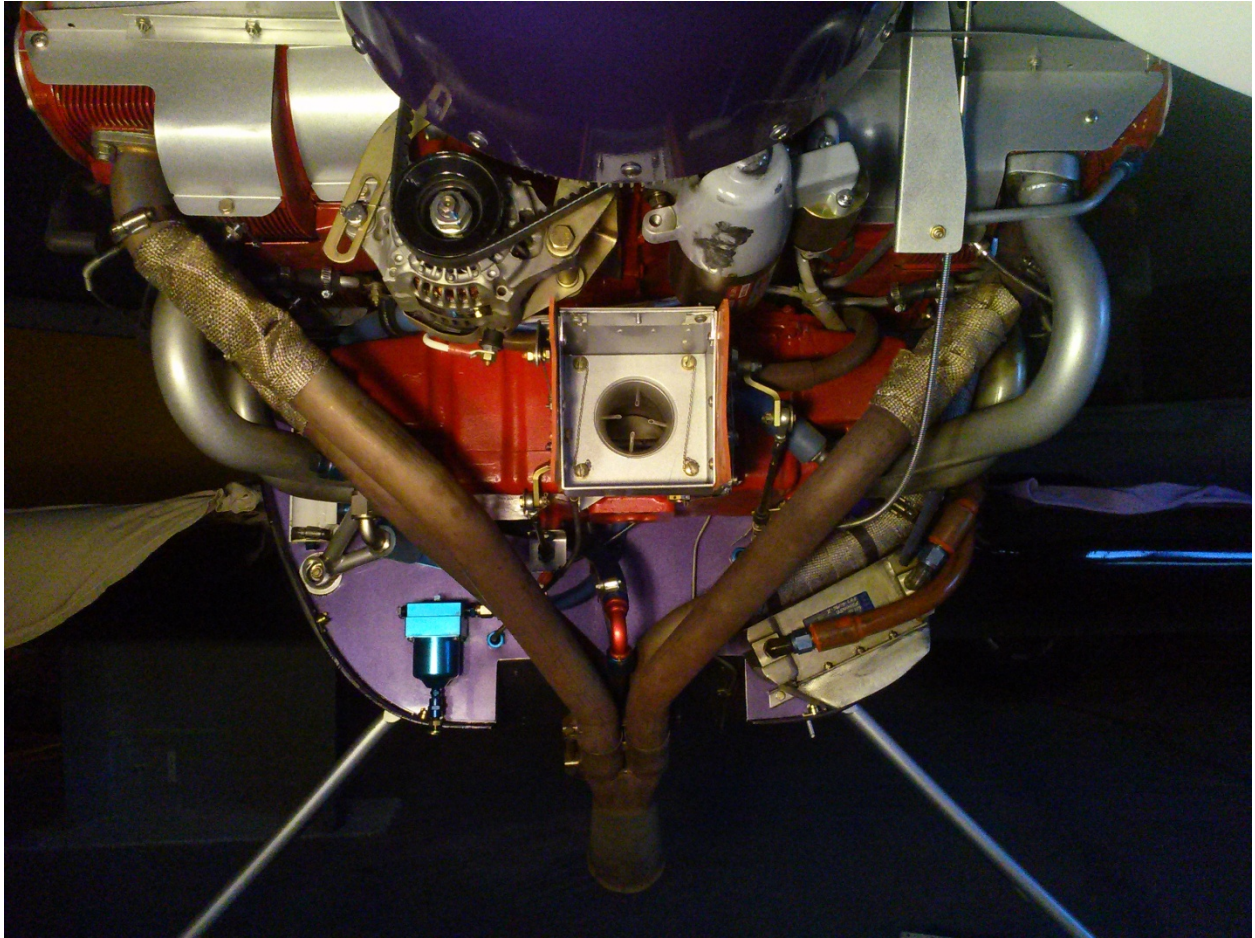
Filter box fabricated and fitted to the inside of cowl. The three holes on the top and bottom of the box are for mounting gap seals which complement the seals shown on the injector box.



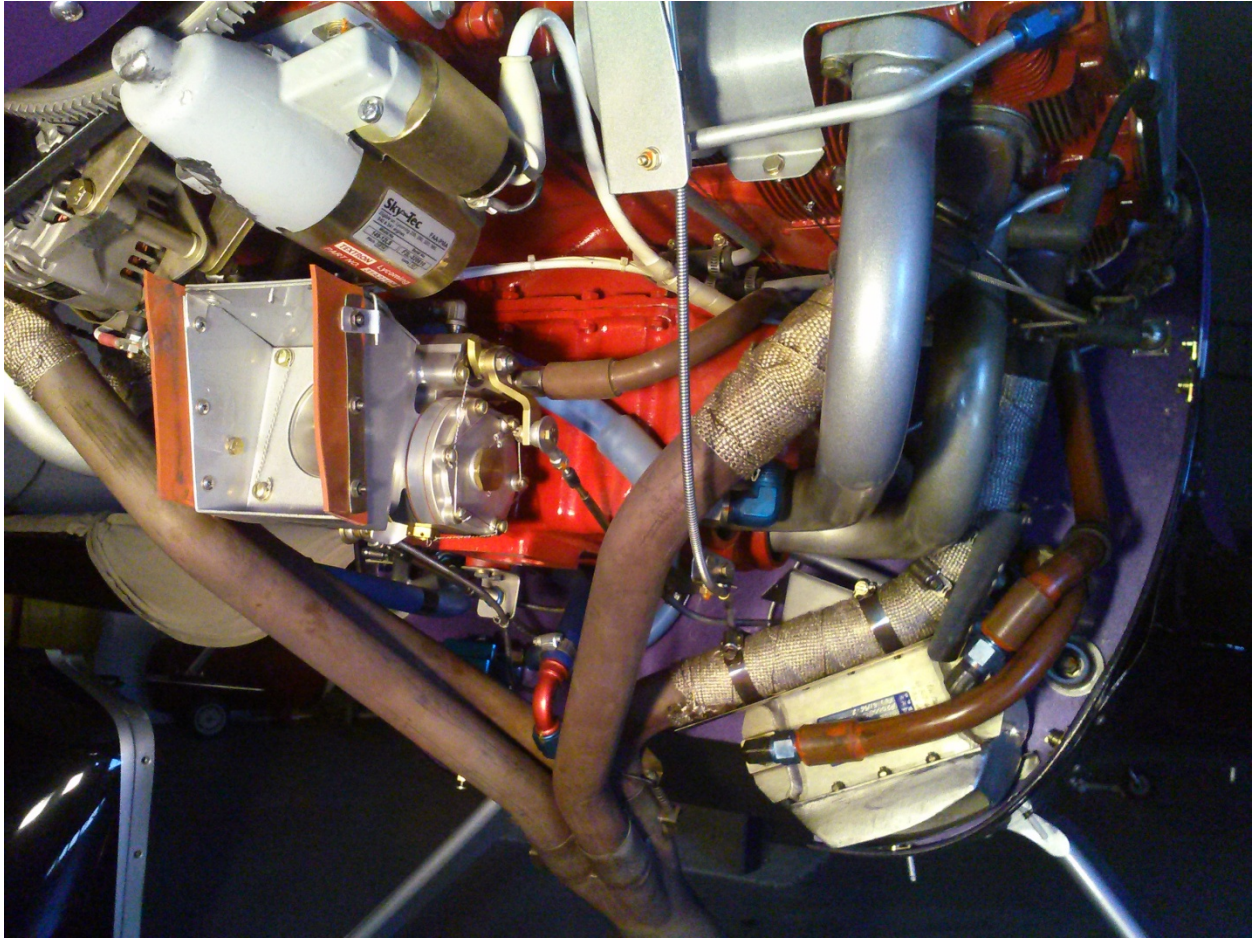
Front view of filter box showing filter in place ready to install on cowl. One hole on each side of the box for the 10/32 mounting screws.



Injector box mounted to injector showing gap seals and control cable for alternate air door on top of box.



The alternate air door is mounted with a piano hinge which is mounted to the leading edge of the air box.



The top and bottom gap seal is attach to the top and bottom of the air filter box.