

RACER UPDATE

TODAY IS MONDAY, JULY 17, 2017

ISSUE NUMBER 86

Rick sez:

A review of the vertical fan kit as offered by Michael LeVeque and installed on my race car.

I have always wanted to make this mod to my race car but the only ones available providing people hoarding them were willing to sell one were the original old style called the Eliminator Fan that was developed by Charlie Clark back in the day.

It was made from thick fiberglass with a gel coat and the aluminum housing was cast which required extensive finish machining. The fan bearing was a stock Corvaire fan bearing and the drive pulley was the heavy stock Corvaire cast iron type for air conditioning which bolted to the crank pulley. An adjustable idler pulley was included but this requires a total loss electrical system. Some folks used a stock Corvaire alternator in place of the idler which required fabrication of a bracket.



This past weekend was my chance to test the install under race conditions at the Pittsburgh Vintage GP at Pitt Race aka Beaverun in Wampum Pa.

The kit is not a bolt on and go piece nor is it meant for street vehicles. It requires fitting to the individual engine arrangement plus in my case I used a mini alternator in place of the idler pulley. The main piece is the fiberglass shroud which in this iteration is made thin with no gel coat for two reasons. One, it is much lighter than the old style and two, the translucence allows you to see where all the openings such as spark plug holes need to be.

One thing you must do is insure all gaps are sealed so all the cooling air goes over the heads and jugs, not out a crack. This will take some time but is important if you want the most efficient cooling. Note: I did not use any sillycone to do this.

One thing I did for the spark plug holes was to use the original sheet metal holes which I cut from an old top shroud. I simply pop rivet them to the fiberglass. This allows me to properly align the hole over the plug so the boot will fit as I have angle plug heads on this engine. Next since the sheet metal is thinner than the fiberglass it makes the silicone boot fit tightly in the hole.

To finish the shroud I used VHT wrinkle paint. Not only does it look nice it hides the rough surface of the non-gel coated fiberglass. Just remember to follow the instructions on the can.

The aluminum pieces which consist of the fan hoop which is made from rolled flat bar stock and the CNC machined adapter mounting plate are very nice and lighter than the old ones. The fan itself is still the small multi blade plastic Mini part, same as back in the day. The fan bearing is a small water pump bearing for an MG held in with a slight press fit and a set screw for adjustment.

With the exception of the idler pulley both the crank and fan pulleys are custom machined aluminum. The idler is a readily available part for a Dodge Colt of all things. In my case I wanted to use a mini alternator in place of the idler to get away from the total loss system I had been using. This required some grinding on the mounting tab attached the fan hoop but there is plenty of meat to do this. Also since the alternator/idler pulley bolt is a 7/16" I did not make an adjustment bracket. So far it is working.

One tip when installing the drive pulley on to the crank pulley, make sure the 3/8" bolts supplied are not too long because they will lodge against the crank seal and bind it. In my case not only did I need to trim 1/8" off the length but I had to drill and tap the threads in the crank pulley to match. I use a degreed race pulley which had 5/16" holes. It was an easy task done with the pulley installed on the engine. Be sure to check yours.

The next consideration in my case was what to do about the carb linkage. I run the four Rochester's with Roger Parent linkage. The cross shaft would not clear the shroud so cutting holes to pass it through is one option but I wanted a better solution. That turned out to be carb risers which I made from a 2" thick phenolic block ordered online. Some 5/16" all-thread rod replaced the carb mounting studs. It works!

The next item is where to locate an oil filler tube. After some thought I decided to use the stock crankcase breather tube. I picked up a plastic funnel with a small enough spout to fit in the tube, after all when racing you usually just top off the oil if needed.

The kit is complete including all the bolts, nuts washers and the proper size fan belt which in my case had to be longer because of the alternator with a 4" pulley. Shroud bolts however are your choice.

The final conclusion is why I didn't do this sooner! After running the Pittsburgh Vintage GP with my new vertical fan and alternator I can report no problems with the exception of one shroud bolt got loose and fell out. I will use an old trick a biker told me. Use Permatex No. 2 gasket sealer on the threads. It will keep it from loosening from vibration but can be removed easily.

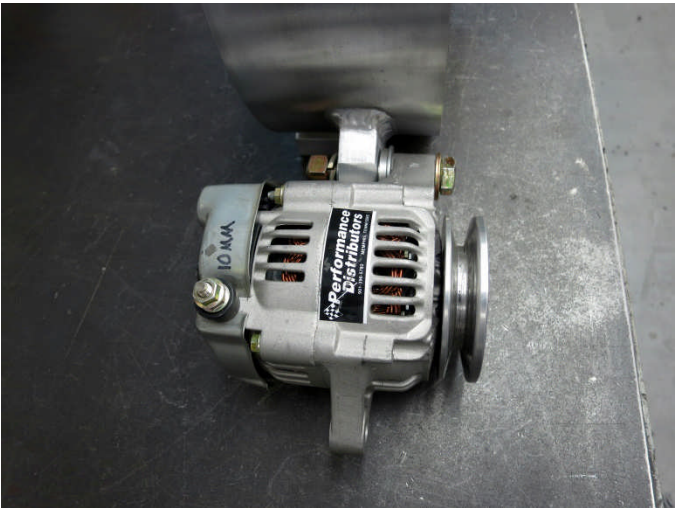
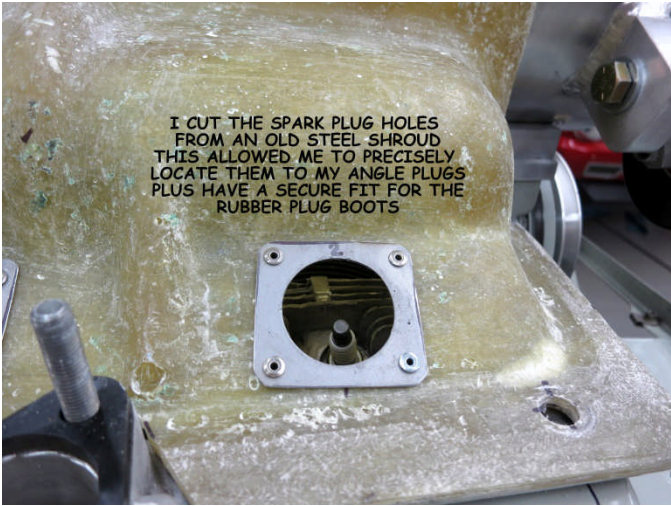
The enjoyment of running hard and shifting anywhere not worrying about the belt flying off or my battery lasting long enough was well worth it especially while watching the Dernoshek team going through a serious belt issue. Not only that, the engine as a whole was clean with no silicone lube deposits. Speaking of clean for the first time since I began road racing I ran without the engine tins. I could see no difference plus my engine ran very cool. Oil temps were around 180-190. I don't know what the cylinder heads were because for some reason my gauge was not working but there was no tell tale smell of overheated heads.

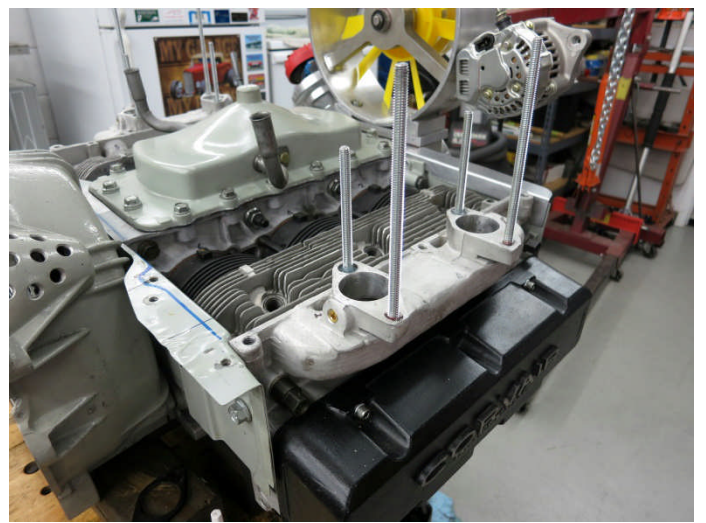
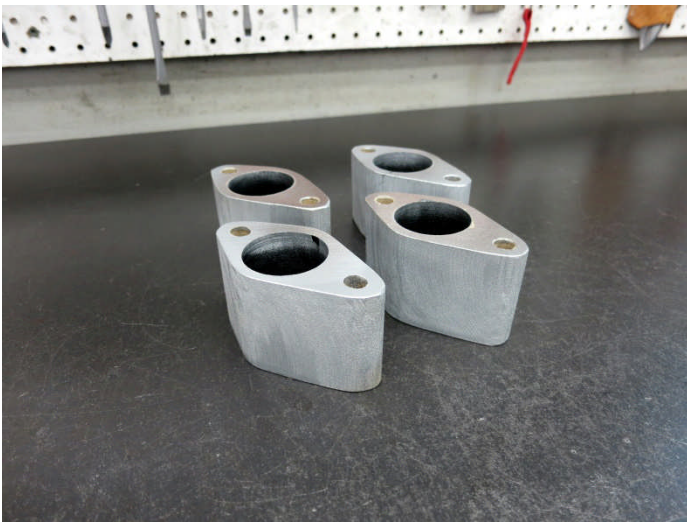
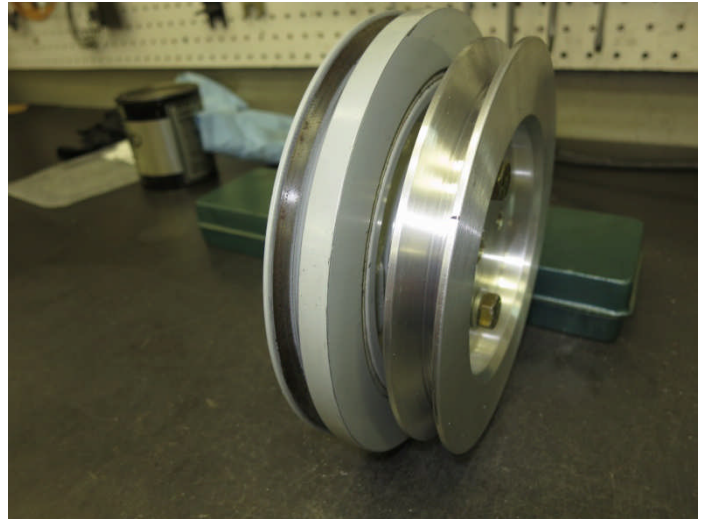
I'm a happy camper and will soon be installing another kit on the backup engine.

Contact LeVair Performance & Restoration for pricing and availability.

https://www.corvair.org/index.php?option=com_civicrm&task=civicrm/profile/view&reset=1&id=26171&gid=13



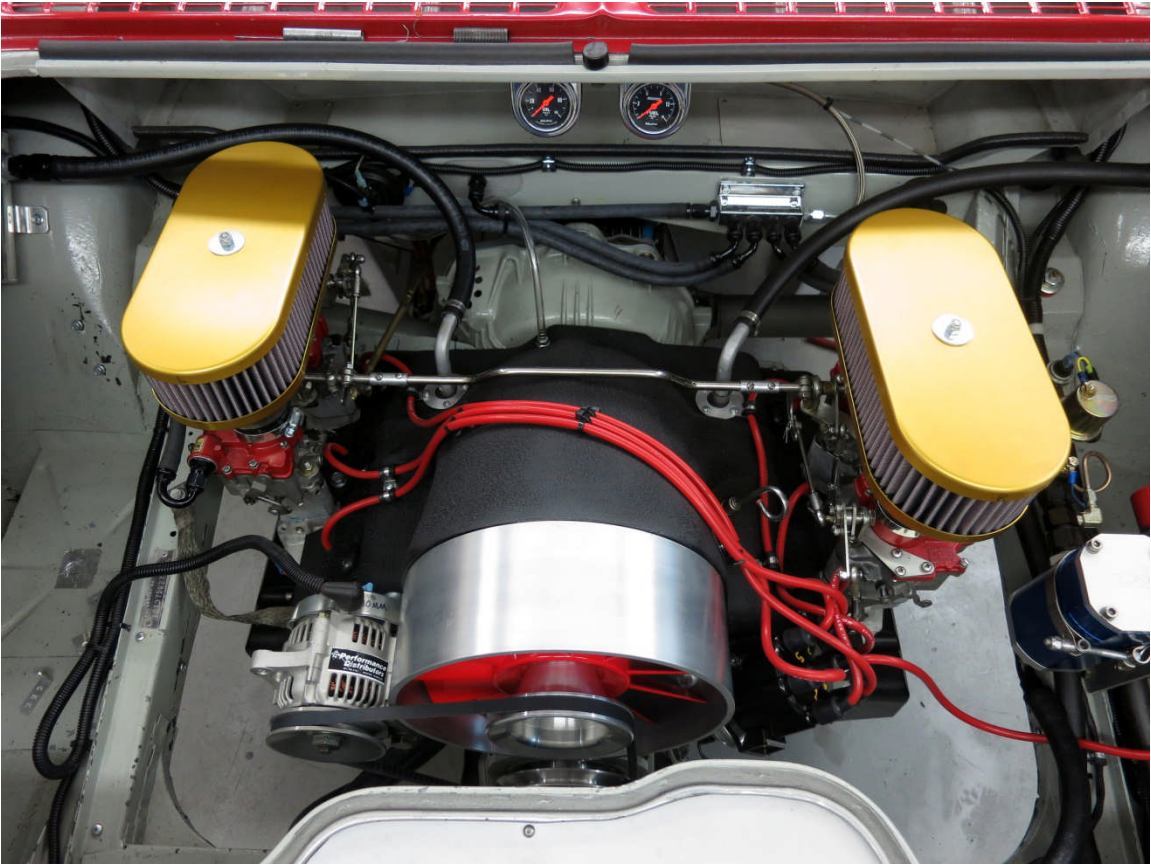


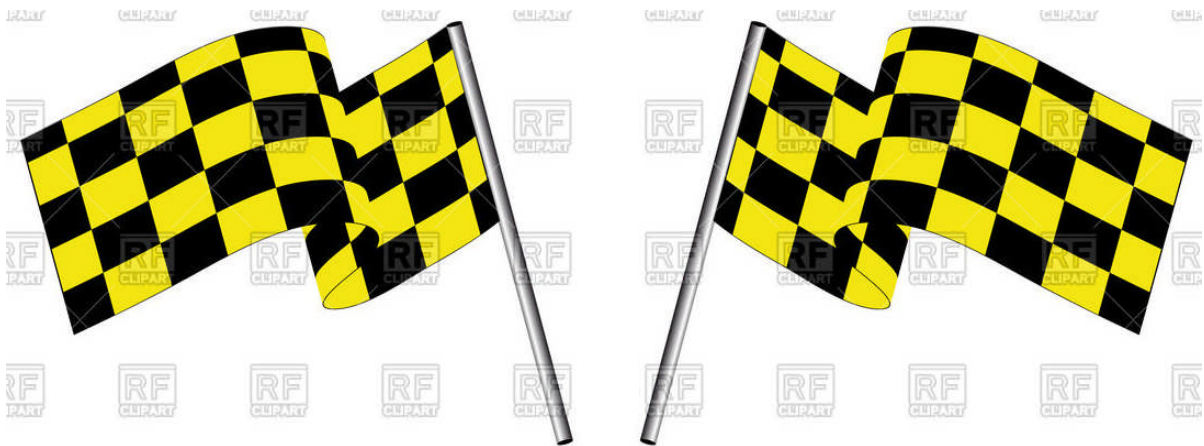






Look Ma, no sheet metal!





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