

GRASS ROOTS

TECH BARN

with: Jimmy Rivers

The Animal Carb No Beast Here...

The Animal carb is very intimidating to some racers. They feel the carb is a vicious beast just waiting to act up and put an end to their day at the track. Basic maintenance and an overview of its operation should clear up this misconception. This is the goal of this month's "Grassroots Tech Barn".

I have stated many times that many of the problems racers have with this carb are self-inflicted. It is very easy to get



in a hurry and cut short your maintenance, but believe me; you will spend much more time and possibly a lot of money to fix the problem at the track. Five minutes at the shop sure beats thirty at the track, and if your luck is like mine, it will happen at the worst possible time.

Let's begin by explaining a little about the carb itself. This is a pretty simple design slide carb with a float assembly and a removable float bowl. The fuel is pumped into the float bowl until the level in the bowl rises enough to raise the float and close the inlet needle. This shuts off the flow of fuel until the fuel demand drops the float again. Inside the bowl there are two jets, the main and the pilot. The main jet is just that, the main source

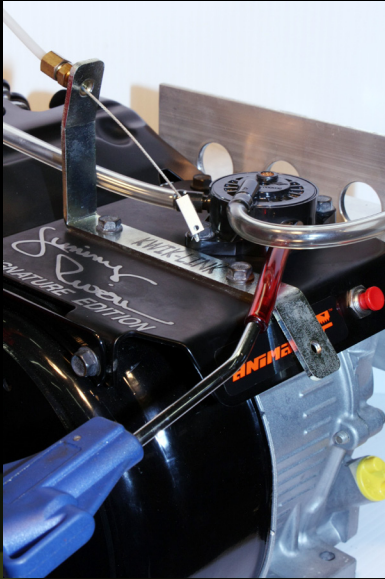
of fuel for the engine. The fuel is drawn into the engine and atomized through the emulsion tube, where it is fed up through the nozzle and into the engine. The pilot jet supplies the fuel for the low speed or idle side of the system.

On the exterior of the carb, there are two adjustment screws. The larger of the two, located on the stack of the carb just under the throttle hookup, is the idle adjustment. Rotating the screw clockwise raises the slide, and therefore the idle speed. Counterclockwise rotation lowers the idle speed. The other smaller screw is an air jet and it's located just above the float bowl on the filter end of the carb body. An air jet acts like a mixture screw. However, it is much different in operation. Opening or closing the screw changes the amount of air that passes through the orifice. This in turn alters the fuel draw. Opening an air jet leans the carb, and closing it richens it. There are also several small holes and air passages within the body itself.

With that being said, this is why we must properly flush all the fuel, and never allow it to remain in the bowl. Aluminum will corrode over time with exposure to alcohol, and the remaining particles will clog the passages and jets. Some of the holes



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sizes within the carb are as small as twelve thousandths of an inch (.012). Just for comparison, a hair on your head is about three to four thousandths (.003-.004), so it doesn't take very much to block the passage and create problems. At a minimum, the dry nature of the alcohol, will stick the inlet needle, and not allow the fuel to flow into the bowl. This is where our maintenance is critical.

To flush the fuel and preparing the carb for our next race, begin

by closing the valve at the fuel tank, and remove the fuel line from the pump inlet. Next, remove the air filter and the float bowl. Drain the fuel from the bowl, and with LOW air pressure, gently blow the fuel out of the lines and from the carb itself. Blow up through the jets, around the float and blow the bowl dry. The object is to completely remove all the alcohol from the carb. Make

sure to blow the inside of the carb dry as well as the float bowl itself.

Once satisfied everything is dry, take WD-40, or a similar lubricant, and spray a liberal amount to lubricate the inlet needle and keep it free. Spray around the jets and into the float bowl, and you are ready to replace the bowl. Spray the slide to prevent it from sticking, cap off the inlet of the carb, and you are ready to go again.

Some racers prefer to flush the fuel with a gasoline mixture. Although it is not my preferred method, this will suffice. However, if you choose to do it this way, it is imperative that you use a clean container and filter the fuel. The last thing you want to do is introduce contaminants into the carb trying to flush it. Allow the engine to run long enough to fully displace the alcohol before stopping it. If you are doing a long-term storage, make sure you have a fuel stabilizer in the mixture.

Hopefully we have helped you with your maintenance program. Always take the necessary time to do the job properly. Like I said earlier, it is a lot easier to maintain at the shop than repair at the track. See you next month!



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