One thing that has always burned me about the Solex 34 PICT-3 is that unless you run a stock distributor with it, you have bad hesitation and idling problems. This is REALLY frustrating since it's the largest stock carb ever put on an up-right air-cooled VW but it's so darned finicky that I've always avoided it's use. The 009 distributor, while not always the best choice, is the most popular (and inexpensive) performance distributors around, but the 34 PICT-3 doesn't like the 009. I've always referred to the Solex 34 PICT-3 as "the neighborhood bully" since "it doesn't play well with others" :-) Well I'm here to beat-up that bully and teach it a lesson once and for all!! :-)

After lots of on & off research, talking to folks about this problem and learning about why the 009 and the 34 PICT-3 are not compatible and how others have fixed theirs, I decided to try and "fix" the problem with mine once and for all. The test subject for this experiment would be a nearly new Brazilian, Bocar 34 PICT-3. This is a carb I received in trade (among other things) for some work I did on a guys car a couple years ago. It's had only about 100 gallons worth of gas run through it; about 99 of them were on my bus a while back before I chucked it, out of frustration, in favor of a Solex 30 PICT-1 (a tried and true favorite of mine). I've never tried modifying a 34 PICT-3 carb like this and I must say that I had my doubts about just how well this "crappy carb" would work once modified. But I figured that I've got nothing to loose besides a "junk" carb that I don't use anyway; so what the heck?? :-)

THE PROBLEM:

The Solex 34 PICT-3 was designed to be run with a single vacuum, dual advance distributor with an idle timing of 5 ATDC and a total advance of 32 BTDC. The 009 distributor is fully centrifugal advance and designed to be timed to 10 BTDC with a total advance of 32 BTDC. Time an 009 to 5 ATDC and you will not idle and will only achieve around 17 BTDC total advance. On the other hand, time the 009 to 10 BTDC and you'll have the correct total advance, but the your 34 PICT-3 won't idle or will barely idle and will hesitate/stumble badly at low RPMs.

THE CAUSE:

I've discovered through my research that a lack of fuel (lean condition) is to blame for the poor idling and off idle hesitation. It's the idle circuit, fed by the main jet, which controls fuel delivery from idle, all the way through to the point at which the main jets alone kick in. A carb is vacuum operated. As the throttle butterfly (at the base of the carb) is opened, there are a series of progression ports which are supplied fuel by the idle circuit. Not enough vacuum down low, means no fuel at idle - a carb that won't idle. This also means not enough fuel in the progression portsat lower RPMs - hesitation off idle.

THE CURE:

So how do you get more fuel at the progression ports?? Well you need to create more vacuum under the throttle plate thus causing slightly more fuel to flow through

the idle circuit. To do this you will need to plug the big hole in the throttle plate. This throttle by-pass hole acts like a big vacuum leak and it's position on the plate (right between the progression port banks) prevents enough fuel from being pulled through the idle circuit. Plug this hole, and your carb will have more vacuum at the progression ports allowing more fuel to be drawn through them. In short; your 34 PICT-3 will be as tunable as the beloved Solex 30 PICT-1 when coupled with the 009.

There are basically two ways to plug the hole: by soldering the hole shut (which is what I will be covering here) OR by pop-riveting the hole shut. The later must be done with the throttle plate installed on the carb so this may be more appealing to some. Basically you will need to install a pop-rivet in the hole effectively plugging it. While that is easier, I prefer to have the cleaner and better flowing, solder filling the hole.

First remove the carb and drain the float bowl so fuel doesn't get all over the place. Pump all the fuel out of the accelerator pump by repeatedly opening the throttle until fuel stops squirting out. Also remove the throttle return spring. Turn over the carb onto it's top and carefully remove the throttle plate screws with a flat tip screwdriver.

NOTE: These screws are peened in place and may require drilling out. Be careful not to damage the throttle shaft doing this.

Once you have the screws out open the throttle all the way and carefully slide the brass butterfly out through the base of the carb.



Here's a shot of the "offending hole"



Before you solder the hole shut, you must slightly counter sink each side of the hole so that the solder will be locked in. I simply used a large drill bit and twisted it by hand a few times on either side of the hole. You'll have to look really carefully to notice the beveled edge of the hole in the photo below.



I wire-brushed the hole on either side in order to provide a good grip for the solder. Then apply some paste flux to either side and lay it on a flat metal surface that can take the heat of a torch. Apply the heat and when hot, lay a single drop of solder in the hole. Keep the heat on it until you can see it get thin in texture and spread out while adhering to the part.

Allow it to cool. It should look like this with a slightly raised droplet on each side.



Now use a flat bastard file to remove the raised solder leaving only the solder in the hole. It should look something like this. . .



Once you have it roughed flat, use a piece of fine sand paper of steel wool to finish blending and smoothing the soldered area with the brass butterfly. Don't worry, the beveling you did prior to adding the solder will ensure the solder does not get sucked out over time.





Now you can re-install the butterfly back onto the throttle shaft. I used some Locktite® to help lock the screws in place. In addition, be sure to peen the screws by squeezing the edge with a pair of pliers. If you fail to peen the screws, you risk ingesting one into your engine; so do it!!



You will now need to increase the main jet by one size as well. If you have a Beetle, your carb likely has a 127.5 main jet. You'll need to increase this to 130. For those with a bus, your main jet is likely a 125. Increase it to a 127.5. Since I am running a 1776, I drilled my jet out to a 130 and it feels really good like that.

Now you can install the carb and tune it as normal, only now it will be compatible with the 009 distributor!!

Källa: http://www.aircooledtech.com/34pict3_modification/

Denna artikel publicerad med tillstånd av författaren.
Published with permission by the author, Nate M. aircooledtech.com