

The single barrel downdraft Rochester carburetors used on Corvair engines are a very basic design, work quite well for the application, and can be reconditioned to perform like new. Keep in mind that there are H and HV models (V for venture operated choke control diaphragm) and lots of different calibrations and model upgrades. The key to good performance is a matched pair with at least the upgrades that apply to your particular year. There are lots of articles about identification so that will not be addressed here. The following suggestions will reveal that this basic design can have a lot of small issues that require your attention.

Plan on installing a throttle shaft seal kit along with the regular rebuild kit. This greatly reduces any vacuum leaks around the shaft which disturbs idle and off idle performance. Also clean, inspect and seal or replace the base insulators. Thin gaskets are available for this area. Check or replace the two balance tube hoses, both vacuum modulator hoses if Powerglide, check both choke pull-offs if equipped, air & fuel filters and clean the vent system. This includes all vent tubes, pcv valve, road draft tube and fixed orifice – check the orifice size since people do strange things to them. **All of the above items directly affect carburetor performance.** Disassemble the carburetors, clean and make sure all parts make up a matched pair. The alloy metal used is somewhat soft so watch for damaged areas.

- ❑ Check the accelerator pump system components for the following: the new pump cup is installed correctly, the vapor check ball in the pump is free, both upper and lower springs are the correct length, the brass discharge needle is in place with the top of the needle resting **below** the gasket surface. Use a strand pulled out of a wire brush to check the two discharge holes in the carburetor base at the discharge needle and check for a clean smooth bore for the cup to run in.
- ❑ Special notes: 140 secondary carburetors have a shorter and stiffer accelerator pump return spring, may not have a cup (works better with one) and may only have one discharge hole.
- ❑ Carburetor base: use a straight edge to check the bottom mounting area and dress up if necessary. Install a shaft seal kit as mentioned above. If the base is too badly worn, sleeves are available and the shafts are available new. Check the shaft to lever fit for looseness (can be welded), make sure the valve screws are tight, use a mirror to inspect the power valve inserts (65-67), be sure the idle passages are clean and not damaged, and be sure the two venture mounting holes do not have residual water or carburetor cleaner in them which will freeze the screws in place. If a jet is frozen, use a screwdriver with a good tip and strike it smartly a couple of times to free the jet. Use this to loosen venturi cluster screws also.
- ❑ Carburetor air horn: Straight edge for damage from over tightening the top mounting nut, make sure the choke shaft-to-lever fit is solid and the screws are tight. Check floats for gas, check float alignment (pre 64 floats are bigger than late floats and do not have springs), make sure the fuel filter threads do not have crusty material in them that will come off when you screw the nut in. Be sure to install the accelerator pump rod in the proper direction through the lever.
- ❑ Venturi Cluster: Check all holes, particularly the small tube which is the idle pickup and which easily traps debris. Match up the casting numbers, check that all the hole sizes match between clusters and watch for missing brass plugs. Also, straightedge the mounting areas of the clusters since they can warp.