

Forum Name: Ford

Topic ID: 8390

### **Bad Carburetor Power Valves and Pumps**

Posted by RON on Jan-28-09 at 06:20 PM

Because of continuing customer problems and questions concerning the Chandler-Grove, Holley, Ford, Flathead V8 carburetors, I thought it was time to make a statement about the current problems many of you may have faced with your rebuilt carburetors and aftermarket carb kits over the last few years. There are NO original factory Holley carb kits being made, including those with the HOLLEY trade name. Since there are only 4 remaining actual manufacturers of carburetor parts and kits for Domestic American made carburetors, most of the common parts are coming from one source. Up until 5 years ago, Dana Corp. Pacer Division, made ALL of the common "square box" carb kits. These were packaged using over 70 different company trade names; however all were in the usual shrink wrapped inner tray, containing the same parts in all kits, regardless of the name on the outside. These kits were of reasonable quality, and most had no problems with the parts contents. Standard Motor Products also made their own line of "Hygrade" carb kits, using mostly their own parts, manufactured in their plant in Puerto Rico, which has since shut down. Tomco Fuel Systems also made their own kits in St.Louis, Mo, using many of the Pacer parts. Walker Products in California also made a lower quality line of carb kits. The last, and smallest company was Daytona Parts Company, in Florida.

In 2001 Dana Corp, sold their Pacer Division to Standard Motor Products, who then made a deal with Walker Products, to continue making the "square box" kit line for outside distribution. The only problem, was Standard and Walker both chose to trash the original Pacer Quality tooling, and go with Walker parts, most of which are made in Mexico! Now we come to the present, and the reason for this information. The current contents in ANY "square box" kit, with any name on it; DOES NOT CONTAIN a Power valve assembly that will work in any of the FORD/HOLLEY, model 94, etc, 3 bolt base carburetors! The design change to the power valves was made by Walker, which chose to modify their old style with a "step" cast on the flange of the valve, to allow the use of a large ID seal gasket. Because of this "step" when you try to use the power valve in the Ford carb, it will not seal up against the bottom of the bowl, and then leaks fuel into the vacuum chamber, below the valve, causing a constant "rich" running condition!! Also, the thread length on the valve is critical, as another style power valve has extra long threads for use in a modern Holley 4bbl carb, with stripped metering blocks. The long thread style will also NOT work, as the thread length interferes with the bowl casting, and will not seal. The genuine Holley power valve will also not work, as it also has the "step", and the brass head is too large in diameter, and when installing, the head catches on the bowl casting, and opens the valve wide open!!

Another problem with the "square box" kits is the inclusion of a "black" rubber pump cup. This is BUNA rubber, and will NOT last for any time at all with the alcohol laced gasoline. Do not use the black cups, but only a "blue" fluorocarbon cup, which is an alcohol resistant high quality rubber compound. Current kits containing a "leather" accel pump assembly with a "blue" cardboard protective cover, is Not a correct accel pump. The stem length is too short, and will cause a "stumble" or hesitation on acceleration. Too much fuel, too quick, and too much duration of squirt. This short pump is actually only original on the Holley model 885F 2bbl, (49-51 Mercury/Lincoln carbs) and the model 1901F 2bbl,

on 52-53 Mercury and 1952 Lincoln. The only kits I am aware of that are correct, is the kit made in the USA, by Daytona Parts Company, and distributed by several of the Ford parts vendors. These contain a correct power valve (OEM style), and a correct length Leather accelerator pump, along with a special alcohol resistant needle & seat assembly.

I hope this information helps a few of you to prevent undue troubleshooting problems with your "rich" running problem carburetors.

Ron  
Daytona Parts company

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**#1, RE: bad carburetor power valves and pumps**

Posted by ford38v8 on Jan-28-09 at 06:54 PM

In response to message #0

Ron, Thank you for this information. There is one more question on the subject that hopefully you can address: You state that your Power Valve is OEM style, which will physically conform to our 94's requirements, which is great, but can you also confirm that it's diaphragm is of an alcohol resistant material?

Thank you,

alan

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**#2, RE: bad carburetor power valves and pumps**

Posted by ron on Jan-28-09 at 07:35 PM

In response to message #1

Alan! The material we use for the power valves is a nylon re-inforced viton alcohol resistant rubber material. This is the best quality material available today, and will last a long while as a power valve diaphragm, assuming that your engine does not produce a major backfire, causing the material to rupture, like any other power valve. Unfortunately no manufacture of rubber goods currently makes any fluorocarbon composite diaphragm material suitable for this type of part. There are no "alcohol proof" rubber materials suitable for use in carburetors. If you wish to see photos of these parts, e-mail me at: [ron@daytonaparts.com](mailto:ron@daytonaparts.com) Hope this helps.

RON

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