

DAYTONA FLOAT VALVES FOR TRI-POWER AND ROCHESTER 2BBLs

The original Rochester 2 BBL Needle and Seat Valve set up, used in Pontiac Tri-Powers, was notorious for getting dirt lodged in it and flooding the carb. To address this, about nine years ago, I had replaced the original needle style with the aftermarket "Grose" Valve. This valve uses two ball bearings in place of the needle. This was an improvement but had its own problems. The newest replacement available is the Daytona Float Valve.

After some research, I found that Daytona Parts is the manufacturer of these parts. In their write-up, they show a graph of the fuel flow comparing the Needle and Seat with the Daytona Valve. They said: "...in addition, it will increase performance, give smoother idling, and increase fuel economy". Another statement: "It runs good all the way from idle to top speed". I wasn't sold on how much difference it would make but I did feel that this design would not hang up with any dirt going through. These are also ethanol resistant, so I decided to give it a try. I found out Daytona Parts sells entire carb rebuild kits from their website but the Daytona Float valve itself is only sold wholesale to distributors. Fortunately one of my favorite vendors, Tri-power.com is one of their distributors and they sell these very inexpensively (\$6 each) via their web store. (link below).

I ordered one for each carb in my Tri-Power. Bob Immekus and John Link were interested in how these would work and volunteered to help with the install. If you have ever worked on a Rochester 2 BBL, it is an easy project to swap valves in.

You can read all the technical data in the attached link to the Daytona Parts website. Since it is very long I won't retype much of it here, but I have added some pictures I took and made some observations along with Bob and John.

The attached pictures (Pic 1 - top to bottom and Pic 2 - left to right) show the differences between the Needle and Seat, Daytona Valve (large opening) and Grose Valve (ball bearings). Pic 3 shows the Needle and Seat Valve (on left) has a larger input channel at the seat where the tapered needle slides in. The taper of the needle is shown in Pic 4. The original needle type allows the fuel to flow in a metered fashion depending on how far the needle has moved out of the channel after moving off of the seat. The downside is that the needle has to move completely out of the input channel before full fuel flow is realized. Also the taper of the needle catches dirt particles, holding it open causing the carb flooding problem. The Daytona Valve on the other hand, is fully open almost as soon as the valve moves off of the seat. This allows a more immediate full and constant flow of fuel. This is why they say the carb runs smoother and more consistently. It also allows any dirt particles to flow through eliminating the flooding problems.

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After we installed the Daytona Valves I found out their advertising statements were really true. I have driven many Pontiac Tri-Power cars and have owned several. I have never had a Tri-Power idle and run as smoothly as this one does now. Not even close! Surprisingly, the idle had increased 200 RPM so I had to adjust it back down. There were no other changes to the carb or engine. I assume it is because the increased fuel flow but I do not really know. Idling, accelerating and cruising are all significantly smoother. This is one cheap and easy upgrade for any Rochester Tri-Power or Rochester 2 BBL. I highly recommend it.

By the way, Ed Bellair called Daytona Parts and asked if they had the Float Valve for the Pontiac Rochester Quadrajet. They have it for the Chevy Quadrajet (of course) but not the Pontiac version. They did leave him with the impression it may be in their future plans. I am not sure I would use these on a Quadrajet anyway. Unlike a Carter or Holley that have two float bowls one for the front and one for the rear barrels, the Q-Jet uses a single float bowl for all four barrels. I would wonder if the smaller inlet hole in the Daytona Valve (see Pic 3), would be sufficient to keep the single Q-Jet bowl filled during heavy acceleration using all four barrels. The Tri-Power has 3 separate bowls, one in each carb, with each using their own valve so this is not a problem.

Our resident Pontiac Historian and guru, Bob Immekus showed me a copy of an old "Parker" Float Valve ad from the 60s. It is identical to the Daytona Float Valve now available. We all thought that was very interesting and wondered if they owned the rights to the old Parker Float Valve and are reproducing it under their name.

I would like to hear the results from anyone else who installs the Daytona Float Valves to see if your experience is similar.

Jim Racela

<http://www.daytonaparts.com/daytona-carburetor-float-valve.html>

<http://www.pontiactripower.com/shop/needle-and-seat-replacements>

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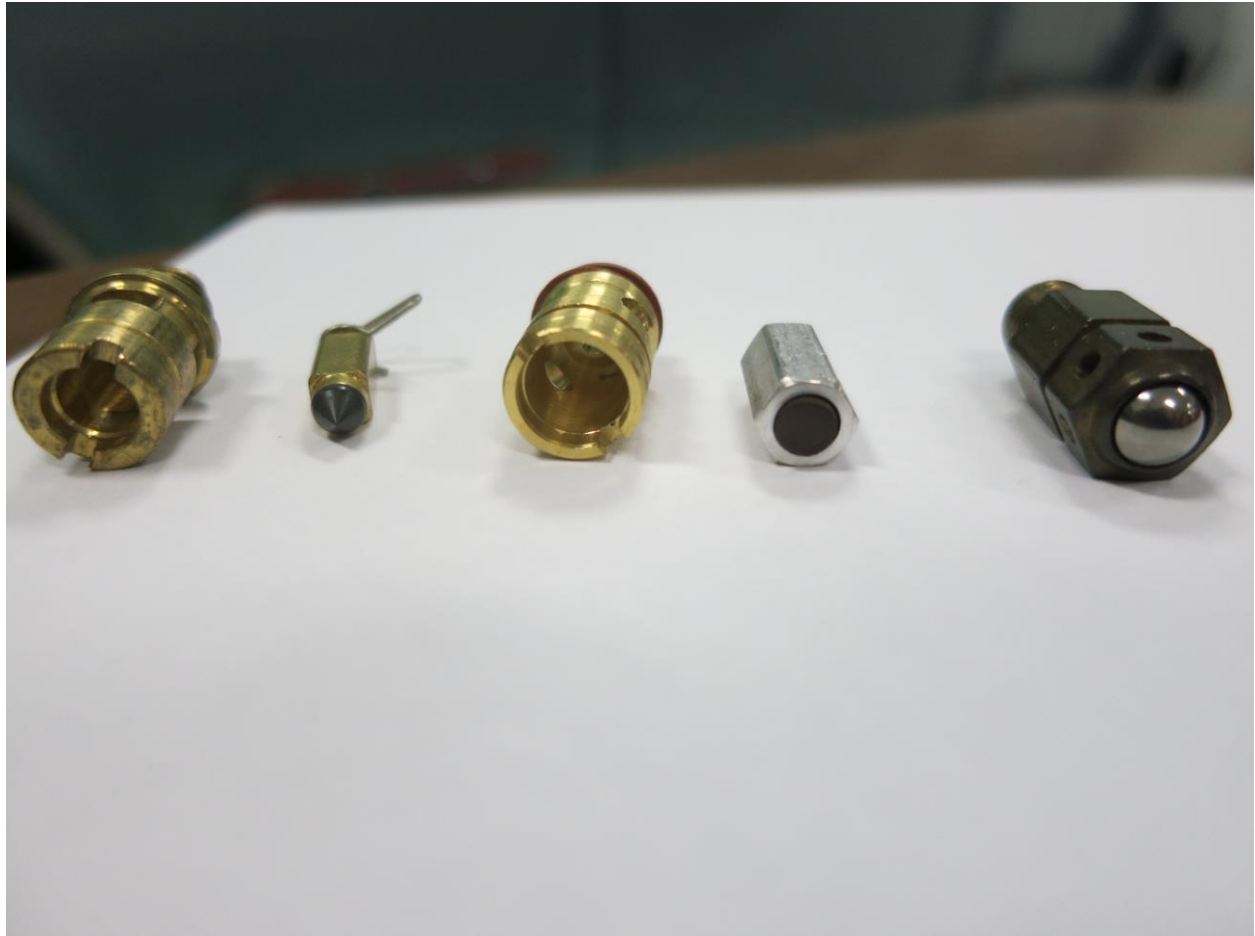
PICTURE LEGEND:

Pic 1 Top to bottom: Original Needle and seat, Daytona Valve, Grose Valve



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Pic 2 Left to right: Original Needle and seat, Daytona Valve, Grose Valve



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Pic 3 Left to right: Original Needle Valve opening compared to the Daytona Valve opening



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Pic 4 Left to right: Original Needle compared to the Daytona Valve

