

Topic: Petcock shutoff Modification

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By Wholeshotking on USA2Strokers.com

RZ-350 Positive Fuel Shut Off Modification

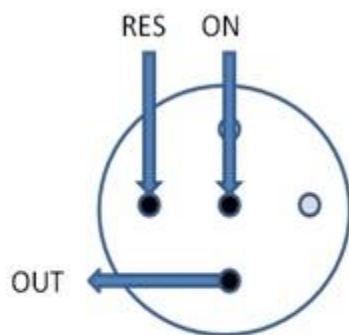
Most if not all RZ-350's suffer from a common annoying fuel leak caused by a vacuum fuel shutoff valve. The results are both annoying (Fuel on the floor) and damaging (Fuel fills the Carbs) they flooded and eventually fill the crankcase with raw fuel.

Many have elected to install a Petcock from other model Yamaha's like the RD-350 but that leaves an unsightly hole in the side cover where the stock petcock valve handle was not to mention it is difficult to turn the Petcock handle through the hole.

I was researching this the other day and found a hint at what looked like a great modification to the Stock Petcock. Thanks to *BoggieMog* from <http://www.yamaha-rd.com> for the idea.

I performed the Modification to my 1984 RZ-350 and it works perfectly. Feel free to follow these steps to modify yours.

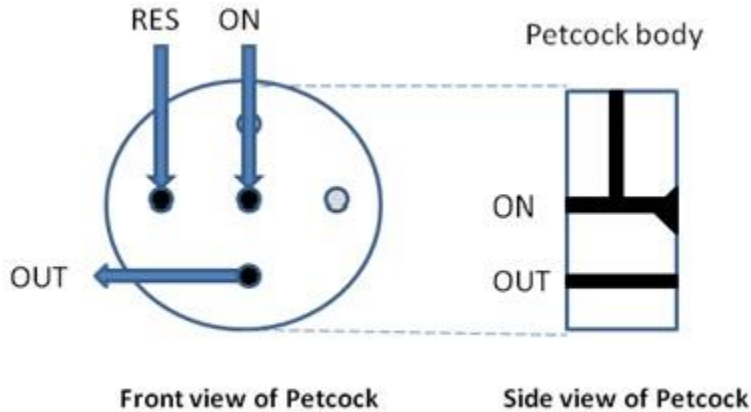
1. Drain your Fuel tank. (Obviously)
2. Remove the Fuel Tank and disassemble the Petcock.
 - a. Remove the Black plastic handle.
 - b. Remove the Label cover and Mount.
 - c. Remove the Valve Lever
 - d. Remove the 5 screws on the back of the Petcock.
 - e. Remove the Spring, 2 Diaphragms and Plastic housing. (We will not be using the diaphragms, spring or plastic on reassembly)
3. Let's understand how this Petcock works.
 - a. There are 2 passages leading from the Fuel tank. (ON and RES)
 - b. There is 1 passage leading to the Carburetors. (OUT)
 - c. STOCK settings has the fuel flowing to the Center hole, back to the vacuum assembly so when the engine pulls a vacuum, fuel can flow.



Front view of Petcock

4. We want to modify the Petcock Body by filling in the center hole where the Vacuum diaphragm fits into the Petcock.

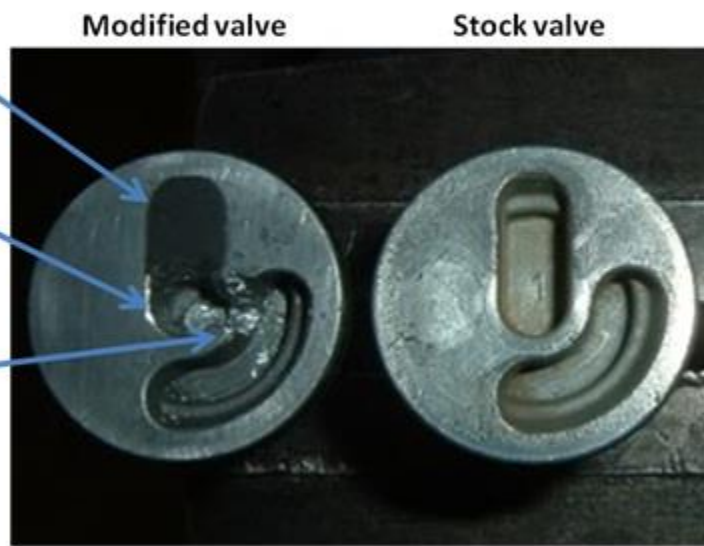
- a. Insert a small screw through the Center front Petcock hole till it almost exits the back.
This will stop the JB Weld from seeping into the center hole blocking the ON Fuel passage from the Fuel Tank.
- b. Fill the triangle shaped portion of the center passage on the vacuum side of the Petcock with JB Weld.
- c. Remove the blocking screw before the JB Weld fully cures or it could become stuck.
Usually a few hours.



5. Make a Gasket to seal the aluminum vacuum cover on the back of the Petcock.
6. Reassemble the rear "vacuum cover" of the Petcock. (You will not need the diaphragms, spring or plastic housing).
7. Next we need to modify the Petcock Valve Handle.

Petcock "Valve Handle" modification

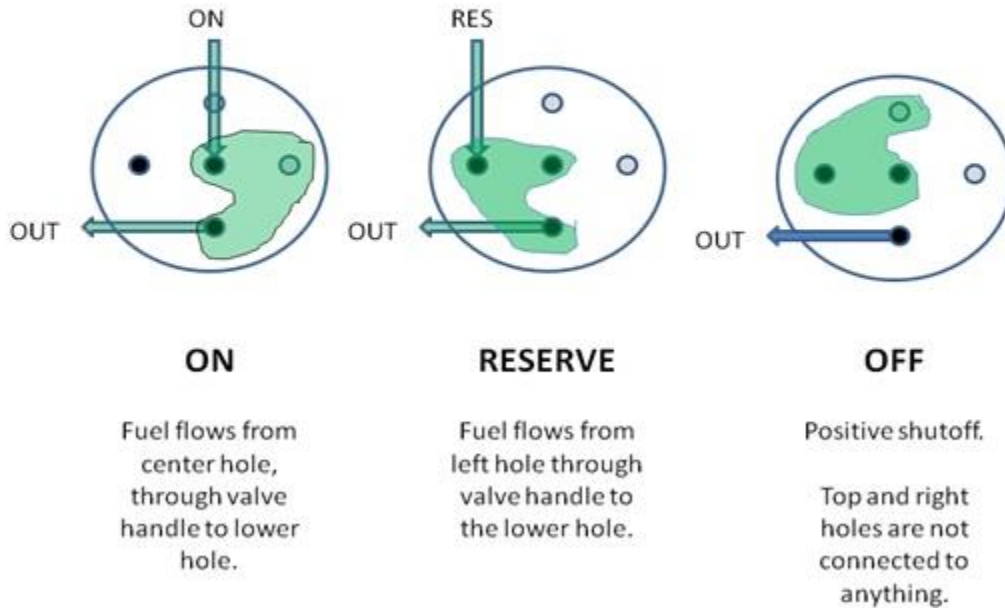
1. Fill slot with JB Weld.
2. Drill JB Weld out of center but not through aluminum.
3. Grind away aluminum as shown
4. Sand the JB Weld smooth and flat (600 grit)



Make sure the JB Weld extends above the Valve surface when cured. Sand in a figure 8 motion on a flat surface with the end result being a smooth valve handle with no sharp edges where you ground.

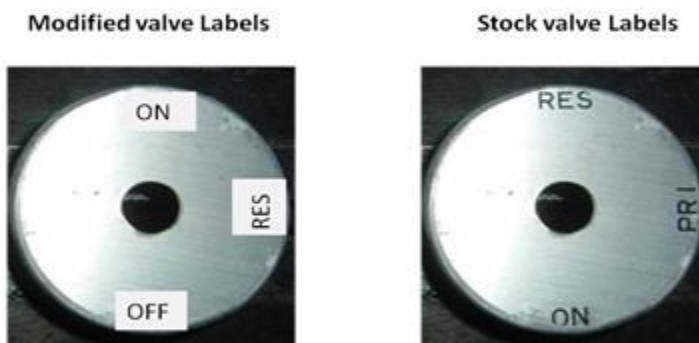
8. This is how the Petcock Valve will work.

“Fuel flow direction” through modified Petcock



9. Once all the Modifications are complete on the Petcock there is one more thing.

New “Petcock Labels”



This modification will change the way the Petcock works and is labeled. I used a Brother Label Maker from Staples to create new labels.

10. When done, either reconnect the vacuum hose between the carb and Petcock or block the vacuum nipples at both ends. They do nothing and are not needed after the Mod.