

Yamaha Turbo Fuel Starvation Problem Fixed

For many years my Turbo suffered from a random, high-speed, high-boost misfire. Luckily, these bikes do not require that very often as they go fast enough without high boost. The problem persisted and worsened until the bike developed a misfire at idle. After eliminating all the ignition components except the pick-up coils, I suspected a fuel supply problem.

I checked the petcock, installed an aftermarket gas cap (the OEM caps do not vent properly), and gutted the fuel check valve (they accumulate fuel residue and stick). When it misfired again, I pulled the drain screw from #4 float bowl and observed very little fuel draining. Much less than the inside float bowls (the outside carbs are fed from the inside carbs). Then I knew it was a fuel supply problem.

First, I installed a Carter P74017 (\$28) inline fuel pump. With the proper fittings and fuel lines it fits where the OEM fuel pump was located. I added an automotive fuel filter as the OEM fuel pump has an inline filter. The new fuel pump and filter made no difference so I went back to the 40-year old, 143,775-mile OEM fuel pump and went on to the next fuel supply component – the fuel pump regulator (FPR).

On the XJ Bikes website, a search for an aftermarket fuel pump regulator yielded the suggestion of using a Holley12-887 (\$88) FPR that had worked for another Turbo owner (thank-you). After taking a good look at the OEM FPR, I saw that it was cheaply made and wondered how it ever lasted as long as it did. I suspect the OEM FPR was inadequate from day one and did not want to replace the old one with a new OEM part.

Immediately upon start-up with the new Holley FPR, my Turbo shot to 3000 rpm at the same throttle setting where before it idled at 1250 rpm. I took the bike for a test ride, hoping the carbs' needle valves would hold at the new FPR setting (according to the very helpful and knowledgeable folks at Holley the factory setting is 6 psi) and was very thankful the carbs held.

Not only was the misfire gone and the throttle response better than ever, the bike now does something it never did before – it fires as soon as I hit the starter button. These bikes are notorious hard-starters. Now I know why. Plug color is a little dark, but the gas today is so dry with all the alcohol content running a bit rich is a good thing (I use lead substitute additive to help). Besides, it now runs and sounds like I put a hotter cam in it. I don't notice any difference in fuel mileage, but my Turbo now runs at lower boost (2 psi) at the same speeds (60-70 mph) where it used to pull 4 psi.

Apparently, the OEM FPR has been fuel starving this bike since new. The dyno chart also reveals this. I feel very certain it has picked up a few horsepower too (increasing fuel pressure is an old hot rodders trick). If you install the Holley FPR on your bike, I think you will be amazed at how much better it runs especially if you install a K&N air filter in place of the OEM airbox. My suggestion? Every Yamaha Turbo owner should install a Holley FPR! - *Backroad Bob*

