



<http://www.wranglerforum.com/f210/tj-fuel-pump-replacement-write-up-342097.html>

10-14-2013, 10:20 PM

#1

Isu60driver

Jeeper



Join Date: Dec 2011
Posts: 46
[Garage](#)

TJ Fuel Pump Replacement Write Up

Hopefully, I'm not duplicating previous efforts but I wanted to create a Write Up for the fuel pump replacement in a TJ. I have a 2003 Rubicon that I purchased about a month ago and it had a problem taking a while to crank the engine. I could try to crank it and then turn the key back off/on and it would crank right up. It progressively got to be worse so I narrowed it down to the Fuel Pressure regulator or Pump assembly. I could have gotten a FPR for about \$75 and it may have solved the issue but who knows. For \$200 on Amazon I bought a Bosch Fuel pump assembly which includes a new regulator. I figured if I'm going to go through the effort to drop the tank I may as well change out the entire pump. Here is what I did:

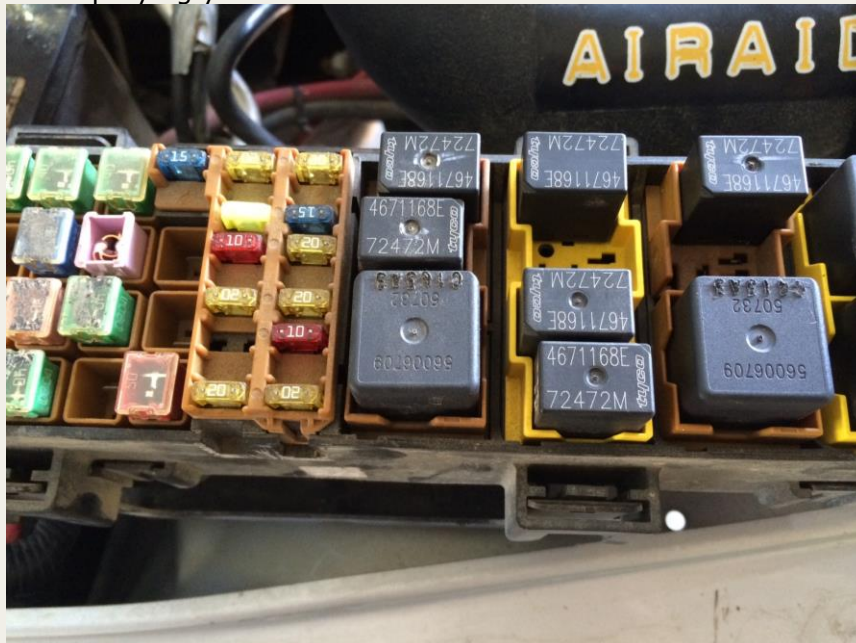
Items purchased: [Bosch 67726 Original Equipment Replacement Electric Fuel Pump](#) : [Amazon.com](#) : [Automotive](#)

[Alltrade 070008 2 Piece Got Wrench Set \(colors may vary\)](#) - [Amazon.com](#)

Ok besides the two items listed above, you just need basic tools and a floor jack.

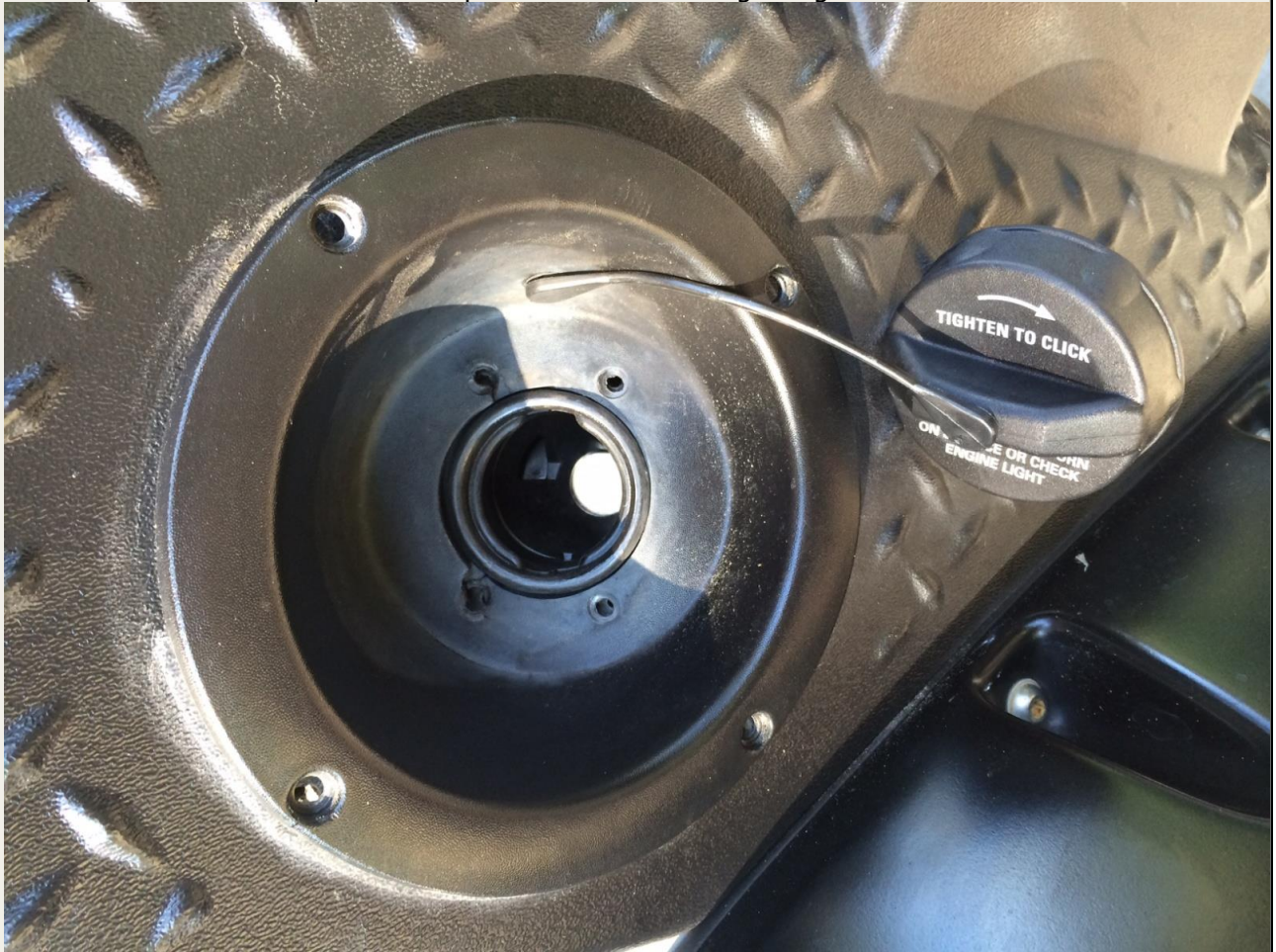
My Jeep has a 4 inch lift on it so I did not need to jack the rear end up at all during the entire process. If you have a stock ride height you may need to put the rear on jack stands or get it up in order to have some working room.

1) In order to prep the Jeep you're going to need to depressurize the fuel system. I pulled the Fuel Pump Relay out of the fuse box located in the engine bay on the passenger's side. After this was pulled I attempted to start the jeep a couple times to depressurize the system. My jeep never turned over but yours may crank and eventually sputter out. Another thing I did was located the pressure valve next to the fuel rail. It is located on the driver's side of the engine and has a plastic cap. Almost looks like a valve stem on a tire. I used a screw driver to press down on the valve and relieve the pressure. Make sure to use a towel to block the fuel from spraying you if some were to come out.



2) After the fuel system has been depressurized I disconnected the Negative lead on the battery.

3) Next you are going to need to unscrew the 8 screws holding the gas filler cap. There will be 4 on the outside along the body and 4 screws on the inside around the cap itself. I have an aftermarket body armor panel around mine but it should be similar to a stock gas filler cap. You may have to take off the gas cap later in the dropping of the tank but try to leave the cap on as much as possible to prevent debris from getting inside the filler.



4) The next step is disconnecting the tank lines from the jeep in order to lower the tank. Depending on the lift/height of your jeep it may be better to lower the tank partially to allow room to reach into the tight spaces in order to disconnect these lines. I was able to do it prior to lowering the tank, which is ideal. You don't want to put too much stress on these lines for obvious reasons. Basically you are looking for 3 lines. 2 Fuel lines and a EVAP line. There will be either white or grey quick disconnects that appear almost like little plastic square fittings on the lines. Unfortunately I didn't take a picture of them but they are easy to take apart. Using a pair of needle nose pliers and small flat screwdriver you can pop of the retaining link off of the plastic fitting. It's pretty self-explanatory when you are looking at it. Once the retainer is off of the fitting you should be able to separate the fuel lines easily. You will need to disconnect each of the 3 lines and also the electrical connection to the fuel pump itself. Easiest way to find these lines are crawl under the driver's side of the jeep and they are located right above the rear shock towards the bumper. I would suggest marking each line you disconnect so you know which line connects where after the pump is changed. I don't have the best memory so I used colored electrical tape and marked each end of each line I disconnected. Once all 3 of the lines and the electrical connection are disconnected you will need to move on to the skid plate.

5) Next it's time to start removing the skid plate. There will be 4 nuts on the rear portion of the skid plate (closest to bumper) and 3 nuts on the front of the skid plate. If you are reading this a few days prior to replacing the pump it may be good advice to hit all these nuts with PB Blaster. I sprayed everything down with PB a few days prior and it made simple work of some pretty rough looking hardware. I initially loosened all 7 of the skid plate nuts before putting the jack under the tank. Keep in mind there will be 2 extra nuts on the rear portion of the skid plate that are used for keeping the tank connected to the skid plate. You can loosen these but DO NOT try to separate the tank from the skid plate. It will not be necessary to separate these for this replacement. Once the nuts are loosened you can place your jack under the tank and jack it up only enough to hold the tank in place while you remove the 7 nuts from the skid plate completely.

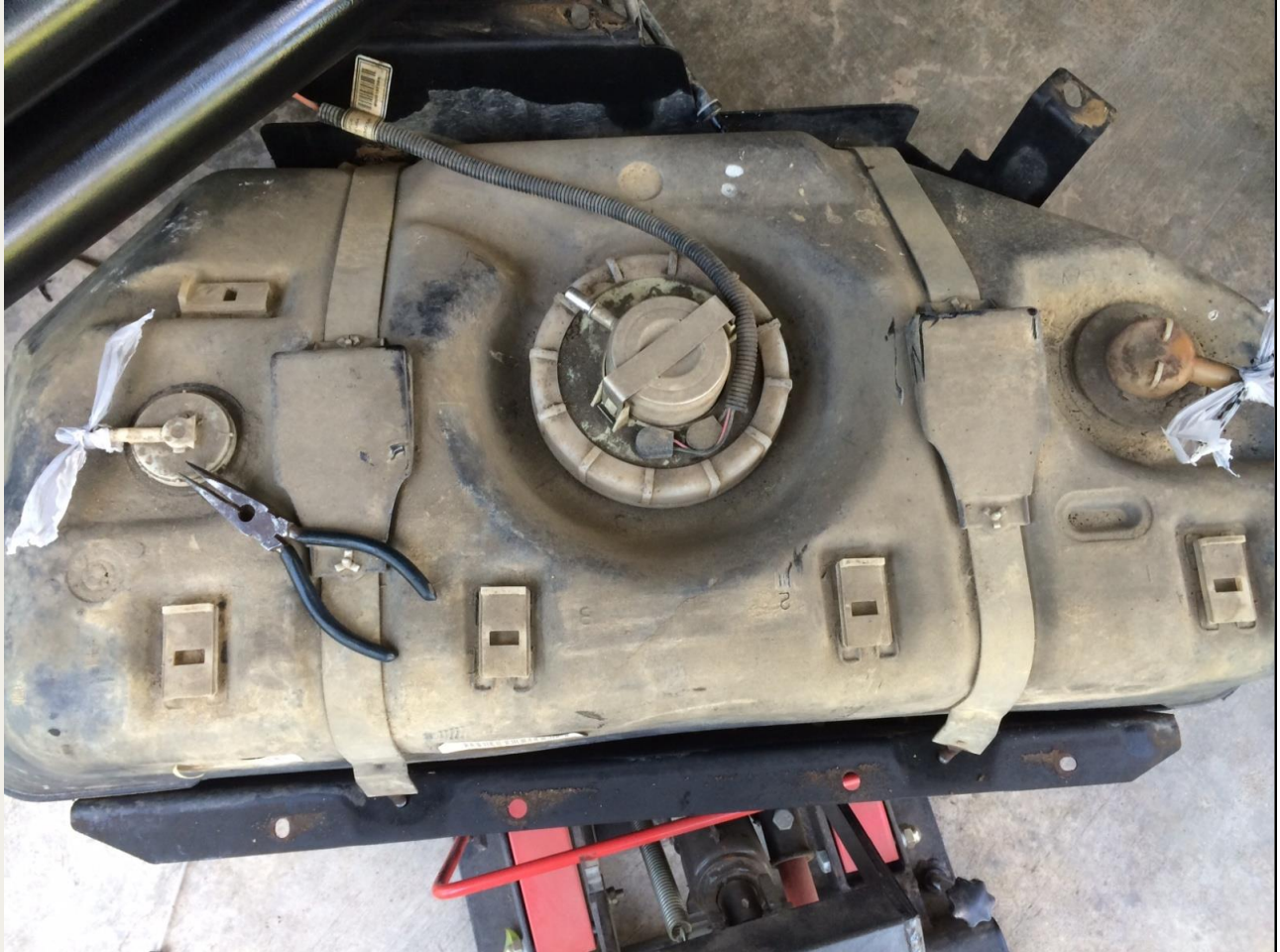




6) This is the part that becomes tricky if you are doing the job alone (but it can be done) You are going to slowly lower the fuel tank down. The key here is to make sure to feed the filler cap/neck along with the other 2 lines zip tied to it down while lowering the tank. I carefully lowered the tank, then checked the filler, lowered some more, checked again etc. Take your time on this step because it can be easy to rip a fuel line off while lowering the tank. I had the benefit of a nice jack but any floor jack will work. I ended up ripping a dry rotted piece of fuel tubing that was a vent line from the filler to the fuel tank. Went to the local auto store and it was about \$1.50 per foot, not too bad. Now that the tank is lowered you can drag it out from under the jeep so you can work on it easily.



7) Make sure you clean the top of the tank off before taking out the existing pump. You don't want a bunch of crud falling into the tank when the pump assembly comes out. After the top is somewhat clean, it's time to bust out the strap wrench. (MAKE SURE TO NOTE THE POSITION OF THE FUEL PUMP REGULATOR!) I took a quick picture on my phone so when I put the new pump in, it would be in the same direction as the older one. This will make sure the electrical connection has enough slack to connect when you install the tank.



-Using the strap wrench, remove the retaining ring that holds the fuel pump assembly into the tank. It is plastic and is on there pretty tight. It is standard left = loosen / right = tighten. Once the ring is removed the pump should pull right out. You are going to have to accept that some fuel will spill but manipulate the assembly out of the tank as careful as you can without making a huge fuel mess. Discard the old pump however you feel like it. There will also be a rubber gasket that was between the pump and the fuel tank. Remove and discard that as well, the new pump should include one.

8) Next, take the new rubber gasket and fit it onto the tank so that when you install the new pump assembly it is sandwiched between the lip of the pump and the rim of the tank. It's pretty common sense from this point, install the new pump assembly into the tank. It should drop in fairly easily with some manipulating around the float lever. Once the pump is seated into the tank and the pressure regulator is pointed in 10-11 o'clock position it is time to install the plastic retaining ring. Mine was kind of a bi\$@% to put back on without being cross threaded but with some patience it went back on. Use the strap wrench to tighten the ring back to the same it was when you removed it. I'm sure the manual will tell you how many Ft-lbs but as you can tell I did this on my own torque values.

9) This should pretty much wrap up the fuel pump replacement, just follow the reverse order of what you just did for installing the fuel tank back onto the Jeep. Be extremely careful when raising the tank back under the jeep not to damage the electrical connection because it is a pretty tight fit as it is, and any additional stress could maybe cause damage and you'll back at square one. Once the tank is in position using the jack I would try and connect all the color coded fuel lines prior to tightening all of the hardware on the skid plate. This will allow your

hands some wiggle room to get everything reconnected. Other than that, the rest of the job is pretty straightforward. Just take your time and it should all fit back with ease.

10) Once you have double checked that all the lines are reconnected to include the electrical connection to the fuel pump it is time to clean up and get ready for the first start. Make sure you replace the Fuel Pump relay if you followed my method and removed it during the depressurization of the fuel system. Also connect the negative lead of the battery back to the battery. Once everything is connected again, turn the key on as far as you can without cranking the engine. Do this a few times (2-3) and you may be able to hear the fuel pump come online if you have excellent hearing. Once you've done this a few times go ahead and crank the engine. Mine cranked right up without any hesitation. My starting issue was fixed. I turned the engine off, cleaned up the tools and tried it again, cranked like a brand new Jeep.

I hope this helps anyone looking to save some money on repairing their Jeep if it suffered from the same symptoms mine did. Not sure what the stealership would have charged to do this but it took about 3.5 hours at a leisurely pace to do myself, and I am by no means a savvy mechanic. I learned most of my repairs off of forums like this and YouTube! Please feel free to ask questions or correct me if I called something an incorrect name! Ha, take it easy and hope this helped!!

