

Fuel Tank Change on a 1997 F-150 Ext. Cab 4X4

I just want to start out by saying that safety is a priority and all precautions should be taken.

- Wear safety glasses while under the truck so that you don't get any of the dirt and falling rust in your eyes.
- Make sure not to smoke or have any open flames anywhere near the tank or under the truck at all times.
- Disconnect the battery cables to eliminate any chance of a spark and also to keep the fuel pump from running.

Well my problem started one day when I was filling my tank on my 1997 Ford F-150 Ext. Cab 4x4 with gas and someone yelled over to me that I was leaking something underneath my truck. Yes it was the gas that I was trying to get into the tank. I checked while I was there and could not tell where it was coming from and it seemed to stop when I stopped putting gas into the tank. So when I returned home I did a more thorough check and still could not see exactly where it was coming from. Everything was fine until the next time I tried to put more gas in and it started to leak again. Then my check engine light soon came on and the code came up that it might be a loose gas cap and I knew I had a hole somewhere. I looked up between the tank and the bottom of the truck with a mechanics mirror and still could not see anything. So after checking the filler neck and hoses (they were ok) I decided I would have to change out the tank.

Now my truck has 161,000 miles on it so I thought something had to go sooner or later. It was not until after I removed the tank that I noticed that the problem was a crack in the stub on the tank that the filler neck hose connects to. The crack was right at the very end of the hose and that is why I could not see it. (See picture below)

This job turned out to be a lot easier than I expected. If you think you want to take it on and have some mechanical skills you shouldn't have any problems.

Some of the equipment and tools that I needed to take on this job:

- Two cambuckle tie down straps. (I like this kind better because they release easier than the ratchet type)
- Fuel line quick disconnect tool (I think the sizes are 5/16 and 3/8 I had to make one)
- Pliers for taking off the spring clamps on the sensor lines on the tank
- Regular screwdriver for hose clamps on filler neck
- 5/16" socket to remove battery cable
- 1/2" socket and extension to remove tank strap bolts.
- And I used a creeper style dolly/cart to set the tank on to roll it out from under the truck.
- Can of PB Blaster to spray on tank strap bolts the night before to help in getting them loose.

Total time for doing this job was about three hours but that was with taking my time and having to come up with a tool to remove the fuel lines.

My total cost for this tank change out was only the cost of the tank which was \$122.05 shipped to my door. That is about a \$700.00 savings over what Ford wanted to do the job. I got my tank from [carpartswholesale.com](http://www.carpartswholesale.com). This is the one I used. http://www.carpartswholesale.com/v5/details/Ford/F-150/Replacement/Fuel_Tank/1997/XLT/8_Cyl_4-dot-6L/ARBF670117.html/?sc=Product+Listing+Page:1

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First off, There is a recall on the gas tank straps in some areas of the contry for rust so you should check into that if you haven't allready done so.

OK, Let's get started.

I let my fuel level get down to where the low fuel light came on.

Start by removing the negative battery cable.



Then remove the fuse for the fuel pump in the fuse box under the hood in the engine compartment. It is the 20amp fuse where I am pointing to in the picture. Check you manual for a better description on fuse locations.



Next remove the two hose clamps holding the filler tube and vent tube and loosen the two hoses a little so they will come off easier later.

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I used cambuckle tie down straps (blue) to lower the tank. It is not that heavy if you have it drained down to almost empty. You can also use a floor jack and a piece of wood between the bottom of the tank and jack then slowly lower it that way if you like. I did not have a picture of the blue straps around the tank but you just hook the straps to the frame on both sides of the tank just next to where the metal tank straps are located. After I had the blue straps tight I removed each bolt from the metal straps that hold the tank in the truck. Then I removed the one end of the filler and vent hose where I released the clamps earlier. As you release the tension on the blue straps (a little of each one at

a time) the tank will start to lower and when you get the tank low enough to get to the fuel line and hose connections just let it hang there until you disconnect all of the lines.



Here are the fuel lines and one of the sensor hoses disconnected. I kept the fuel line upright so no gas would come out of them. To disconnect the fuel lines you either need a tool that you can get at just about any auto parts store or if you have to you can make a tool out of just about anything that is stiff and will wrap around the hose that you can push into the connector. I had a tool but it was the wrong size so I made one out of a piece of a plastic wire clamp like this.

Just cut the ring to fit wrap it around the line just in



front of the quick connect and push it in to release the connector. This might give you a better idea of what I mean. http://www.youtube.com/watch?v=N_QQEM_Dnp8 I seen this on YouTube and that is where I got the idea and it worked great. The other hoses are just held on with the normal spring compression clamps. There are a total of two fuel lines and three smaller hoses that connect to sensors plus the two filler hoses. There is also an electrical connector that goes to the fuel pump that must be disconnected.

After you have everything disconnected just release the blue straps slowly and lower the tank to the ground.

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This is the tank removed. Notice the three sensors on the top. (two grey and one black)

The black one is expensive if you break it so take your time removing. Around \$98.00

To remove these sensors make sure to clean around them and spray something like WD-40 around them. You have to push down and turn a quarter turn counter clockwise and they should come out. When you re-install them in the new tank they can only go in one way.



This is where the crack was in my tank. It was just at the end of where the filler tube hose ended.



This is the old and new tank. You have to use the old sensors and fuel pump assembly (unless you want to change them) and there is also a black plastic cover on the one end of the tank that you just bend the tabs up to remove and put it on the new tank and bend the tabs down to hold it on. Also on the old tank it is a good idea to remove the plastic tape like product that goes between the tank and the metal body of the truck and put them in the same place on the new tank. This stuff is tough but it will keep the metal body of the truck from rubbing on the tank. The new tank came with new bolts and gasket for the fuel pump.

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These are the sensors removed from the tank. There are two of the grey ones and one black one. Make sure you put them back in the same spot on the tank.



This is the new tank with all of the sensors, plastic end cover and fuel pump assembly installed. I did not get a picture with the plastic strap tape on the tank.



To install the new tank I put the blue cambuckle straps around the tank and slowly lifted the tank up by pulling on the straps until I got it to where I could get the hoses re-connected. The fuel lines just push on. You can't get the fuel lines mixed up because they are two different sizes. The other hoses just slip on and you reuse the spring clamps that were on them before. After you get everything connected re-check everything and continue to raise the tank all the way up. If you can use a small mirror to inspect the lines after you get the tank up to make sure that no lines or wires get kinked. Install the two metal retaining straps and you should be ready to put some gas in and try things out.

Good luck and I hope everything works out for you.