

73 Chevy Truck Fuel Filler Neck Fix

Mark Olson

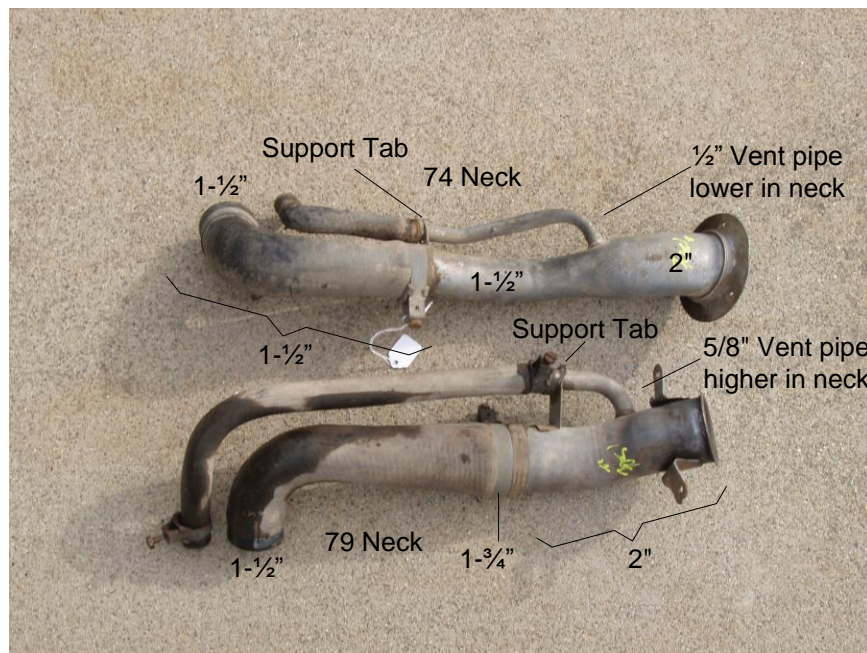
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My son's 1973 Chevy C10 fleetside shortbed pickup has the classic problem with filling the tank with fuel using modern gas pump nozzles. Unless he fills it very slowly, the fuel backs up and spills onto the ground. It takes a lot of time to fill his truck and a lot of fuel is wasted on the ground under the passenger side of the truck.

I decided to try to solve the problem. I headed to the junkyard to buy a spare filler neck from the same generation of truck (1974) and another spare filler neck from the next newer generation (1979) to compare the differences.

When looking at them side by side, there are two differences that immediately jump out at me. One is that the fuel tank vent pipe for the 74 is attached much lower on the filler pipe than it is in the 79 neck. The other major difference is that the diameter of the 74 neck is reduced from about 2" to 1-1/2" diameter very close to the flange. The diameter of the 79 neck is reduced to 1-3/4" only at the very end of the pipe and then the 79 hose reduces it further to 1-1/2".

It appears to me that the rapid "necking down" of the 74 filler pipe coupled with the lower vent pipe placement is allowing/forcing fuel into both the filler hose and the vent pipe, and unrelieved tank air pressure is causing the fuel to back up out of the filler hole.



My first thought was to try to figure out how to modify the 79 neck to fit the 73 truck, but from the photo, you can see that the angles of the pipe are all wrong. One thing to note is that the 79 hose is where the filler is necked down from 1-3/4" to the 1-1/2" size of the fuel tank nipple. Also note that the 79 filler hose is longer than the hose for the 74 neck.

Another thing to note is that the 74 vent pipe is 1/2" while the 79 vent pipe is 5/8".

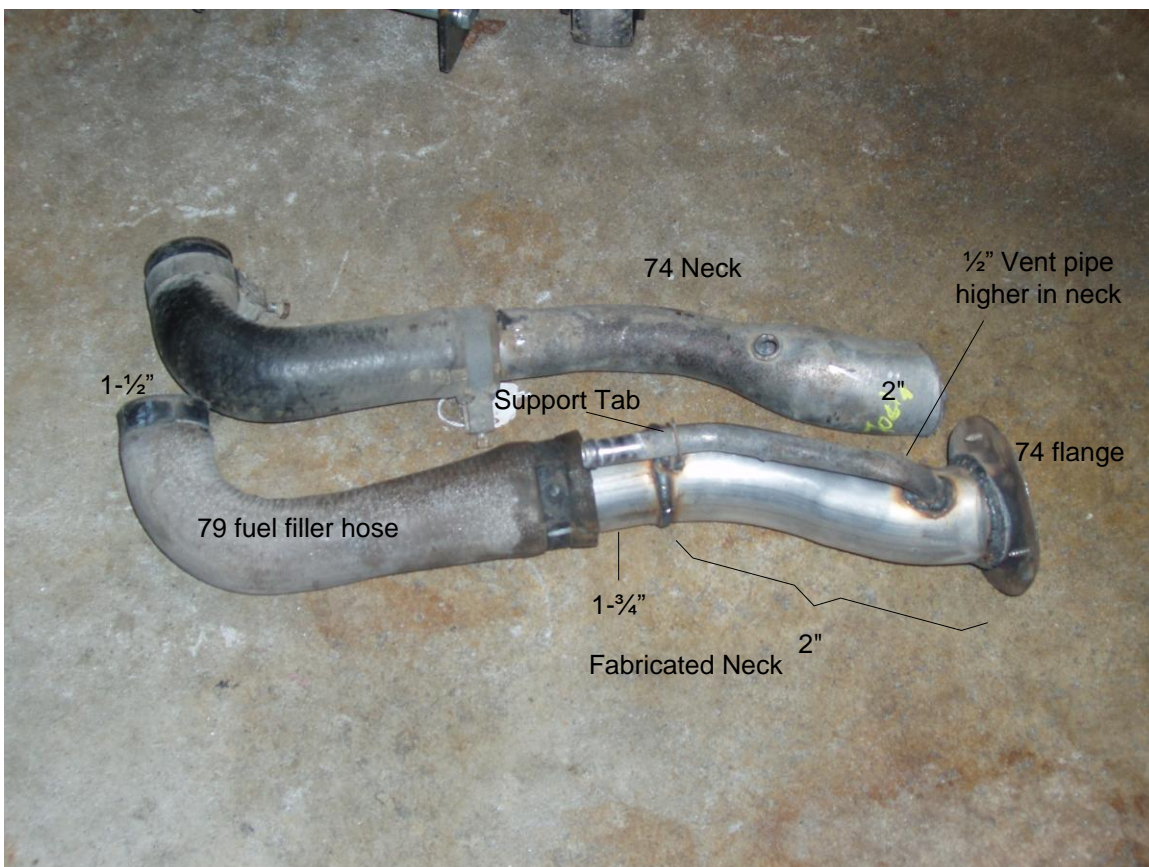
I decided to see what the guys at Kwik-Way Muffler in San Jose, CA could do to help me fabricate a fuel filler neck that might work to make the truck easy to fill with fuel. It needs to be one that looks more like the 97 system, but work in the 73 truck.

Fabrication

The guys at Kwik-Way, bent a piece of 2" steel exhaust pipe to match the bends in the stock 74 pipe. They cut the end of the 2" pipe to about the same angle as the flange of the stock 74 pipe. Then they cut off the flange from the 74 pipe and welded it onto the new 2" pipe.

They cut off the tail of the new 2" pipe and welded on a short length of 1- $\frac{3}{4}$ " pipe to fit the 79 filler hose. They flared the 1- $\frac{3}{4}$ " pipe a bit to get it to more closely match the 2" pipe. Note that the 79 filler hose is longer than the 74 hose, so the new filler pipe needs to be shorter than the stock 74 pipe. This allows the length of the entire system to be correct.

After the main filler pipe was done, it was time to locate the vent pipe. We eyeballed about where on the 79 main filler pipe the vent pipe was located. They drilled a hole in the side of the new filler pipe at about the same distance. They then cut the vent pipe and the little support tab off the 74 filler pipe. They welded the vent pipe and support tab to the new filler pipe and the new filler pipe was ready to be installed in my son's truck.



The main filler hose is easy since it is a stock 79 Chevy truck filler hose. But moving the $\frac{1}{2}$ " vent pipe closer to the filler flange moves it further from the fuel tank. Since the longer 79 vent hose is for a $\frac{5}{8}$ " pipe, it will not work for the new fabricated filler pipe. And the stock 74 vent hose is too short.

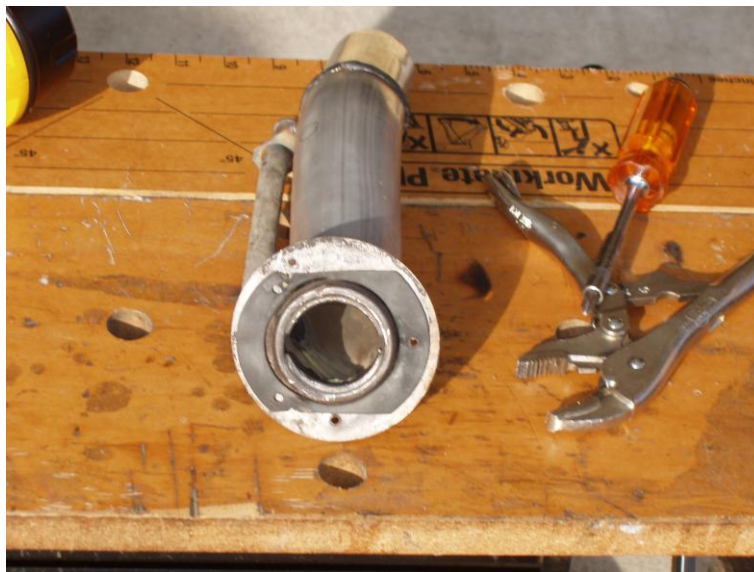
I went to the local parts store to look for a longer 1/2" right angle molded hose. The only one I was able to find was a heater hose which is not fuel rated, so it would not last long. However, they did have straight fuel rated 1/2" hose along with an AC Delco Unicoil (part number 28510 and 19160476). I bought it and one foot of 1/2" fuel line.



The Unicoil allows you to make a sharp 90 degree bend in a hose without causing the hose to crimp itself closed.

Installation

We took the stock fuel filler neck and hoses off the truck, and test fit the new filler neck. Since the mounting holes on the new filler neck flange no longer line up with the holes in the fender. We marked where the new holes needed to be drilled, took it back out and drilled the new holes in the flange.



We mounted the new filler neck to the fender.



We then slid the Unicoil over the 1/2" fuel rated hose, and bent the 90 degree angle into it. We fit it to the fuel tank, cut the length to fit the nipple on the filler neck vent pipe, and installed it.



It is possible that an LMC Truck molded vent hose for the 73 will be long enough for this application, be we didn't think of that until after we were done with the project.

Finally, we fitted the main filler hose to the tank and the neck.



From the outside, it looks completely identical to stock. We took it down to the gas station and filled it until the pump automatically shut off. We lost a few drops of fuel as it shut off, but there was no problem filling the truck at full pump speed.

You still can't hook the new pump nozzle to the filler flange, so you have to hold the nozzle as you pump, but you can fill the tank as fast as the pump can pump it.

The one thing we are not sure of is if simply moving the vent pipe close to the flange will solve the problem, or if you need to both move the vent pipe and enlarge the filler neck. Perhaps someone will try that experiment and report on it.

We are very pleased with how well the new filler neck performs. Hopefully it will work well for you, too.