Ford Super Duty 5.4L 4R100 Transmission Flush

2004 F250 4x4 XLT Sport Crew Cab

Back to 2004 F250 Main Page

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NOTE Before you even get started reading this writeup, I want to make it clear that I get zero credit for this!

100% of the credit goes to Mark Kovalsky of the FTE forums.

Everything you see here was done following his writeup at the following link:

Changing ATF Fluid in a E40D and 4R100 transmission

My only motivation for doing this writeup was to show a few pictures of the process.

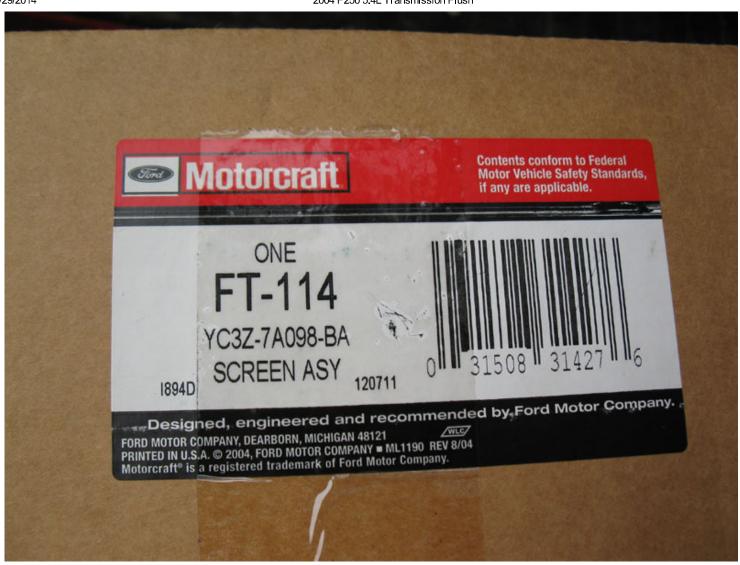
So, here we go....

20 quarts of transmission fluid are required to do the job. The transmission capacity is 18qts, but a few quarts must be wasted to flush out all of the old fluid.

I chose Mobil 1 Synthetic ATF which adds up pretty quick at \$10/qt!



I chose to replace the filter, Motorcraft P/N YC3Z-7A098-BA





Gather up some empty jugs for disposing of the old fluid. Also, the funnel pictured below makes refilling the fluid super easy



You'll also need around 10 feet of clear tubing. For my truck 1/2" ID was the right size.



Remove the drain plug to drain the transmission pan using a 1/2" socket.



About eight quarts drained out of mine.



Remove the 20 bolts for the transmission pan. The bolts are size 10mm.







Remove the filter. Just pull straight down and it will pop out. Be extra careful that you get the o-ring out as well.

Mine did not come out with the filter, I had to reach up in there and pull it out!



This is the o-ring that didn't come out on mine



Just after removing the pan



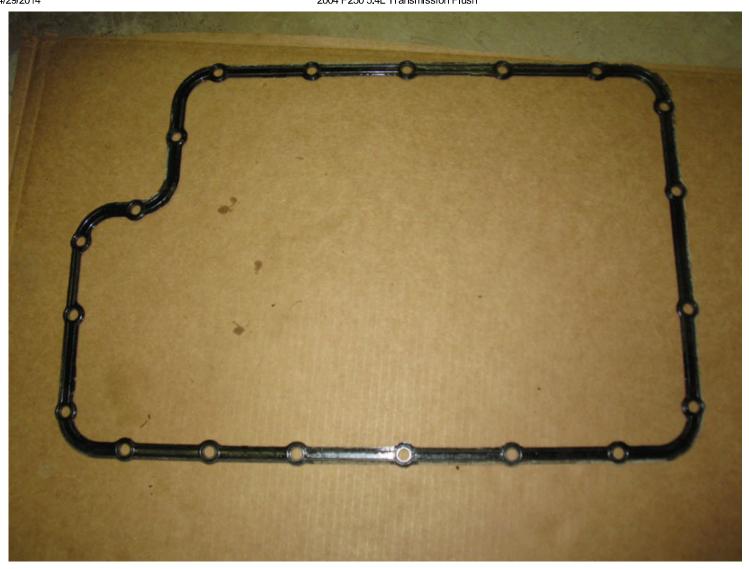


Clean up the pan and the magnet on the bottom.





Clean up the original gasket as well. It is reusable.



Install the new filter. Just push it upward into the transmission.



Reinstall the pan and gasket, alternately tightening the bolts to 11 lb-ft.



Refill the transmission with the same amount that was drained out earlier, as I said it was around eight quarts for me.

I found that it worked well to rig the funnel with a few cable ties like this.



Disconnect the transmission cooler return line using a 5/8" line wrench. This is on the passenger side of the transmission, the rear-most line.





Place the clear tubing over the line and clamp it in place.



I used a tiny c-clamp to hold the tubing in place on the drain pan.



Start the truck and let the fluid pump out until you see air in the clear tube. As soon as you see air, turn off the engine.



I pumped out around six quarts the first time



Repeat the process of refilling and pumping out fluid until you have added 19 quarts of new fluid. At some point while the engine is running, run the transmission through all of the gears, pausing around 5seconds in each position.

I only had to repeat the process once, draining around five quarts the second time.

Remove the clear tubing from the cooler line and reconnect it to the transmission.

Check the fluid level with the dipstick and use the last quart to top it off.

That's it!

Questions or Comments? Email jmray@frontiernet.net