Freightliner Custom Chassis Corp.

Power Steering Fluid Drain and Refill Procedure

I use the following procedure to drain and refill the Power Steering Reservoir on my Freightliner chassis.

Over the years I developed two methods to drain and refill the reservoir. The reservoir on my chassis is located on the rear of the RV attached to the radiator housing.



I labeled the two hoses Suction and Return. The suction line (larger hose) supplies ATF to the power steering pump which pumps it to the steering gear in the front of the RV. At that point the return line brings the fluid back to the reservoir and the process continues in a circle during the time the power steering is in use.

I calculated the capacity of the power steering system which includes pump, reservoir, hoses and the power steering unit and arrived at 1.75 gallons of ATF (Dexron III).

Step 1 I use a drill powered pump to remove the fluid from the reservoir. It is also possible to use a hose and siphon the fluid into a

container for disposal. I remove as much of the ATF from the reservoir as possible, this makes for less mess in step 2.

Step 2 Remove the hose clamp from the return line, gently work the hose off of the hose barb on the reservoir. If you removed ALL of the ATF from the reservoir then there will be no fluid to drain from the reservoir which will make a mess. Using an empty two gallon capacity container push the return hose into the mouth of the empty container. I use a short piece of hose to block off the return hose barb. I just push the hose over the hose barb and bend the hose back on itself to crimp the hose preventing the fluid from leaking out of the reservoir.

Step 3a Procedure to use when I DO NOT have an assistant to help me. Use the jacks to lift the front wheels off of the ground, not much just off of the ground will do. Refill the reservoir with new Dexron III fluid. Climb into the driver's seat and turn the steering wheel all of the way to the left then all of the way to the right. Turning the wheel left to stop then right to the stop then back to the left manually pumps the fluid through the power steering system. After a few cycles go to the back and look at the reservoir, the fluid level will drop and the empty container will not longer be empty. Remember the number of cycles of the steering wheel to the left, then to the right and back to left that will give you a good idea of how many cycles it will take to drain the reservoir. DO NOT completely drain the reservoir.

Step 3b Procedure to use when I DO HAVE an assistant. Refill the reservoir with new Dexron III fluid. Climb into the driver's seat position the assistant where they can see the reservoir and the driver (in the mirror) at the same time. Start the engine. The pump will pump the ATF through the power steering system (draining the reservoir and pumping fluid into the empty container). The assistant tells the driver when to turn OFF the engine (seconds not minutes) just prior to completely draining the reservoir, DO NOT completely drain the reservoir.

Step 4 The reservoir is now almost empty, being careful not to make too much of a mess remove the crimped hose and reconnect the return line to the reservoir, retighten the hose clamp. Top off the reservoir with Dexron III. Draining and refilling should take between 1.75 gallons and 2 gallons of Dexron III.