



2010 43QGP Allegro Bus

4/21/2015

120 - FYI – REPLACING THE POWER STEERING FILTER AND FLUID.

One of the maintenance items on our Powerglide chassis is to replace the power steering filter and fluid on a four year interval or 35,000 miles whichever comes first. On our coach and most owners this maintenance will be performed at four year intervals.

The power steering fluid is the standard Dexron III ATF (Automatic Transmission Fluid). The power steering filter was purchased on the Internet, it is a Fleetguard 83804E filter current cost is \$ 9.56. The Dexron III can be purchased at Walmart or any automotive parts store for around \$ 13.00 per gallon or higher depending on manufacturer, the capacity of the power steering system is approximately 3 gallons.

The first order of business is to remove the two bolts holding the ring sealing the top to the canister. After the ring was removed the top was removed then the ATF was pumped out of the canister. After the canister was drained the filter was removed prior to cleaning the canister.



After the canister was cleaned, the filter was installed prior to pouring in the new ATF.



A few months prior to the power steering filter and fluid change Tiffin replaced the power steering gear on our coach as it had a leaking lower seal. During the change out Tiffin poured in new ATF to refill the power steering system. Otherwise I would have taken further measures to purge the approximate 1 gallon of ATF from the 80 feet of power steering lines connected to the power steering canister and power steering pump. I'll explain my method of purging the power steering lines, really I have two methods.

First method requires one person. The smaller hose connected at the bottom of the canister is removed. The canister opening is plugged where the hose was removed. The removed hose is placed into a container capable of containing two gallons of fluid. The canister is filled with ATF. The front jacks are lowered to take weight off the front axle making turning the steering wheel easy to turn. The steering wheel is turned completely to the right until it stops then turned completely to the left until it stops. Each time the wheel is turned the fluid is being pumped thru the power steering system new fluid is pumped into the steering system and old fluid is pumped out into the catch container. After each cycle the fluid level in the canister is checked to make sure fluid is still in the canister before starting a new cycle of turning the steering wheel stop to stop is completed.

I checked the fluid volume of the power steering hoses in the steering gear and determined the volume to be about one gallon. So after one to one and half gallons has been pumped thru the hose into the catch pan. You can reconnect the hose to the bottom of the canister and refill the canister with fluid.

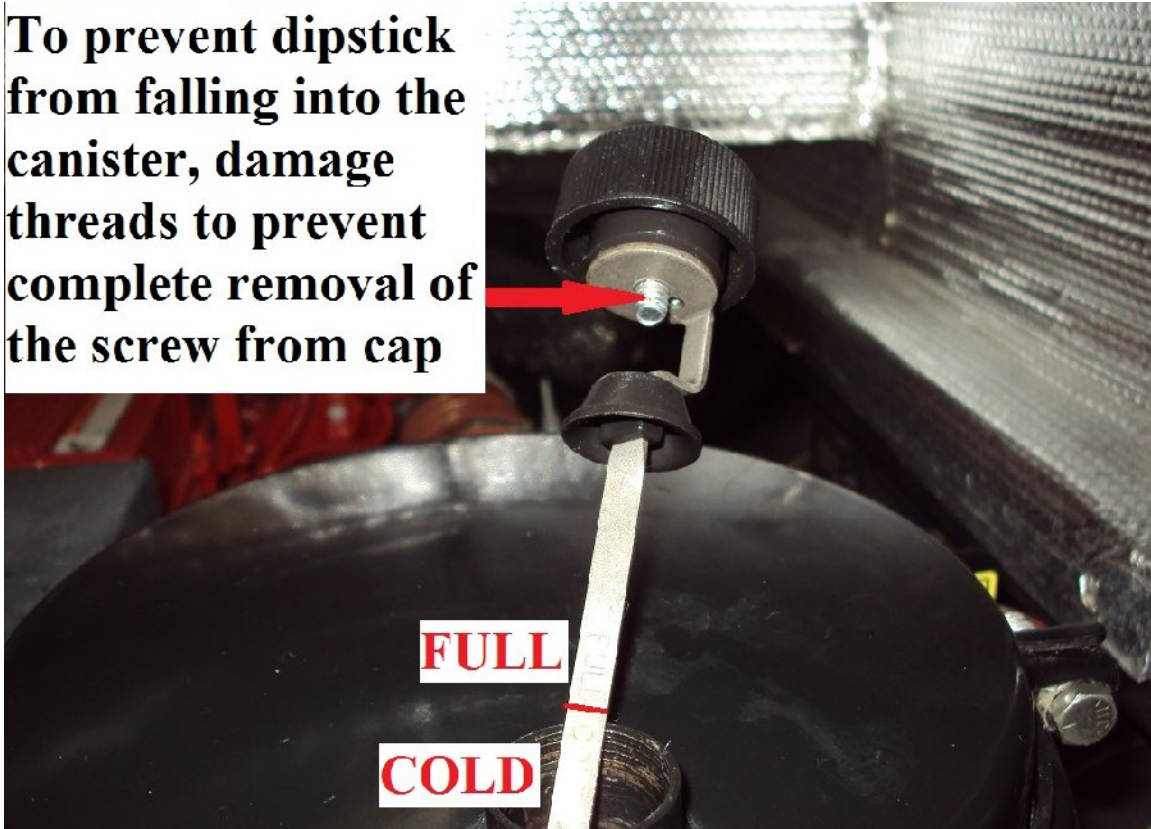
Second method is faster however it requires coordination between two people. Again the smaller hose connected at the bottom of the canister is removed. The canister opening is plugged where the hose was removed. The hose is placed into a container capable of containing two gallons of fluid. The canister is filled with ATF.

This is where the difference begins, with one person in the driver seat start the engine. The second person is watching the filled power steering canister with the engine running the fluid will be RAPIDLY pumped thru the power steering system into the catch pan. The second person tells the first person to turn off the ignition BEFORE the canister is emptied of fluid. Reconnect the hose to the bottom of the canister and refill the canister with fluid. Reinstall the top of the canister and sealing ring, install and tighten the two bolts.

While I have not experienced this problem, I've heard where other owners have. The knurled knob can be unscrewed too many turns if that occurs the actual dipstick will fall into the canister. If lower portion of the dipstick falls

into the canister the top will need to be removed, enough of the ATF will need to be removed so the dipstick can be located and retrieved. Once the dipstick and knurled knob are re-assembled, I suggest the threads on the screw be damaged near the end of the threads that will prevent the screw from being completely unthreaded from the dipstick and dropping into the canister.

To prevent dipstick from falling into the canister, damage threads to prevent complete removal of the screw from cap



Seen in the previous photo the dipstick was marked with the FULL fluid level when the fluid is COLD.

To check the fluid level the knurled knob is unscrewed (counter clock wise) a FEW turns this decompresses the rubber stopper and allows the dipstick to be removed for checking the fluid level. When reinstalling the dipstick, push the dipstick into the hole until the knurled cap stops, then turn the knob clockwise to compress the rubber in the knob sealing the dipstick in place. To fill the power steering system requires between 3 and 4 gallons of ATF, I believe the actual volume is closer to the three gallon range.