

Power Steering Pump Rebuild

by SomethingElse

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This rebuild should be done in an open space, where you can lay everything out neatly. Use ATF on all of the new O-rings when you are installing them.

Parts list with prices from Subaruparts.com:

34425AA000	Gasket	1 ea.	\$ 2.40
31263GA840	Ball Bearing	1 ea.	\$12.02
34424AA000	Oil Seal	1 ea.	\$ 6.97
31263GA900	O-ring	1 ea.	\$ 2.91
31263GA890	O-ring	1 ea.	\$.37
34427AA000	O-ring	2 ea.	\$.37
34427AA010	O-ring	1 ea.	\$.60
31260GA050	O-ring	2 ea.	\$ 1.94
34432AA000	Spring	1 ea.	\$.52
062610110	O-ring for the reservoir	1 ea.	\$.99

Tools needed to rebuild pump:

vise/shop rags
Razor blade for cutting old o-rings off
Snap ring pliers
Punch for knocking seals out
Torx 40
8 mm socket
12 mm socket
14 mm socket
19 mm socket
20 mm socket for pressing bearing, and pushing in seals
15 mm socket for pressing new bearing on
24 mm for pressing shaft back into housing
16 mm wrench
22 mm wrench

1. Loosen 19 mm pulley nut on the power steering pump before removing the belt. After the nut is loose, remove the pump by removing the 4 – 12 mm bolts, and the high/low pressure lines.

2. Drain the fluid, and then separate the reservoir from the pump by removing the two T-40 bolts from the top. Replace the reservoir o-ring.



3. Remove the four 14 mm bolts from the back of the pump, throw the old gasket away.
NOTE THE POSITION OF THE GUIDING PINS!

4. Pull the pump guts out **CAREFULLY!** Note the direction of the internal parts. They need to go back together the same way they came out. More than likely it will be magnetized so you may have to slightly pry them apart. Inspect all of the pump vanes and housing for cracks, or uneven wear.



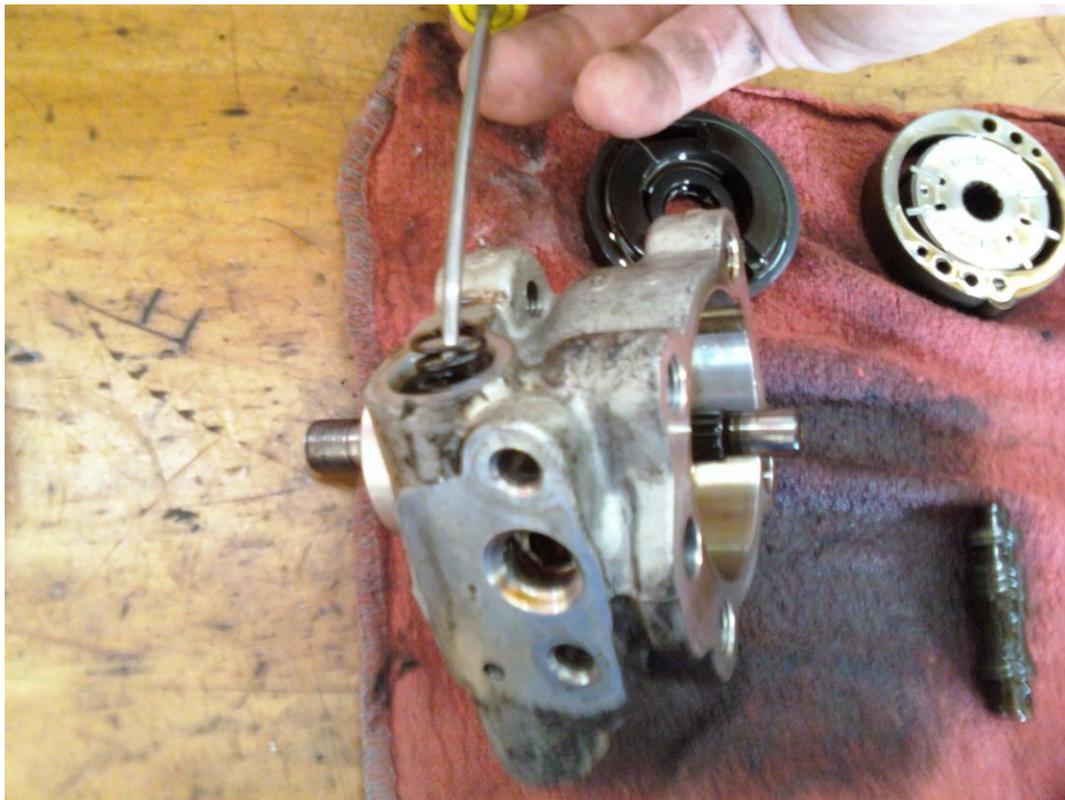
5. Remove the 2 - O-rings in the front portion of the case.



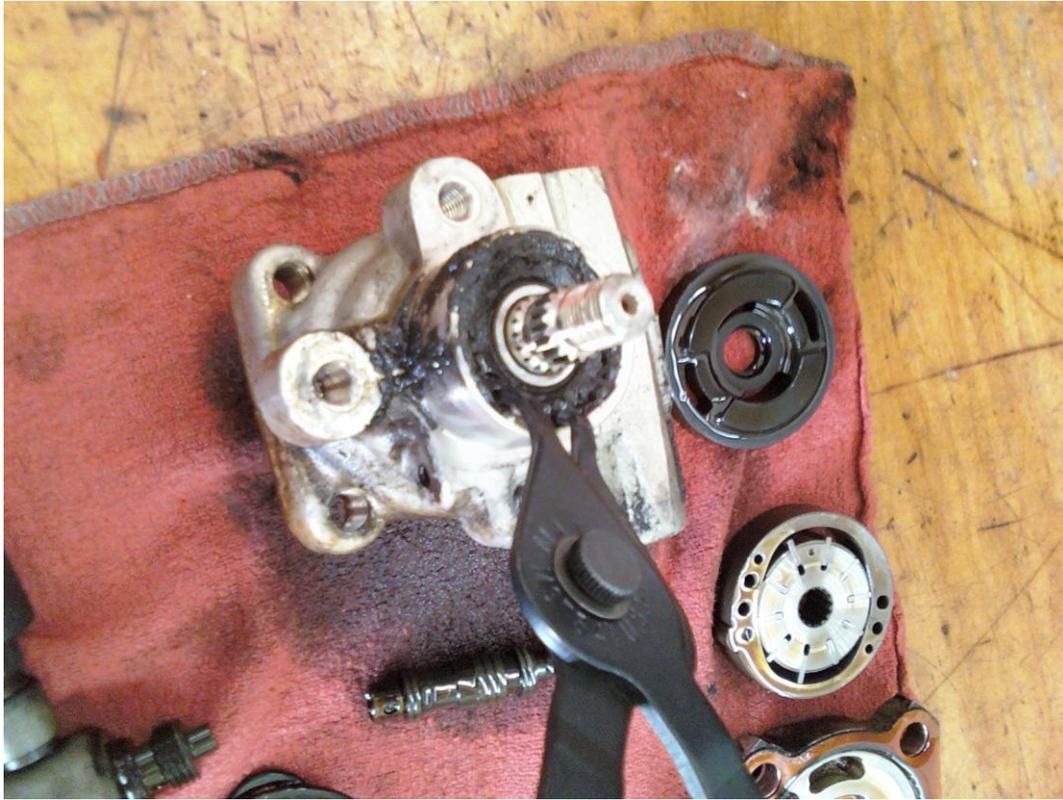
6. Carefully put the pump in the vise being careful not to scratch any mating surfaces, and loosen the 22 mm high pressure output flange.



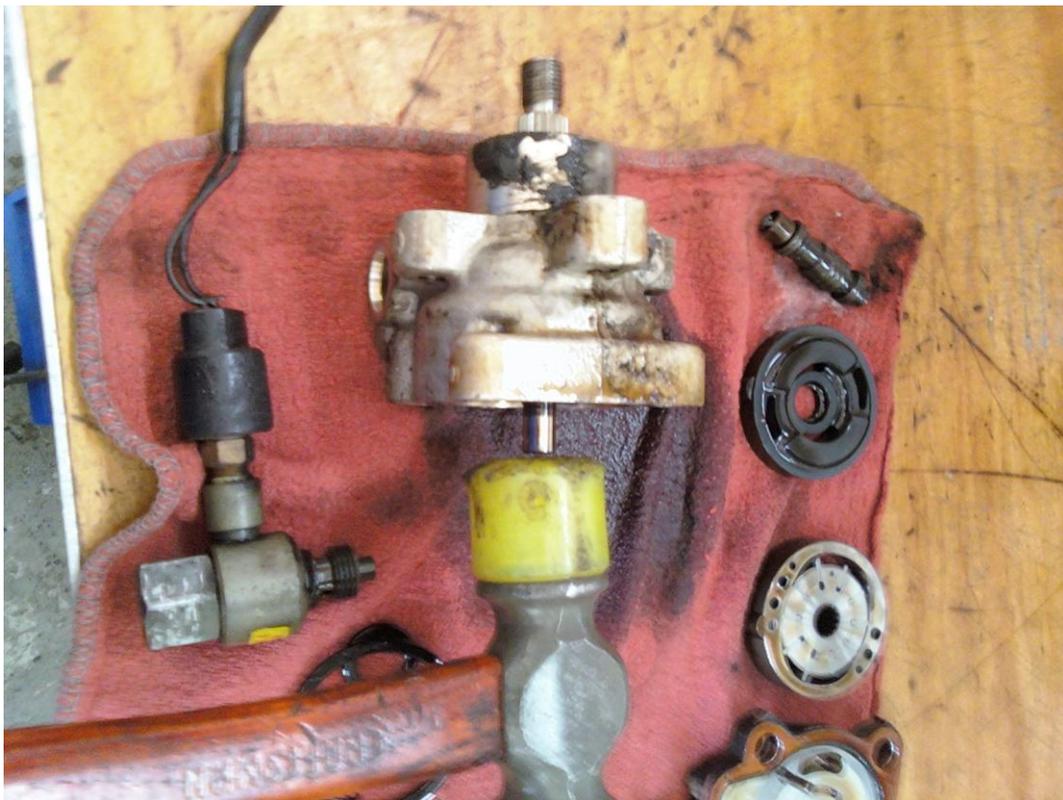
7. There is a spring behind the piston in the output portion of the pump. Replace the spring because its good practice and any spring will eventually loose tension.
Again: NOTE THE DIRECTION OF HOW IT COMES APART. LAY IT OUT IN THE ORDER IT WAS REMOVED.



8. Use the snap ring pliers to remove the spring loaded c-clip holding the shaft into the housing.



9. Use a soft hammer or a block of wood to bang the shaft out of the housing. Hit the shaft from the back towards the front of the pump.



10. Take note of the shim/washer that comes out when the shaft is separated.

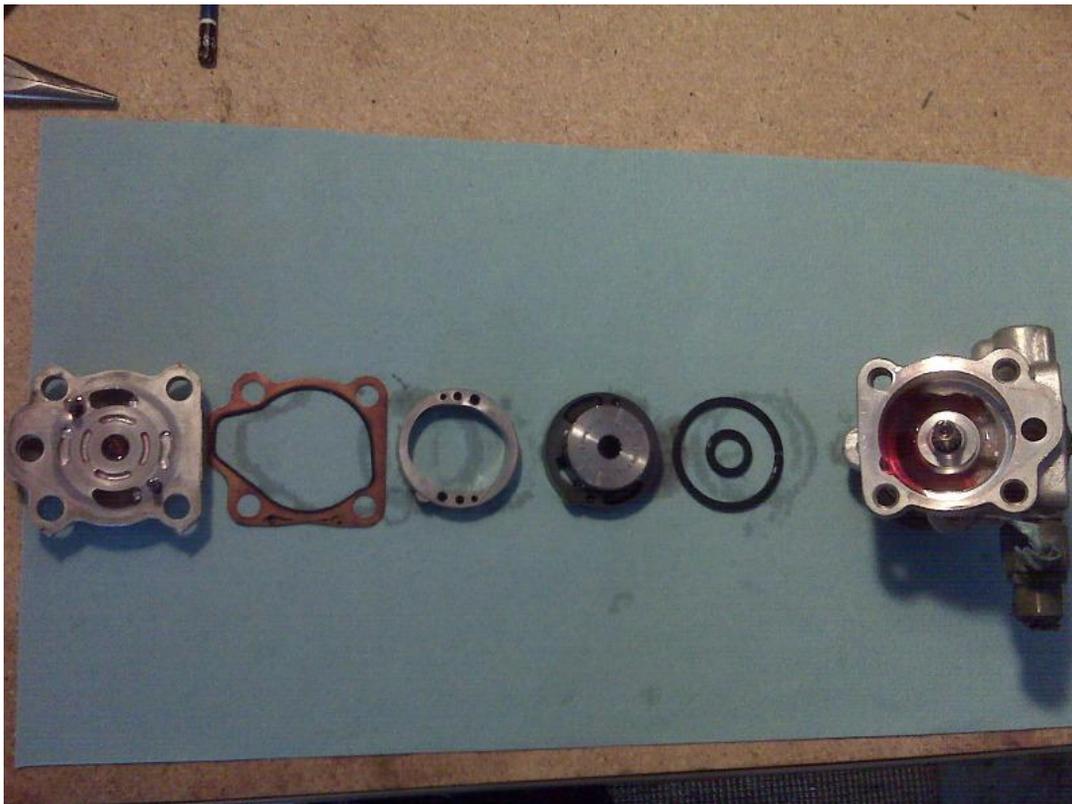


11. Remove the Shaft seal using a punch or pick. It's kind of tricky because you don't have much room to get it. Knock it out from the back side.



12. Take the shaft over to the press and use the 20mm socket to press the bearing off the shaft. It will go towards the front of the shaft.

Here are the exploded views of the parts and the way they come apart or go together.



13. Once the old bearing is off, flip the shaft over so the front is facing up. Take the 15 mm socket and press the bearing on. It does not take much pressure, and once it stops, don't keep pressing or you will ruin the bearing.



14. After you clean everything off, you can begin the reassembly process. Press the new shaft seal into the front housing using the 20mm socket. Put the shim/washer on top of the seal.



15. Set the front housing on a vice (with a rag or something under it to keep it from messing up the mating face) and hammer the shaft back into the housing using the 24mm socket.



16. After the shaft has been driven all the way down, you will be able to see where the snap ring rests. Reinstall the snap ring.



17. Flip the pump over and install the 2 new O-rings.



18. Replace the 2 pump gut pieces the same exact way they came out.



19. Install the new gasket, NOTE THE GUIDING PINS, reinstall the back cover. Tighten the four 14 mm bolts in torque sequence, like a star pattern for a wheel. At first it looks like the pump won't go back together, but the bolts will eventually compress the new O-rings.

20. Install the new spring and install the piston in the same way it came out.

21. Cut the old O-ring off of the output flange with sensor attached and slide the sensor off. There are a total of 3 o-rings on this piece. Cut the old ones off and fit 2 of the new ones on. Slide the sensor back on and install the final o-ring.

22. Reinstall the reservoir and fill it with transmission fluid. Check for leaks, and be sure to check the fluid level after turning the wheel hard over left to hard over right a couple of times.