

Oil Pump Modification – Repair By Pete Sink

The oil pump needs to be sealed at two locations. The first location is the center partition between feed and return. The hole where the drive shaft passes through needs an “O” ring or seal. My machinist cut a ring groove and fitted an 013 “O” ring. You can also fit a seal here. The second location is the hole in the pump cover where the Drive Gear fits inside the oil pump outer cover. My machinist fit an 015 “O” ring. You can also fit a seal here. With these two locations sealed the pump can now be assembled to the timing case cover. You are now ready to test the work. Assemble a hose and funnel to the feed oil tube. This is the tube closest to the bottom. I attach the cover in Soft Jaws in my vise. Fill the funnel with oil and when the oil gravity feeds to the pump, turn the pump over by hand until oil shows at the pinion seal. Let it sit overnight and check the timing case sump pick up hole for oil. This is the hole that mates to the crankcase to return oil from the sump. Then check the drive gear to cover for oil appearing. If you do not find oil at either location you have successfully sealed the pump. All of the above is shown in the pictures provided.

Please see the photos of the “O” ring application to the oil pump. After you assemble the oil pump to the timing cover, attach the hose and funnel. Fill funnel with oil. Turn the pump over by hand until you get oil to the pinion seal. Let stand in the soft jaws of vise over night. If it is sealed there will be no oil at the sump pickup hole on the timing cover as well as no oil dripping from the drive gear through the pump cover.

I think that any machine shop could modify the oil pump for the installation of two (2) "O" rings. Jim Preussner at Southwest Vintage Cycle can do it. I purchased Vitron 013 and 015 "O" rings for my job. I can supply the "O" rings.

There are actually 2 modifications done to the pump. One is for sealing up the inside wall of the pump, the other is sealing up the shaft hole in the pump cover. He has a Harley seal that he uses inside the pump instead of an o ring. He feels that it seals better. Also the ends of the check valves will need to be cleaned up and re-seated. New springs might be needed on the check valves as well.







