

GPR PUMP HOUSING ASSEMBLY



Using a hydraulic press, press the inner bearing into the shaft from the inner race so no stress is put into the balls or outer race.



Press the inner bearing until the OEM recommended measurement of 0.91" is achieved. This will ensure a proper setback of the prop. Too much clearance will space the prop away from the veins and too little will not allow the prop to rotate when installed.



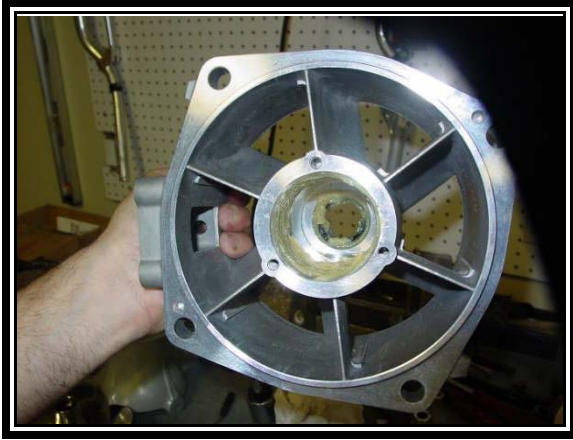
Yamaha uses an outer bearing race support that not only spaces the inner and outer bearings accordingly but it also prevents the outer bearing from being pushed in towards the seals, the nut prevents the entire shaft and prop from moving forward also. GroupK developed an inner bearing race support that minimizes the stress being put on the inner races. For those pushing those big ponies, this is a must!!!!



Once again press the outer bearing from the inner race into the shaft until it makes light contact with the spacers. Make sure that this does not alter the 0.91" clearance measurements required during the installation of the inner bearing



Grease the seal end of the housing and seals accordingly. There are 2 seals, the one with the “Spring-Ring” will have the flat side against the wall of the housing. The next and beefier seal will have its flat side against the “Spring-Ring” end of the first seal. Use a seal installation kit or an inverted 32mm metric socket and extension, press very straight. If properly greased it should go in with no effort. Greasing the area between the seals will help in maintaining water from entering the pump.



Grease the bearing end of the pump accordingly. Press the entire shaft from the outer race of the outer bearing. **MAKE SURE THAT YOU ARE PRESSING IT DOWN STRAIGHT.** This is the point where many have damaged a housing beyond repair. Once you have cleared the first bearing you should be home free. Once you have pressed in the outer bearing into the housing continue pressing slowly until you feel that you have bottom out the inner bearing race against the inner wall of the housing. At this point install your washer and prop temporarily to make sure that your prop turns free.

Install the washer and nut. Make sure to use some high strength thread locker like red Loctite and torque to 50-55 pounds.

I have read where many are pressing the bearing into the housing and then the shaft. This is incorrect and will only put stress on the races and balls. **NEVER DO THIS, AND NEVER HAMMER THE BEARINGS INTO THE HOUSING.** It may work but it may not last.

I am still working on this documents and will finish it once the rest of the parts make it in.