

Kawasaki 1500 NA 148mm Pump Upgrade Instructions

Necessary Tools:

- 1) Solas Impeller Removal Tool
- 2) Tabletop Mounted Vice
- 3) Torque Wrench ft*lbs
- 4) 3/4 Socket For Shaft Nut and 13/16
- 5) Required Socket For Impeller Removal Tool
- 6) 2 Ton Press
- 7) Large Screw Driver
- 8) Breaker Bar
- 9) Grey RTV Silicone
- 10) Pump Upgrade Kit
- 11) Bearing Puller
- 12) Brake Cleaner



Pump Disassembly Procedure:

- 1) Take the pump and remove the nozzle, cone and all gaskets.
- 2) Hold the back of the impeller shaft and using impeller tool, remove impeller. Removal rotation is counter-clockwise.



- 3) Pull up on impeller shaft to remove shaft from housing. If shaft is very tight, you can use a rubber mallet to hit it out. Do not use a metal hammer!



4) Remove snap ring.



5) Using a rigid screw driver, pry the old seals out from the inner lip. **DO NOT PRY ON THE OUTER SURFACE!**







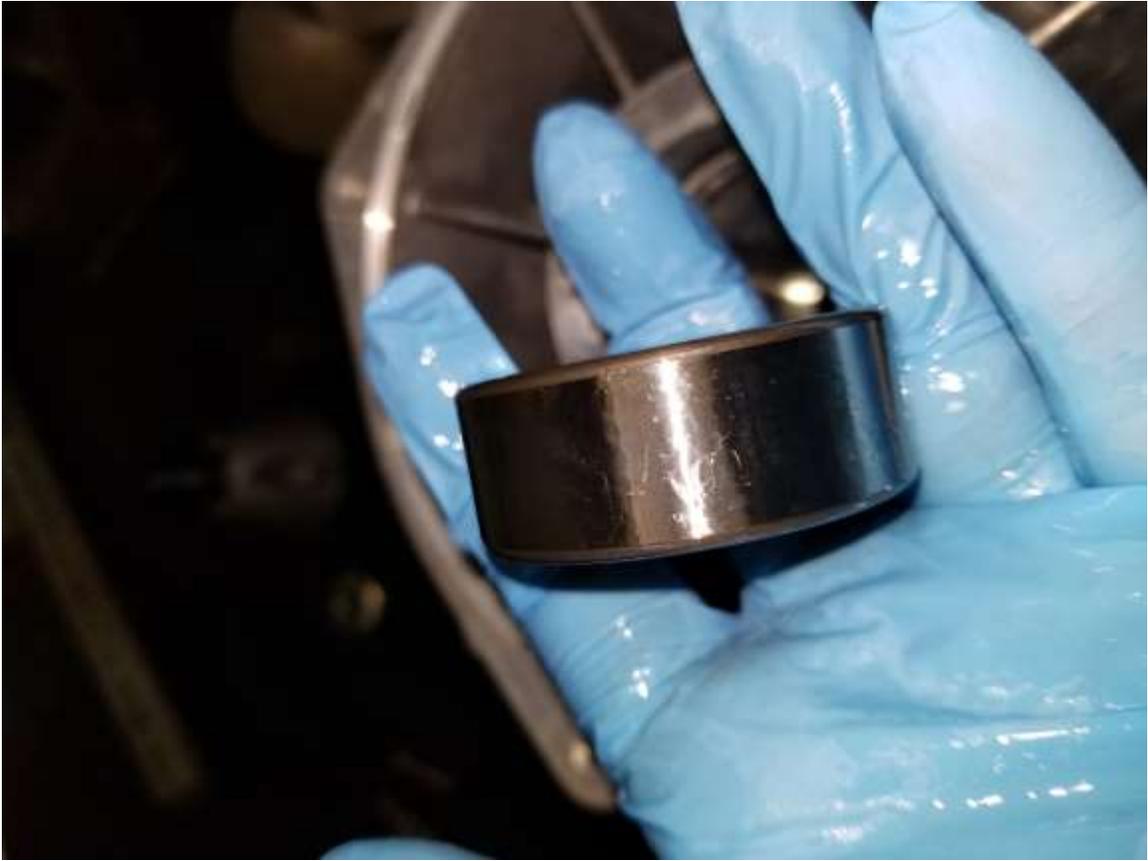
6) Take old shaft and insert it upside down as shown below. Push bearing out.



7) Lubricate pump bore with light oil, fogging oil or motor oil.



8) Lubricate first main pump bearing.



- 9) Set bearing in pump. (An alternative to this method is heating the pump to 175 F, and quickly dropping the bearings in the bore)



- 10) Insert bearing installation tool. Remember, you may only press on the outer race or you risk damaging the bearing.



- 11) Press bearing in until it bottoms out. We recommend a mechanical press over hydraulic.



- 12) Repeat process and install second bearing (If this is an older model 15F/12F pump you will only have one bearing. If this is the case, you will need to use the spacer provided).



Pictured: You **MUST** use **THIS BUSHING** for all pumps that have only **ONE CASE BEARING**.



13) Flip pump over and install bushing as shown below.



14) Pack with supplied grease.



- 15) Install first seal. Spring always faces up! You can use a large socket for this, but be careful only to push on outer portion of seal.



- 16) Pack grease on top of next seal, and repeat. Be careful not to damage the seal.



17) Install snap ring.



18) Install small brown o-ring as shown on shaft. Coat o-ring with grease.



19) Flip pump over, install impeller shaft.



20) Hold impeller tool in vice. And screw in impeller as shown below.



21) Hand tighten impeller.



- 22) For NON-racing setups torque impeller to 110 ft.lb. For racing setups torque impeller to 125 ft.lb.



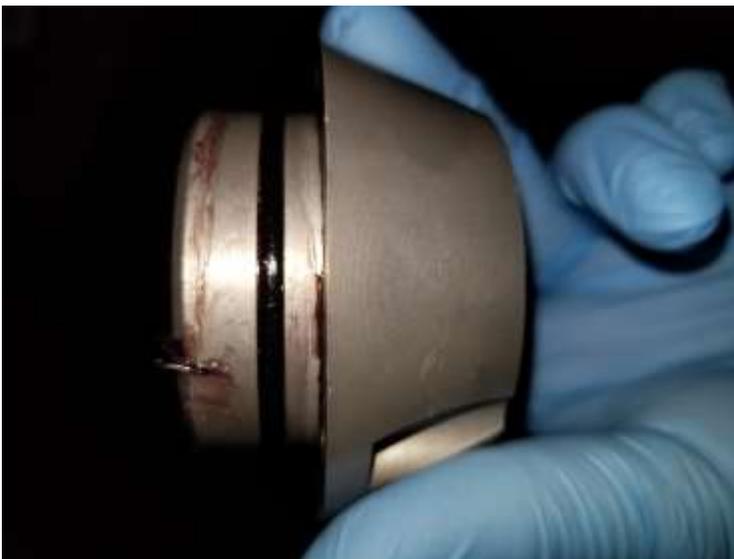
- 23) Install Viton o-ring in bottom cone as shown below.



- 24) Install supplied bearing in cone, and push down over o-ring. **Note: It may be necessary to heat the aluminum to 100F to get the bearing in. This is a precision fitment.**



- 25) Install o-ring on bottom of cone and apply grease as shown.



26) Install over pump shaft on housing.



27) Install the 3 cap bolts and torque to 106 in.lb. you can apply blue Loctite.



- 28) Install supplied NUT. Using $\frac{3}{4}$ socket, torque to 50 ft.lb for stock machines, and 66 ft.lb for racing.



- 29) Install cone on pump, **BE EXTREMELY CAREFUL THE O-RING IS SITTING PROPERLY IN GROOVE!!!!**



- 30) Torque plastic cap to 130 in.lb.



Installation Complete!

Installation guide provided by kawiperformance.com

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