

Kawasaki Ultra 250 260 300 310 Ultra LX Pump Assembly Instructions

Necessary Tools:

- 1) Solas Impeller Removal Tool
- 2) Tabletop Mounted Vice
- 3) Torque Wrench ft*lbs
- 4) 24 mm Socket For Shaft Nut
- 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. 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) Remove new shaft and rear bearing from upgrade kit. Press the bearing on the back as shown below. Please make sure to only press down on the inner race, pushing on the outer race will damage the bearing.



- 8) Install small brown o-ring on shaft as shown below.



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



10) Lubricate first main pump bearing.



11) Set bearing in pump.



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



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



14) Repeat process and install second bearing.



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

16) Pack with supplied grease.



- 17) 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.



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

19) Install snap ring.





20) Install pump housing o-ring (for 300/310 Ultra LX Models only)

21) Coat impeller o-ring with grease.



22) Flip pump over, install impeller shaft.



23) Hold back of impeller shaft in vice as shown.



24) Hand tighten impeller.



25) Insert spline tool and tighten to 110 ft.lb.



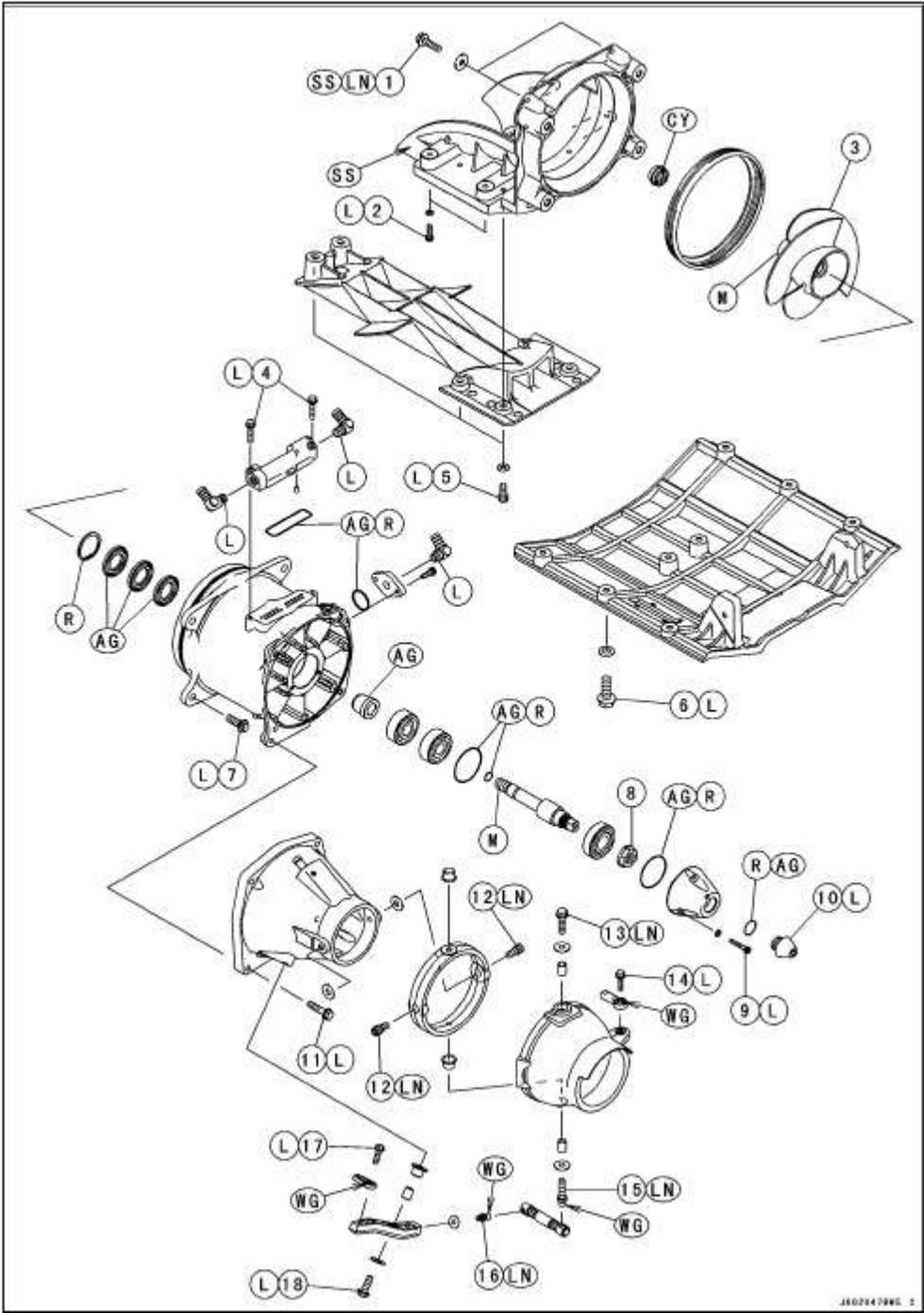
26) Remove pump and tighten spline tool in vice. Reinstall pump as shown below.



- 27) Install supplied high strength nut, torque to 72 ft.lb. No locking agent or grease necessary here.



- 28) Install cones, trim seal and hardware. Please follow the torque specs below.



PUMP AND IMPELLER 11-3

Exploded View

No.	Fastener	Torque			Remarks
		N·m	kgf·m	ft·lb	
1	Pump Bracket Mounting Bolts (M8)	19	1.9	14	LN, SS
2	Pump Bracket Mounting Bolts (M6)	9.8	1.0	87 in·lb	L
3	Impeller	147	15.0	108	
4	Filter Cover Mounting Bolts	9.8	1.0	87 in·lb	L
5	Grate Mounting Bolts	19	1.9	14	L
6	Pump Cover Mounting Bolts	7.8	0.80	69 in·lb	L
7	Pump Mounting Bolts	36	3.7	27	L
8	Pump Shaft Nut	98	10	72	
9	Pump Cap Bolts	3.9	0.40	35 in·lb	L
10	Pump Cap Plug	3.9	0.40	35 in·lb	L
11	Pump Outlet Mounting Bolts	19	1.9	14	L
12	Trim Cotrol Ring Pivot Bolts	19	1.9	14	LN
13	Steering Nozzle Pivot Bolt (Upper)	19	1.9	14	LN
14	Steering Cable Joint Bolt	9.8	1.0	87 in·lb	L
15	Steering Nozzle Pivot Bolt (Lower)	19	1.9	14	LN, WG
16	Trim Cotrol Shaft Joint Bolt	9.8	1.0	87 in·lb	LN
17	Trim Control Cable Joint Bolt	9.8	1.0	87 in·lb	L
18	Trim Cotrol Shaft Pivot Bolt	19	1.9	14	L

AG: Apply lithium grease (NLGI Grade No.2).

CY: Apply cyanoacrylate cement.

L: Apply a non-permanent locking agent.

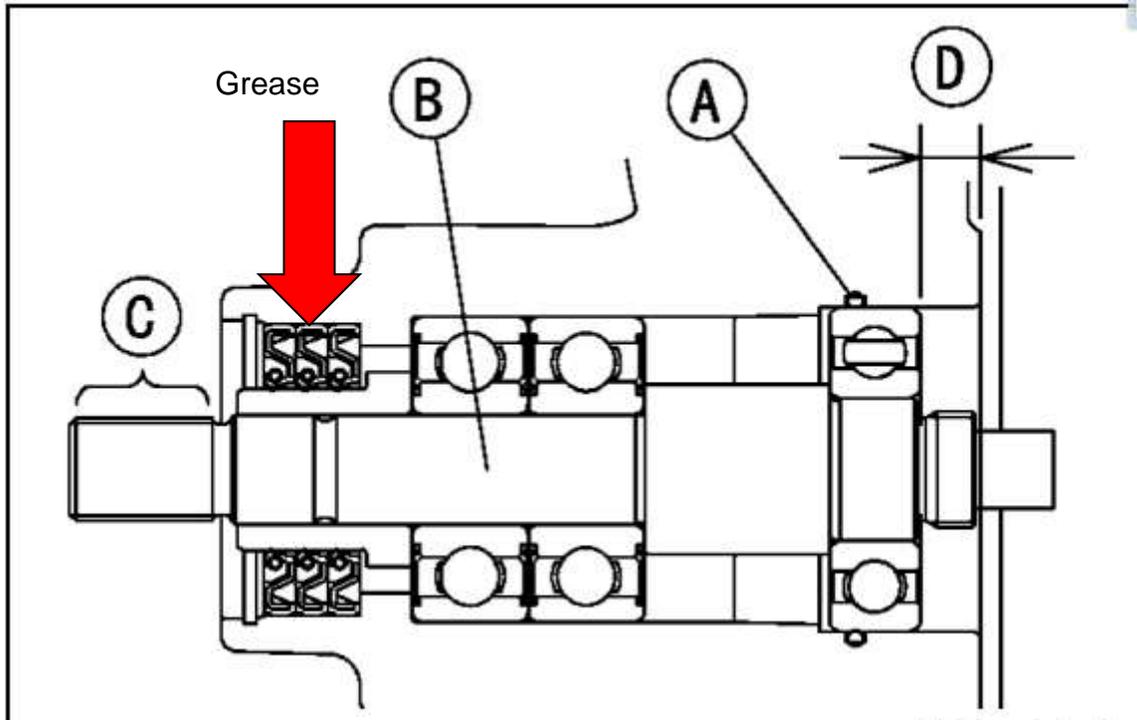
LN: Apply a non-permanent locking agent (High Strength: Loctite 271 equivalent).

M: Apply molybdenum disulfide grease.

R: Replacement Parts

SS: Apply silicone sealant.

WG: Apply water resistance grease.



Installation Complete!

Installation guide provided by kawiperformance.com

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