

Mounting Instructions for the KIT-VR25 Pump Kit

Please read through complete directions before replacing the pump.

The KIT-VR25 is pre-assembled with AR64545 SAEW90 specialty pump oil and will not require oil to be added to the pump before use.

Do not change oil. Use oil only to add to pump if oil level is low.

This oil is a specially formulated synthetic with special additives for the demands of the RMW series pump. No other oil is factory approved for these pumps, and could result in pump failure.

The pump kit consists of the following parts:

- 1) Pump RMW Series by AR
- 1) 3/16 Square Drive Key
- 1) Mounting Bolt Kit with Spacer Washers.
- 1) ¼ Thermal Relief Valve- Already Installed

Mounting Instructions:

- 1 Remove the old pump from the engine by removing the large bolt that runs through the center of the pump on oil free Bi Radial pumps and then remove the 4 bolts that are currently holding the pump to the engine flange.
For replacement of the PK series pumps remove the 3 bolts that are currently holding the pump to the engine flange.
These bolts will not be needed for reassembly.

Remove the pump from the engine shaft and remove the drive connector coupler from the engine crankshaft.

We suggest spraying the bolts and pump shaft with “Break Away” or a similar type of penetrating fluid to help in the removal process of the bolts and pump.

- a. Sometimes you may need to allow the pump to set for several hours before removing the pump do to rust and corrosion on the pump shaft.
 - b. Some removals may require the pump to be carefully wedged off of the engine crankshaft. If this process is required take great care not to damage the engine case. Too much pressure against the engine case could cause a small crack in the engine case.
- 2 After the old pump is removed, clean the engine crankshaft surface with some emery cloth as well as the keyway in the crankshaft.

- 3 If you are replacing the Oil-Free Strap Pump, the new RMW Series pump will not mount to the same 4 bolts that your old pump was mounted to and you will not reuse any of the parts from your old Oil-Free Strap Pump.**

The new RMW series pump will use the same mounting location as your current 3 engine bolts. The current 3 engine bolts will need to be removed and replaced with the new 3 longer mounting bolts that are included in the replacement pump kit.

These new 3 longer mounting bolts will bolt the new pump through the frame and engine flange of your pressure washer.

- 4 Apply a light coat of “Anti-Seize” or similar grease on to the crankshaft and place the new 3/16 drive key that was provided in the pump kit into the keyway of the crankshaft, tap the new 3/16 drive key into the keyway and securely seat the new 3/16 drive key.

- 5 **Align the keyway of the new pump to the keyway and new 3/16 drive key** of the engine and slide the pump on to the crankshaft.

This new pump should slide completely on to the crankshaft of the engine with little effort.

If the new pump does not slide on to the engine crankshaft with little effort you may need to clean the crankshaft of the engine better and also make sure the new 3/16 drive key is aligned properly.

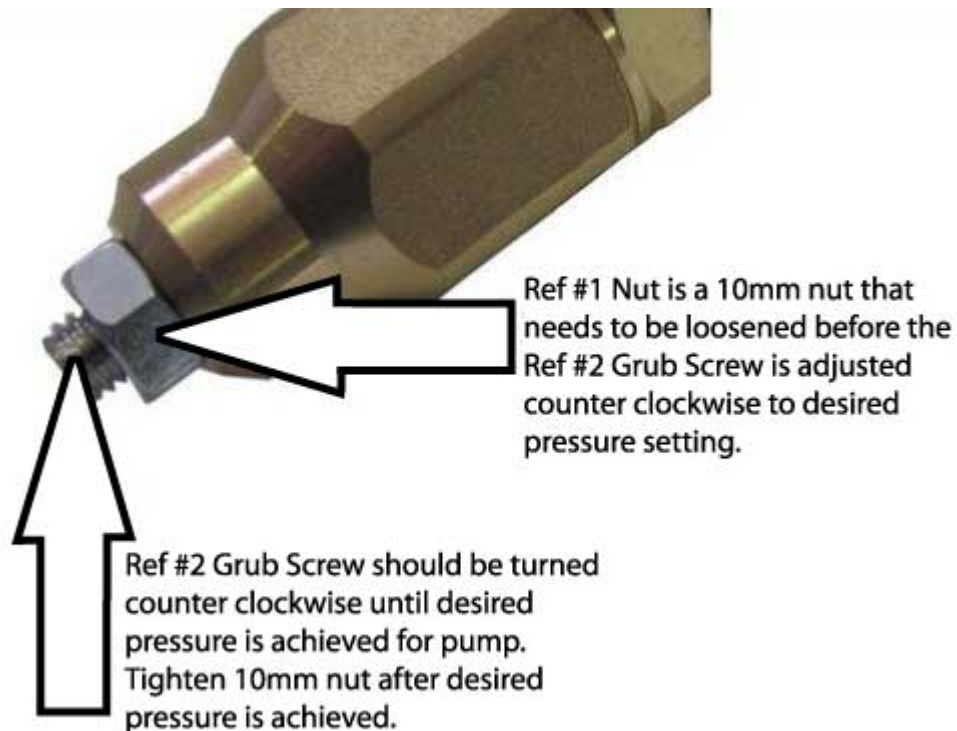
- 6 Hold the new pump to the bottom of the engine and hand tighten all bolts with the included washers between the pump flange and the frame. Once the new pump has been installed hand tight, torque bolts to 115 in-lbs.
- 7 The KIT-VR25 pump is now ready to have water attached to the pump and start the break in process.
Attach the inlet water hose to the pump and turn your inlet water hose on **without** your **High Pressure** hose connected.
Allow the water to come through the pump for 2-3 minutes **without** starting your engine.
- 8 With the **inlet water still on**, now start the engine of your pressure washer and allow the pump to operate **without** the High Pressure hose connected for 5 minutes to complete the break in procedure.
Now turn the pressure washer engine off and then turn your inlet water off.
Your pump is now ready to be used.

- 9 In some cases the preset Unloader valve pressure may need to have a final adjustment performed.
This process is only necessary when the preset 2600 PSI of the pump may be too much of a load for some older engines or units that require a lower operating pressure.

Adjustment Procedure

This adjustment can be easily made by turning the pressure adjustment screw pressure counter clockwise until the correct operating pressure is reached.

- (1) Loosen the 10mm nut ref # 1 from your illustrated parts diagram.
- (2) Turn the grub screw Ref# 2 from your illustrated parts diagram counter clockwise $\frac{1}{4}$ turn at a time with a 3mm Allen Wrench.
- (3) Tighten Ref#1 nut and test the unit for proper operating pressure.
- (4) Repeat this step as needed until the correct operating pressure is achieved.



- 10 Please refer to your owner's manual for starting and operating procedures for your pressure washer.
Make sure the pump is winterized to prevent freezing and should always have pump conditioner installed when the pump will not be used for more than 30 days to help prevent any damage that could be caused by corrosion.

The KIT-VR25 replacement pump comes with a 1 year manufactures warranty.

For questions, comments or concerns please contact our customer service department at: 1-800-475-5660 or email them at: customerservice@allpartsinc.com