

# Assembly Instructions for D21258 Radial Ring Kit

**Please read through complete directions before installing the new D21258 Radial Ring Assembly on your current Oil Free Radial Pump.**

The D21258 Radial Ring Kit is designed to replace the OEM Radial Ring D20604 that came on all of the Oil-Free Bi-Radial Strap series pressure washer pumps that were made by DeVilbiss Ex-Cell.

Installation Instructions:

- 1 The use of safety glasses is highly recommended for the disassembly and reassembly of the D21258 Radial Ring Assembly. Please do not perform this repair without proper safety glasses.
- 2 **Note: Remove the spark plug from the engine to prevent any accidental starting of the engine during repair!**
- 3 Remove the plastic housing that is covering the oil-free radial pump. This cover will need to be reinstalled after the repair has been made to the pump.
- 4 Remove the main ref# 18 .438-14x400 bolt holding the pump to the drive coupler using a 5/8 6 point socket.
- 5 Remove the 8 bolts ref# 19 holding the Manifold/Head assembly from the main Body Assembly and the 2 ref# 5 Screws 5/16-18 x 1.5 that hold the # 11 straps to the radial ring assembly.  
This will require either a T40 Torx Bit or a ½ 6 Point Socket to remove these bolts and screws.
- 6 Remove the Manifold/Head ref# 16 from the main Body.
- 7 Remove the Inner Ring Shaft ref# 17, Counterweight Shaft ref # 14, Radial Ring Assembly ref# 13 and Shaft Bearing Couple ref# 10 from your pump.  
Clean the pump body area ref# 3 and disassembled parts of any broken pieces of the old radial ring assembly or other debris.
- 8 Remove the 2 figure 8 style O-rings ref# 15 from the manifold and clean both the manifold and pump body assembly of any corrosion or loose debris.  
Apply a light coat of wheel bearing grease or Vaseline to the O-ring and install them back into the recessed grooves in the manifold.
- 9 Apply a few drops of Thread lock or Loctite to all bolts before reassembly.
- 10 The pump is now ready to be reassembled using the new D21258 Radial Ring Assembly.

- 11 Install Shaft bearing couple ref#10 back into the pump. Apply a light coat of grease on the shaft bearing couple to help keep the part in place during reassembly.
- 12 Place the new D21258 Radial Ring Assembly ref#13 on to the lip of the shaft bearing couple ref#10 with the shoulder side facing the bearing coupler.  
**NOTE: Make sure the shoulder side of the D21258 Radial Ring Assembly is facing the pump body assembly ref# 3.**  
**See Figures 1 and 2 on page 4 of installation instructions.**  
**This is the small side of the radial ring assembly that has the shoulder for the radial ring bearing to rest against.**  
**The open face side of the D21258 Radial Ring Assembly must face the Counterweight ref#14.**  
**The open side of the D21258 Radial Ring Assembly is the larger side of the aluminum housing that you can see the complete exposed bearing.**
- 13 Now continue to reassemble the pump placing the Counterweight ref# 14 into the radial ring bearing. Install the Head Assembly / Manifold ref# 16 with Assembly Shaft ref# 17 back together with the Pump Body Assembly ref# 3.
- 14 Do not tighten any parts until all bolts holding the Head Assy/Manifold and the D21258 Radial Ring Assy have been hand tightened and the counterweight, radial ring assy, shaft couple and engine shaft coupler have been aligned.
- 15 Align the ref# 18 .438-14x400 through the pump by slowly turning the pump by hand until the bolt passes completely through the pump and you are able to thread the pump into the engine shaft coupler.
- 16 Now tighten the 8 bolts ref# 19 holding the Manifold/Head assembly from the main Body Assembly and the 2 ref# 5 Screws 5/16-18 x 1.5 that hold the # 11 straps to the radial ring assembly to 24-26 ft. lbs.  
This will require either a T40 Torx Bit or a ½ 6 Point Socket to tighten these bolts and screws.
- 17 Before tightening the main bolt ref# 18 .438-14x400 holding the pump to the drive coupler of the engine slowly turns the pump over by hand several times to help insure proper alignment.
- 18 Now using a 5/8 6 point socket torque the main ref# 18 .438-14x400 bolt holding the pump to the drive coupler to 45-50 ft. lbs.
- 19 Install the protective cover back over the pump and attach.

For questions, comments or concerns please contact our customer service department at: 1-877-475-5660 or email them at: [customerservice@allpatrtsinc.com](mailto:customerservice@allpatrtsinc.com)

# DeVilbiss Bi-Radial Pump Parts List

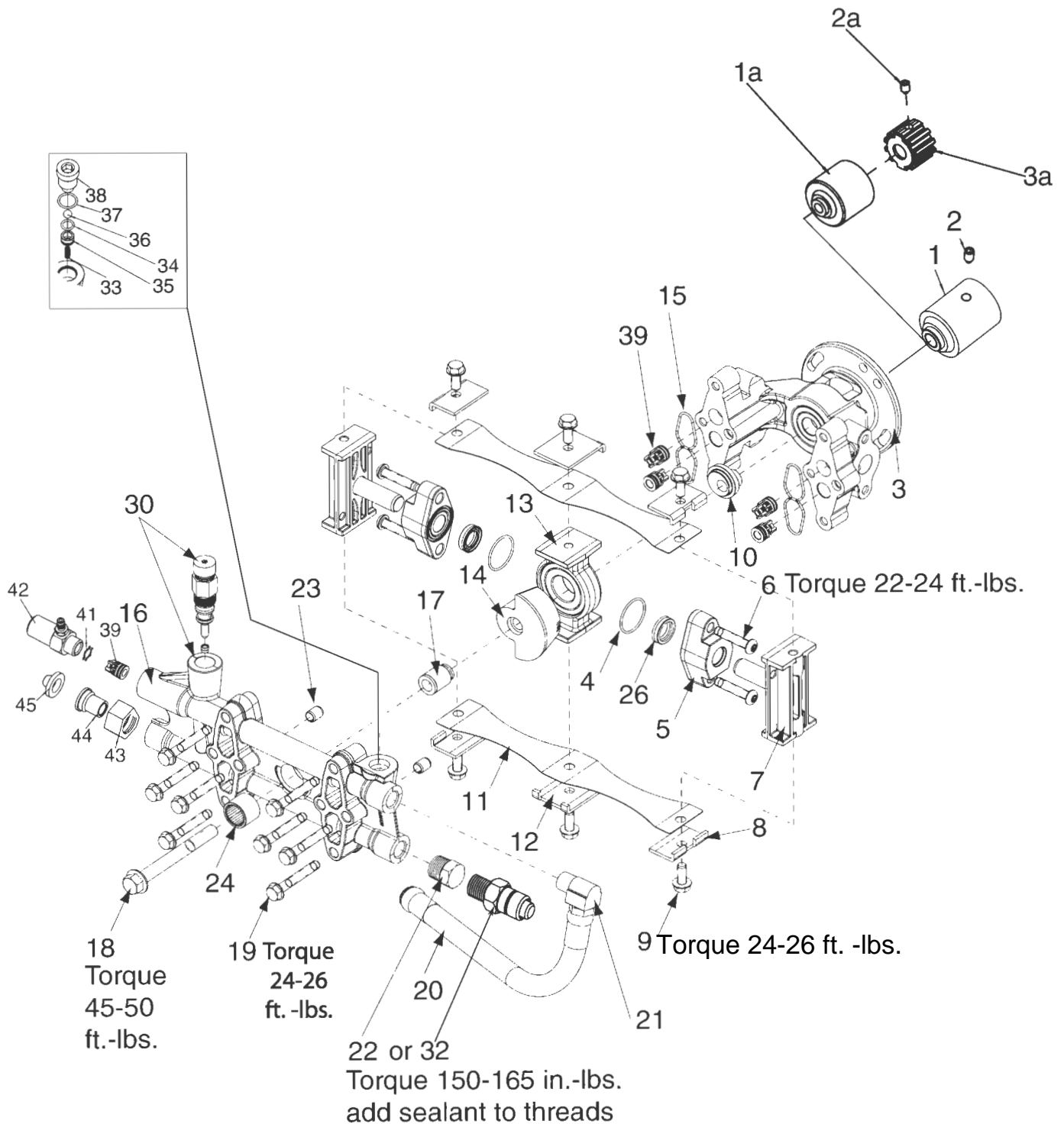
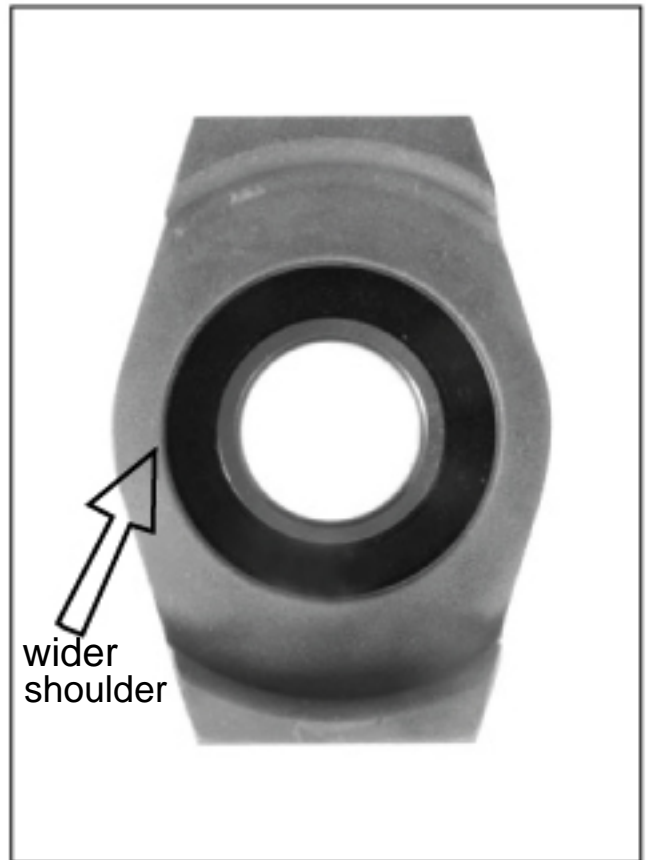


Figure 1



"Open side"

Figure 2



"Shoulder side"