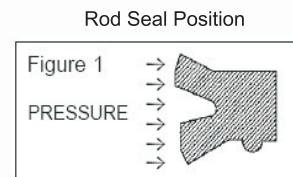
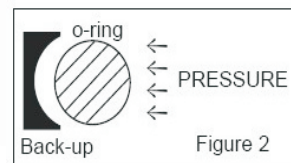
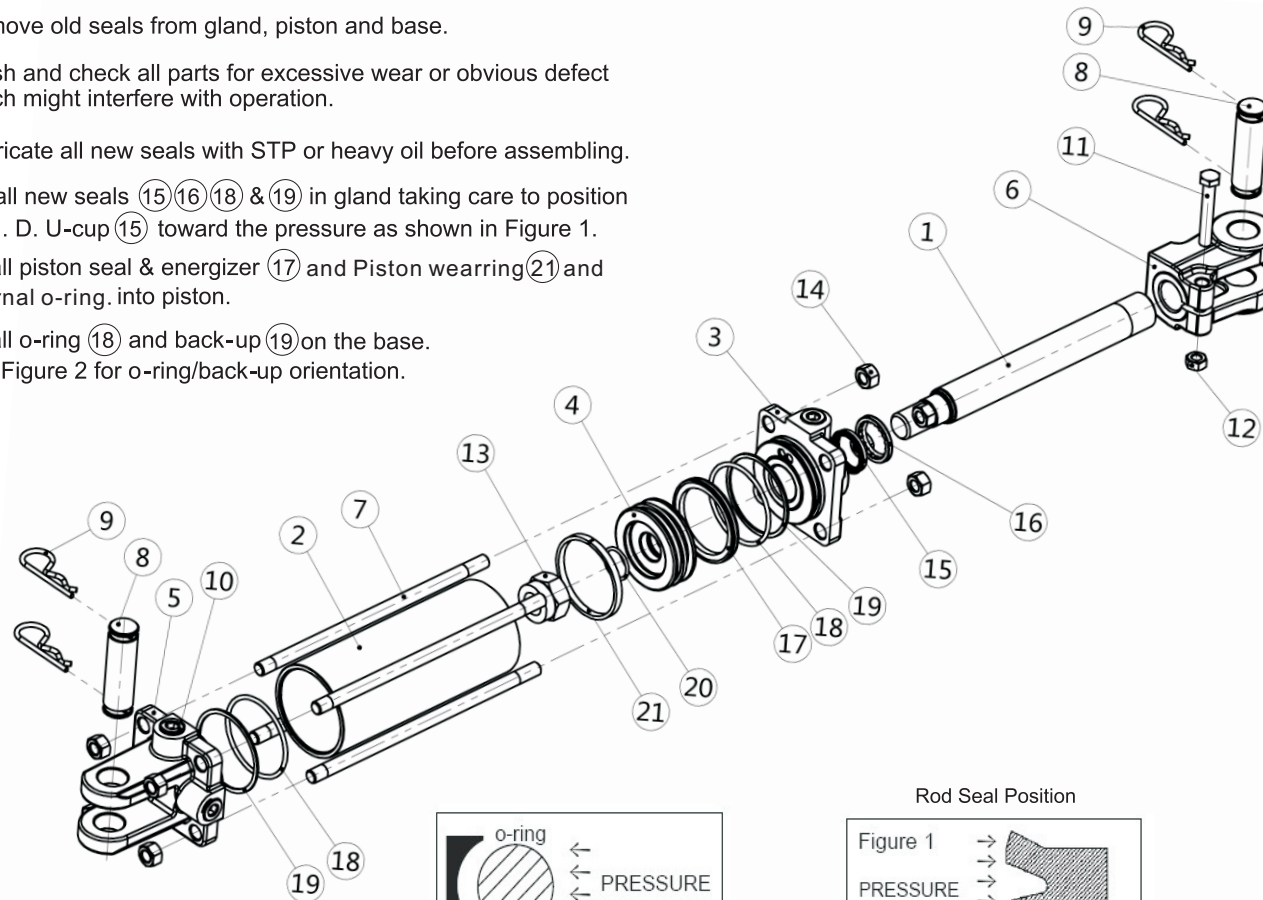


# Guide for WEN Tie-rod Cylinders Seals Replacement

1. Remove all ports plugs and make sure all oil has been drained from ports.
2. Clamp rod end mount (6) in vise and fully extend cylinder. If there is no mount. Protect rod threads while clamping.
3. Remove the 4 tie bolt nuts (7) on gland end and un-thread the bolts from the base end.
4. Remove the base (5) and slip the tube off of the gland (3) if necessary, gently tap the gland and base with a rubber Mallet to loosen.
5. Remove piston nut (13) and slip piston (4) and gland off rod (1) drive piston off with gland. Remove gland from the piston end of the rod.
6. Remove old seals from gland, piston and base.
7. Wash and check all parts for excessive wear or obvious defect which might interfere with operation.
8. Lubricate all new seals with STP or heavy oil before assembling.
9. Install new seals (15)(16)(18) & (19) in gland taking care to position the I. D. U-cup (15) toward the pressure as shown in Figure 1.
10. Install piston seal & energizer (17) and Piston wearing (21) and internal o-ring into piston.
11. Install o-ring (18) and back-up (19) on the base. See Figure 2 for o-ring/back-up orientation.

12. With a twisting motion push gland onto rod from the piston end.
13. Torque piston nut (13) according to Table #1. Lube gland & piston seals.
14. Slide tube over piston and onto gland. Replace base making sure parts are properly aligned to avoid cutting o-rings.
15. Replace tie rods and torque nuts as specified in Table #1. Use a cross-tightening pattern.
16. Hand stroke cylinder to check for binding.
17. Your cylinder is now ready for operation.

Part No.	Description	Qty
1	Piston Rod	1
2	Cylinder Tube	1
3	Gland	1
4	Piston	1
5	Base Clevis	1
6	Rod End Clevis	1
7	Tie Rod	4
8	Clevis Pin	2
9	R-Clip	4
10	Port Plug	1
11	Clevis Lock Bolt	1
12	Clevis Lock Nut	1
13	Piston Lock Nut	1
14	Tie-rod Nut	8
15	Rod Seal	1
16	Rod Wiper	1
17	Piston Seal	1
18	Tube Seal O-ring	2
19	Back-up ring	2
20	Piston Inner O-ring	1
21	Piston Wear Ring	1



TABLE#1 (Torque Guide)		
Bore Dia.	Tie-Rod Nut Torque LBS-FT (N-M)	Piston Nut Torque LBS-FT (N-M)
2.0"	40 (55)	150 (200)
2.5"	40 (55)	150 (200)
3.0"	75 (100)	265 (350)
3.5"	100 (130)	265 (350)
4.0"	120 (160)	550 (730)

Figure 2

Figure 1.