

Prince Manufacturing Corporation:

How to Service a Snap Ring Hydraulic Cylinder

Set out the necessary tools, drain the hydraulic oil from the cylinder, remove the fittings, then firmly secure the cylinder while being careful not to collapse or crush the barrel. Plan on this being a two-person project.



After placing cloths over the ports to absorb remaining oil, slowly pull the rod until the piston touches the gland.

Locate the snap ring and index it so you can see both holes in their proper position for the snap ring pliers. This may require a hammer and punch.



Protect the rod from possible dings or dents, then insert the pliers into the snap ring holes and compress the snap ring.



Using a dead blow hammer, tap on a cross bar until the snap ring pops out.



Push the rod a few inches into the cylinder.

Now you're ready for the final extraction of the rod by pulling it straight out, being careful to support it to prevent injury to yourself or others. Do not let it fall or swing like a pendulum into your leg. The larger the cylinders the more demanding this will be so keep that partner handy.

If you are unable to clear the rod from the cylinder, or if the cylinder is too large, you may need to tap on the cross bar with a dead blow hammer, once again being careful to support and control the rod assemble when it emerges.

Follow the proper repacking steps when replacing the seal backups and O-rings, taking special care to not damage the cast iron piston ring or the rod. Note the brass plates on our vise to protect the chromed rod.



Begin reassembling with the ports once again facing up and lined up inside and out. Use hydraulic oil for lubrication and a rubber mallet to tap the piston and gland assemblies back into the barrel. Frequently check the open port for O-ring extrusions or any signs of O-ring damage from this process.



Now, use the special pliers to once again compress the snap ring and tap it past the tip of the tube until the snap ring seats in the groove. Visually confirm the snap ring is in place by confirming the presence of a gap between the open ends of the snap ring.



Take the time to test for any internal or external leaks before reinstalling the repaired cylinder.

See a video demonstration of a snap ring cylinder repair on our YouTube channel. Go to YouTube and search How to Repair a Snap Ring Cylinder or click on this link:

<https://www.youtube.com/watch?v=mEagJZSLIQ0>