

# Cylinder Rebuild Instructions

## ENPROVELOP, LLC

### Recommended tools:

- Repair kit
- Bench vise or something to hold the cylinder
- Adjustable wrench- minimum opening 2.25"
- 3/8" steel rod, punch or larger screwdriver
- Ear Clamp Pliers
- Small seal pick
- Thread locker- we recommend Loctite 243
- General purpose grease

### Instructions:

1) Start with a clean work area. Contaminants in the cylinder can cause premature wear and failure

2) Remove the ear clamps from the cylinder bellows. We found that rolling and twisting the clamps helps with removal.



3) Remove the bellow and clean any dirt from the area

4) Place the punch or steel rod in the hole on the rod clevis and thread the jam nut back to unlock them.



Remove both nut and clevis from the rod

5) Place pivot end of the cylinder in vise but be careful not to overtighten and damage the pivot end

6) Use adjustable wrench to thread the rod end cap off the cylinder



7) Slide the end cap off rod and the piston/rod assembly out of the bore

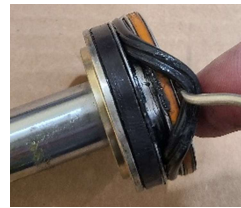
8) Remove the o-ring on the end cap where it seals against the bore



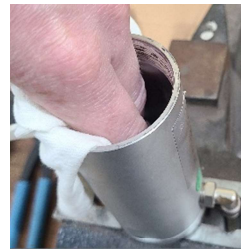
9) Remove the rod seal on the end cap using the seal pick. Be careful not to scratch any surface a seal will be contacting.



10) Remove the seal on the piston



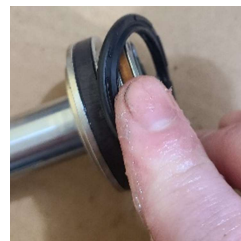
11) Clean all surfaces thoroughly to remove any dirt and grease using a rag. Sometimes it helps to blow out with compressed air afterward to remove dry contaminants



12) Apply new grease to any surface the seals will be contacting including the bore, piston, and rod



13) Reinsert new seals onto piston and end cap just as they were before removed with a small amount of grease applied to them. Verify that they are not twisted after installed.



14) Insert piston and apply more grease to the bore after inserted



15) Slide end cap over the rod and thread back onto the bore with a little thread locker applied before threading. Orient ports to be parallel when finished. The thread locker may take several hours to setup

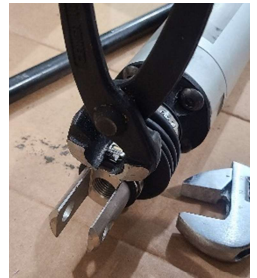


16) Thread clevis back on and in the extended position the hole-to-hole measurement is 11.5" and lock the jam nut against the clevis using the punch and wrench

17) Orient clevis hole and pivot hole to be parallel and place bellows and large clamp back over the rod and use the ear clamp pliers to pinch clamp ears



18) Place the small clamp over the opposite side of the bellows and clamp with pliers when it is seated correctly on the clevis



19) Congratulations! You have finished the cylinder rebuild