



# Major Repair Kit installation - using kit #1-18976

Hyplex Prime Major Repair Kit replacement. 1-18976 KIT:HYPLEX PRM MAJ

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# INTRODUCTION

This is a how-to guide for replacement of 1-18976 Hyplex Prime Major Repair Kit from Accustream.



## TOOLS:

- [Pressure-loading tool](#) (1)
- [Check valve clamp tool](#) (1)
- [Plunger nut removal socket](#) (1)
- [9/16" socket](#) (1)



## PARTS:

- [1-18976](#) (1)

Step 1 — Safety Precautions

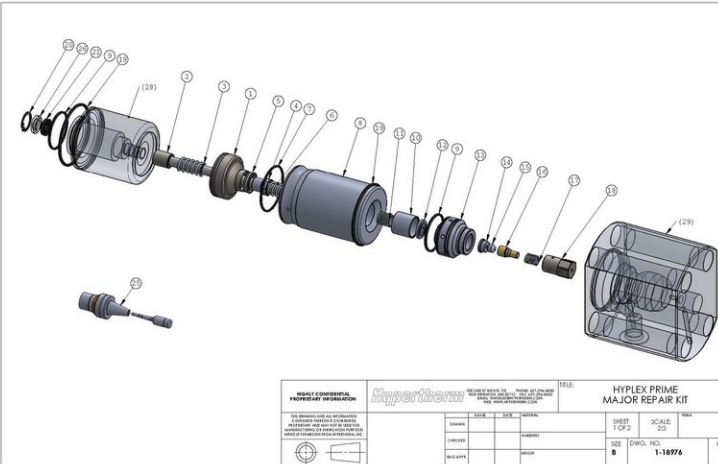


WARNING

Follow Lockout/Tagout procedures and remove all stored energy prior to performing any maintenance

- Refer to original equipment manufacturer's safety and maintenance instructions. Failure to do so could result in injury or death.
- Always remove all stored energy and lock out equipment before beginning any work.

Step 2 — Exploded view with BOM



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	FLOW #	NOT #
1	1-18875	SEAL CARRIER ASSEMBLY	2	A-0265-062	72185026
2	1-18883	FLANG ASSEMBLY 1/4 DIA	3	011045-1	72188914
3	1-18753	SPR COMPRESSION 336 ID	3	A-12218	72188940
4	1-18862	SEAL O-RING	3	011051-1	72185377
5	1-18749	ROD SEAL/SEAL O-RING 005-033	3	A-00621-33	72185325
6	1-18749	SPR COMPRESSION 362 ID	3	A-12217	72188948
7	1-1878-029	O-RING/TO DINO BUNA -029	3	A-0778-029	0122007
8	1-18872	CYLINDER	3	049588-1	72185325
9	1-1879-025	O-RING/TO DINO BUNA -025	6	A-0778-025	10074383
10	1-18884	FLANG TUBE END	3	011350-1	72188149
11	1-18747	SPR COMPRESSION 352 ID	3	A-12219	72185141
12	1-18865	PFT INLET	3	011042-1	72185133
13	1-18861	BODY/CHG VALVE	3	049018-1	72185307
14	1-18867	OUT PFT INLET	3	011041-1	72185132
15	1-18869	PFT OUTLET	3	011039-1	72185135
16	1-18868	OUT PFT INLET	3	011040-1	72185167
17	1-18752	SPR COMPRESSION 302 ID	3	A-0223	72185105
18	1-18870	CAGE/OUT	3	006732-1	Not listed
19	1-1879-033	O-RING/TO DINO BUNA -033	6	A-0778-033	204334082
20	1-18745	KTNG ROD/S-FR IN	3	A-0645-062	72185026
21	1-18793	O-RING SEAL	3	A-0778-033	72185008
22	1-18747	GRS-15 G HIGH VAC	1	A-4889	10087385
23	1-18750	MTY-SEAL/ST G	2	A-20386-1	49632199
24	1-18882	POV ASSEMBLY	1	042145-2	72185059, 72185058, & 72185076
25	049197-1	PLUNGER NUT			<FOR REFERENCE>
26	011054-1	SEAL SPACER			<FOR REFERENCE>
27	049581-1	DISPLATE ADAPTER			<FOR REFERENCE>
28	049887-1	END CAP			<FOR REFERENCE>

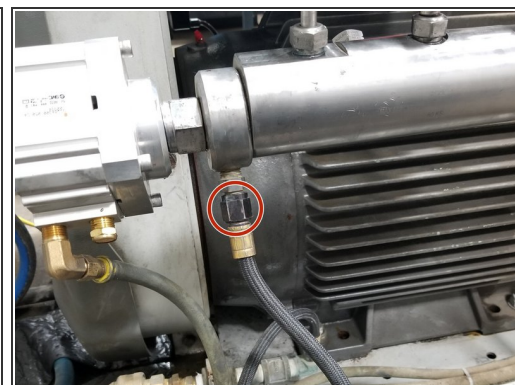
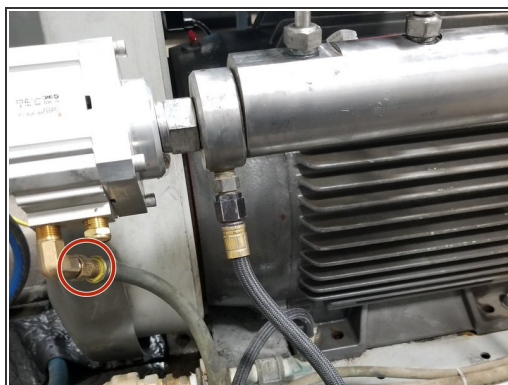
- Exploded view with BOM

### Step 3 — Special tools (OEM)



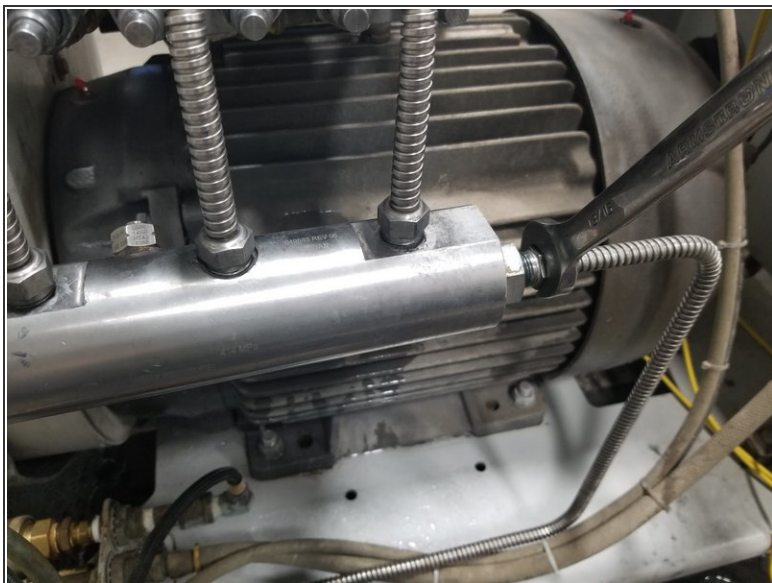
- Pressure Loading tool
- Check valve clamp tool
- Plunger removal socket

### Step 4 — Remove hoses



- Remove inlet water hoses from the bottom of the end cap
- Disconnect air line from actuator
- Disconnect PCV drain line

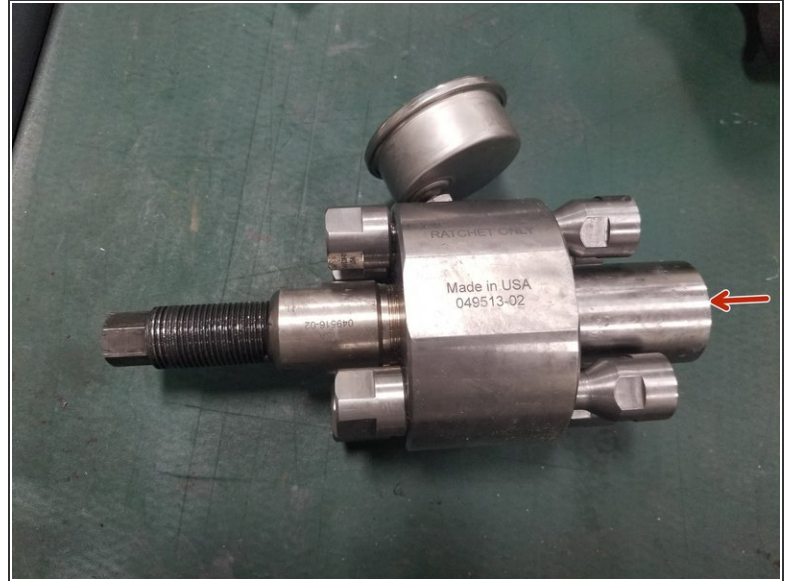
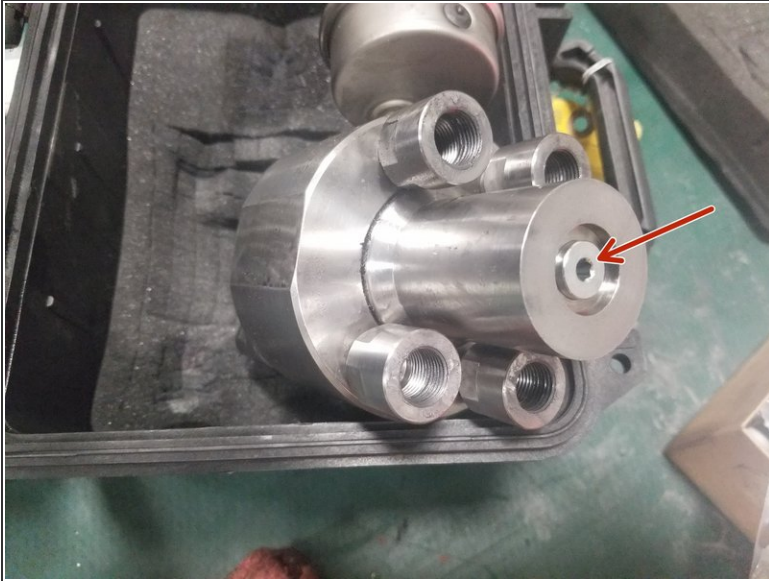
## Step 5 — Remove high-pressure lines



- Remove high-pressure tube from manifold using a 13/16" open end wrench
- Remove high-pressure inlets from all end caps using 13/16" open end wrench while supporting the manifold



## Step 6 — Check pressure loading tool



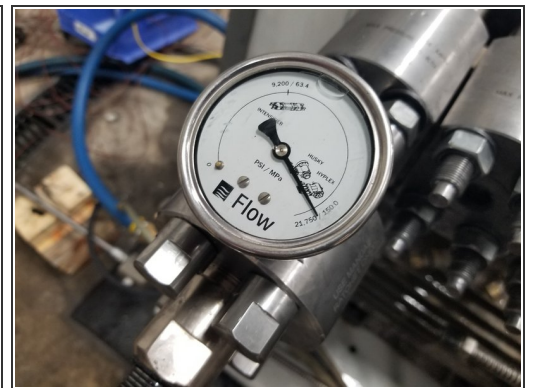
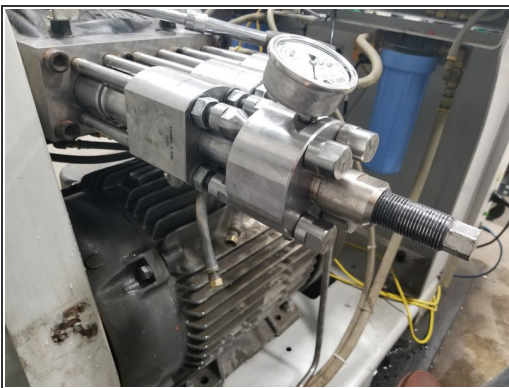
- Ensure oil is full. Open the 3/16" hex screw located on the contact face to check/fill using ATF fluid
- Ensure pressure loading tool screw is fully retracted
- Ensure piston is fully retracted

## Step 7 — Pressure loading tool



- Keep screw lubricated with MOLYKOTE® BR-2 Plus or similar
- Wipe stud threads clean and apply Loctite 8150 anti-seize (#1-18750)

## Step 8 — Attach pressure loading tool



- Attach pressure loading tool to each set of studs, rotating each tool stud by hand until tight
- Once snug, back out the tool studs 1/4 turn. Place a radial line with a permanent marker to make this easier to see
- Use a 3/4" (19mm) ratcheting socket to pressurize the tool by rotating screw clockwise. Pressurize per manufacturers recommended gauge pressure



## Step 9 — Remove pressure loading tool



- While tool is pressurized, loosen the four nuts a few turns by hand
- Turn the 3/4" socket counter-clockwise to reduce the pressure in the tool
- Back off each of the four tool studs and remove the pressure loading tool

## Step 10 — Remove end cap



- Remove the four nuts and washers
- Carefully slide the end cap off, being careful not to lose any of the high-pressure components

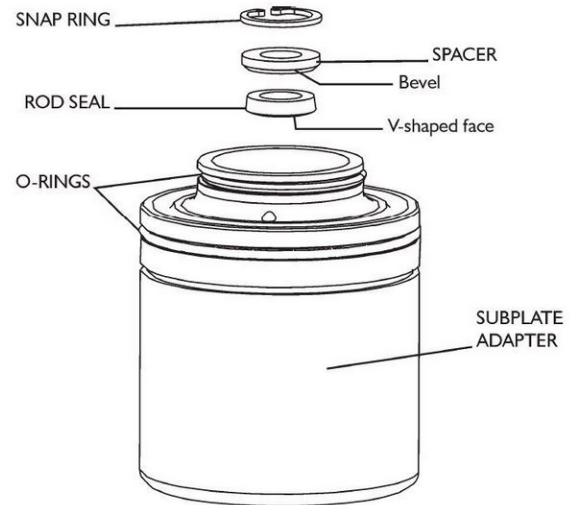
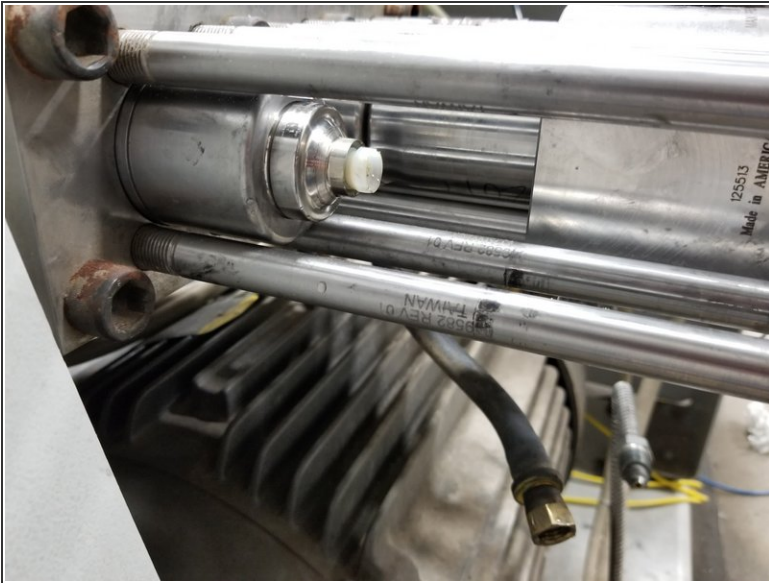


## Step 11 — Remove HP cylinder, filler tube, inlet poppet



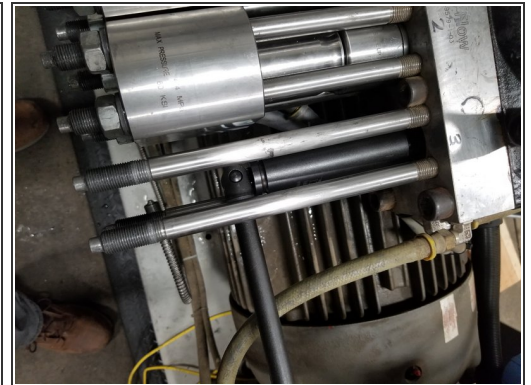
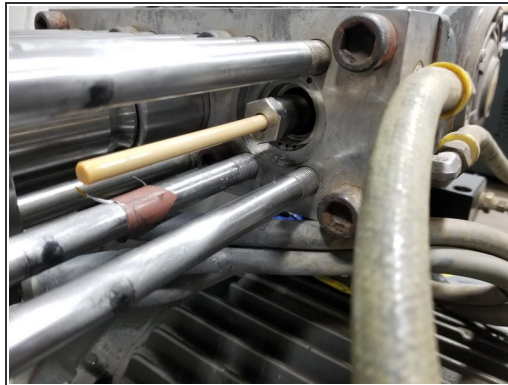
- HP cylinder and filler tube may come out with end cap
- Use a screwdriver to remove seal carrier, if necessary

## Step 12 — Remove subplate adapter



- Remove subplate adapter (gently pry groove if necessary)
- Remove snap ring and rod seal, install new rod seal (1-11993) and snap ring (1-18745). Inspect and replace spacer with bevel down

## Step 13 — Remove plunger



- Use plunger removal socket and ratchet to remove the plunger retaining nut
  - Rotate belt/crank to extend plunger, if necessary
- Replace with new plunger and spring. Torque plunger nut to 20 ft-lb (27 N-m). **Be careful not to contact the plunger**

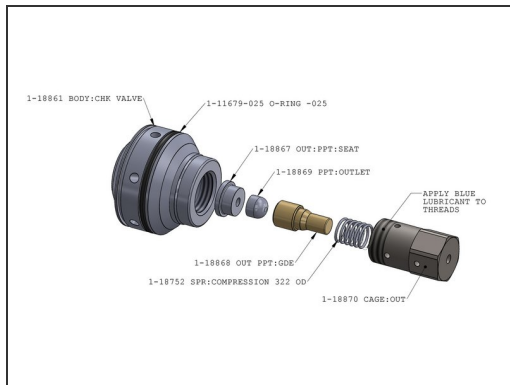
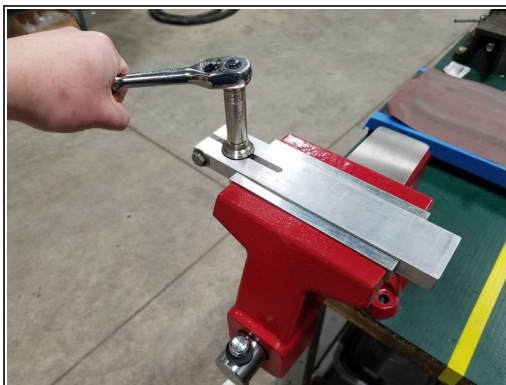
## Step 14 — Remove check valve assembly from end cap



- Carefully lift the check valve assembly using two flathead screwdrivers in the groove on the check valve body

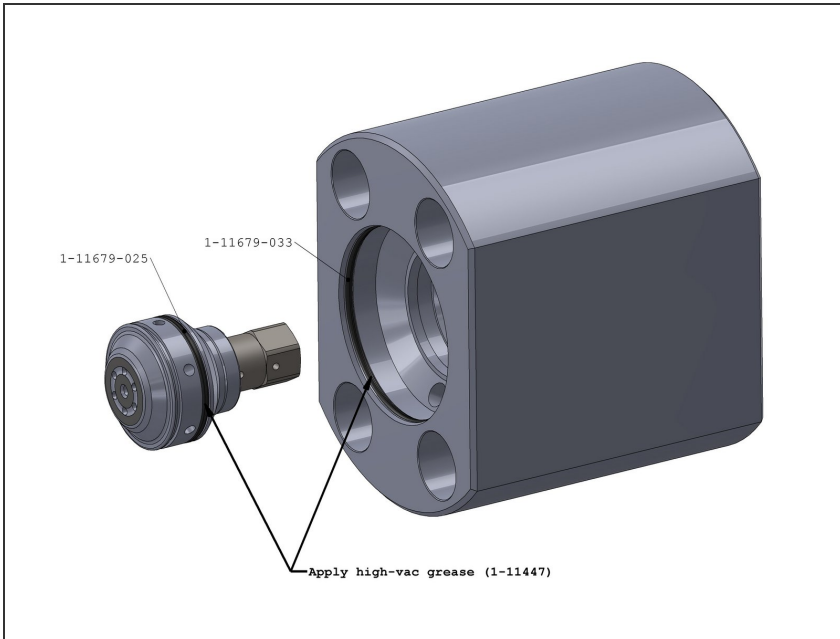


## Step 15 — Check valve



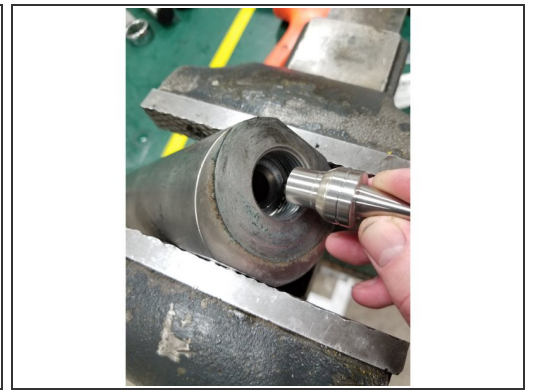
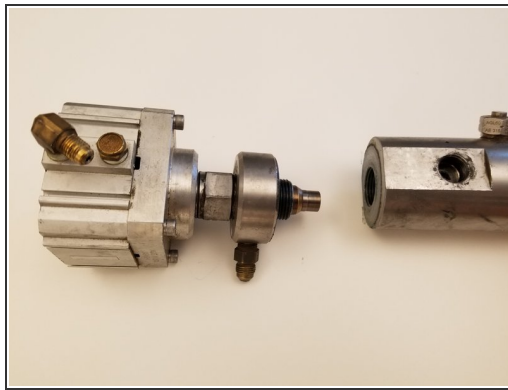
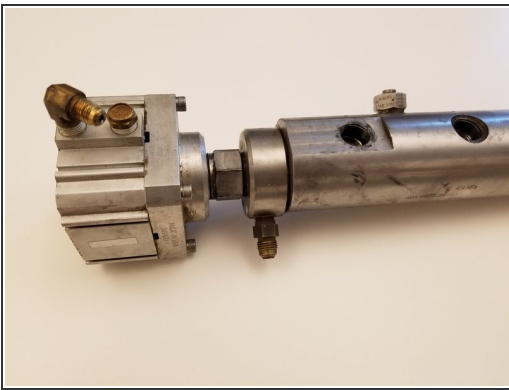
- Insert check valve body clamp tool into bench vise
- Use a 9/16" socket to tighten the clamp onto the check valve body
- Remove the Outlet Cage using the 9/16" socket
- Inspect outlet cage. Replace all other items
- Re-install outlet cage:
  - Apply blue lubricant to outlet cage threads and insert new internal components
  - Carefully thread cage into check valve while maintaining alignment of internal components
  - Torque outlet cage to 30 ft-lb (41 N-m)

## Step 16 — Check valve continued



- Install new End Cap o-ring
- Apply high-vac grease (1-11447) to both o-rings
- Insert check valve assembly into end cap

## Step 17 — PCV Replacement



- With manifold removed from pump, place manifold in a heavy bench vise
- Remove the PCV body using a 1-1/4" (32 mm) wrench

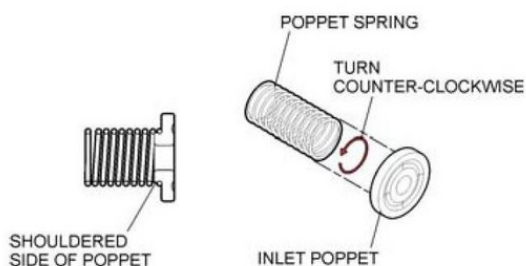
## Step 18 — PCV Replacement



- Apply blue lubricant to threads and both faces of the PCV adapter
- Install new PCV Ring onto new PCV Seat, and insert PCV Poppet into seat. Insert PCV assembly into PCV body
- Thread manifold onto PCV Adapter. Torque to 190 ft-lb (258 N-m)

## Step 19 — Assemble Inlet Poppets

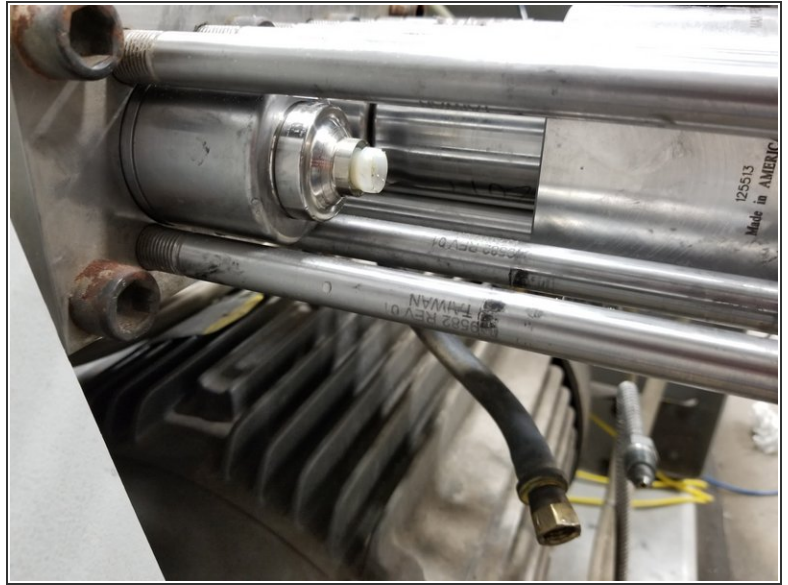
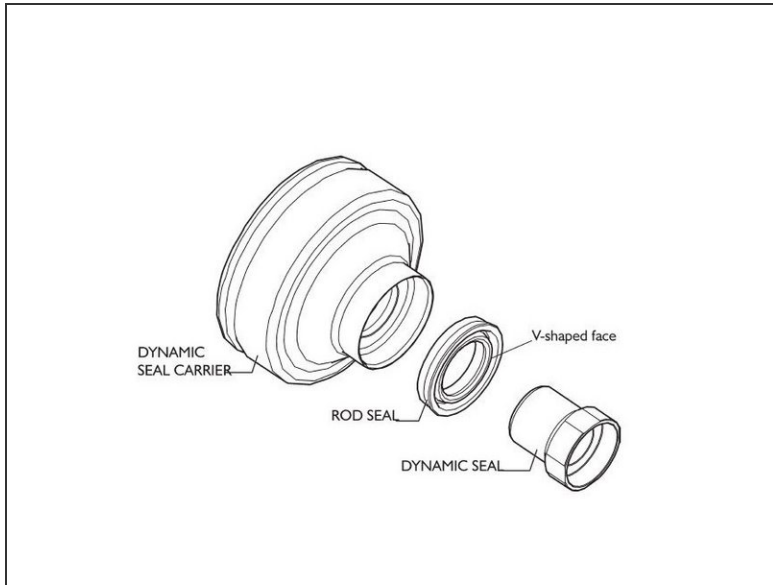
### Assemble the inlet poppet



- Attach 1-18747 spring to 1-18865 Inlet Poppet

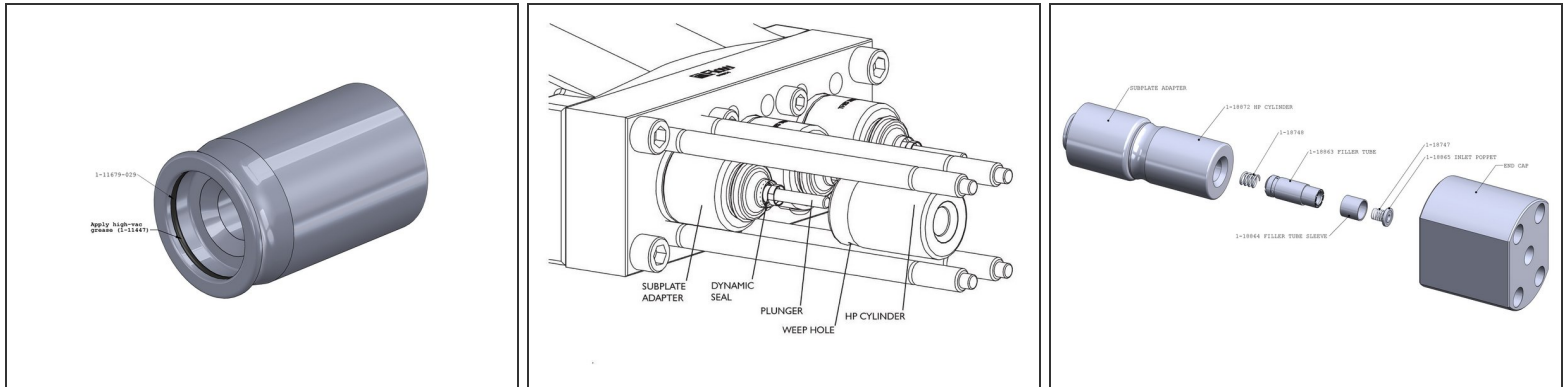


## Step 20 — Replace HP seals



- Insert dynamic seal and rod seal into new seal carrier (slight pressure is required to seat dynamic seal)
- Install rebuilt subplate adapter
- Slide seal assembly over plunger up to subplate adapter

## Step 21 — Install HP Cylinder, filler tube



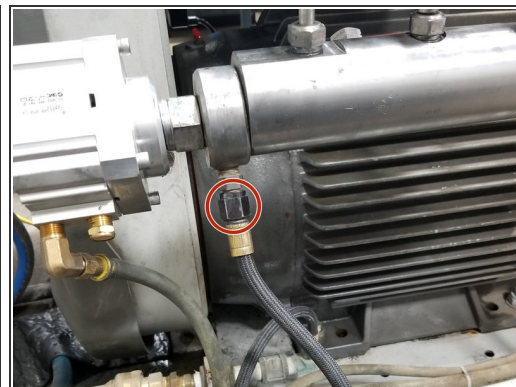
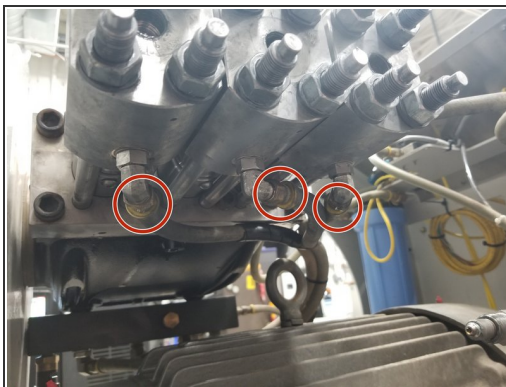
- Insert new o-ring into HP Cylinder. Apply a small amount of high-vac grease to o-ring
- Carefully slide HP cylinder over the seal carrier, keeping the weep hole facing down
- Insert 1-18748 spring into Filler Tube. Slide filler tube sleeve onto filler tube, insert poppet assembly into filler tube
- Insert assembly into HP Cylinder

## Step 22 — Attach end caps



- Slide End Cap onto tie rods and align with HP Cylinder
- Place washers and nuts on tie rods, hand tighten until snug
- Attach and pressurize the pressure loading tool. Tighten nuts by hand until they are snug against the end cap
- Remove pressure from pressure loading tool
- Repeat for all three lines

## Step 23 — Install manifold



- Apply blue lubricant to high-pressure fittings
- Torque high-pressure glands to: 40 ft-lbs (54 N-m)
- Attach manifold/high-pressure glands, air line, PCV drain line, and inlet lines

## Step 24 — Other considerations



- Check oil level and quality. Change oil per the recommendation of your specific system
- Check belt quality and tension
- Replace water filters as necessary
  - [1-11390](#) - 1 micron
  - [1-11402](#) - .45 micron



## Step 25 — Energize the system



- When complete, unlock system and restore energy
- Start pump and check for any leaks