



Major Repair Kit installation - using kit #1- 18976

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



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)
-

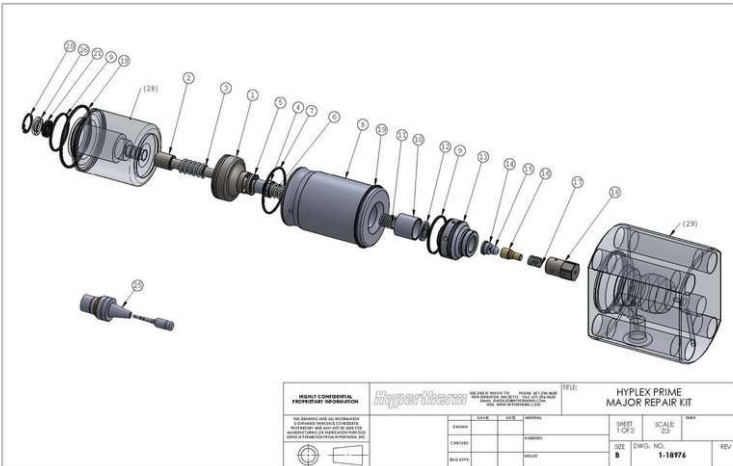
Step 1 — Safety Precautions



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.**

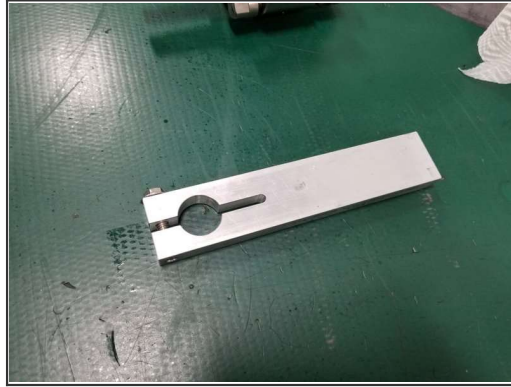
Step 2 — Exploded view with BOM



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	PLUM #	UNIT #
1	1-18975	SEAL CARTRIDGE ASSY	3	A-0245-092	72180226
2	1-18883	PLUG ASSY/1/16 DIA.	3	011044-1	72180914
3	1-18753	SPRING/COMPRESSION 336 ID	3	A-12118	72180940
4	1-18862	ORING/CRK	3	011001-1	72180917
5	1-18749	ROD SEAL/IDEASOAKIN 005+033	3	A-0621-33	72180129
6	1-18749	SPRING/COMPRESSION 362 ID	3	A-12117	72180940
7	1-11878-029	D-RINGS/TO DIAM BUNA -029	2	A-0715-029	01102007
8	1-18872	CYLINDER	3	049084-1	72180325
9	1-1478-025	D-RINGS/TO DIAM BUNA +025	6	A-0276-025	10074383
10	1-18884	FLG. TONGUE/SP	3	011004-1	72180149
11	1-18747	SPRING/COMPRESSION 362 ID	3	A-12119	72180143
12	1-18865	PPT/INL	3	011042-1	72180133
13	1-18861	ROCK/CHK. VALVE	3	049078-1	72180307
14	1-18867	NET PPT/INLET	3	011041-1	72180130
15	1-18869	PPT/OUTLET	3	011033-1	72180135
16	1-18868	NET PPT/OUT	3	011040-1	72180147
17	1-18752	SPRING/COMPRESSION 302 ID	3	A-0623	72180100
18	1-18750	CRACK/CRK	3	000732-1	0041147408
19	1-1478-033	D-RINGS/TO DIAM BUNA +033	6	A-0715-033	104334082
20	1-18745	RING/RING/FLG IN	3	A-0245-062	72180226
21	1-11893	O-RING SEAL	3	A-0710-01	72180008
22	1-14477	ORING O-RING VAC	1	A-4889	10007385
23	1-18750	ANTI-REVERSE G	2	A-20206-1	49821395
24	1-18852	ICRY/ADPT	1	041245-2	72180159, 4 72180276
25	04979-1	PISTON/RET			<FOR REFERENCE>
26	011004-1	SEAL SPACER			<FOR REFERENCE>
27	049505-1	JOSE/PLATE ADAPTER			<FOR REFERENCE>
28	049807-1	END CAP			<FOR REFERENCE>

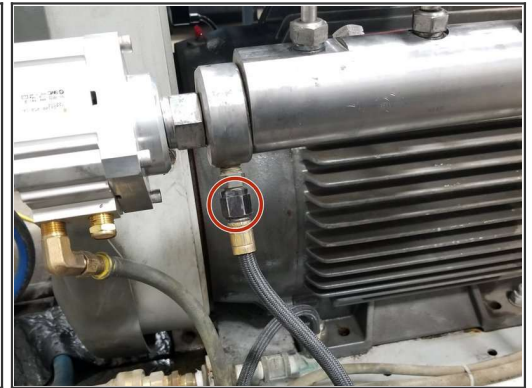
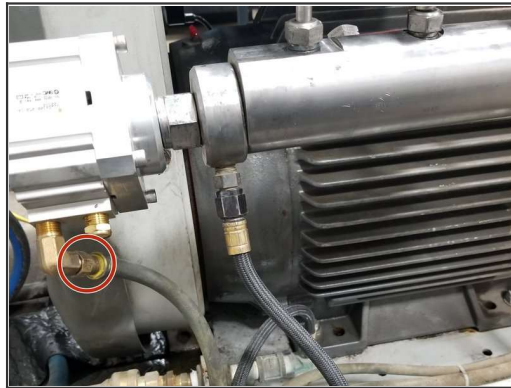
- Exploded view with BOM

Step 3 — Special tools (OEM)



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

Step 4 — Remove hoses



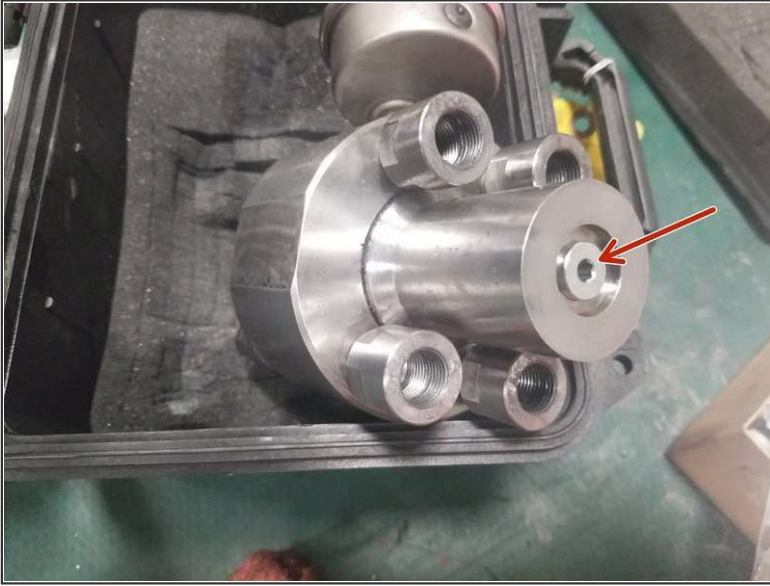
- Remove inlet water hoses from the bottom of the end cap
- Disconnect air line from actuator
- Disconnect PCV drain line

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



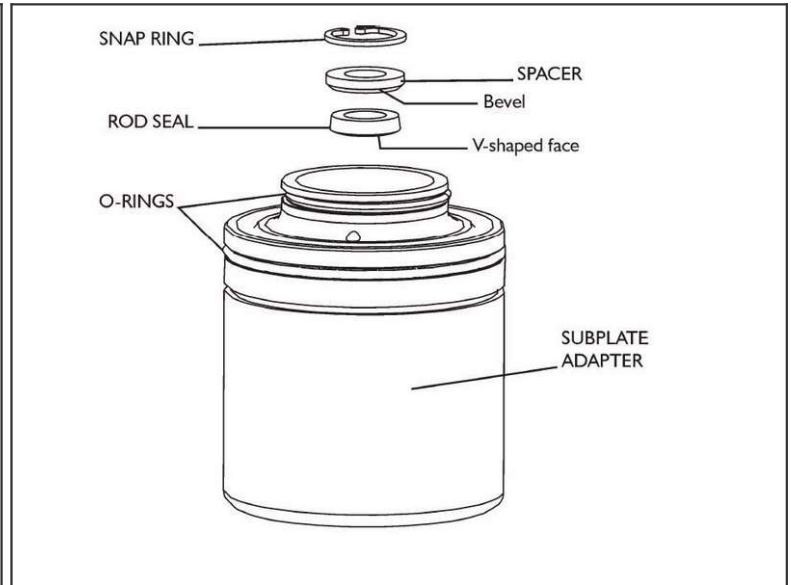
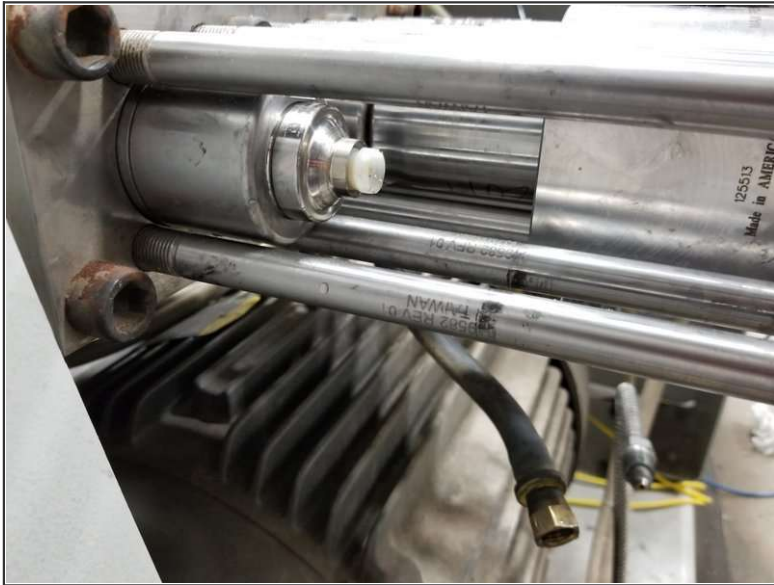
- Remove the four nuts and washers
- Carefully slide the end cap off, being careful not to lose any of the high-pressure components

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



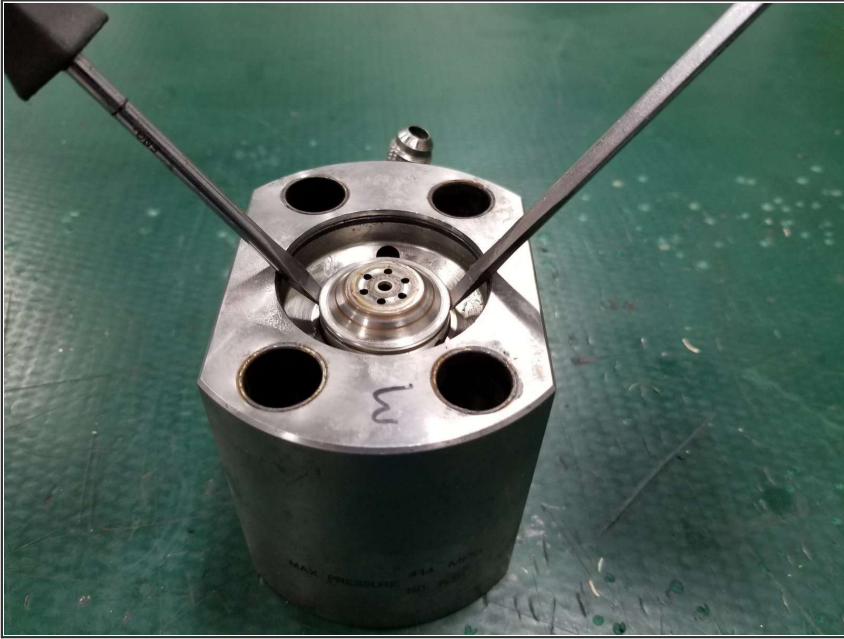
- Remove subplate adapter (gently pry groove if necessary)
- Remove snap ring and rod seal, install new rod seal (1-11993) and snap ring (1-18745). Inspect and replace spacer with bevel down

Step 13 — Remove plunger



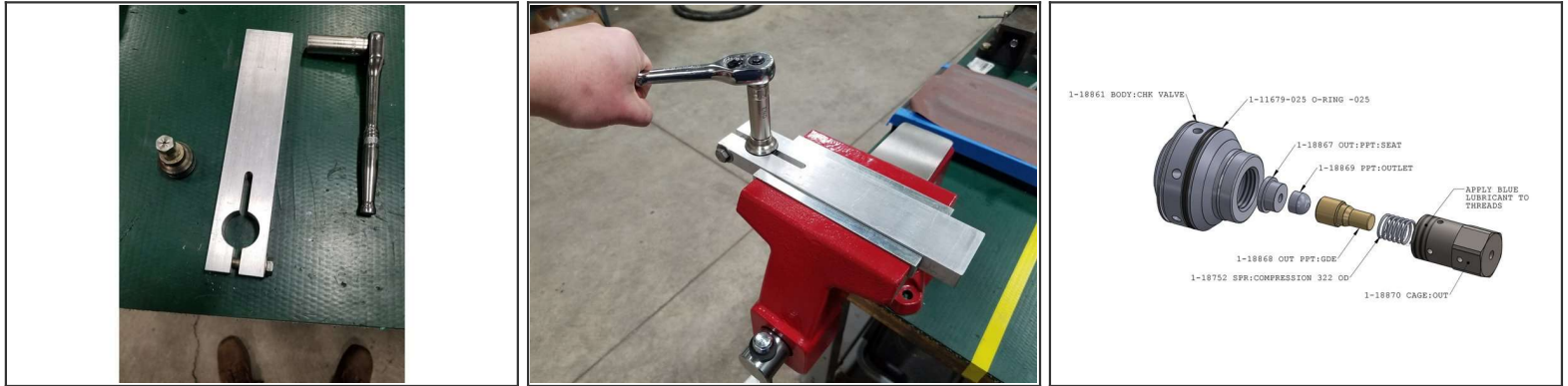
- Use plunger removal socket and ratchet to remove the plunger retaining nut
 - Rotate belt/crank to extend plunger, if necessary
- Replace with new plunger and spring. Torque plunger nut to 20 ft-lb (27 N-m). **Be careful not to contact the plunger**

Step 14 — Remove check valve assembly from end cap



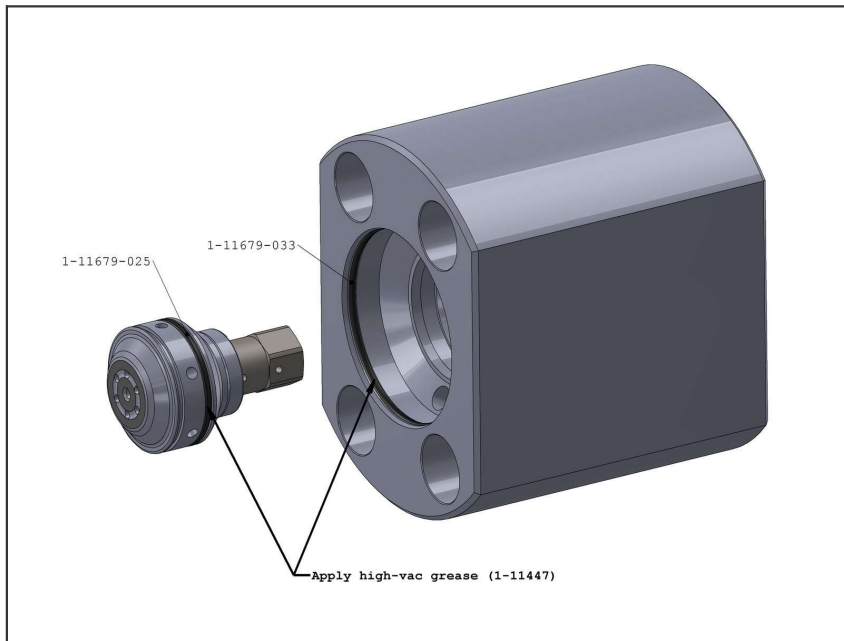
- Carefully lift the check valve assembly using two flathead screwdrivers in the groove on the check valve body

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

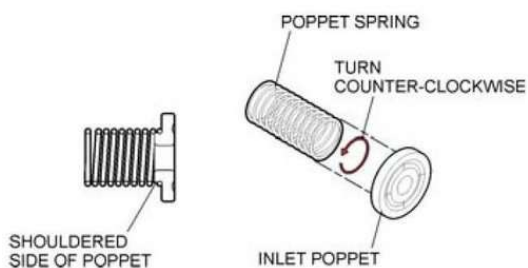
Step 18 — PCV Replacement



- 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)

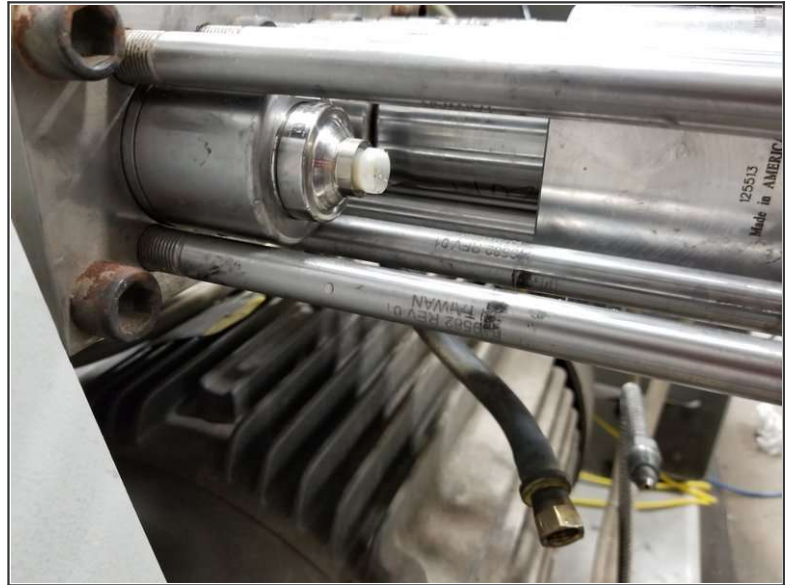
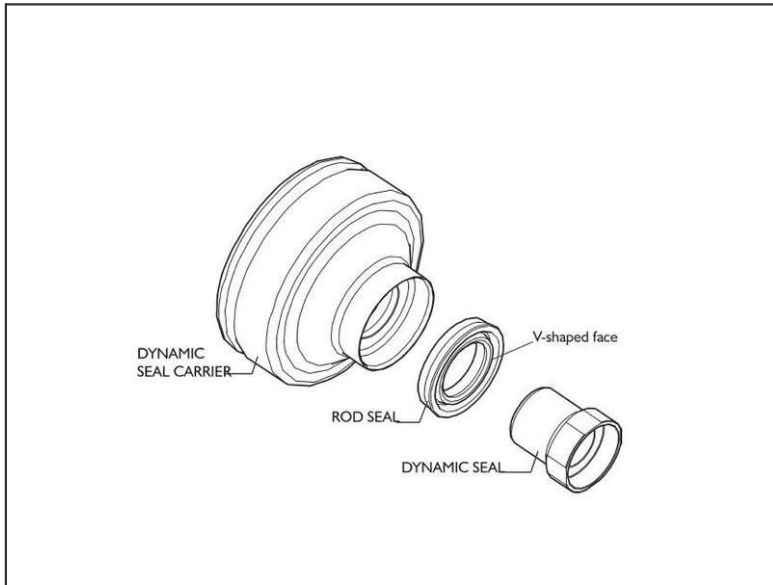
Step 19 — Assemble Inlet Poppets

Assemble the inlet poppet



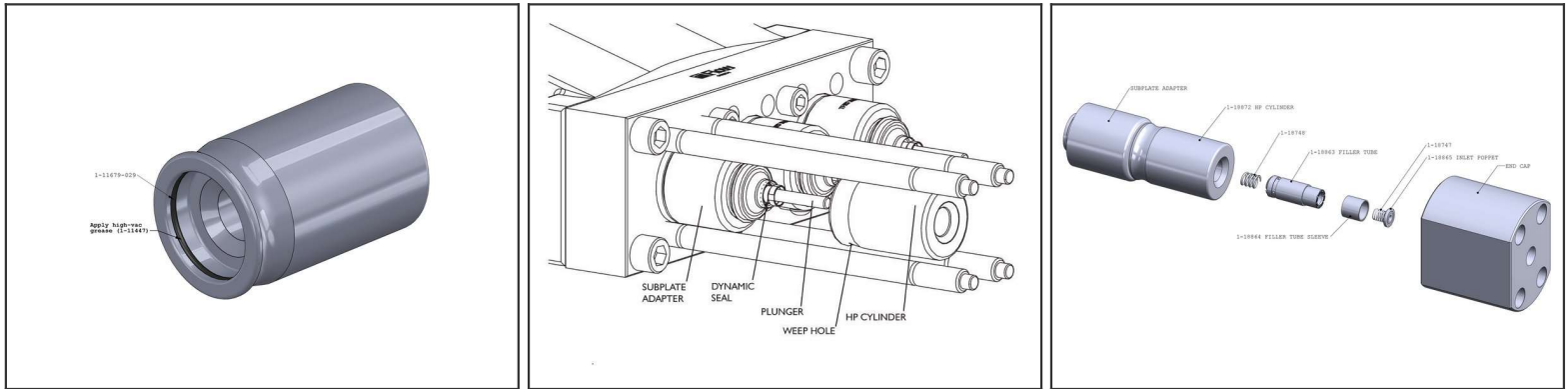
- Attach 1-18747 spring to 1-18865 Inlet Poppet

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



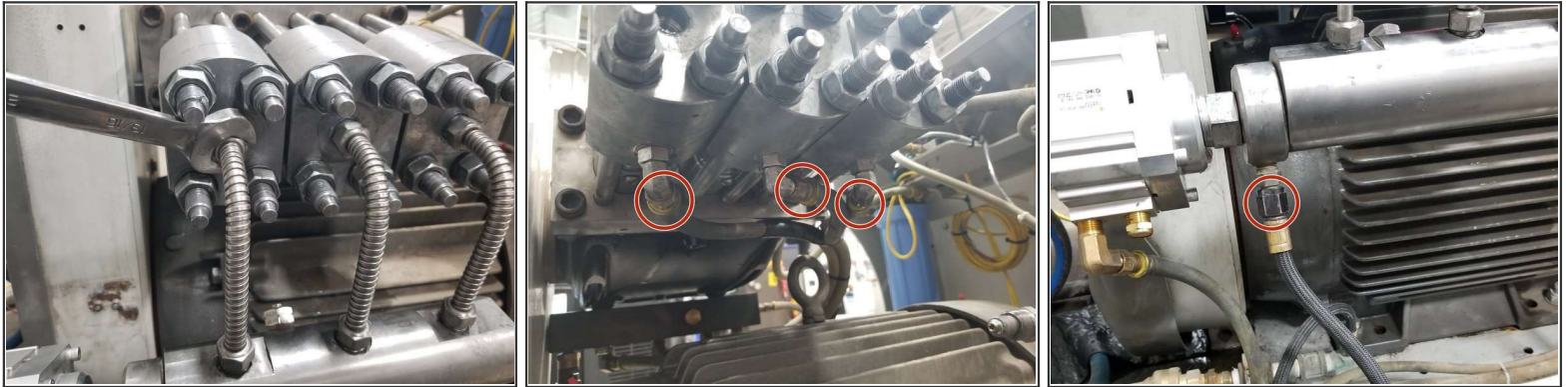
- Insert new o-ring into HP Cylinder. Apply a small amount of high-vac grease to o-ring
- Carefully slide HP cylinder over the seal carrier, keeping the weep hole facing down
- Insert 1-18748 spring into Filler Tube. Slide filler tube sleeve onto filler tube, insert poppet assembly into filler tube
-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