

INSTALLATION INSTRUCTIONS

QUANTUM 4" PUMP SERVICE KIT — PART NUMBER: 344-003-5

The following defined terms are used throughout this literature to bring attention to the presence of hazards of various risk levels, or to important information concerning the life of the product.

DANGER

indicates presence of a hazard which *will* cause *severe* personal injury, death or substantial property damage if ignored.

CAUTION

indicates presence of a hazard which *will* or *can* cause *minor* personal injury, death or substantial property damage if ignored.

WARNING

indicates presence of a hazard which *can* cause *severe* personal injury, death or substantial property damage if ignored.

NOTICE

indicates special instructions on installations, operation, or maintenance which are important but not related to personal injury hazards.

The 4" Pump Service Kit #344-003-5 consists of the following parts:

- 1 - Pressurstat
- 1 - Check Valve #188-247-4
- 1 - Check Valve Spring #080-951-1
- 1 - Packer/Manifold (Quad Seal) #076-370-1
- 1 - O-ring #072-534-1

The elastomers in the 344-003-5 Pump Service Kit are made of GFLT material and are AG (Alcohol-Gasoline) compatible. This kit will allow the Quantum assembly to remain AG compatible.

To service a pump, replacing the above listed parts, perform the following steps:

Disable the Pump

- 1: Back out the electrical yoke disconnect bolt.
- 2: Swing the electrical connector aside.
- 3: Relieve the pressure, back out Pressurstat adjustment screw to allow excess pressure to flow out to the tank.
- 4: Remove the two lockdown bolts. If siphon is attached to primary siphon or pressurstat, disconnect siphon tubing.

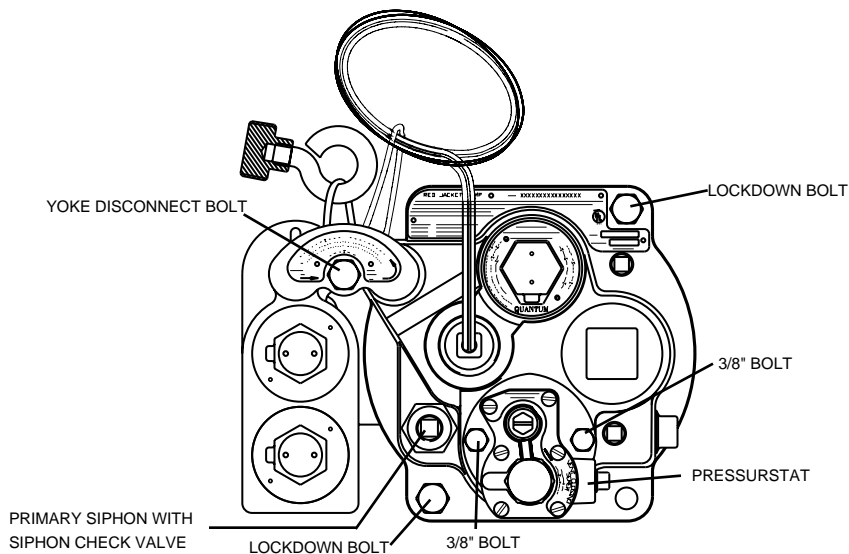


FIGURE 1

Replace the Quad Seal

- 1: Remove the two lockdown bolts. (If siphon system is present disconnect the siphon tubing). Carefully lift packer.

CAUTION

DO NOT damage surface above discharge port. The O-ring below the leak detector port seals on this surface.

- 2: Once the pump is lifted off of the manifold, remove the old quad seal from the base of the packer.
- 3: Clean the seating surface and the sealing surface of the 7" packer/manifold seal.
- 4: To install the new seal, place the top part of the seal (the top side has the retaining lip) into the base of the packer. The retaining lip is upward per Figure 2.
- 5: Replace the packer unit carefully so that the seal is not damaged and tighten down the two lockdown bolts. Torque bolts to 45-55 ft lb (61-75 N•m).

Proper replacement of the quad seal is critical for maintenance of product line pressure. An improper seal will allow the release of product inside the unit and back into the tank.

Replace the Check Valve, Spring and Pressurstat

- 1: Remove the old Pressurstat assembly by first disconnecting the siphon tubing (if a tank siphon is installed).
- 2: Remove the two 3/8-in. bolts.
- 3: Carefully lift the Pressurstat and remove it from the packer.
- 4: The old check valve and spring will be resting on top of the packer. Remove these.

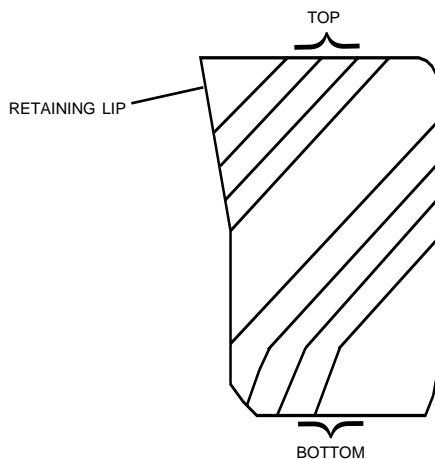


FIGURE 2: Quad Seal (profile)

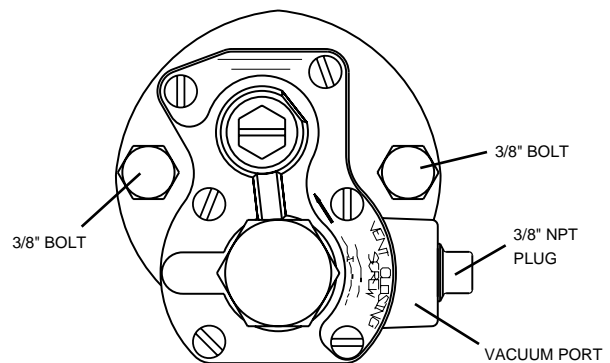


FIGURE 3: Pressurstat (top view)

- 5: Position the new check valve and spring.
- 6: Carefully set the new Pressurstat and the three new Pressurstat O-rings into place then replace the two 3/8 inch bolts. Torque to 38-42 ft lb (52-57 N•m).
- 7: If no siphon is attached to the pressurstat, make sure the vacuum port on the Pressurstat is plugged with a 3/8" NPT plug.

Adjusting the Pressurstat Relief Pressure

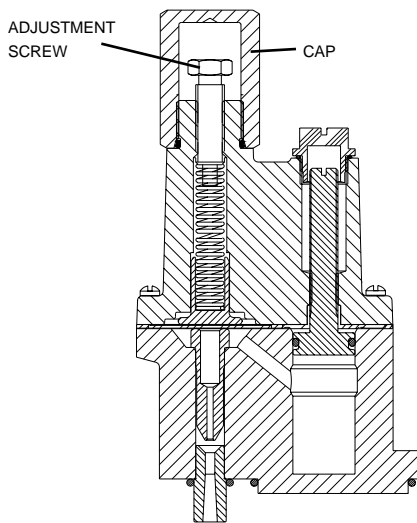


FIGURE 4

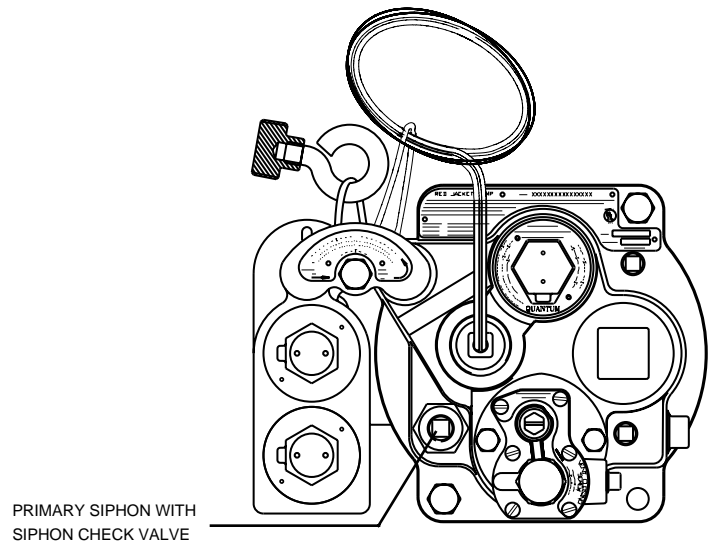


FIGURE 5

DANGER

Always DISCONNECT and LOCK or TAG OUT the power before starting to service the pump.

The Pressurstat contained in this package is an adjustable model. All Pressurstats are factory set at relief pressures of 23 psi (160 kPa) to 28 psi (195 kPa) but can be adjusted to a maximum of 40 psi (276 kPa) to 45 psi (310 kPa) by turning down the adjustment screw.

This adjustment feature allows the use of the Red Jacket pump with electronic line leak detection systems that require higher relief such as that which is available on the CPT.

- 1: Remove the cap (Fig. 4).
- 2: Turn down the adjustment screw (Fig. 4). Tightening the screw clockwise will increase the pressure. When the adjustment screw is fully down, the relief pressure is approximately 40 psi (276 kPa) to 45 psi (310 kPa). Fully up will result in relief pressures between 0 psi (0 kPa) and 3 psi (20 kPa).
- 3: Replace cap until it bottoms out. Hand tightening is sufficient as the O-ring completes the seal.

There are two methods to verify the relief pressure setting:

- The pressure reading can be taken from the control unit of an electronic line leak detection system if one is in operation, or from a tech pod which plugs in to the CPT door. Observe the pressure that occurs after the pump turns off — this is the adjusted relief pressure.
- Pressure may be observed using a gauge attached at the impact valve or the line test port at the pump. Observe the pressure that occurs after the pump turns off — this is the adjusted relief pressure.

NOTICE

The primary siphon system for the Quantum is the brass fixture located beside the Pressurstat. The 3/8" NPT plug in the fixture should be removed and siphon check valve with siphon line attached to the fixture in that port (See Fig 5).

NOTICE

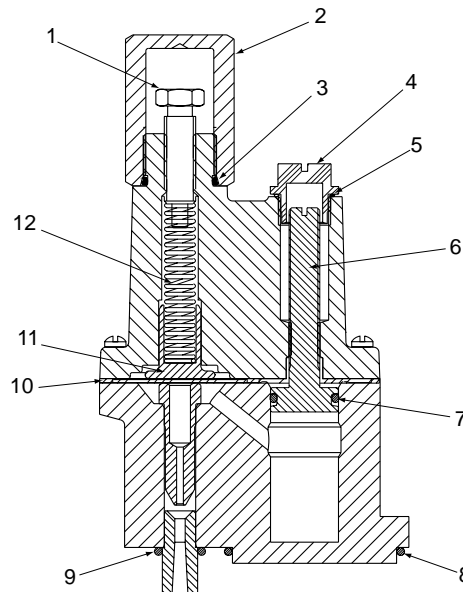
It is strongly recommended that the primary siphon be used. If this recommendation is ignored and siphon lines are attached to the Pressurstat, the 5 psi (34 kPa) rule comes into effect. The pump must be able to create 5 psi more than what the Pressurstat relief pressure is set at. An improper pressure setting may cause mechanical damage and will void the warranty.

For example: if a relief pressure of 25 psi (170 kPa) is desired, the CPT Controller must be set at 30 psi (210 kPa) minimum.

RED JACKET PUMP — APPROXIMATE OPERATING PRESSURES	
AGUMP33R1	25 psi (172 kPa) .74 SG @ 60°F (15°C)
AGUMP75S1	28 psi (193kPa) .74 SG @ 60°F (15°C)
AGUMP150S1	30 psi (207 kPa) .74 SG @ 60°F (15°C)
X3AGUMP150S1	43 psi (297 kPa) .74 SG @ 60°F (15°C)
X5AGUMP150S1	47 psi (331 kPa) .74 SG @ 60°F (15°C)
AGUMP75S3-3	30 psi (207 kPa) .74 SG @ 60°F (15°C)
AGUMP150S3-3	31 psi (214 kPa) .74 SG @ 60°F (15°C)

PARTS LIST

ITEM	PART #	DESCRIPTION	QTY
1	076-447-3	ADJUSTMENT SCREW	1
2	014-887-3	CAP	1
3	072-684-1	O-RING BUNA (-910)	1
4	066-620-1	PLUG - PLASTIC	1
5	072-645-1	O-RING BUNA (-015)	1
6	076-446-3	SCREW - RELIEF VALVE LOCK	1
7	072-685-1	O-RING GFLT (-114)	1
8	072-533-1	O-RING GFLT (-136)	1
9	072-535-1	O-RING GFLT (-111)	1
10	017-574-1	DIAPHRAGM GFLT	1
11	066-883-1	POPPET	1
12	080-944-1	SPRING	1



Marley Pump
A United Dominion Company