

Siphon Check Valve

Installation Guide

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Introduction





This manual contains instructions for replacing the siphon check valve in a Red Jacket Quantum submersible pump. A Red Jacket Check Valve Repair kit (RJ P/N 144371-5) and a small amount of petroleum jelly (o-ring lubricant) are required for this procedure. The contents of the repair kit are shown in Table 1.

Table 1.- Check Valve Repair Kit - RJ P/N 144-371-5

Item	Qty..	Description	RJ Part No.
1	1	Cartridge - check valve assembly	014-889-1
2	1	Ring - internal retaining	072-683-1
3	1	O-ring - 912 Viton	072-653-1
4	1	Extractor tool - check valve	025-038-1
5	1	Installation manual	042-251-1

Safety Symbols

The following safety symbols are used throughout this manual to alert you to important safety hazards and precautions.

 <p>EXPLOSIVE Fuels and their vapors are extremely explosive if ignited.</p>	 <p>TURN POWER OFF Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.</p>
 <p>READ ALL RELATED MANUALS Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.</p>	 <p>WARNING Warning Alert - read message and follow instructions to avoid serious injury, death, or substantial property damage.</p>

Safety Warnings

 WARNING	
 	<p>Portions of this product are to be installed and operated in the highly combustible environment of a underground storage tank. It is essential that you carefully read and follow the warnings and instructions in this manual to protect yourself and others from serious injury, death, or substantial property damage.</p>

Installation



DANGER! disconnect and lock or tag out the power to the pump before beginning this procedure.



Remove the Siphon Nozzle and Check Valve

1. The siphon check valve is located in the packer beneath the siphon nozzle (see Figure 1).
2. Carefully remove the siphon nozzle.

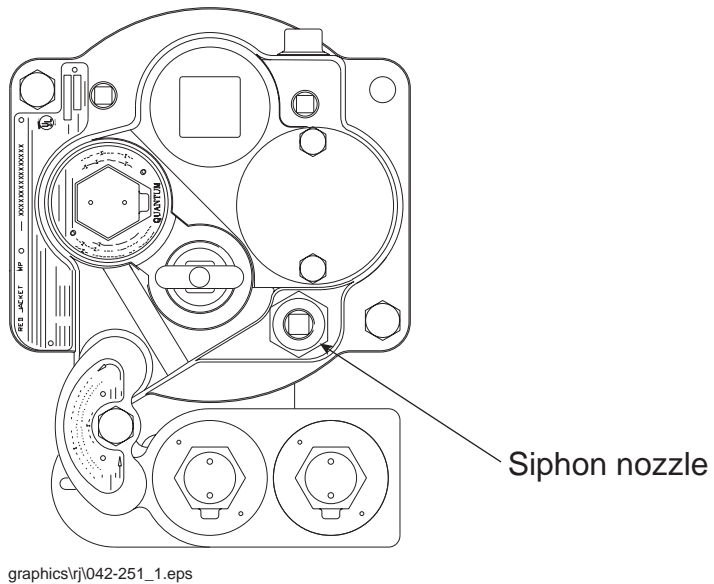


Figure 1. Locating Siphon Nozzle

3. The check valve and retaining ring are located in the angled hole in the side of the nozzle port.
4. Insert the small hooked end of the extractor into the check valve (see Figure 2). A slight push should snap the extractor into place.
5. Sharply tug on the handle of the extractor to remove the retaining ring and check valve. Note - removing the retaining ring requires about a 50 pound pull.

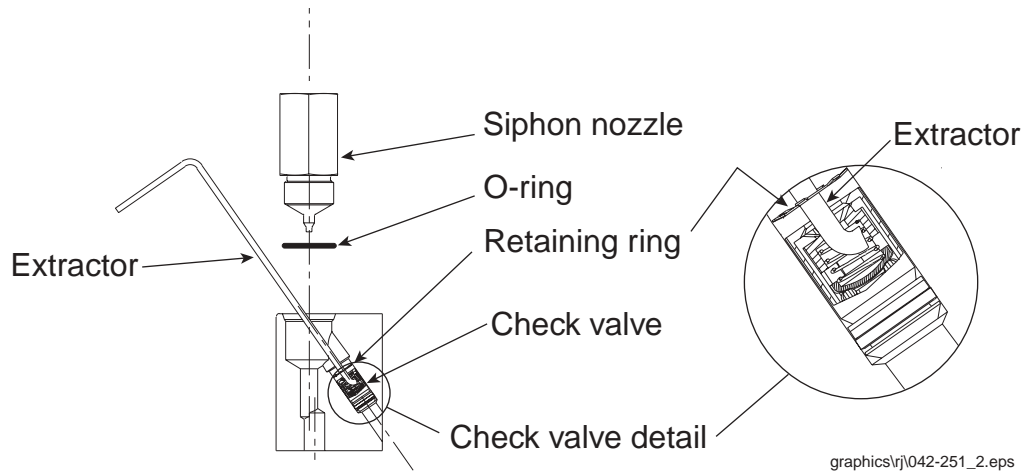


Figure 2. Inserting Extractor into Check Valve

Installing the New Check Valve

1. Carefully clean the bore before installing the check valve to insure a good surface for the o-ring to seal against.
2. Lubricate the o-ring on the check valve with petroleum jelly and insert check valve into the angled bore, o-ring end first (see Figure 3). Push it to the bottom of the bore. Note: Arrows on the check valve should point up.

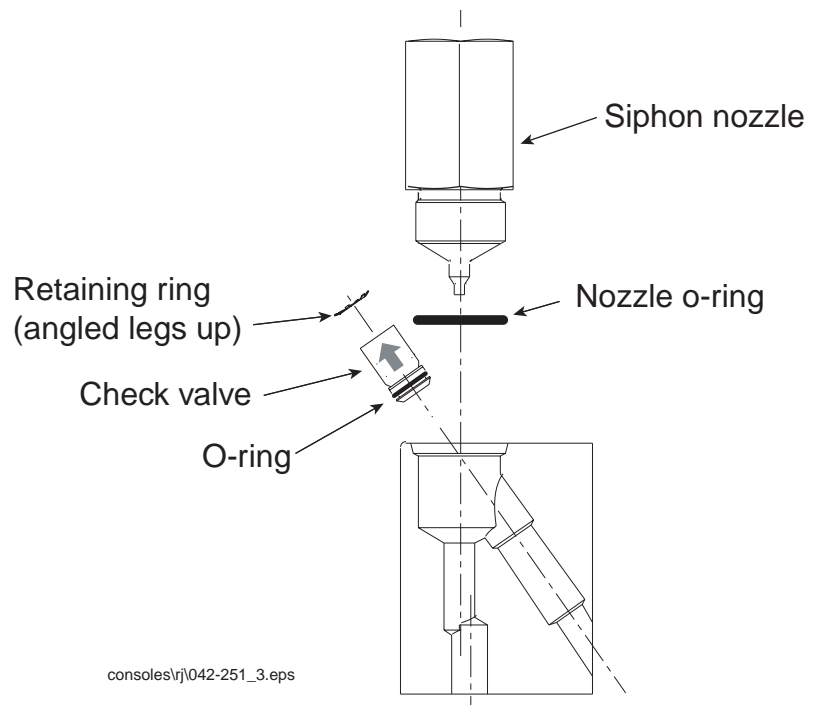


Figure 3. Installing New Check Valve Components

3. Orient the angled legs of the retaining ring (included in kit) up, then insert ring into angled bore after check valve. Press the retaining ring down into bore until it seats against check valve.
4. Remove o-ring from the siphon nozzle and discard. Clean the o-ring seating surface and place a new o-ring (included in kit) onto the nozzle. Take care not to damage the o-ring while installing over the threads.
5. Clean the o-ring seating surface in the packer.
6. Lubricate the nozzle o-ring with petroleum jelly then carefully reinstall nozzle into packer and torque to 20 - 30 ft-lbs.

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