

# TECHNICAL SERVICE BULLETIN

**Bulletin Number: DC- 2274**

**Date: 4/29/2010**

**Affected Model(s): 24 VDC Electric Pump and Bucket Models**

**Subject: 276903-24 VDC Solenoid Valve**

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We are pleased to introduce a greatly enhanced and improved 276903-24 VDC solenoid valve. The valve is fully serviceable and has been incorporated into our 24 VDC Centro-Matic pump and bucket assemblies. The 276903 is rated at Protection Class IP 65 (wash-down safe and well suited for extreme operating conditions).

This new valve will serve as a replacement for several other valves that you have come to know: 525-32083-1, 274899, and 276325. The 525-32083-1, 274899, and 276325 will continue to be offered as service replacement items until demand for them no longer merits keeping them in our product offering.

Service page **“Section C8-Page 328”** (copy attached) details specifications, description, operation, and maintenance information. Please note that the 276903 will not always be handled as a 100% direct replacement. When replacing the 525-32083-1, 274899, or 276325, a retrofit kit, part number 276919, will also be required. This is detailed completely in the service page.

The major benefit of this new 276903 solenoid valve is that it is “Fully Serviceable”. Research by our Engineering group has shown that a typical weak point in a Centro-Matic system is the electric solenoid valve. With this new valve, the need to replace it entirely has been eliminated. If a failure can be isolated to a particular component of the solenoid valve, there are service parts available. The 276903 offers a larger orifice for better flow, increased resistance to contamination, and hardened seats to reduce wear.

The 276903-24VDC solenoid valve offers a win/win situation for everyone. The overall result is a better performing, more reliable, and fully serviceable valve. The valve is available from stock today.

As always, if you have questions or concerns, please do not hesitate to call Lincoln Technical Services at 314/679-4200, Ext. 4782 or fax us at 314/679-HELP (4357).

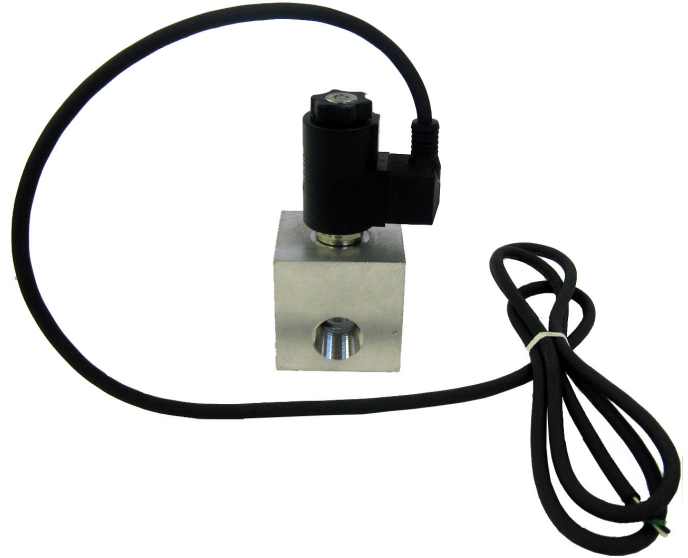
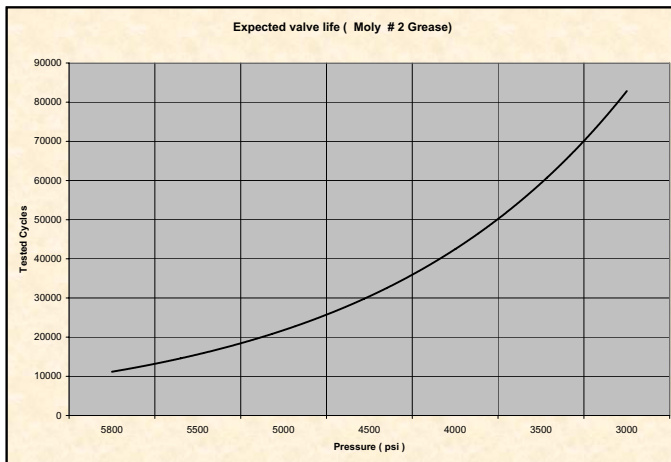
Regards,

Barry Frankum

### Specifications:

Operating pressure: 3,500 psi\*  
 Grease viscosity: NLGI #2 maximum  
 Operating voltage: 24VDC  
 Operating current: 1.1 amps  
 Pressure port through: 3/4 NPTF  
 Vent port: 1/4 NPTF  
 Direct operating normally open 2 way poppet  
 Protection class: IP 65  
 Operating temperature: -40 to +125 degrees F.

**Note:** The life expectancy of the valve is limited by the operating pressure according to the graph below:



### Description and operation:

The 276903 Electrically Operated Vent valve is used in Centromatic lubrication systems and can be used with SL-1, SL-11, SL-32, SL-33 and SL-V type injectors. Grease is pumped through the 3/4 NPTF through hole and vents out of the 1/4 NPTF port back into the tank. It is recommended that grease used in the system be filtered for proper operation of all Centromatic pump, injector and vent valve components.

### Maintenance:

If the pump fails to achieve system pressure the following test of the vent valve can be performed to confirm proper operation:

1. Remove vent hose from vent port.
2. Confirm that the proper voltage is being applied to the vent valve coil connections and that the coil has approximately 21 Ohms resistance.
3. Reconnect the electrical connections.
4. Cycle the pump. There should be no grease flowing from the vent port during the pump operation.
5. If grease is flowing from the vent port during the pumping process the vent valve is either damaged or contaminated.

6. Remove the grease cartridge from the vent body.
7. Using mineral spirits and an air gun rinse and blow out the lower poppet housing while the valve is being cycled.
8. Install the cartridge back into the body and make the electrical connections.
9. Cycle the pump again. If grease stops flowing from the vent port then contamination was the issue.
10. If grease continues to flow from the vent port try cleaning the poppet body again as in step #7.
11. If repeated cleaning does not resolve the leakage the poppet and seat of the cartridge may be damaged and the cartridge will have to be replaced.

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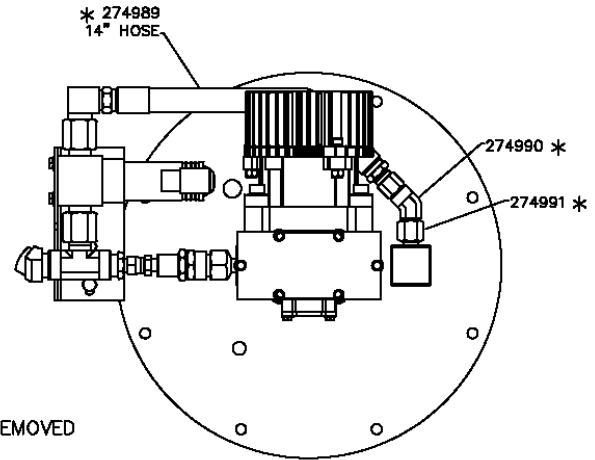
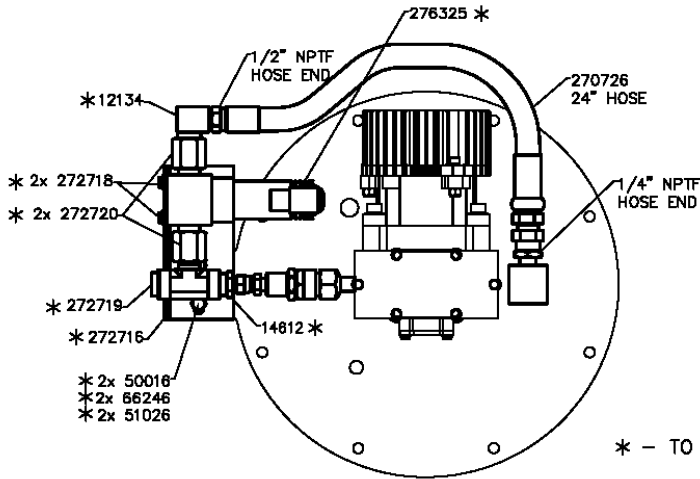
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# MODEL 276903 ELECTRICALLY OPERATED VENT VALVE



Shown below are the two different pump and bucket configurations using the previous style vent valve (Lincoln part number 276325 & 275561). Both of these configurations can be adapted to use the new 276903 Vent Valve by using the proper retrofit kit number listed below. If your bucket/pump has the longer hose (24") it can be reconfigured according to the retrofit illustration shown at the bottom of the page. If your bucket/pump has the shorter hose (14") you will need to also purchase the hose assembly 270726 and route it according to the lower illustration.



\* - TO BE REMOVED

### Illustration Views of Old Style

#### MODELS USING 270726 24" HOSE

##### ITEMS TO BE REMOVED

ITEM	DESC	QTY
12134	ADAPTER 45°	1
14612	ADAPTER	1
272716	BRACKET	1
272718	FLANGE HEAD SCREW	2
272719	TEE	1
272720	1/2 NPT X 1/2 BSPT ADAPTER	2
276325	SOLENOID VALVE	1

##### TO BE REPLACED BY

ITEM	DESC	QTY
276903	SOLENOID VALVE ASSY	1
276919	RETROFIT HARDWARE KIT	1

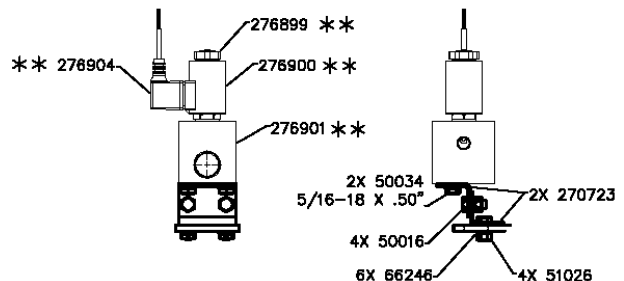
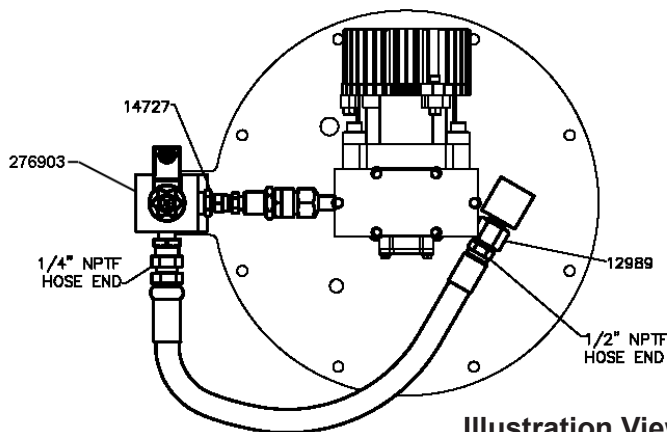
#### MODELS USING 274989 14" HOSE

##### ITEMS TO BE REMOVED

ITEM	DESC	QTY
12134	ADAPTER 45°	1
272716	BRACKET	1
272718	FLANGE HEAD SCREW	2
272719	TEE	1
272720	1/2 NPT X 1/2 BSPT ADAPTER	2
276325	SOLENOID VALVE	1
274989	14" HOSE	1
274990	ADAPTER 45°	1
274991	REDUCER BUSHING	1

##### TO BE REPLACED BY

ITEM	DESC	QTY
276903	SOLENOID VALVE ASSY	1
276919	RETROFIT HARDWARE KIT	1
270726	24" HOSE	1



\*\* - INCLUDED IN 276903

### Illustration Views of New Style