

SPECIFICATIONS

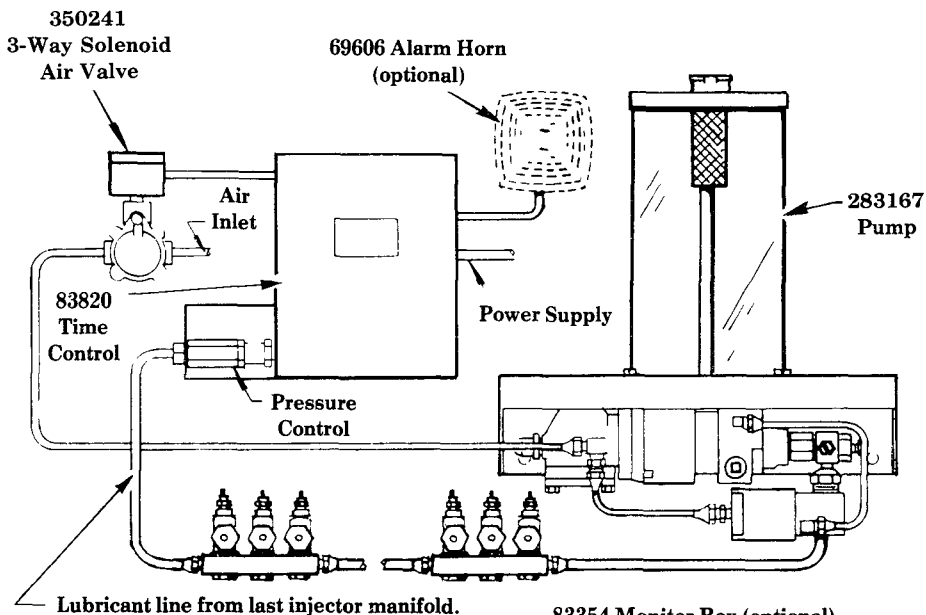
RATIO	LUBRICANT OUTPUT (cu. in.)		RESERVOIR CAPACITY	AIR INLET	LUBRICANT OUTLET	LUBRICANT OPERATING PRESSURE (PSI)			
	PER CYCLE	PER MIN				TYPE OF SYSTEM	MINIMUM	MAXIMUM	RECOM- MENDED
40:1	*.11	12	15 Pints	1/8" NPTF	3/4" NPTF	SL-41 SL-42 SL-43 SL-44	750	1000	850

**TYPICAL
INSTALLATION**

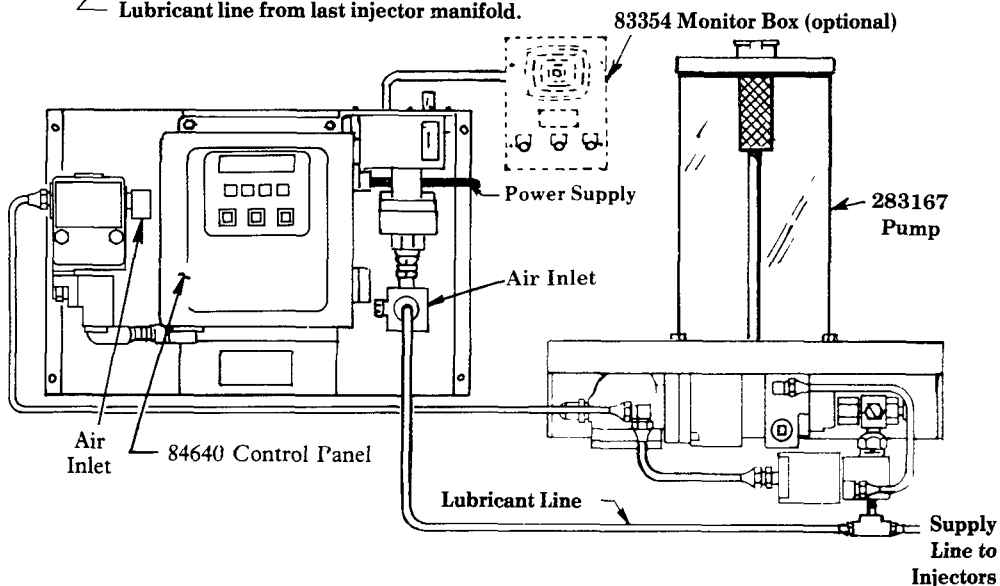
The 283167 Pump is used as the pumping unit for a centralized lubrication system having a single line circuit of SL-41, SL-42, SL-43 or SL-44 Injectors.

It is an air operated reciprocating pump that discharges an established amount of lubricant *.11 cu. in.) into the circuit for each pump cycle.

* Based on lubricants that are free of entrapped air. Lubricants that are aerated will reduce output of pump.

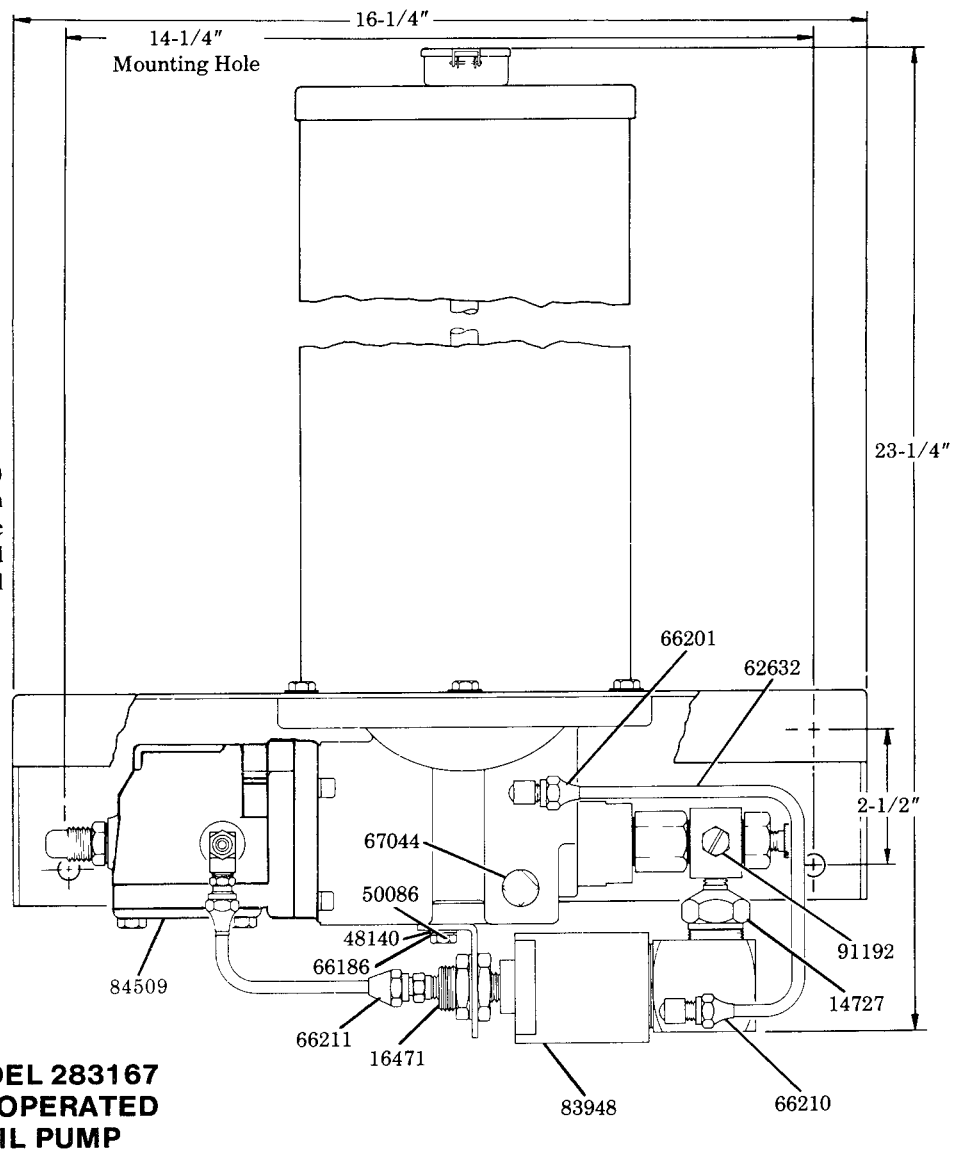
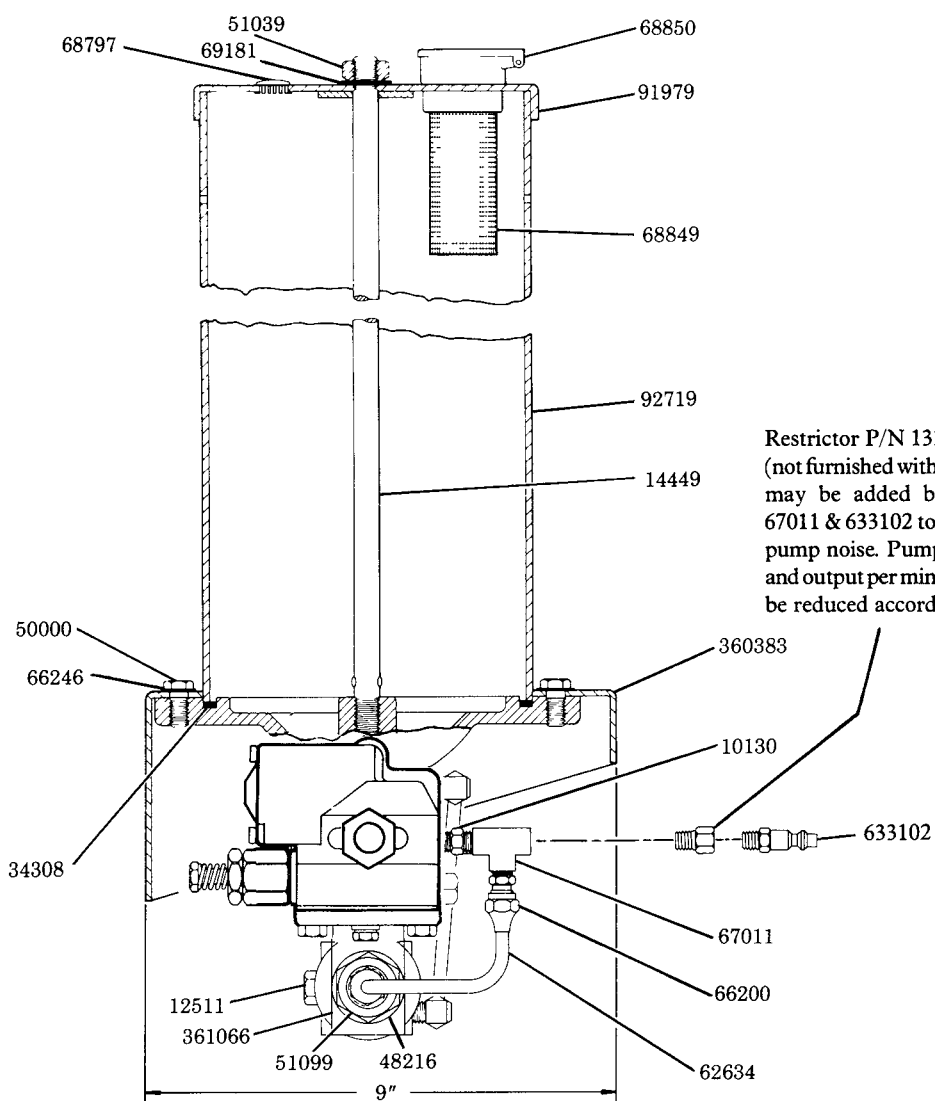


WARNING
DO NOT OPERATE
THIS UNIT WITH
COMBUSTIBLE GAS



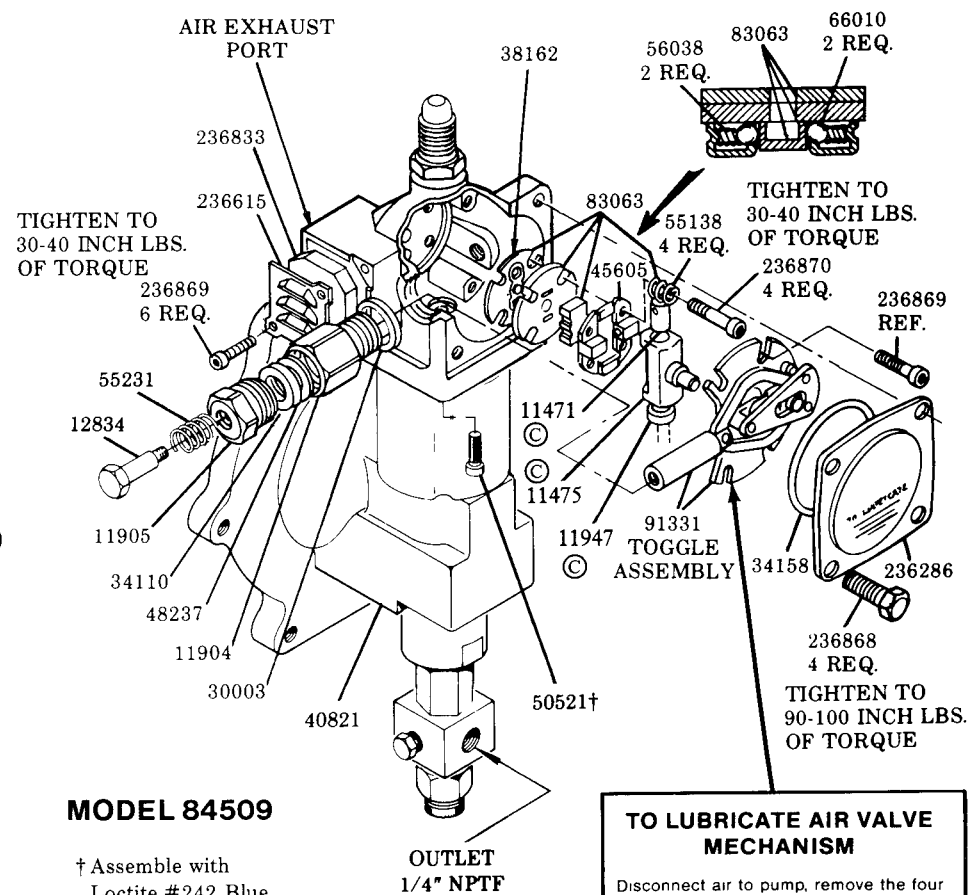
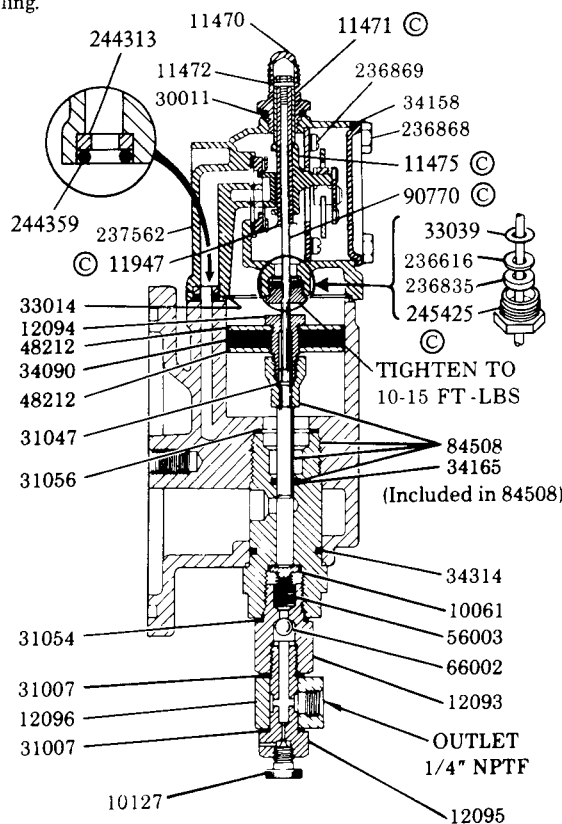
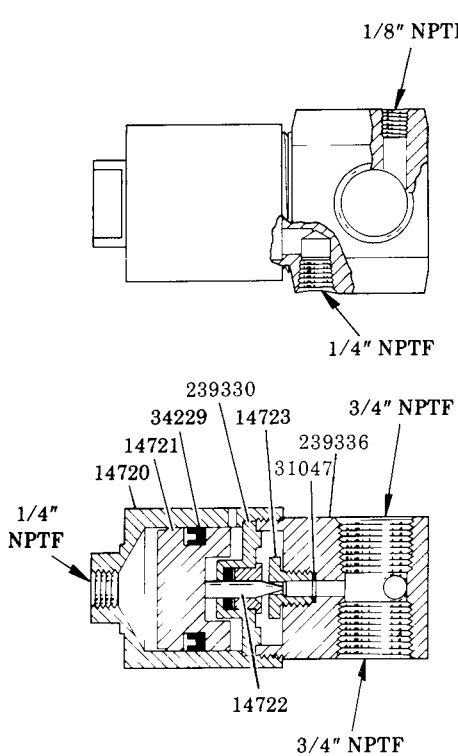
TO FILL RESERVOIR

The lubricant reservoir is filled through the filler cap at the top of the reservoir. A strainer is located in the filler cap. Strainer should be removed from the filler cap and cleaned periodically.



© Indicates Change

IMPORTANT - Start fasteners by hand to avoid stripping threads when re-assembling.



TO LUBRICATE AIR VALVE MECHANISM

Disconnect air to pump, remove the four cover screws, cover plate and cover plate gasket

Remove and disassemble the air valve casting from the pump

The air valve casting should be cleaned or flushed to remove any chips, or other foreign particles prior to re-assembly

Before replacing the toggle assembly, pack cavity with grease

Use NLGI No 1 (light grade) water repellent grease. Approximately 1 1/2 ounces

Replace cover gasket, cover and screws

Tighten to avoid air leaks

Periodic inspection of parts at least once each year is advisable

SERVICE PARTS

Part	Qty.	Description	Part	Qty.	Description	Part	Qty.	Description	Part	Qty.	Description
*10061	1	Pump check disc	*30003	1	Gasket	51039	4	Nut	*90770	1	Trip rod
10127	1	Plug	30011	1	Valve cap gasket	55138	4	Spring	*91192	1	Safety unloader assembly
10130	1	Nipple	*31007	2	Gasket	55231	1	Spring	*91331	1	Toggle plate assembly
11470	1	Cap	31047	2	Gasket	56003	1	Spring	91979	1	Reservoir cap assembly
*11471	1	Trip rod collar	31054	1	Gasket	56038	2	Spring	92719	1	Reservoir assembly
*11472	1	Trip rod pin	31056	1	Gasket	62337	1	Steel tubing	236286	1	Cover
*11475	1	Trip shoe	*33014	1	Gasket	62399	1	Steel tubing	236615	1	Muffer cover
11904	1	Packing nut	*33039	1	Gasket	66002	1	Steel ball	*236616	1	Gasket
11905	1	Packing cap	34090	1	Packing (Buna-N)	*66010	2	Steel ball	236833	1	Muffer
*11947	1	Trip sleeve	*34110	1	Packing (Buna-N)	66200	1	Straight tube connector	*236835	1	Packing
12093	1	Check housing	*34158	1	Gasket (Neoprene)	66201	1	90° tube connector	236868	4	Screw
12094	1	Air piston bolt	34165	1	O-ring (Buna-N)	66210	1	90° tube connector	236869	6	Screw
12095	1	Outlet body	*34229	1	Packing (Buna-N)	66211	1	Straight tube connector	236870	4	Valve seat bolt
12096	1	Outlet block	34308	1	Gasket (Buna-N)	67011	1	Tee	237562	1	Air valve casting
12511	2	Pipe plug	34314	1	O-ring (Buna-N)	67044	1	Pipe plug	239330	1	Viton packing assembly
12834	1	Spring retainer	*38162	1	Valve gasket (Buna-N)	68797	1	Plug button	239336	1	Valve body
14449	1	Tie rod	40821	1	Base casting	68849	1	Strainer	*244313	1	Seat
14720	1	Air cylinder	*45605	1	Valve guide plate	68850	1	Filler cap	*244359	1	O-ring (Buna-N)
14721	1	Piston	48212	2	Washer	*83063	1	Valve slide, seat & gasket assy	*245425	1	Trip rod packing nut
*14722	1	Needle	48237	1	Washer	83948	1	Vent valve assembly	360383	1	Base
*14723	1	Valve seat	50000	6	Cap screw	84508	1	Bushing, plunger & O-ring assy	633102	1	Plug
14727	1	Valve body	50521	4	Screw	84509	1	Pump assembly			

* Recommended Service Parts Inventory

INSTRUCTIONS FOR PUMP USING 84640 CONTROL PANEL

TO PRIME SYSTEM

SUPPLY LINES:

After pump reservoir has been filled with recommended lubricant, loosen all plugs in dead ends of injector manifolds and supply lines. Turn vent plug in pump counter-clockwise one complete turn. Depress manual lube pushbutton on door to start pump. Operate pump until lubricant bleeds around vent plug to expel air pockets trapped between the pump and the supply line connection. Tighten vent plug. Continue operating pump until lubricant flows around any plug. Tighten plug. Repeat this procedure until all plug openings are tight and supply lines are primed. Turn off power to reset controller.

IMPORTANT:

Refer to Owner/Operator Manual C8 247-1 to program controller on 84640.

FEEDER LINES:

Fill each feed line with lubricant before connecting lines to outlets of

injectors and bearings. This will prevent having to cycle each injector to fill the feed line between injector and bearing.

INJECTORS:

Check the injectors for proper operation by observing the movement of the indicator stems.

OPERATION:

When Model 84530 times out it will initiate a lube cycle. The air solenoid is energized to deliver air to the pump and air to the vent valve. Pump begins dispensing lubricant through injectors to the bearings.

When all bearings have received lubricant, pressure rises in system to actuate pressure switch. When pressure switch actuates, the control is reset to de-energize solenoid valve cutting off air to pump and vent valve. Pump stops, pressure vents and pressure switch de-actuates. Control begins timing toward next lube event.

INSTRUCTIONS FOR PUMP USING 83820 TIME CONTROL

TO PRIME SYSTEM

SUPPLY LINES:

After pump reservoir has been filled with recommended lubricant, loosen all plugs in dead ends of injectors manifolds and supply lines. Turn vent plug in pump counter-clockwise one complete turn. Set the delay relay to its maximum position (Refer to Service Manual Section C8, Page 133 Series). Depress push button on top of time control to start pump. Operate pump until lubricant bleeds around vent plug to expel air pockets trapped between the pump and the supply line connection. Tighten vent plug. Continue operating pump until lubricant flows around any plug. Tighten plug. Repeat this procedure until all plug openings are tight and supply lines are primed. Open line switch to shut off pump.

IMPORTANT:

Reset the delay relay to desired interval (Refer to System Planning Manual).

INJECTORS:

Check injectors for proper operation by observing the movement of the indicator stems.

OPERATION

The timer (runs constantly when current is on), drives a cam which has lobes set for the desired lubrication cycle frequency (Refer to

Service Manual Section C8, Page 133 Series). Lobes engage the micro-switch lever arm to activate the switch, closing the circuit to open the 3-way solenoid air valve permitting air to operate the pump. The pump discharges lubricant through the supply line to the injectors. After the injectors operate (discharge lubricant to the bearings), pump continues to build up lubricant pressure in the supply line until sufficient to operate the pressure control which moves a switch plate, breaking the circuit to the 3-way solenoid air valve, shutting off the air to the pump. Injectors automatically re-charge with lubricant and system is ready for the next lubrication cycle.

The pressure control is factory set for 2,500 psi and must be converted for use in an 850 psi system. For low pressure conversion:

- 1) Loosen locknut.
- 2) Turn housing counter-clockwise to remove from pressure control.
- 3) Replace 55277 Spring with 55279 Low Pressure Spring (included with 83820 Time Control).
- 4) Reassemble pressure control, turning housing clockwise to 1,000 psi max. setting.
- 5) Tighten locknut.

VENT VALVE:

The 83948 Vent Valve is operated by compressed air from the same source which operates the pump. When pump is in operation, air pressure keeps the vent valve closed and lubricant is directed through the outlet and to the injectors. When air to the pump is shut off, vent valve opens and supply line pressure vents back into the reservoir.

SAFETY UNLOADER:

91192 Safety Unloader is provided at the pump outlet to prevent the build-up of dangerously high lubricant pressure in the system. It is factory set to open at approximately 1,100 psi to 1,300 psi.

NOTE: Safety unloader requires no adjustment and should not be tampered with.

WHAT TO DO IF:

Pump loses prime: Check lubricant supply.

10127 Vent Plug is provided at the pump outlet for expelling air which may be pocketed in the lubricant. If pump operates continuously without discharging lubricant, it is an indication that the pump has lost its prime. Loosen the vent plug one turn until trapped air is pumped out. If pump continues to operate without discharging lubricant, 10061 Pump Check and 66002 Steel Ball may be fouled. Remove and clean checks and check seats.

The 83948 Vent Valve may also be fouled. Foreign material may prevent 14722 Needle from seating properly or 14723 Valve Seat may be worn or damaged. Clean or replace parts.

Failure of injectors to cycle can also be caused by a leak in the supply line. Examine lines and connections.

Pump fails to operate: Check air supply.

RETAIN THIS INFORMATION FOR FUTURE REFERENCE

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN provides a Distributor Network that stocks equipment and replacement parts.