

### TYPE PPO AIR OPERATED SINGLE ACTING, SINGLE OUTLET

#### SPECIFICATIONS:

**Pump Ratio:** ..... 40:1  
**Air Pressure:** ..... 60 psi (4 bar) Min./100 psi (7 bar) Max.  
**Maximum Operating Pressure:** ..... 2900 psi (200 bar)  
**Lubricant Output/Cycle:** ..... 0.16 cu. in. (2.7 cc)  
**Air Inlet:** ..... 1/8" NPTF (Female)  
**Lube Outlet:** ..... 1/4" O.D. Tube Connector  
**Reservoir Capacity:** ..... 110 cu. in. (1.8 litre)

#### DESCRIPTION

The 604272251 Pump is used in a progressive type centralized lubrication system. It is an air operated, single stroke, spring return pump that requires the use of a 3-way air solenoid valve for the activation of the pneumatic cylinder. It has a clear reservoir for visual inspection of oil level.

#### OPERATION

When the solenoid is energized, air pressure enters the bottom of the air cylinder and moves the piston and plunger upward. As the piston and plunger assembly moves upward the check valve ball seats preventing lubricant from returning to the reservoir. Lubricant is therefore dispensed from the outlet of the pump.

When the solenoid is de-energized, air pressure in the air cylinder is relieved. The piston spring moves the piston and plunger downward. The check valve ball unseats allowing lubricant from reservoir to refill the discharge cavity in the pump body block for the next lubrication cycle.

**IMPORTANT:** Pump must be installed in vertical position.

#### TO FILL RESERVOIR

The reservoir is filled through the filler cap at the top of the reservoir. The strainer **MUST** be in place when filling the reservoir. Strainer should be removed and cleaned periodically.

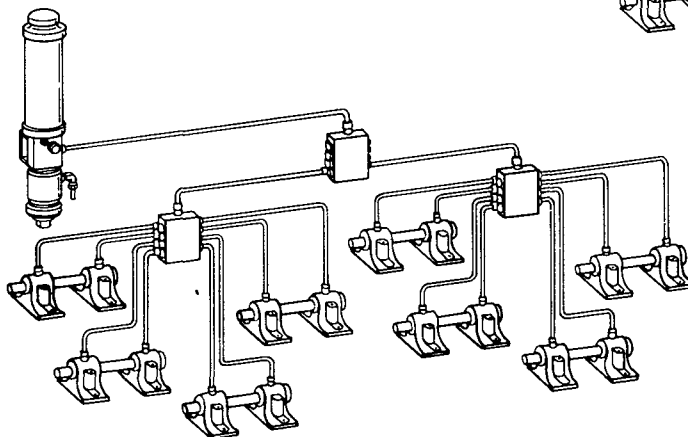
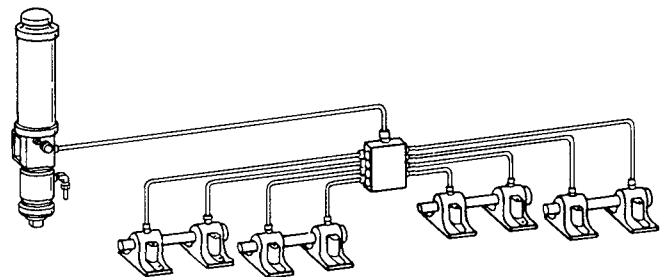
#### TO PRIME SYSTEM

**Pump & Supply Lines:** After reservoir has been filled with recommended lubricant, loosen vent screw locknut and open vent screw approximately one turn (Do Not Remove). Also, loosen supply line fittings. Operate pump until lubricant flows from vent screw, then tighten vent screw and locknut. Continue to operate pump until lubricant flows from threads of any loosened fitting and tighten fitting. Repeat procedure until fittings are tightened and supply line is primed.

**Feeder Lines:** Fill each feeder line with lubricant before connecting to outlet of divider valve and bearing. This will prevent having to cycle each divider valve to fill line between divider valve and bearing.

### TYPICAL DISTRIBUTION COMBINATIONS

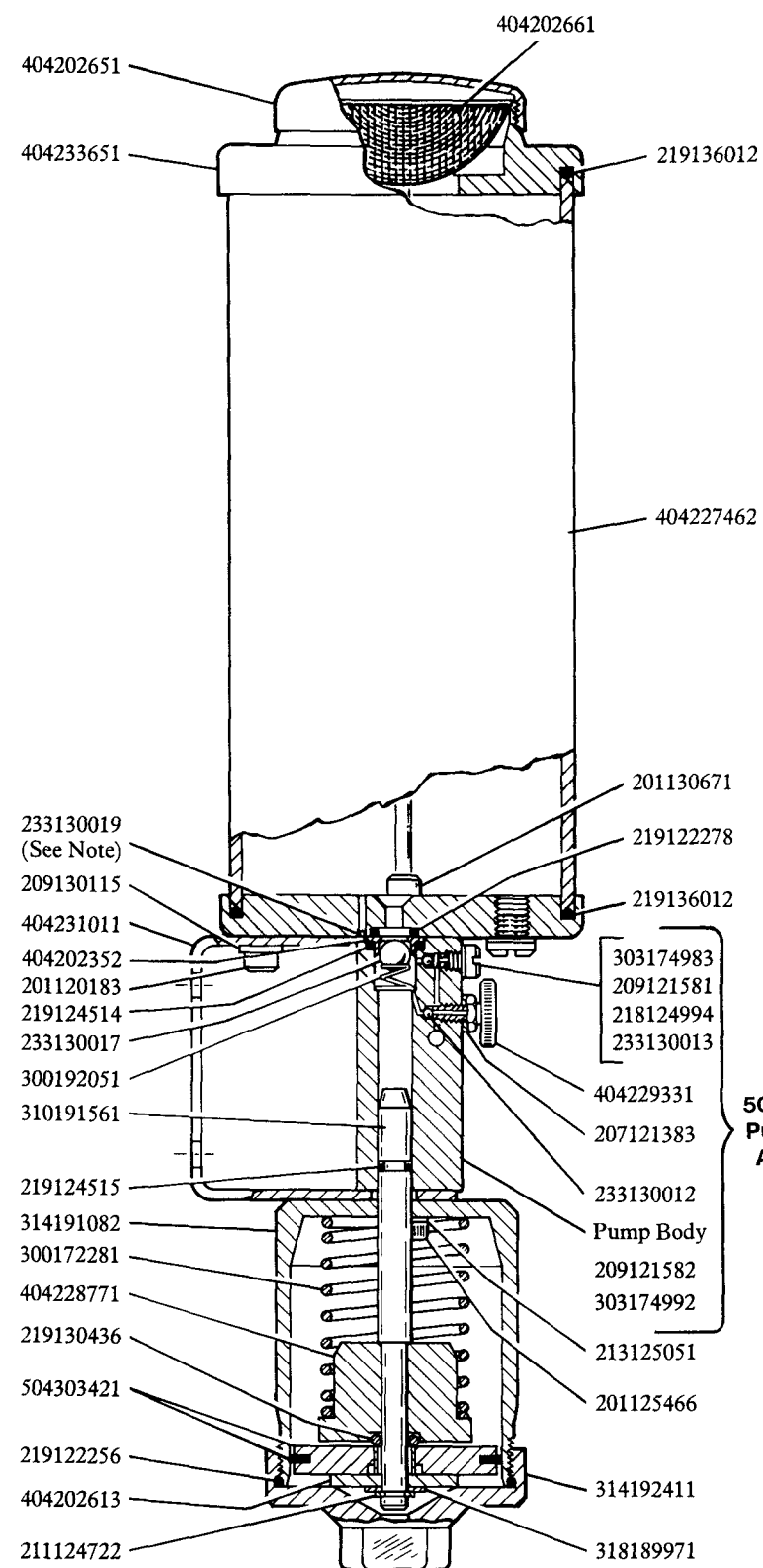
LUBE SYSTEM USING  
PRIMARY VALVES



LUBE SYSTEM USING  
PRIMARY & SECONDARY VALVES

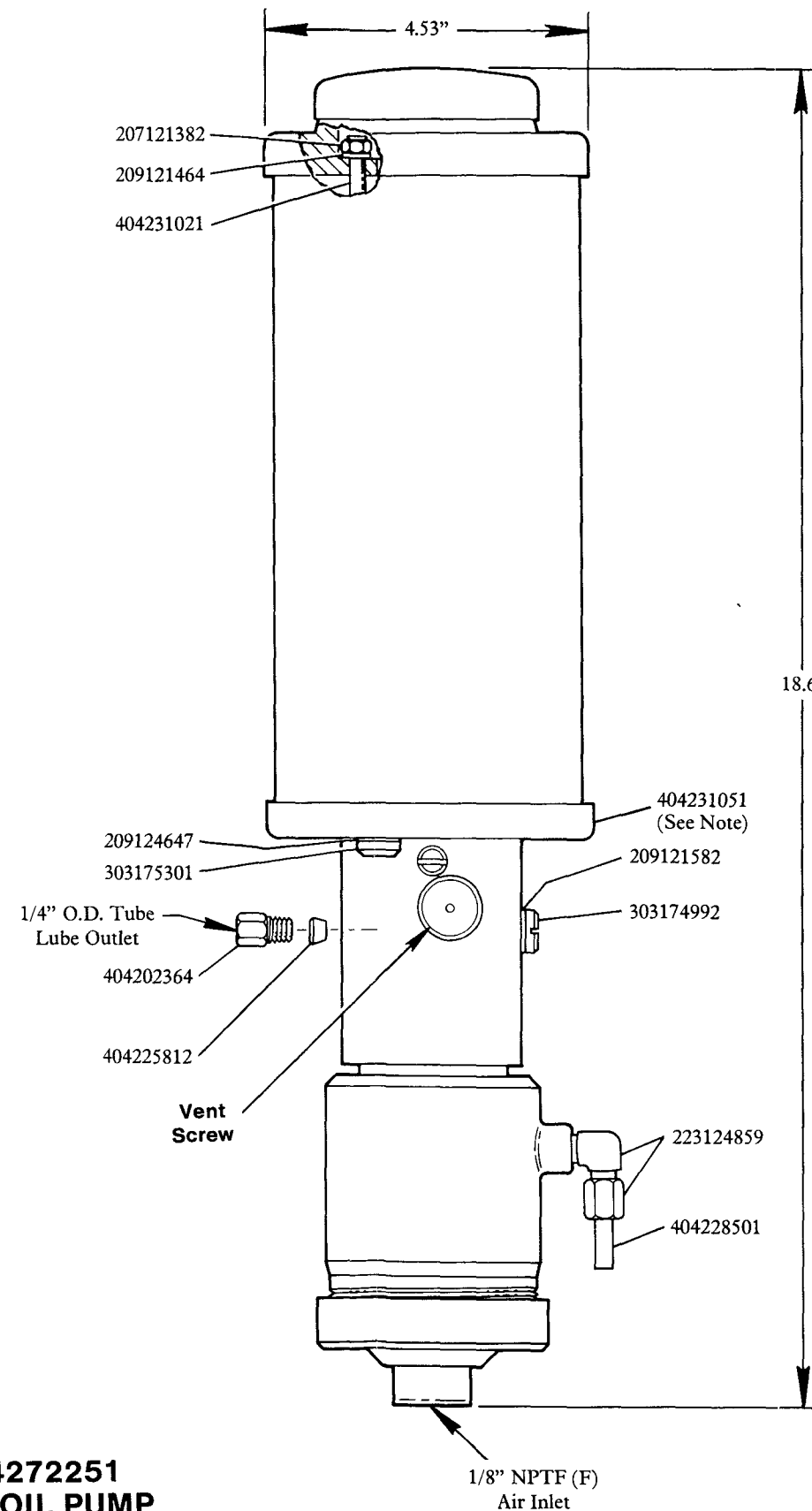
## SERVICE PARTS

Part	Qty.	Description
201120183	2	Hex socket screw
201125466	2	Hex socket screw
201130671	2	Hex socket screw
207121382	2	Nut
207121383	1	Locknut
209121464	2	Washer
209121581	1	Gasket (copper)
209121582	1	Gasket (copper)
209124647	1	Gasket (copper)
209130115	2	Washer
211124722	1	Retaining ring
213125051	2	Lockwasher
218124994	1	Spring
219122256	1	O-ring
219122278	1	O-ring
219124514	1	O-ring
219124515	1	O-ring
219130436	1	O-ring
219136012	2	O-ring
223124859	1	Elbow
233130012	1	Steel ball
233130013	1	Steel ball
233130017	1	Check valve ball
233130019	2	Steel ball
300172281	1	Spring
300192051	1	Spring
303174983	1	Closure plug
303174992	1	Closure plug
303175301	1	Closure plug
310191561	1	Piston
314191082	1	Air cylinder
314192411	1	Air cylinder end cap
318189971	1	Washer
404202352	1	Check seat
404202364	1	Compression nut
404202613	1	Washer
404202651	1	Filler cap
404202661	1	Filter
404225812	1	Ferrule
404227462	1	Reservoir
404228501	1	Vent tube
404228771	1	Piston stop
404229331	1	Vent screw
404231011	1	Mounting bracket
404231021	2	Tie rod
404231051	1	Reservoir base
404233651	1	Reservoir cover
504303421	1	Air piston w/packing
504303545	1	Pump body assembly

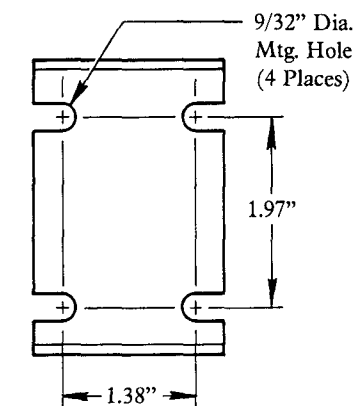


**Model 604272251  
QUICKLUB® OIL PUMP**

**NOTE:** When replacing 404231051 Reservoir Base, you **must** order two 233130019 Steel Balls and drive them into the two small holes in 404231051 Reservoir Base before installing.



### MOUNTING DIMENSIONS



## TROUBLESHOOTING

Problem	Solution
1) Pump actuates without delivering lubricant.	<p>Lubricant reservoir empty - Check lubricant level in reservoir and fill if necessary.</p> <p>Pump is air locked - Vent air from the pump. Refer to instructions under To Prime System.</p>
1) Pump does not actuate with air pressure to cylinder.	<p>Three-way solenoid inoperative - Check solenoid valve, repair or replace if necessary.</p> <p>Blockage in delivery line - With air supplied to the pump, loosen fitting on pump body and check for lubricant delivery. Then loosen fittings at divider valves or at lubrication points until lubricant emerges from outlet to atmosphere and pump actuates. This will indicate in which line the blockage has occurred. Clear blockage or replace delivery line if damaged. Tighten all loose fittings.</p>
1) Air escapes from cylinder exhaust port with air cylinder activated and piston at top of stroke.	<p>219130436 O-ring or 504303421 Air Piston with Packing worn or damaged - Disconnect air supply. Unscrew 314192411 Air Cylinder End Cap. Remove piston assembly and disassemble all parts. Replace 219124515 O-ring, 219130436 O-ring, 504303421 Air Piston with Packing and 211124722 Retaining Ring. Reassemble piston assembly and lubricate lightly with oil. Loosen vent screw locknut and open vent screw approximately one turn (Do Not Remove) and install piston assembly. Replace 219122256 O-ring and reassemble air cylinder end cap to air cylinder. Reconnect air supply. Operate pump until lubricant flows from vent screw, then tighten vent screw and locknut.</p>
1) Oil discharged from air cylinder exhaust port.	<p>219124515 O-ring worn or damaged - Disconnect air supply. Unscrew 314192411 Air Cylinder End Cap. Remove piston assembly and replace 219124515 O-ring. Unscrew two 201125466 Hex Socket Screws and remove 314191082 Air Cylinder. Clean air cylinder and reassemble with two hex socket screws.</p> <p><b>NOTE:</b> Before tightening, center air cylinder on bore hole of pump body.</p> <p>Lubricate piston assembly lightly with oil. Loosen vent screw locknut and open vent screw approximately one turn (Do Not Remove) and install piston assembly. Replace 219122256 O-ring and reassemble air cylinder end cap to air cylinder. Reconnect air supply. Operate pump until lubricant flows from vent screw, then tighten vent screw and locknut.</p>
1) Oil leaking between reservoir and reservoir base.	<p>219136012 O-ring worn or damaged - With reservoir empty, unscrew two 207121382 Nuts and remove reservoir. Replace 219136012 O-ring in reservoir base. Reassemble reservoir to base and secure with two 207121382 Nuts.</p>
<p>1) Oil leaking between pump body and reservoir base.</p> <p>2) Pump actuates without delivering lubricant.</p>	<p>219124514 O-ring or 219122278 O-ring worn or damaged - or</p> <p>233130017 Check Valve Ball and 404202352 Check Seat dirty, worn or damaged -</p> <p>With reservoir empty, unscrew two 207121382 Nuts and remove reservoir. Unscrew two 201130671 and two 201120183 Hex Socket Screws and remove reservoir base. Disassemble suction valve and replace 219124514 O-ring. Clean and inspect 233130017 Check Valve Ball and 404202352 Check Seat, replace if worn or damaged. Replace 219122278 O-ring in reservoir base and assemble base to pump body with two 201130671 Hex Socket Screws.</p> <p><b>IMPORTANT:</b> Pump body must be flush with reservoir base.</p> <p>Fasten mounting bracket to reservoir base with two 201120183 Hex Socket Screws. Reassemble reservoir to base.</p>

**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.