

AIR OPERATED SINGLE STROKE OIL PUMP



Model 82961

Series D

SPECIFICATIONS:

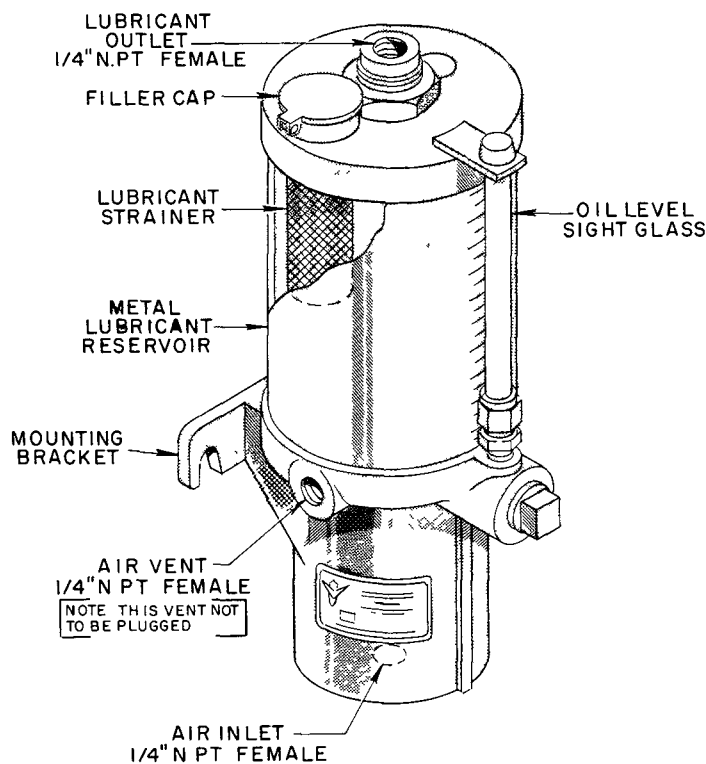
Ratio	Lubricant Output (cu. in.)	Reservoir Capacity	Air Inlet	Lubricant Outlet	Lubricant Operating Pressure (P.S.I.)			
					Type of System	Minimum	Maximum	Recommended
8:1	* 1.6	2 pints	1/4" N.P.T. Female	1/4" N.P.T. Female	SL-5	650 With 83 P.S.I. Air	850 With 106 P.S.I. Air	800 With 100 P.S.I. Air
					SL-42 SL-43	750 With 94 P.S.I. Air	1,000 With 125 P.S.I. Air	850 With 106 P.S.I. Air

The 82961 Pump is used as the Pumping Unit for a Centralized Lubrication System having a Single Line Circuit of SL-5, SL-42 and/or SL-43 Injectors dispensing oil.

It is an Air Operated, Single Stroke, Spring Return Pump that discharges an established amount of lubricant *(1.6 cu.in.) into the Circuit for each pump stroke (Lubrication Cycle).

The total quantity of lubricant needed for the Lubrication Cycle of the system must not exceed the amount of lubricant discharged per pump stroke.

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



TO FILL RESERVOIR

The Reservoir is filled through the Filler Cap at the top of the Reservoir.

A Strainer is located at the Filler Cap to prevent the induction of foreign material into the Lubricant Reservoir.

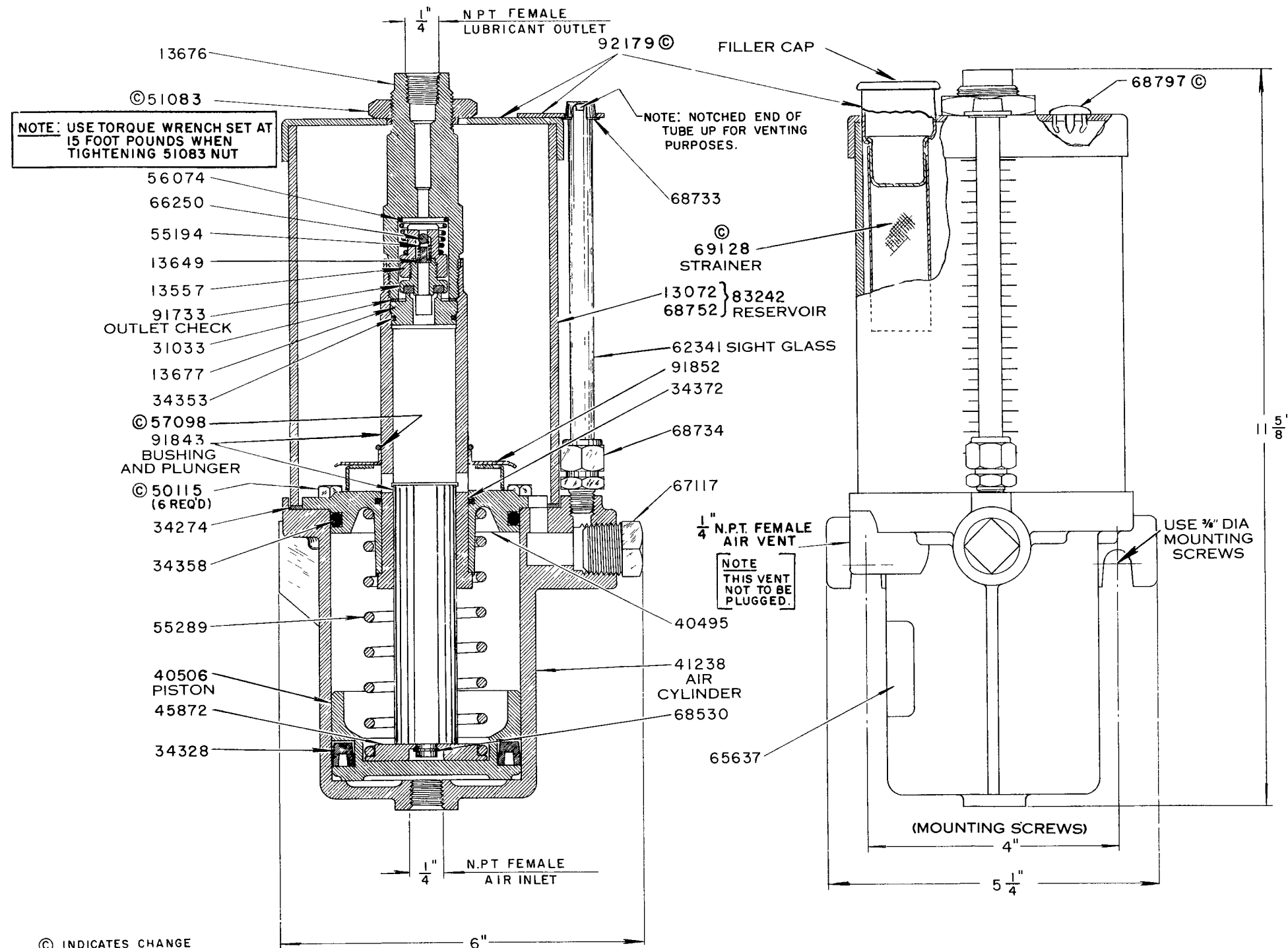
Inspect Strainer before filling Reservoir. When necessary, lift Strainer out and clean thoroughly.

TO PRIME SYSTEM

SUPPLY LINES: After Pump Reservoir has been filled with recommended Lubricant remove all Plugs in dead ends of the Injector Manifolds and Supply Lines. Operate Pump until Lubricant flows from any Plug Opening. Close Opening with Plug. Continue operating Pump until Lubricant flows from another Plug Opening. Repeat this procedure until all Supply Lines are primed and Plug Openings closed.

FEEDER LINES: Fill each Feed Line with Lubricant before connecting lines to outlet of Injectors and Bearings. This will prevent having to cycle each Injector for every inch of Feed Line between Injector and Bearing.

INJECTORS: Check each individual Injector for proper operation.



REPAIR PARTS LIST

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
13072	Reservoir	40506	Piston	67117	Pipe Plug
13557	Check Retainer	41238	Cylinder	68530	Tru-Arc
13649	Ball Stop	45872	Thrust Washer	68733	Protective Plug
13676	Outlet Bushing	50115	Machine Screw	68734	Tube Connector
13677	Check Seat	51083	Nut	68752	Stick-Cal
31033	Gasket	55194	Spring	68797	Plug Button
34328	Block Vee Packing	55289	Spring	69128	Strainer
34274	Gasket	56074	Spring	83242	Reservoir and Stick-Cal
34353	O-Ring	57098	Ring Spring	91733	Check Assembly
34358	O-Ring	62341	Sight Glass	91843	Bushing and Plunger Assembly
34372	O-Ring	65637	Name Plate	91852	Baffle Assembly
40495	Cylinder End	66250	5/32" Dia. Steel Ball	92179	Cover Assembly

IMPORTANT - Pump must be installed in a vertical position.

OPERATION OF THE PUMP.

Lubricant in the Reservoir flows through the cavity in the Bushing.

Compressed air, entering the bottom of the Air Cylinder moves the Piston upward. The Plunger, attached to the Piston, moves upward into the Bushing.

As the Plunger moves upward, it forces a charge of lubricant from the Bushing Cavity into Bushing, through the Outlet Check to the outlet of the Pump.

The instant the air pressure entering the Air Cylinder is relieved, the Piston Spring moves the Piston and Plunger downward. In its extreme down position the Plunger has retracted below the Bushing Cavity, permitting the cavity to be recharged with lubricant.

WHAT TO DO IF:

PUMP LOSES PRIME — Check lubricant supply.

SYSTEM FAILS TO CYCLE and calculated system planning has been followed - Lubricant is leaking by the 91733 Outlet Check. Remove 91733 Outlet Check and examine packing for presence of foreign particles. If packing is damaged, replace the 91733 Outlet Check.

Remove the 66250 Ball Check, 55194 Spring and 13649 Ball Stop from 13557 Check Retainer. Examine for presence of foreign particles. Clean thoroughly.

Failure of Injectors to cycle can also be caused by a leak in the supply line.

Examine supply lines and connections.

PUMP FAILS TO OPERATE — Check air supply.

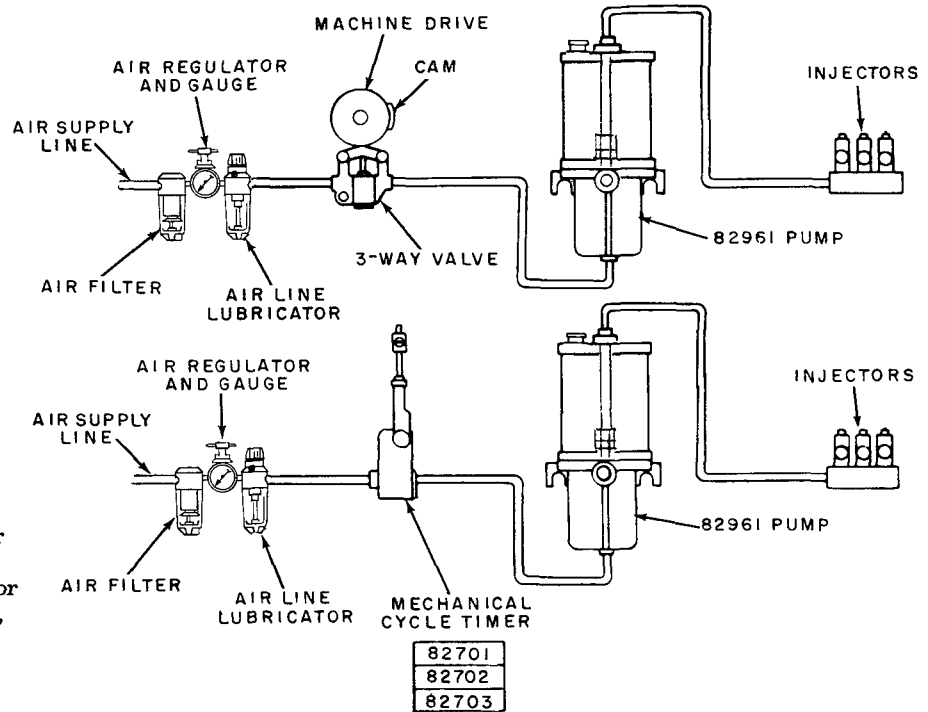
TYPES OF INSTALLATIONS

Frequency of lubrication cycle can be controlled mechanically, electrically or manually.

MECHANICAL CONTROL

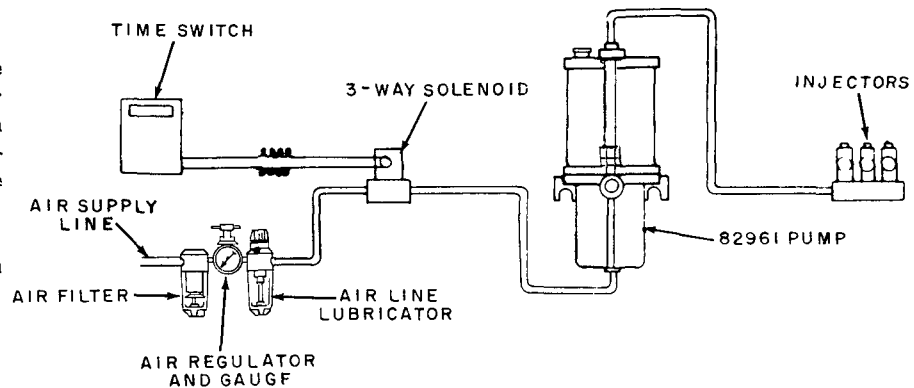
When using mechanical motion of machine to control lubrication frequency, Three Way Valve is engaged by Cam, permitting air to pass through Valve to Pump, forcing Air Piston forward and lubricant through supply line to Injectors. When the Valve is disengaged, air exhausts back through Valve, and spring in Pump returns Air Piston, completing lubrication cycle. Cam dwell on Three Way Valve must be arranged for a minimum of 10 seconds.

When mechanical motion of machine is too rapid to be used as a source of control for frequency of lubrication cycle, a Cycle Timer with adjustable settings may be used. See separate instructions for Cycle Timers 82701, 82702 and 82703, Section C8 - Page 60 Series).



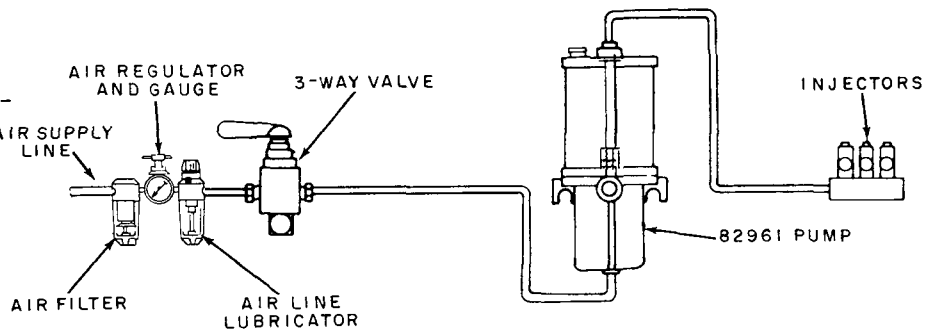
ELECTRICAL CONTROL

Electrical Time Switch opens Three Way Solenoid Valve, permitting air to flow to Pump forcing Air Piston forward and lubricant through SUPPLY LINE to Injectors. When Valve closes, air exhausts back through Valve, and spring in Pump returns Air Piston, completing lubrication cycle. Frequency of cycle can be set as desired by adjustable pins in Time Switch.



MANUAL CONTROL

Opening Three Way Valve for a minimum of 10 seconds permits air to flow to Pump forcing Air Piston forward and lubricant through supply to Injectors. When Valve is closed, air exhausts back through Valve, and spring in Pump returns Air Piston, completing lubrication cycle.



RETAIN THIS INFORMATION FOR FUTURE REFERENCE

When ordering Replacement Parts, List Part Numbers, Description, Model Number, and Series Letter.
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 Repairs by Authorized Service Depts. List furnished upon request.