

HYDRAULIC OPERATED PUMPS



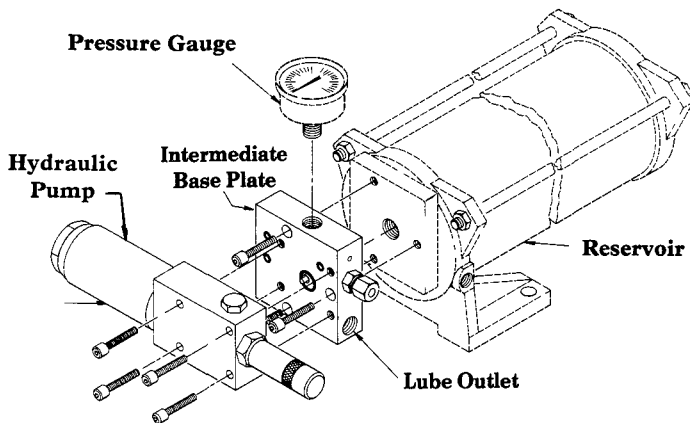
Models 87202 87217, 87220 Series "D"

OPERATION & INSTALLATION

Models 87202, 87217 & 87220 are hydraulic modular automation pumps, with pump cycles controlled by a timer in conjunction with a solenoid valve. Pumps are mounted to a base plate as shown in the two illustrations, which includes all piping required for pump operation.

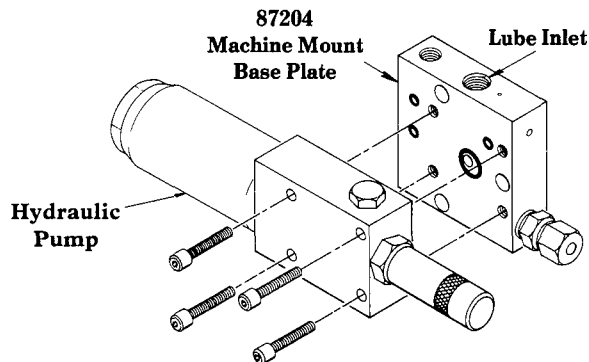
Model 87217 double acting pump develops a 10:1 ratio of lubricant to hydraulic pressure using a minimum hydraulic pressure of 175 psi and a maximum of 2000 psi. Lubricant output is adjustable from .010-.050 cu. in. per stroke. One complete turn of the adjustment screw will change the lubricant output by .002 cu. in. per stroke. To increase lubricant output, turn adjustment screw counter-clockwise. To decrease output, turn adjustment screw clockwise.

Model 87202 & 87220 (single acting/double acting) pumps develop a 6:1 and 7:1 ratio, respectively, of lubricant to hydraulic pressure using a minimum hydraulic pressure of 275 psi and maximum of 2000 psi. Lubricant output is adjustable from .025-.100 cu. in. per stroke. One complete turn of the adjustment screw will change lubricant output by .004 cu. in. per stroke. Turning adjustment screw counter-clockwise will increase output. To decrease output turn adjustment screw clockwise.



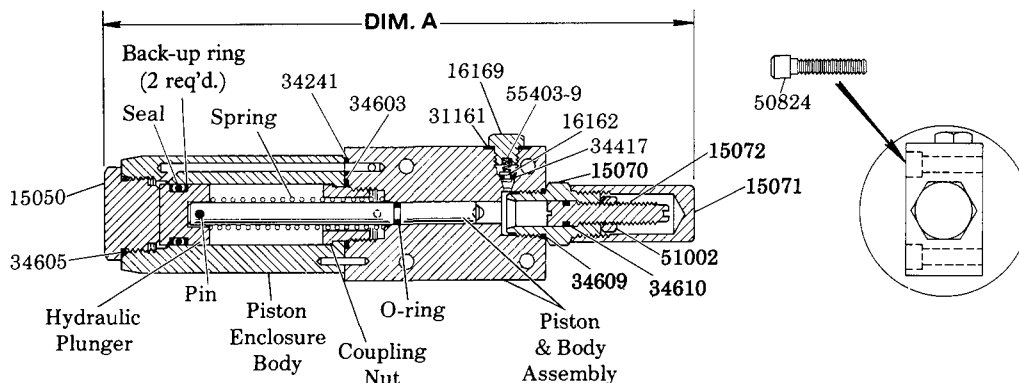
The 87202 single acting pump has one hydraulic connection to power the piston on the delivery stroke. A spring returns the piston to priming position. Hydraulic pressure from a three-way solenoid valve is connected in Inlet Cylinder #1. This pump can operate at a maximum of 25 strokes per minute with oil, 10 strokes per minute with grease.

The 87217 & 87220 are single acting pumps with double acting hydraulic cylinders using hydraulic pressure to power the piston on the delivery stroke and return it to priming position. Hydraulic pressure from a four-way solenoid valve is connected to Inlet Cylinder #1 & #2. This pump can operate at a maximum of 55 strokes per minute with oil, 31 strokes per minute with grease.



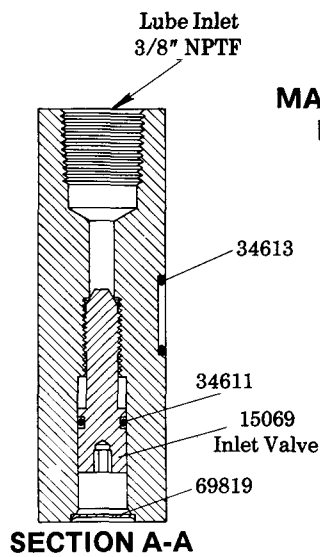
All piping is connected to the **87204 Machine Mount Base Plate** or an **Intermediate Base Plate (Reservoir Mount)**, allowing the pump to be removed without disturbing the existing piping. An inlet shut-off valve in the intermediate base plate permits the removal of the pump without draining the reservoir. Lubricant flow can be shut off using inlet valve in machine mount base plate, permitting removal of pump. Turn 15069 Inlet Valve clockwise to close, counter-clockwise to open. Valve is fully open when it contacts 69819 Retainer. A bleed screw is provided in the base plate to purge the pump during installation or when reservoir was allowed to run dry. Base plates include viton oil seals.

Model	Dim. A	O-ring	Spring	Pin	Hydraulic Plunger	Coupling Nut	Piston Enclosure Body	Piston & Body Assembly	Piston Packing	
									Seal	Back-Up Ring
87202	9-1/2"	34611	—	69821	16235	15074	15078	93281	34213 (O-ring)	34740
87217	9-1/2"	34775	—	69821	16235	15074	15078	93282	34213 (O-ring)	34740
87220	11-3/4"	34611	55342	70273	15330	15344	15414	93373	34684 (T-seal)	NA

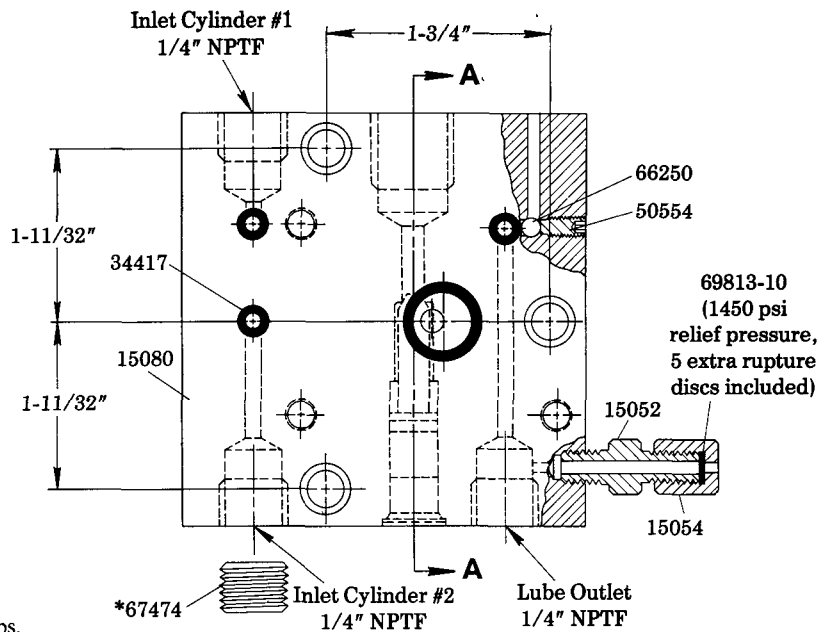


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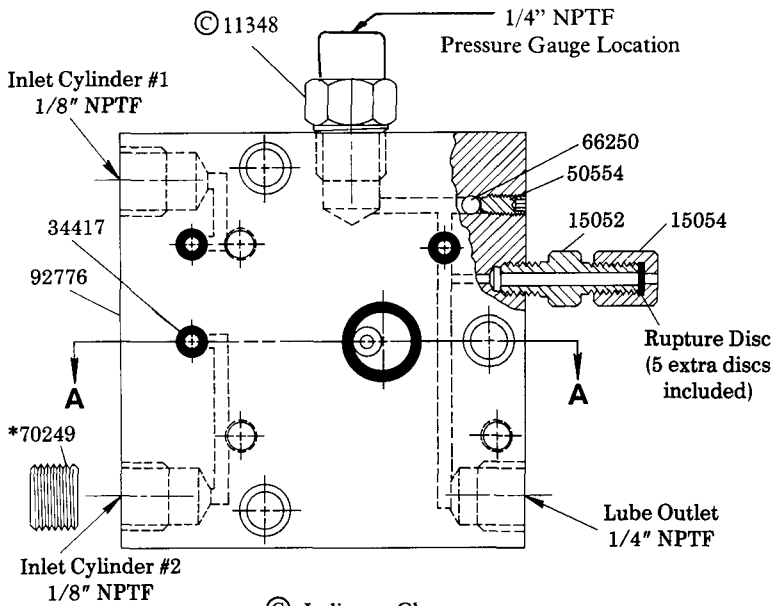
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**87204
MACHINE MOUNT
BASE PLATE**

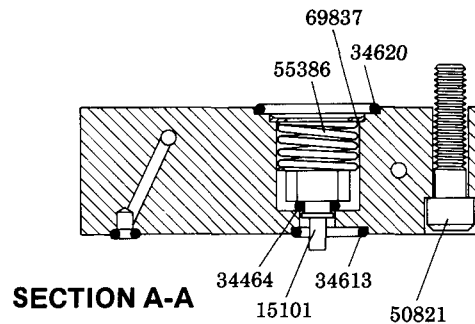


*Remove for Double Acting Series Pumps.



INTERMEDIATE BASE PLATE

MODEL	RUPTURE DISC	RELIEF PRESSURE
87218	69813-10 (yellow)	1450 psi
87229	_____	_____
130001-6	69813-6 (black)	900 psi



*Remove for Double Acting Series Pumps.

SERVICE PARTS

PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION
11348	1	Adapter	31161	1	Gasket	50821	3	Set screw
15050	1	Piston enclosure plug	34241	1	O-ring	50824	4	Screw
15052	1	Connector	34417	4	O-ring	51002	1	Nut
15054	1	Nut	34464	1	O-ring	55386	1	Spring
15069	1	Inlet valve	34603	1	O-ring	55403-9	1	Check valve spring
15070	1	Adjustment housing	34605	1	O-ring	66250	1	Steel ball
15071	1	Adjustment screw cover	34609	1	O-ring	67474	1	Plug
15072	1	Adjustment screw	34610	1	O-ring	69819	1	Retainer
15080	1	Base plate body	34611	1	O-ring	69837	1	Retainer
15101	1	Check valve body	34613	1	O-ring	70249	1	Breather plug
16162	1	Check valve	34620	1	O-ring	92776	1	Base plate body
16169	1	Check valve plug	50554	1	Set screw			

RETAIN THIS INFORMATION FOR FUTURE REFERENCE

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

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