APH-0105 & 2510 PUMP
HYDRAULIC MODULAR AUTOMATION

Modular Lube lubrication systems

Series "D"

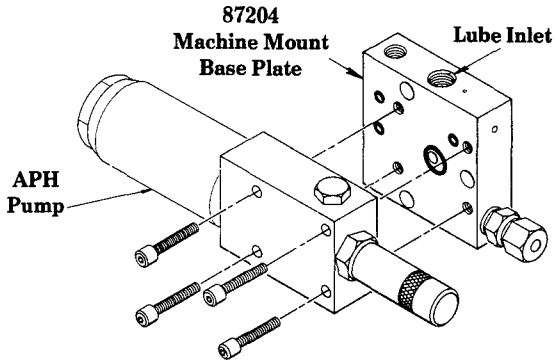
OPERATION & INSTALLATION

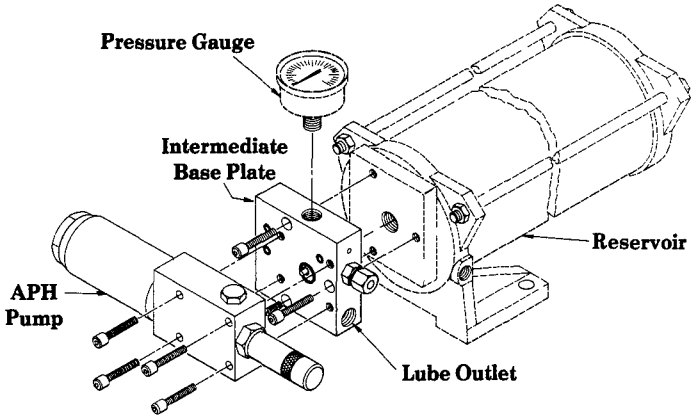
APH Pumps are hydraulic modular automation pumps, with pump cycles controlled by a timer in conjunction with a solenoid valve. Pumps are mounted to a base plate as shown in the two illustrations, which includes all piping required for pump operation.

Model APHD-0105 develops a 10:1 ratio of lubricant to hydraulic pressure using a minimum hydraulic pressure of 175 psi and a maximum of 1000 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.

Models APHS & APHD-2510 develop a 6:1 and 7:1 ratio, respectively, of lubricant to hydraulic pressure using a minimum hydraulic pressure of 275 psi and a 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 APHS single acting pump has one hydraulic connection to power the piston on the delivery stroke. A spring returns the piston



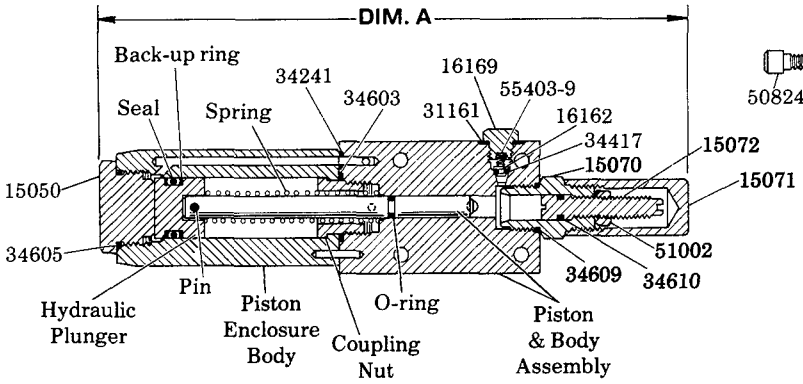


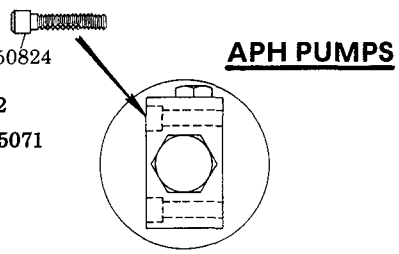
to priming position. Hydraulic pressure from a three-way solenoid valve is connected in Inlet Cylinder #1. APHS pumps can operate at a maximum of 25 strokes per minute with oil, 10 strokes per minute with grease.

The APHD is a single acting pump with a double acting hydraulic cylinder 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. The APHD pump can operate at a maximum of 55 strokes per minute with oil, 31 strokes per minute with grease.

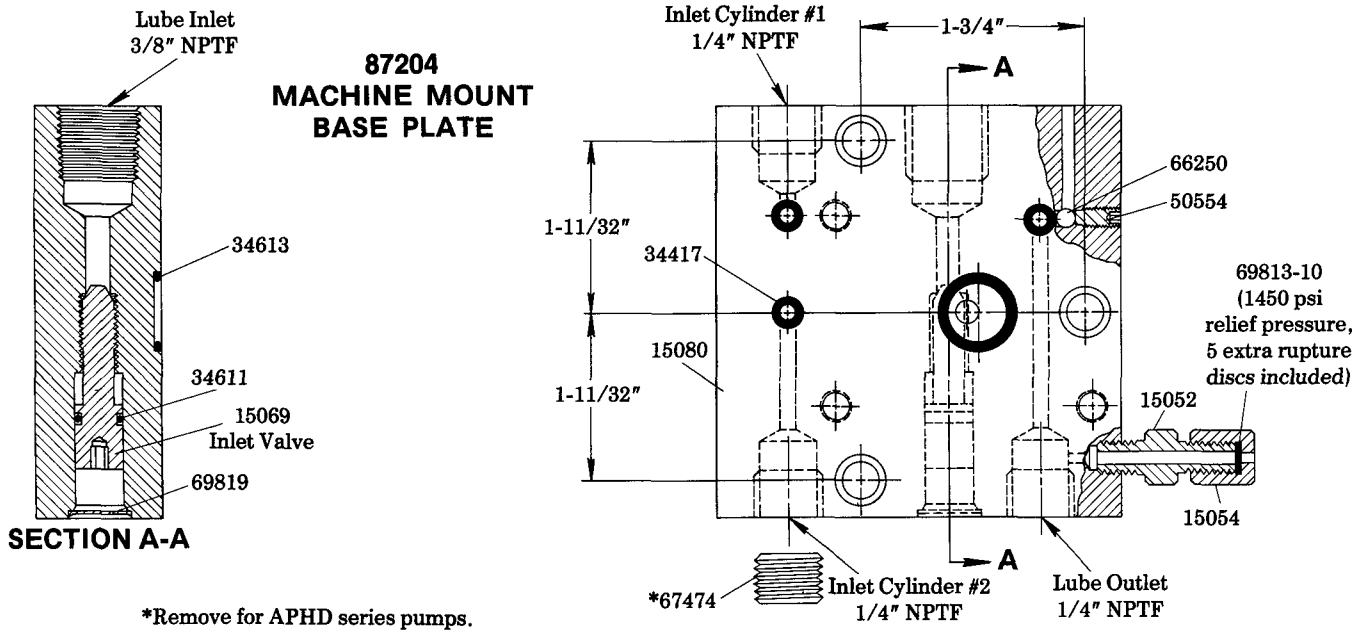
All piping is connected to the **87204 Machine Mount Base Plate** or an **Intermediate Base Plate (Reservoir Mount)**, allowing the pump to be removed without disturbing the existing piping. An inlet shut-off valve in the intermediate base plate permits the removal of the pump without draining the reservoir. 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 APHD-2510	9-1/2"	34611	—	69821	16235	15074	15078	93281	34213 (O-ring)	34740
87217 APHD-0105	9-1/2"	34775	—	69821	16235	15074	15078	93282	34213 (O-ring)	34740
87220 APHS-2510	11-3/4"	34611	55342	70273	15330	15344	15414	93373	34684 (T-seal)	NA

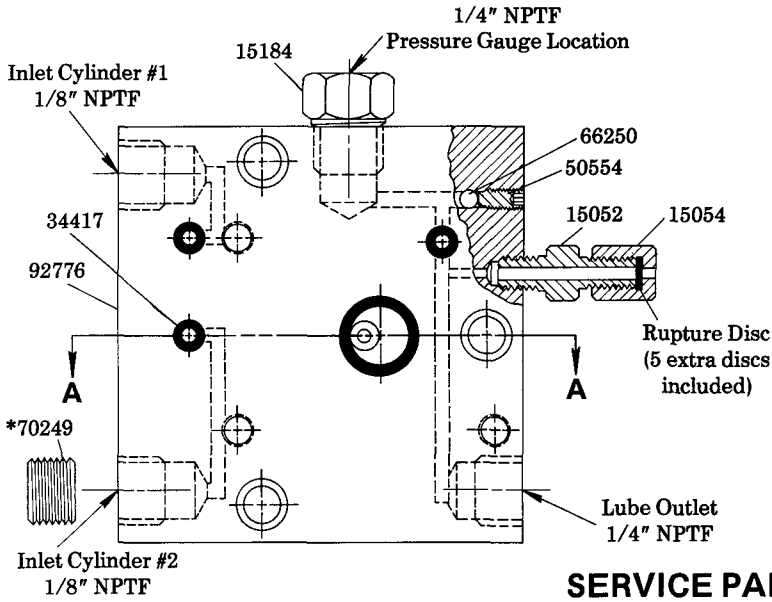




87204 MACHINE MOUNT BASE PLATE

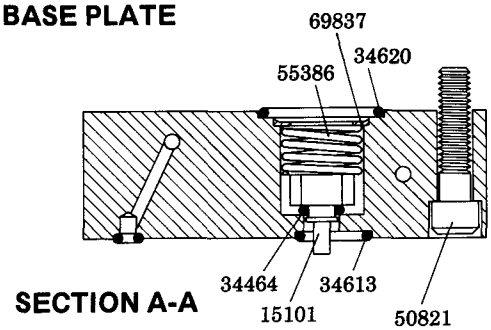


*Remove for APHD series pumps.



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

INTERMEDIATE BASE PLATE



* Remove for APHD series pumps.

SERVICE PARTS

PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION
15050	1	Piston enclosure	34609	1	O-ring
15052	1	Connector	34610	1	O-ring
15054	1	Nut	34611	1	O-ring
15069	1	Inlet valve	34613	1	O-ring
15070	1	Adjustment housing	34620	1	O-ring
15071	1	Adjustment screw cover	50554	1	Set screw
15072	1	Adjustment screw	50821	3	Set screw
15080	1	Base plate body	50824	4	Screw
15101	1	Check valve body	51002	1	Nut
15184	1	Adapter	55386	1	Spring
16162	1	Check valve	55403-9	1	Check valve spring
16169	1	Check valve plug	66250	1	Steel ball
31161	1	Gasket	67474	1	Plug
34241	1	O-ring	69819	1	Retainer
34417	4	O-ring	69837	1	Retainer
34464	1	O-ring	70249	1	Breather plug
34603	1	O-ring	92776	1	Base plate body
34605	1	O-ring			

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.