



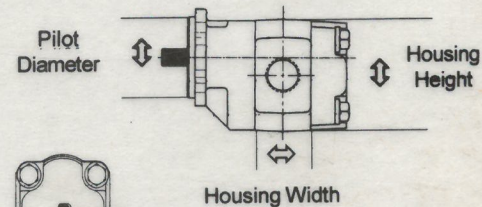
How to Identify and Specify Hydraulic Pumps

REPLACING AN EXISTING PUMP

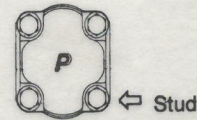
1. Identify Series, use chart below if necessary.

SERIES	STUDS	HOUSING HEIGHT	HOUSING WIDTH =	THREADED BEARING
	No. & Diam.		Gear Width + Thrust Plates:	RETAINER
P1200	10 - 1/2"	7"	1/2"	NO
P1500	4 - 1/2"	5.5"	3/4"	NO
P2500	4 - 5/8"	6.25"	3/4"	YES
P3700	8 - 1/2"	7.3125"	1"	YES
P3000/3100	4 - 5/8"	5.5"	3/4"	NO
P5000/5100	4 - 5/8"	6.25"	3/4"	NO
P7500/7600	8 - 5/8"	8.00"	1"	NO

2. Gear Width: Housing Width minus Thrust Plates (see chart above)



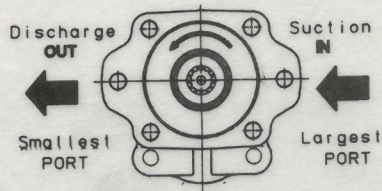
3. Shaft Diameter and Configuration (# splines or key size if round)



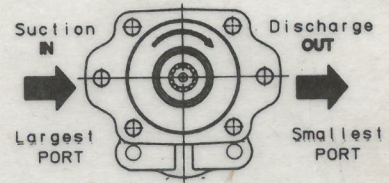
4. Mounting Flange: Bolt Circle Diameter _____
Pilot Diameter _____ Number Studs _____

5. Porting: Inlet NPT _____ ODT _____ Split Flange _____ Location _____
Outlet NPT _____ ODT _____ Split Flange _____ Location _____

6. Rotation: Looking at the shaft end, belly down, inlet on the left = Clockwise
Looking at the shaft end, belly down, inlet on the right = Counterclockwise
Bi-rotation Pumps usually have equal size ports but must still be plumbed correctly.



COUNTER-CLOCKWISE
VIEWED FROM DRIVE SHAFT END



CLOCKWISE
VIEWED FROM DRIVE SHAFT END

Helpful Formulas

- PUMP INPUT HORSEPOWER
- PUMP INPUT TORQUE
- PUMP OUTPUT FLOW RATE
- DISPLACEMENT OF PUMP
- PUMP INPUT SPEED
- GPM USING PTO

$$HP = \frac{GPM \times PSI}{1714 \times E} \quad E = \text{Efficiency}$$

$$T = \frac{GPM \times PSI \times 3.06}{RPM \times E} \quad D = \text{Displacement}$$

$$GPM = \frac{D \times RPM \times E}{231}$$

$$D = \frac{GPM \times 231}{RPM \times E}$$

$$RPM = \frac{GPM \times 231}{D \times E}$$

$$GPM = \frac{Eng \times RPM \times \%PTO \times D \times E}{231}$$