

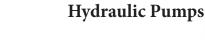
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HP

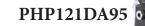
Hand Operated

## Specifications:

- Volume Displacement HP22SA – 0.20 in3 (3.3 cm3) (When handle is pulled). HP61DA – 0.60 in3 (9.8 cm3) per full cycle. HP121DA – 1.20 in3 (19.7 cm3) per full cycle.
  Tank sizes
- 95 in3 (1557 cm3), 80 in3 (1311 cm3), 65 in3 (1065 cm3), and 50 in3. (819 cm3). TL – 2 in. (50.8 mm) tank used with remote
- reservoir.
  - Pressure rating and (Standard relief setting). HP22SA - 6000 psi, 414 bar (4000 psi, 276 bar). HP61DA - 3000 psi (3000 psi, 207 bar). HP121DA - 2000 psi (2000 psi, 138 bar).
    - Outlet Port Size #6 SAE (9/16-18).
      - Filler Port Size 1/4" NPT.



PHP121DAH65



HYDRAULICS

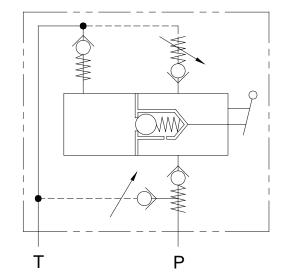




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Hand Operated Hydraulic Pumps

#### HP121 OR HP61



**PHP121DA95** 

#### **MATERIALS**:

- Cast Iron Body
- Buna N O'Rings
- Delrin Inlet Seat
- Stainless Steel Piston

#### **FEATURES:**

- O'RING PORT to eliminate leakage.
- DELRIN SEAT to seal between tank inlet and piston reservoir.
- O'RING OUTLET CHECK for zero leakage.

PHP121DAH65

- O'RING SEAL between tank and casting.
- STEEL BALL RELEASE VALVE relieves outlet pressure.
- EVERY HP IS TESTED for outlet check leakage, double or single pump action and relief setting.
- OPTIONAL HORIZONTAL MOUNTING BRACKETS allows for horizontal handle actuation.

HP REV(D)

## **HP – GENERAL INFORMATION**

The Brand, hand operated hydraulic pump comes in three basic models HP121DA, HP61DA and HP22SA. Each one of these models comes with a relief that can be adjusted manually to suit the customer's requirements. Brand has also redesigned the outlet check seat for zero leakage. The zero leak seat was created by utilizing an o'ring seal to replace the steel ball seal. The NT (no tank) option does not have a tank, pressure relief and release valve. To use the NT option the customer must connect the inlet of the hand pump to an external reservoir (external reservoir is not supplied by Brand). The TL (2 in. tank) option has a small tank, pressure relief and release valve. To use the TL option the customer must connect the fill port on the tank to an external reservoir (external reservoir is not supplied by Brand). When mounting the NT or TL option, the pump should be placed below the fluid level of the external reservoir.

**HP22SA** – has a single-acting piston that can pump 0.20 in3 (3.3 cm3) per full cycle. The term single-acting means that the piston only pumps fluid when the handle is pulled away from the pump. The piston does not displace fluid when the handle is pushed towards the pump. The pressure rating is higher then the HP121DA because it takes less force to displace the smaller surface area of the piston. This pump is typically used in applications that require low volume displacement and high pressure.

**HP61DA** – has a double-acting piston that can pump 0.60 in3 (9.8 cm3) per full cycle. The term double-acting means that the piston pumps fluid when the handle is pushed and pulled. The pressure rating is higher then the HP121DA because it takes less force to displace the piston. This pump is typically used in applications that require medium volume displacement and medium pressure.

**HP121DA** – has a large double-acting piston that can pump 1.20 in3 (19.7 cm3) per full cycle. The term double-acting means that the piston pumps fluid when the handle is pushed and pulled. The pressure rating is lower then the HP22SA and HP61DA because it takes a greater amount of force to displace a piston that has a large surface area. This pump is typically used in applications that require high volume displacement and lower pressure.



Hand Operated Hydraulic Pumps



HP



- Blank No paint
- P Painted black (other colors available, consult factory)
- **MP** Epoxy coding

# DISPLACEMENT PER — CYCLE & PUMP ACTION:

- **22SA** 0.20 in3 (3.3 cm3) and single acting
- 61DA 0.60 in3 (9.8 cm3) and double acting
- **121DA** 1.20 in3 (19.7 cm3) and double acting

## HAND PUMP MOUNTING: -

- Omit Standard vertical mounting
- H Horizontal-mounting brackets (must use 50, 65, 80, or 95 tank option)

TANK:

- 95 95 in3 (12 in. height and 1/4" NPT filler plug)
- **80** 80 in3 (10 in. height and 1/4" NPT filler plug)
- 65 65 in 3 (8 in. height and 1/4" NPT filler plug)
- **50** 50 in3 (6 in. height and 1/4" NPT filler plug)
- TL 2 in. tank used in conjunction with customer's external reservoir (1/4" NPT filler port).
- NT Does not come with tank, adjust able relief and release valve. (61DA and 121DA only)
- **RP** Return port (1/4" NPT return port, cannot be used with the NT option.).

## HP – EXAMPLES OF COMMON MODEL CODES:

HP22SA50	0.20 in3 (3.3 cm3) displacement, single acting and 50 in3 (819 cm3) tank.
	0.60 in3 (9.8 cm3) displacement, double acting and 95 in3 (1557 cm3) tank.
	1.20 in3 (19.7 cm3) displacement, double acting and 65 in3 (1065 cm3) tank.

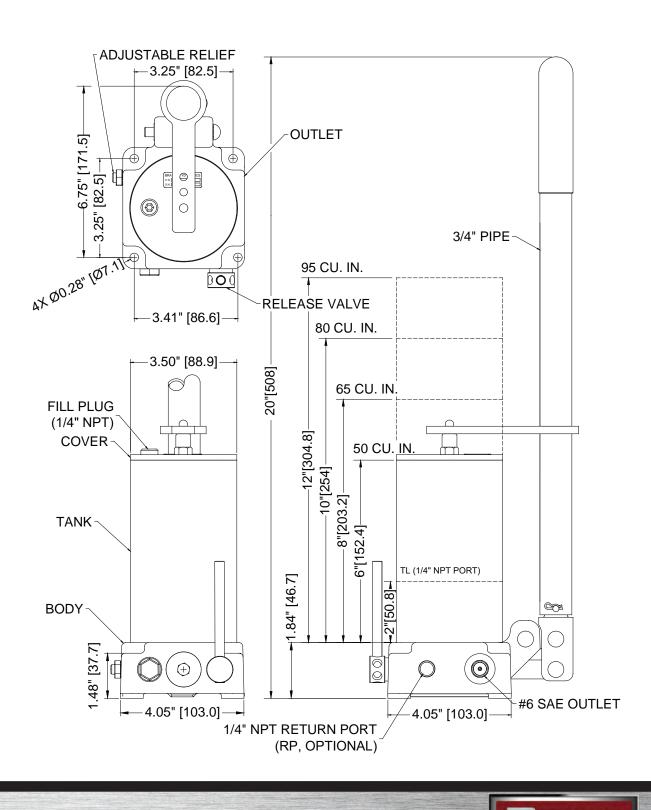
## HP – COMPLETE LIST OF OPTIONS AND ACCESSORIES:

НР22-К	Seal kit for HP22SA.
HP22-K-EPR	Ethylene propylene rubber (EPR) seal kit for HP22SA.
НР61-К	
HP121-K	Seal kit for HP121DA.

HP REV(D)

## DIMENSIONAL DATA: Inches & [millimeters]

DIMENSIONS LISTED ARE THE SAME FOR ALL THREE PUMP SERIES (HP61DA SHOWN)



H-5

# DIMENSIONAL DATA: Inches & [millimeters]

DIMENSIONS LISTED ARE THE SAME FOR ALL THREE PUMP SERIES (HP61DA AND HP121DA SHOWN)

