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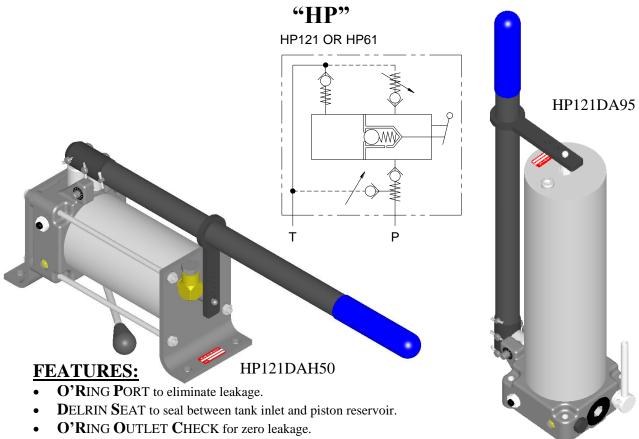
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HTTP://WWW.BRAND-HYD.COM



# HAND OPERATED HYDRAULIC PUMPS



- **O'RING SEAL** between tank and casting.
- STEEL BALL RELEASE VALVE allows oil to travel to tank and relieves pressure on the outlet line.
- EVERY **HP** IS **T**ESTED for outlet check leakage, double or single pump action and relief setting.
- OPTIONAL HORIZONTAL MOUNTING BRACKETS allows for horizontal handle actuation.

### **SPECIFICATIONS:**

- Volume Displacement HP22SA – 0.20 in<sup>3</sup> (3.3 cm<sup>3</sup>) (When handle is pulled).
  - HP61DA 0.60 in<sup>3</sup> (9.8 cm<sup>3</sup>) per full cycle. HP121DA – 1.20 in<sup>3</sup> (19.7 cm<sup>3</sup>) per full cycle.
- Tank sizes
  95 in<sup>3</sup> (1557 cm<sup>3</sup>), 80 in<sup>3</sup> (1311 cm<sup>3</sup>), 65 in<sup>3</sup>
  (1065 cm<sup>3</sup>), and 50 in<sup>3</sup>. (819 cm<sup>3</sup>).
  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.

## **MATERIALS:**

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

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### **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 in<sup>3</sup> (3.3 cm<sup>3</sup>) 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 in<sup>3</sup> (9.8 cm<sup>3</sup>) 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 in<sup>3</sup> (19.7 cm<sup>3</sup>) 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.

#### **HP – EXAMPLES OF COMMON MODEL CODES:**

HP22SA50	0.20 in <sup>3</sup> (3.3 cm <sup>3</sup> ) displacement, single acting and 50 in <sup>3</sup> (819 cm <sup>3</sup> ) tank.	
HP61DA95	0.60 in <sup>3</sup> (9.8 cm <sup>3</sup> ) displacement, double acting and 95 in <sup>3</sup> (1557 cm <sup>3</sup> ) tank.	
HP121DA65	1.20 in <sup>3</sup> (19.7 cm <sup>3</sup> ) displacement, double acting and 65 in <sup>3</sup> (1065 cm <sup>3</sup> ) tank	

### HP - CREATING A COMMON MODEL CODE FOR HP'S:

# HP \_ \_ \_

# DISPLACEMENT PER CYCLE AND PUMP

**ACTION:** 

 $22SA - 0.20 \text{ in}^3 (3.3 \text{ cm}^3)$  and single acting  $61DA - 0.60 \text{ in}^3 (9.8 \text{ cm}^3)$  and double acting  $121DA - 1.20 \text{ in}^3 (19.7 \text{ cm}^3)$  and double acting

### HAND PUMP MOUNTING:

Omit – Standard vertical mounting

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

### TANK:

 $95 - 95 \text{ in}^3$  (12 in. height and 1/4" NPT filler plug)

 $80 - 80 \text{ in}^3$  (10 in. height and 1/4" NPT filler plug)

65 – 65 in<sup>3</sup> (8 in. height and 1/4" NPT filler plug)

50 – 50 in<sup>3</sup> (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, adjustable relief and release valve. (61DA and 121DA only)

RP – Return port (1/4" NPT return port, cannot be used with the NT option.).

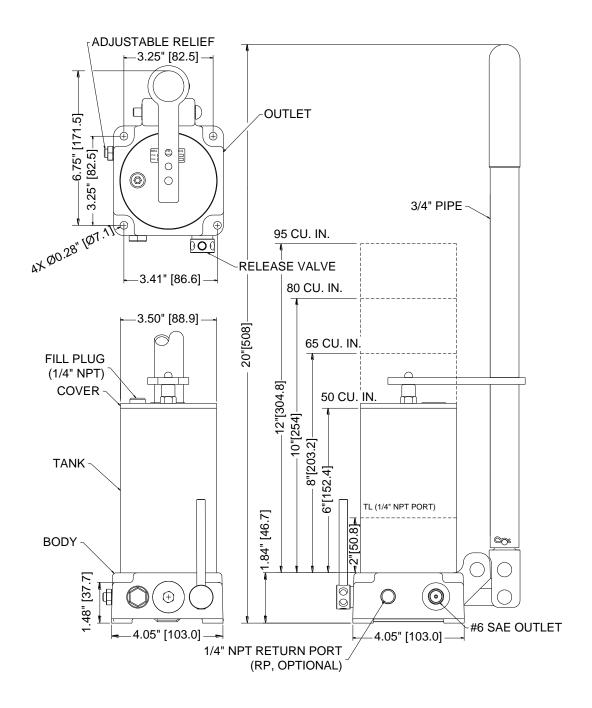
### HP – COMPLETE LIST OF OPTIONS AND ACCESSORIES:

HP22-K	Seal kit for HP22SA.
HP22-K-EPR	Ethylene propylene rubber (EPR) seal kit for HP22SA.
HP61-K	Seal kit for HP61DA.
HP121-K	Seal kit for HP121DA.



## **DIMENSIONAL DATA: inches & [millimeters]**

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





# **DIMENSIONAL DATA CONTINUED: inches & [millimeters]**

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

