## 136 - HIGH LIFTER PUMPS

## High Lifter Water Powered Water Pumps

The High Lifter is a powerful water pump designed to move water uphill without using gasoline or electricity. By harnessing the energy of piped water pressure from an uphill source, the High Lifter pump can drive a portion of this water through another pipe to a tank higher than the water source. Pistons provide the pumping action and water is the only lubricant used. With adequate water and pressure it can pump up to 1500 gallons of water per day as high as 300 feet, or it can pump 200 gallons per day as high as 1000 feet! It can also pump smaller amounts on as little as one quart per minute of source water, and can pump to lower elevations with as little as a 30 foot drop from the water source. It is self-starting and requires no lubrication, priming, or tuning, and is quiet compared to gas engine pumps. Due to its light weight, ease of installation, and lack of fuel requirements, it is ideally suited for hilly or remote terrain. Simply run a pipe downhill to your High Lifter from a pond, stream, or spring, lay out a pipe to your high tank, and start pumping! Designed to be installed and maintained by the user with basic hand tools, the High Lifter requires little attention other than filter cleaning for years of hard working service. Depending on how clean the water source is, a High Lifter can operate continuously for 1-3 years between piston replacement service, or even longer if the inlet water is processed through a settling tank to remove grit. The High Lifter is an efficient, economical, and reliable way to handle many water pumping requirements. It can be effectively used for domestic water pumping, garden water supply, irrigation, range cattle, etc. All High Lifter parts are made of stainless steel, Teflon, and acrylic, so they are safe for drinking water. Pump is 26 " long. 1 year warranty on materials and workmanship.

As illustrated in the graph, the High Lifter responds to both inlet and output pressure. Because the High Lifter utilizes inlet water pressure to pump water, locating the pump farther down from the water source will yield greater delivery or higher pumping elevations. The higher the upper tank is located, the slower the pump will work. If the upper tank is placed too high, the pump will stall (with no damage to the pump) and no water will be pumped.

To determine how much water will be pumped, find the net lift for either the $4.5: 1$ or $9: 1$ pump on the left side of the graph. Move across the graph
 horizontally to the right until you cross the curve for the fall (inlet pressure). From the point where lift and fall cross, move vertically down to the bottom of the graph and read the Delivery (gal/day) for the type of pump being used. To get this delivery amount, the input flow to the pump must be equal to or greater than the Flow ( $\mathrm{gal} / \mathrm{min}$ ) at the top of the chart in line with the point where the lift and fall lines cross. If the input flow is less than this number, the output will be correspondingly lower.

| Model \# | Pump <br> Ratio | Maximum <br> Output/Day | Maximum <br> Net Lift | Maximum <br> Total Lift | Item <br> Code | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H44 | $4.5: 1$ | 1500 gal | 440 ft. | 580 ft. | 76.9002 | $\$ 935$ |
| H49 | $9.1: 1$ | 750 gal | 1000 ft. | 1140 ft. | 76.9005 | $\$ 935$ |



The picture above shows a typical installation using the High lifter to fill a tank. Note that "net lift is the vertical distance from the water source to the tank.

