

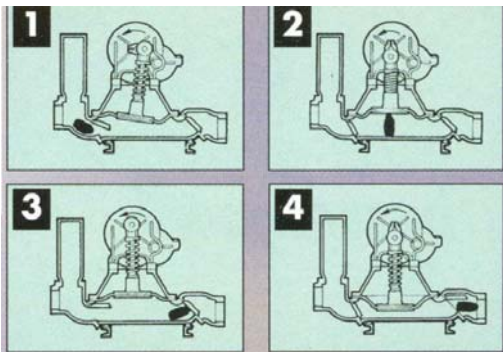


3" Single Diaphragm Pump 3D-GHS-4-HON

Diaphragm pumps are ideally suited for construction, municipal and industrial applications. The 3D-GHS-4-HON is perfect for pumping muddy water, sludge or any liquid with a high percentage of solids. One of its best features is the ability to run dry indefinitely without damage.

Features

- Standard engine – Honda GX120T1QX2
- Quick dry prime from 20 feet
- Self-priming, positive displacement
- Able to run dry indefinitely
- Solids handling to 2"; Maximum flows to 80 gpm; Moderate heads to 40 feet
- High resistance to abrasive and corrosive liquids
- Wear parts are easily replaced
- Rotating parts do not come in contact with the pumping liquid
- Optional spring-loaded connecting rod to protect against pump casing damage



Working Principle

(Fig. 1) As the connecting rod moves upward, the diaphragm creates a vacuum inside the pump casing that causes the suction valve to open and the discharge to close.

(Fig. 2) Fluid begins to fill the pump casing until the connecting rod reaches the top of the stroke.

(Fig. 3) Once the pump casing is full, the connecting rod begins to travel downward.

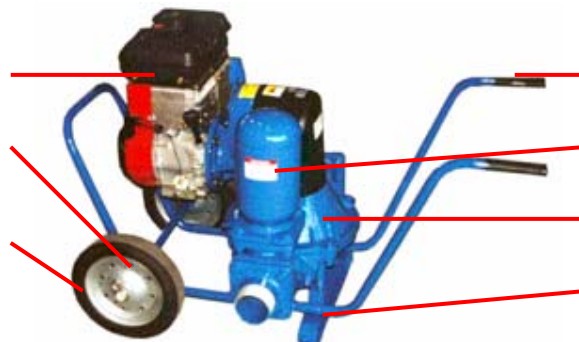
(Fig. 4) As the diaphragm travels downward, the discharge valve is forced open while the suction valve is closed, preventing fluid from re-entering the suction.

The fluid in the pump casing is then directed out of the discharge of the pump. An oversized solids channel in the bottom of the pump casing allows large solids and high amounts of sediment to pass through the pump without harming the components.

Thompson Pump offers the option of a spring-loaded connecting rod, which protects the pump against solids obstructing the stroke of the connecting rod.

Gasoline, diesel engine and electric motor options available

Large, heavy duty wheels for easy maneuverability



Wheelbarrow-type handles

Shock reducing suction chambers

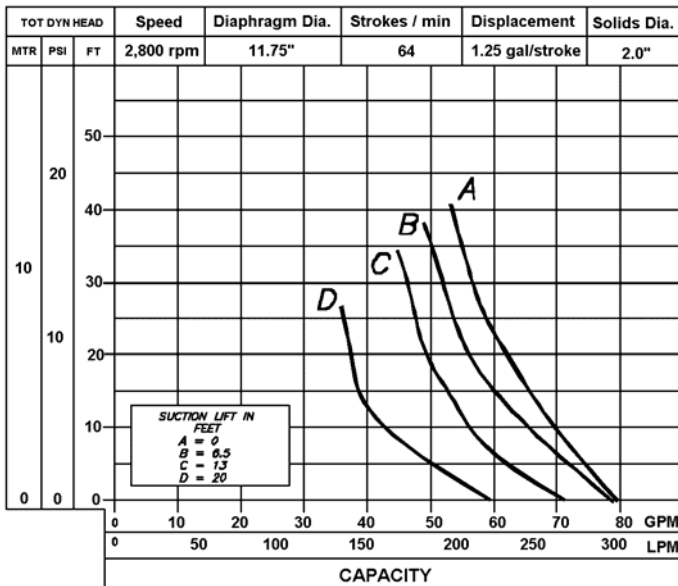
Pump casing with rock channel

Stabilizing mounting spring

3" Single Diaphragm Pump

3D-GHS-4-HON

3D-GHS-4-HON Performance Curve



Materials of Construction

Pump Casing: Rugged, cast aluminum with integral solids channel and drain valve

Top Housing: Cast aluminum

Diaphragm: Dry running, neoprene with nylon cloth insert, field replaceable

Connecting Rod: Constructed of rigid type cast aluminum, available with spring loaded connecting rods, with self lubricating bearings

Connecting Rod Bottom Plate: Cast aluminum

Eccentric Crank: Class 30 cast iron

Eccentric Bearing: Needle roller type

Clappets: Dry running, non-clogging flapper style, neoprene with class 30 cast iron weighted insert, field replaceable

Suction & Delivery Branch: Cast aluminum

Surge Suppression Chamber: ASTM A-36 threaded to suction for water hammer and shock protection

Gaskets: Neoprene

Eccentric Guard: PVC

Engine Specifications

Engine: Honda GX120T1QX2, 4 hp @ 3,600 rpm

Type: 1-cylinder, 4-cycle, air cooled, overhead valve diesel.

Standard Equipment: Recoil starter, fuel lift pump

Displacement: 7.2 cubic inches

Safety Shutdowns: Low oil pressure

Unit Specifications

Fuel Tank Capacity: 2.64 US quarts

Maximum Operating Speed: 64 strokes/min

Maximum Operating Temperature: 212°F

Maximum Working Pressure: 25 psi

Maximum Suction Lift: 20 feet

Maximum Casing Pressure: 30 psi

In the interest of product improvement, Thompson Pump & Manufacturing reserves the right to change specifications without incurring any obligation for equipment previously or subsequently sold. Capacity, Head and Pump Curve are for comparative purposes. Consult engineering data for exact capabilities.

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