Hi-Temp
Piston Pump
Model 2527
SPECIFICATIONS

FEATURES

SUPERIOR DESIGN
- Triplex piston design gives smoother fluid flow.
- Special teflon piston assemblies handle high temperatures.
- Circulating fluid cools dual inlet manifold seals.
- All stainless steel discharge valves.
- Oil bath crankcase assures proper lubrication.
- Lubricated inlet seal prevents leakage and prolongs life.

QUALITY MATERIALS
- Wear surfaces of pumping section are hard chrome plated stainless steel for maximum durability and abrasion resistance.
- Chrome plated, brass manifold is stong and corrosion resistant.
- Stepped stainless steel piston rod and slinger allows chromed sleeve to be replaced from front of pump.
- Heavy duty connecting rods are made of high quality Zamak bearing material for strength.
- Forged, nitrided chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

EASY MAINTENANCE
- All wet end wear surfaces are easily serviced without entering crankcase, requiring less time and effort.
- Wear parts are available in handy kits.
- Routine lubrication checks are the only maintenance required on this precision built pump.

HORSEPOWER REQUIREMENTS

<table>
<thead>
<tr>
<th>Flow</th>
<th>PRESSURE</th>
<th>MOTOR PULLEY SIZE</th>
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</thead>
<tbody>
<tr>
<td>GPM</td>
<td>PSI 500</td>
<td>PSI 600</td>
</tr>
<tr>
<td></td>
<td>RPM 35</td>
<td>RPM 40</td>
</tr>
<tr>
<td>25.0</td>
<td>95</td>
<td>8.6</td>
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<tr>
<td>20.0</td>
<td>76</td>
<td>6.9</td>
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<tr>
<td>15.0</td>
<td>57</td>
<td>5.2</td>
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</tbody>
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DETERMINING G.P.M. = "Desired" G.P.M.
THE PUMP R.P.M. = Rated R.P.M.
DETERMINING GPM x PSI = Electric Brake
THE REQUIRED H.P. = 1460 H.P. Required
DETERMINING Motor Pulley O.D. = Pump Pulley O.D.

Note: Consult engine manufacturer when using gas or diesel engine.
Inlet valves are mechanically actuated. They open at precisely the same time on every turn of the crank.

Wear surfaces are hard chrome plated for longer service life.

Main bearings are oversized for longer pump life.

100% wet cup design, lubricated and cooled by pumped fluid on both sides, for extended cup life.

Stainless steel slinger keeps pumped fluid out of crankcase.

Crankshaft is nitrided chrome-moly forged. Cat Pumps is the only pump manufacturer in the world utilizing this quality.

Matched oversize connecting rods are of Zamak, a material noted for strength and bearing quality.

Diecast aluminum crankcase means high strength, light weight and excellent tolerance control.
The Model 2527 is a conversion from the 2520 pump. It is capable of handling fluid temperatures up to 210°F because of a specially designed inlet manifold and dual inlet seals. The specially ported inlet manifold allows cool water to be circulated around the inner lips of the seals, thereby diminishing the effect on the seals caused by high temperature pumped fluids. Plumb the cool water into the first top inlet manifold port and drain from the second top port.

The cool water may be supplied by a small circulating pump, or standard city water line, either using a 1/4" supply line. A control valve should be installed to regulate the amount of water being circulated through the manifold. Regulate amount of cooling water so that discharge water is no more than 120°F. Allow this cool circulating water to drain to the floor. Do not recirculate this water. NOTE: After pump shuts down, allow cool water to continue circulating around seals up to approximately 5 minutes.

Because of the high temperature of the pumped fluid and the inevitable temperature increase which results whenever by-pass fluid is recirculated back to the inlet of the pump, it is NOT RECOMMENDED to return the by-pass fluid of your regulating device to the inlet. Allow this by-pass fluid to drain to the floor or to a properly sized baffled reservoir.

**OPERATION:**

**SERVICING:**

The standard PISTON PUMP SERVICE procedure may be followed for the Model 2527, Hi-Temp pump with the addition of the following steps:

**SERVICING THE PUMPING SECTION:**

Reassembly: Before installing the inlet valve in the Model 2527, be certain the spacer is installed first, then proceed with standard inlet valve, Roulon piston assembly, piston spacer, piston retainer, washer, nut and cotterpin.

**SERVICING THE SLEEVES AND SEALS:**

Reassembly: On Model 2527, the seal with the lip, the adapter, and the seal with grease pocket can be driven out as an assembly. To install a new seal assembly, place manifold on working surface with crankcase side up. Install seal with lip in chamber with garter spring down. Next examine o-ring on adapter and replace either o-ring or adapter if worn. Lubricate outer surface of adapter and install new o-ring. Press adapter into chamber, smaller diameter end first. Next install grease pocket seal with garter spring down. Then proceed with standard reassembly of pump.