



SP-500-S

TRIPLEX PLUNGER PUMP

POWER UNIT:

Installed on the skid will be a Detroit Diesel Series 60 14L Tier 3 certified engine rated 600HP @ 2100 RPM.

- Heavy duty suction fan with direct drive
- Industrial grade muffler with rain cap
- Exhaust blanket on muffler
- Heavy Duty air cleaner (metal) w/ Pre-Filter bonnet
- Engine mounted, full flow oil filters
- Engine mounted, primary and secondary fuel filters
- Amot air inlet shutdown on charge air circuit
- 24V electric start
- Murphy M310 Engine display panel

POWER UNIT:

Installed on the skid will be an Allison 6610 transmission. The transmission will be coupled to the Series 60 engine mentioned above.

- Manual/ Hydraulic valve body.
- Hydraulic Lock up
- Wabco pneumatic shifter.
- Tube and Shell transmission cooler rated for 125° ambient
- 1810 spicer output flange.

Note: This transmission will be controlled with a pneumatic shifter and controller. There is no cable shift available.

COOLING SYSTEM:

Installed on the skid in front of the Series 60 engine will be a vertical radiator. The radiator will have an ambient temperature rating of 125 degrees. The radiator cap will have a manual pressure relief lever (red).

FUEL SYSTEM:

Installed on the skid will be one 100 gallon fuel tank. The fuel tank will be mounted on the skid next to the power unit. The fuel tank will have the proper baffles, supply and return fittings, check valves and drain lines. The fuel tank will be supplied with a fuel indicator gauge in the tank.

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SKID:

The skid will be a fabricated I-Beam skid made from carbon steel. The physical dimensions of the skid will be approximately 19'x7'6"x7'6". All of the required cross members and mounts will be installed. There will be a sloped design drip pan over the bottom of the skid. Forklift pockets will be in the skid. The crash frame will have an integral ladder to the top of the frame and lifting eyes located on the top corner of each leg. The top of the frame will have a steel diamond plate cover.

TRIPLEX PUMP:

Installed on the rear of the skid will be a Demay HT-500 triplex pump.

- Companion Flange- 1800 Series Spicer
- Input Spline- 3"-10
- Input Rotation- Clockwise
- Input Speed- 2100 RPM Max
- High strength steel weldment
- Oil Capacity- 40 gallons
- Oil Pressure- 80-100 psi
- Horizontal Tri-plex, three piece forged steel
- Single acting two piece plungers. 6" size plungers
- Packing- Long Life, CDI short stack
- Discharge Elbow- straight blank, elbow flanges with 1502 connections
- 6,200 PSI Max
- Lube System – 100 GPM external
- Packing Lubrication- Grease injection system

HYDRAULIC SYSTEM:

Installed on the unit will be a complete hydraulic system

- Hydraulic reservoir complete with the appropriate baffles, suction strainers, ball valves, filters, etc
- One Hydraulic pump
- One hydraulic motor
- One Mission Magnum centrifugal pump or equivalent. The boost pump is to supercharge fluids to the suction manifold of the triplex pumps.
- Applicable return filters and manifolds

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TRAILER:

The trailer will be fabricated out of A656 grade material. Below are the included items:

- Top Flange- ½” 90 KSI Tensile
- Bottom Flange- ½” 90 KSI Tensile
- Webs- 50 KSI Tensile
- Cross members- 50 KSI Tensile
- Rear Bumper included with tow loop
- Kingpin- 2” SAE welded in
- Landing Gear – Holland
- Suspension/ Axles- Hendrickson INTRAXX 25K Air Ride or Equivalent
- Wheels- Steel 22.5
- Tires- 11R22.5 14 Ply (Michelin XZY-3)
- Brake System- Wabco ABS 4S-2M
- Lighting- Grote, sealed harness
- Fenders- Aluminum round rear

HYDRAULIC SYSTEM:

Installed on the unit will be a complete hydraulic system.

- Hydraulic reservoir complete with the appropriate baffles, suction strainers, ball valves, filters, etc.
- Sundstrand Series or equivalent hydraulic pump
- Sundstrand Series or equivalent hydraulic motor for triplex pump and boost pump control
- Applicable return filters and manifolds
- Required relief valves
- Required check valves

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CONTROL PANEL:

Locally mounted on the skid will be a control console with panel. The control panel will be located on the side of the unit next to the engine. The following items will be installed in the control panel:

- Stainless Steel panel with engraving and etched.
- Flip open style aluminum hood for panel protection against the elements.
- Electronic rate and pressure meters.
- Wagner Analog pressure gauge.
- Electric start switch.
- Emergency kill switch will be yellow with large red button (button remains locked in when pressed)
- Electronic throttle pot for engine speed control.
- Transmission manual/ hydraulic controller
- Engine temperature gauge.
- Engine oil pressure gauge.
- Transmission temperature gauge.
- Transmission oil pressure gauge.
- Green light indicator for converter mode on transmission.
- Yellow light indicator for lock-up mode on transmission.
- Hydraulic temperature gauge.
- Hydraulic pressure gauge.
- Triplex boost pressure gauge.
- Boost Pump hydraulic control valve.
- Murphy M310 Engine display panel.

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ELECTRICAL CIRCUIT:

Installed on the unit will be a main junction box for the electrical controls. The junction box will be located on the skid.

- One starter motor disconnect switch (yellow in color)
- One battery disconnect switch (red in color)
- 24V system
- Fuse panel
- Junction Box
- Four (4) flood lights positioned around the unit for night operations. LED lights
- Unit will be designed that if an over-pressure situation exists the engine will reset back to idle
- All connectors will be Duetz type
- Sealed type heavy duty batteries with chemical / acid resistant poly type enclosure
- Yellow beacon light – to illuminate in the event of a shutdown fault and or e/stop

LOW PRESSURE PIPING:

All of the low pressure piping will be fabricated out of 5" schedule 40 pipe. Boost Pump- Installed on the skid to supercharge fluids to the suction manifold of the triplex pump. The boost pump will have a 6" manifold connected to the suction side of the centrifugal pump; the manifold will be equipped with two (2) 4" Fig. 206 unions with caps and butterfly valves (one each side of the skid) for connection to an outside source. The discharge side of the centrifugal pump will be connected to the suction manifold on the triplex pump.

HIGH PRESSURE PIPING:

All discharge iron will be rated for 15,000 working pressure. The discharge iron will have Fig. 1502 connections. There will be one swivel joint and one pup joint coming off of the discharge elbow of the pump. Installed on the discharge line will be a relief valve. The relief valve will be set to the maximum pressure of the fluid end size requested.

EQUIPMENT TESTING:

The unit will go through a full load test before shipment to the customer. The pump will be tested at full load in each gear for fifteen minutes. The customer will receive a completed copy of the test report.

MISCELLANEOUS:

- All parts and material will be of new. There will be no used parts and or equipment installed on the unit
- All hydraulic, pneumatic and electrical lines will be protected where required
- All holes will be drilled
- A complete set of operations and maintenance manuals will be provided with the unit
- Included is a two part paint system. The color of the customer's choice.