

MODEL 8-P-80 TRIPLEX MUD PUMP



National Oilwell Varco's 8-P-80 Mud Pump is rated at 800 input horsepower (597 kw) at 160 strokes per minute, with a 8 1/2-inch (216 mm) stroke.

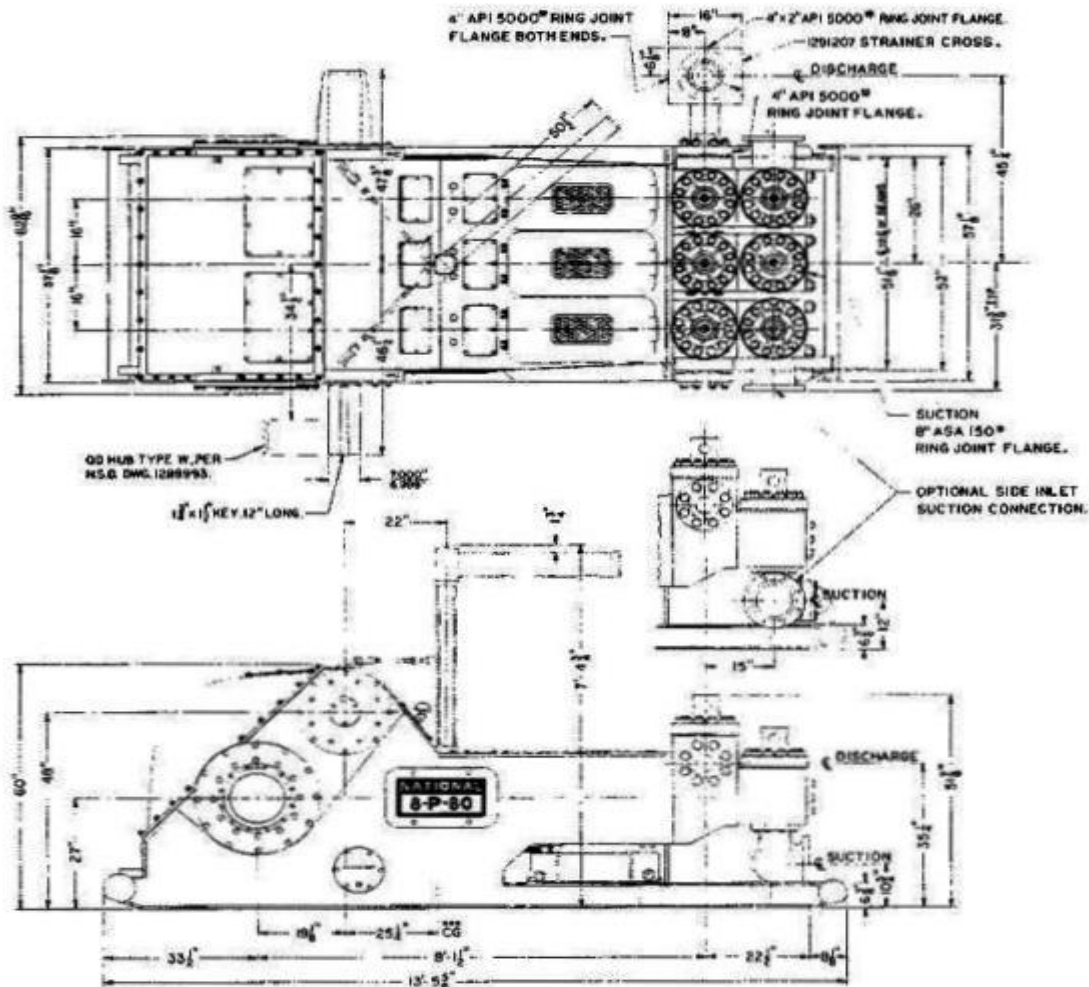
| Specifications | |
|--|---|
| Dimensions | |
| Height, floor to center of front inlet suction, inches (mm) | 10 3/4" (273) |
| Height, floor to center of discharge, inches (mm) | 35 1/4" (895) |
| Overall length over skids, inches (mm) | 161 5/8" (4105) |
| Width over frame, inches (mm) | 62 9/16" (1589) |
| Width over pinion shaft, inches (mm) | 93 7/8" (2384) |
| Height, floor to top of gear case, inches (mm) | 60" (1524) |
| Height over fluid cylinders, inches (mm) | 51 7/8" (1318) |
| Weight-complete, less sheave, lbs. (kg) | 26,970 (12,235) |
| Fluid Connections | |
| Suction connection | 8" ASA-150 lb. R.J. flange |
| Discharge connection, cross | 4" API-5000 lb. R.J. flange |
| Capacity Data | |
| Maximum liner bore, inches (mm) | 6 1/4" (158.8) |
| Stroke, inches (mm) | 8 1/2" (215.9) |
| Maximum input horsepower (kW) | 800 (597) |
| Rated pump speed, spm | 160 |
| Pinion speed, rpm | 394 |
| Hydrostatic test pressure of fluid cylinders, psi (kg/cm ²) | 10,000 (703) |
| Mechanical Data | |
| Fluid cylinder | Steel, 2 piece interchangeable modular design |
| Valves, API number | MOD. 6 |
| Valve seats | Bottom shouldering, modified for high pressure |
| Piston rod-piston connection | Piloted and shouldered, National CB-4 |
| Piston rod-intermediate rod connection | Piloted and shouldered, metal-to-metal lock |
| Type of gears | Relieved herringbone |
| Gear ratio | 2.463:1 |
| Gear and pinion | Through hardened alloy |
| Type of crosshead pin | Tapered |
| Number and type of pinion shaft bearing | 2 self aligning roller |
| Number and type of main bearing | 2 double row tapered roller |
| Number and type of crosshead bearing | 3 double row needle |
| Number and type of crankshaft-connecting rod bearing | 3 cylindrical roller |
| Double extension on pinion shaft, inches (mm) | 7" Dia. x 17" Long (177.8 x 431.8) |
| Sprocket with QD Hub Type S-Dual Electric Motor Drive (Drive sprocket 1200 RPM max.) | Two- 75T 1 1/2" pitch quint. |
| Ind. or rig drive-drive sprocket 1100 rpm max. | 75T 1 1/2" pitch octuple |
| Sheave, QD Hub Type S | 53" OD 18-8V Section belts / 52" PD26-D Section Belts |

Performance Data

| Liner size, inches (mm) | | | 6-1/4" (158.8) | 6" (152.4) | 5-1/2" (139.7) | 5" (127.0) | 4-1/2" (114.3) | 4" (101.6) |
|--|-------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|
| Max. Discharge Pressure, psi (kg/cm2) with high pressure Fluid End*** | | | 2280 (160.3) | 2470 (173.7) | 2940 (206.7) | 3560 (250.3) | 4395 (309) | 5000 (351.5) |
| Pump Speed spm | Input HP | Hyd.* HP, HP | GPM* (LPM*) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) |
| 160** | 800** | 720 | 542 (2051) | 500 (1890) | 420 (1588) | 347 (1313) | 281 (1063) | 222 (855) |
| 140 | 700 | 630 | 474 (1795) | 437 (1654) | 367 (1390) | 303 (1149) | 246 (930) | 194 (734) |
| 120 | 600 | 540 | 406 (1538) | 375 (1418) | 315 (1191) | 260 (984) | 211 (797) | 166 (628) |
| 100 | 500 | 450 | 339 (1282) | 312 (1182) | 262 (993) | 217 (820) | 176 (665) | 139 (526) |
| 80 | 400 | 360 | 271 (1027) | 250 (945) | 210 (794) | 173 (656) | 140 (532) | 111 (420) |
| Volume/Stroke, gal. (Liters) | | | 3.386 (12.820) | 3.121 (11.815) | 2.622 (9.927) | 2.167 (8.204) | 1.755 (6.645) | 1.387(5.250) |

* Based on 90% mechanical efficiency and 100% volumetric efficiency

** Rated maximum input horsepower and speed



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