

MODEL 9-P-100 TRIPLEX MUD PUMP

NOV NATIONAL OILWELL VARCO

National Oilwell Varco's 9-P-100 Mud Pump is rated at 1000 input horsepower (746 kw) at 150 strokes per minute, with a 9 1/4-inch (235 mm) stroke.

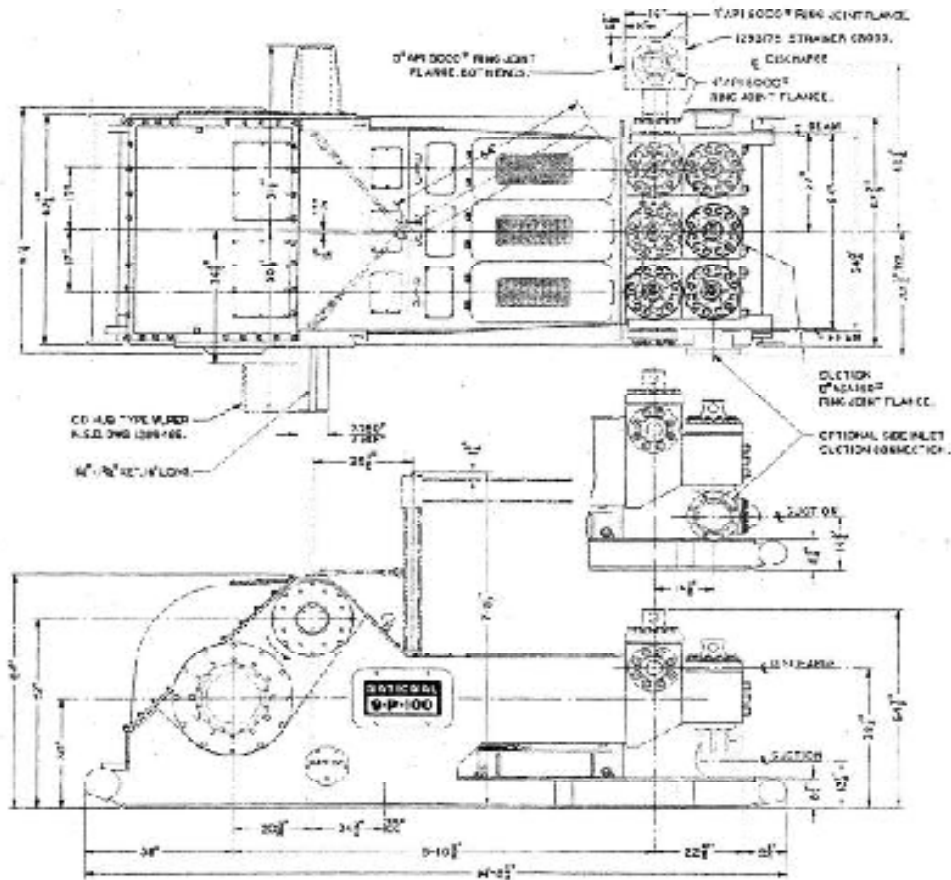
| Specifications | |
|--|---|
| Dimensions | |
| Height, floor to center of front inlet suction, inches (mm) | 13 1/4" (337) |
| Height, floor to center of discharge, inches (mm) | 38 1/4" (972) |
| Overall length over skids, inches (mm) | 176 1/4" (4477) |
| Width over frame, inches (mm) | 67 1/8" (1705) |
| Width over pinion shaft, inches (mm) | 101 1/4" (2572) |
| Height, floor to top of gear case, inches (mm) | 64" (1626) |
| Height over fluid cylinders, inches (mm) | 54 7/8" (1394) |
| Weight-complete, less sheave, lbs. (kg) | 33,200 (15,060) |
| Fluid Connections | |
| Suction connection | 8" ASA-150 lb. R.J. flange |
| Discharge connection, cross | 5" API-5000 lb. R.J. flange |
| Capacity Data | |
| Maximum liner bore, inches (mm) | 6 3/4" (171.5) |
| Stroke, inches (mm) | 9 1/4" (235) |
| Maximum input horsepower (kW) | 1000 (746) |
| Rated pump speed, spm | 150 |
| Pinion speed, rpm | 399 |
| 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 | 2.658:1 |
| 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 3/4" Dia. x 18 1/2" Long (196.85 x 469.9) |
| 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) | | | 6-3/4" (171.5) | 6-1/2" (165.1) | 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*** | | | 2395 (168.4) | 2580 (181.4) | 2790 (196.2) | 3030 (213.0) | 3605 (253.5) | 4360 (306.5) | 5000 (351.5) | 5000 (351.5) |
| Pump Speed spm | Input HP | Hyd.* HP, HP | GPM* (LPM*) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) | GPM (LPM) |
| 150*** | 1000** | 900 | 645 (2441) | 598 (2263) | 553 (2093) | 509 (1929) | 428 (1620) | 354 (1339) | 287 (1085) | 226 (855) |
| 130 | 867 | 780 | 559 (2115) | 518 (1962) | 479 (1814) | 442 (1671) | 371 (1404) | 307 (1161) | 248 (940) | 196 (742) |
| 110 | 733 | 660 | 473 (1790) | 438 (1660) | 405 (1535) | 374 (1414) | 314 (1188) | 259 (982) | 210 (795) | 166 (628) |
| 90 | 600 | 540 | 387 (1464) | 359 (1358) | 332 (1256) | 306 (1157) | 257 (972) | 212 (804) | 172 (651) | 136 (515) |
| 70 | 467 | 420 | 301 (1139) | 279 (1056) | 258 (997) | 238 (900) | 200 (756) | 165 (625) | 132 (506) | 106 (401) |
| Volume/Stroke, gal. (Liters) | | | 4.298 (16.272) | 3.986 (15.089) | 3.685 (13.951) | 3.396 (12.857) | 2.854 (10.803) | 2.358 (8.928) | 1.910 (7.232) | 1.510 (5.716) |

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

** Rated maximum input horsepower and speed



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