



MODEL FD-1600 TRIPLEX MUD PUMP



National Oilwell Varco's FD-1600 Mud Pump is rated at 1600 input horsepower (1193 kw) at 120 strokes per minute, with a 12-inch (304.8 mm) stroke.

Multiple liner sizes allow pressures and volumes to handle circulation requirements in deep drilling applications.

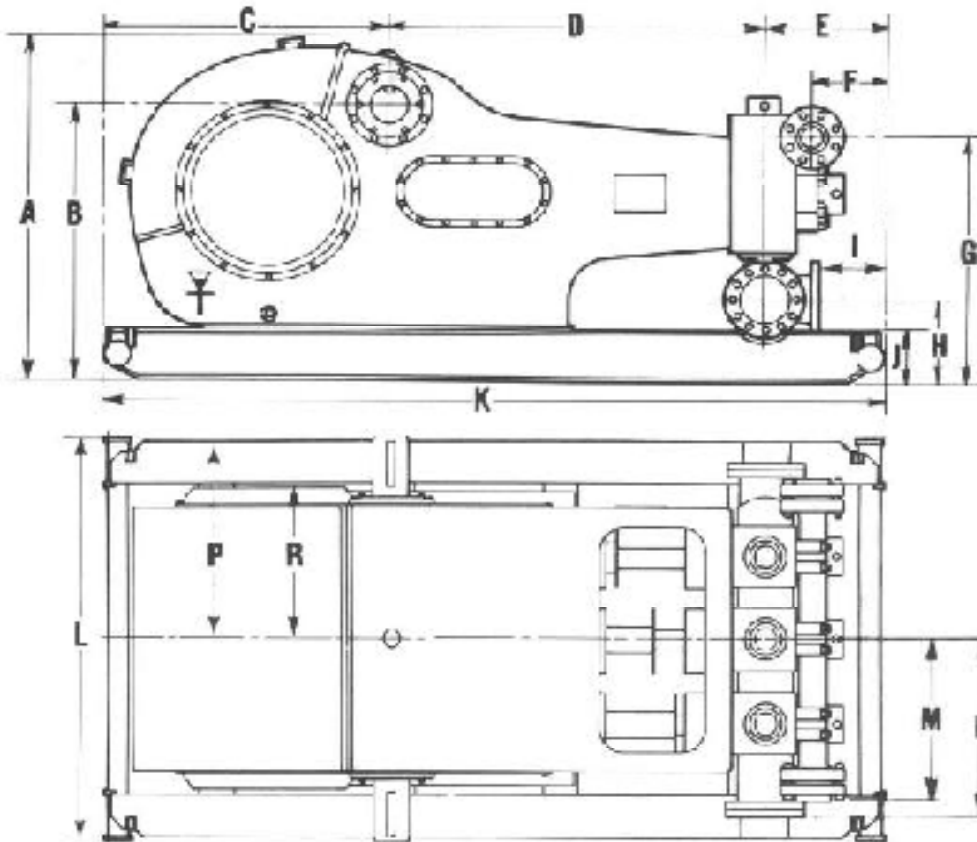
Specifications	
General	
Type	3 - cylinder Single-Action Piston
Pressure with 7" Liner, psi (kg/cm ²)	3,423 (240)
Pressure with 5 1/2" Liner, psi (kg/cm ²)	5,000 (352)
Volume with 7" Liner @ 120 SPM, gpm (Liters/min)	719 (2,721)
Volume with 5 1/2" Liner @ 120 SPM, gpm (Liters/min)	444 (1,680)
Nominal HP rating @ 120 SPM, HP (KW)	1600 (1,193)
Type Gear	Double Helical
Gear Ratio	4.31:1
Lubrication	Pressure and splash to all moving parts
Valve Pots	Valve-over-valve, API # 7
Valve Pot Cover	Screw Type
Cylinder Head	Screw Type
Liner Lock	Metal-to-Metal
Crossheard Guide	Replaceable
Bearings	
Main Shaft Bearings	Spherical
Eccentric Bearings	Straight Roller
Crosshead bearings	Roller, double row
Pinion Bearings	Straight roller
Dimensions and Weight	
Size, Bore and Stroke, in (mm)	7" x 12" (178 x 304.8)
Pinion Shaft Size and Keyway, in (mm)	8.5" (216) O.D.- 2" x 1" (51 x 25) keyway
Discharge outlet, in - psi (mm - kg/cm ²)	5" (127 mm) - 5000 psi (352 kg/cm ²) API Flange
Suction inlet, in (mm)	12" (305) Flange, Female pipe thread
Approx. Weight, Less fluid end accessories, lbs (kg)	52,478 (23,804)

Performance Data

Liner size, inches (mm)		7" (178)	6 3/4" (171)	6-1/2" (165)	6" (152)	5-1/2" (140)	5" (127)
Max. Discharge Pressure, psi (kg/cm ²)		3423 (240)	3688(259)	3981 (280)	4665 (328)	5000 (352)	5000 (352)
Pump Speed spm	Input HP, HP (kW)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)
120*	1600* (1193*)	719 (2721)	669(2532)	620 (2347)	529 (2002)	444 (1681)	367 (1389)
110	1467 (1094)	659 (2494)	613 (2320)	568 (2150)	485 (1836)	407 (1540)	337 (1275)
100	1333 (994)	599 (2267)	557 (2108)	517 (1957)	441 (1669)	370 (1400)	305 (1158)
90	1200 (895)	539 (2040)	501 (1900)	465 (1760)	397 (1503)	333 (1260)	275 (1041)
80	1067 (796)	479 (1813)	446 (1688)	413 (1563)	353 (1338)	296 (1120)	245 (927)
70	933 (696)	419 (1586)	390 (1476)	362 (1370)	309 (1170)	258 (977)	214 (810)
60	800 (597)	359 (1359)	334 (1264)	310 (1173)	264 (999)	222 (840)	183 (693)
Volume/Stroke, gal. (Liters)		5.99 (22.67)	5.57 (21.08)	5.16 (19.53)	4.41 (16.69)	3.7 (14)	3.05 (11.58)

* Rated maximum input horsepower and speed

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



Dimension, ft. in. (mm)	
A	6' 10" (2,083)
B	5' 5 3/4" (1,670)
C	6' 1 3/8" (1,864)
D	7' 4 3/8" (2,245)
E	2' 6 1/4" (768)
F	1' 5 11/16" (449)
G	4' 11 3/4" (1,518)
H	1' 9 3/4" (552)
I	1' 1 3/4" (350)
J	1' 0" (311)
K	16' 0" (4,877)
L	8' 0" (2,438)
M	3' 2 9/16" (979)
N	3' 6 3/8" (1,076)
P	3' 11 1/2" (1,207)
R	3' 1/4" (921)



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