

Data Sheet

14-P-220 Triplex Mud Pump Product Data Sheet

REFERENCE 14-P-220	REFERENCE DESCRIPTION Triplex Mud Pump
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REVISION HISTORY

Rev	Date (dd.mm.yyyy)	Reason for issue	Prepared	Checked	Approved
03	27.08.2012	For Information	BTS	RLP	RLP
02	13.06.2012	For Information	BTS	RLP	RLP
01	06.12.2011	For Information	BTS	GDH	GDH

CHANGE DESCRIPTION

Revision	Change Description
01	First Formal Issue
02	Discharge Cross Connection Was "6" 5000 lb. API RJ Flange"
03	Updated Front Cover

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1 PERFORMANCE DATA

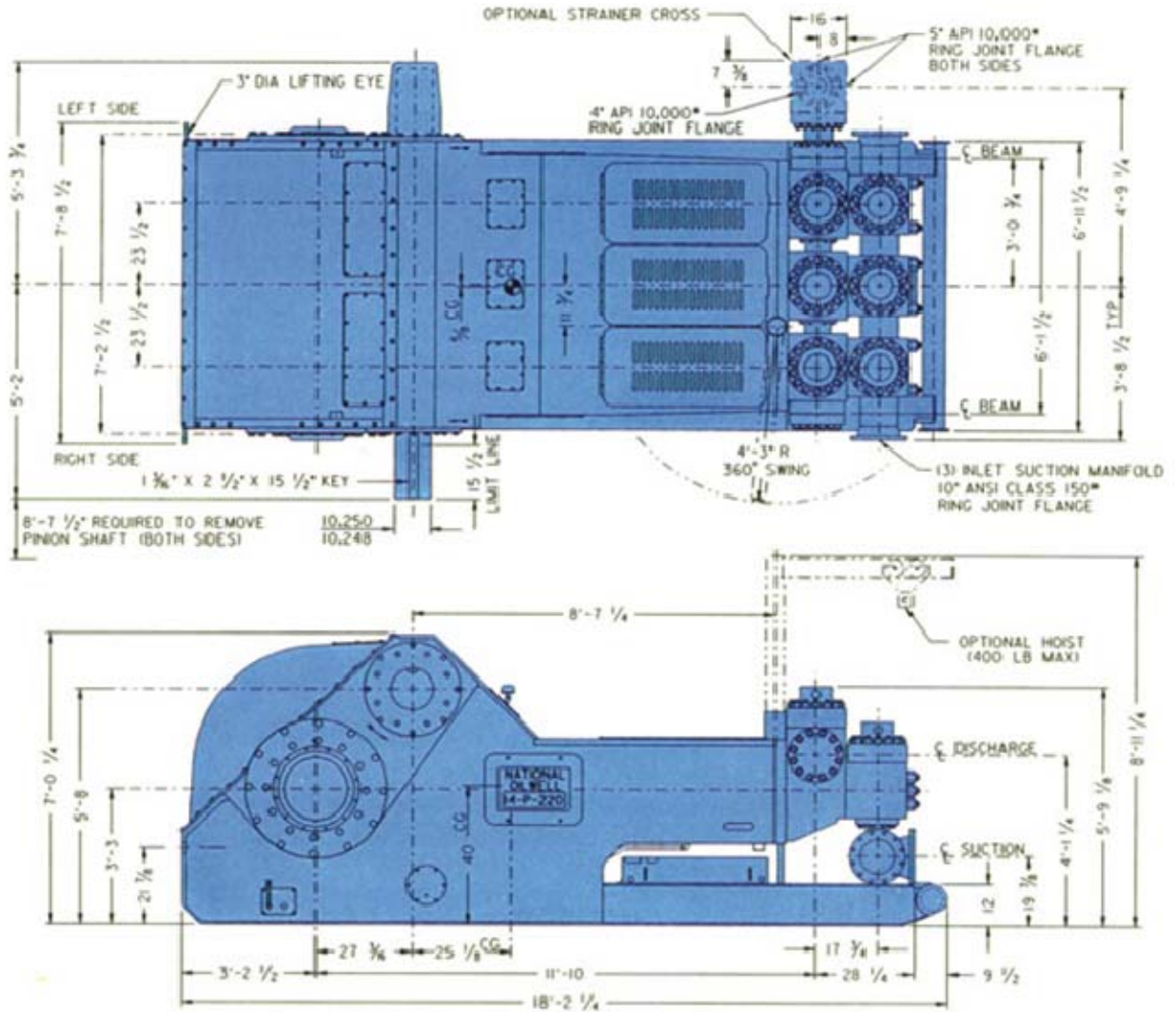
Liner size, inches (mm)			9† (228.6)	8 (203.2)	7 ½ (190.5)	7 (177.8)	6 ½ (165.1)	6 (152.4)	5 ½ (139.7)	5 (127.0)
Max. Discharge Pressure, psi (kg/cm ²) with high pressure Fluid End			2795 (196.5)	3535 (248.6)	4025 (283.0)	4615 (324.5)	5360 (376.8)	6285 (441.9)	7475 (525.5)	7500 (527.3)
Speed spm	Input HP	Hyd.** HP	GPM** (LPM**)	GPM (LPM)	GPM (LPM)	GPM (LPM)	GPM (LPM)	GPM (LPM)	GPM (LPM)	GPM (LPM)
105*	2200*	1980	1215 (4600)	960 (3634)	843 (3191)	735 (2782)	633 (2396)	540 (2044)	454 (1718)	375 (1419)
80	1676	1509	925 (3501)	731 (2767)	643 (2434)	560 (2120)	483 (1828)	411 (1556)	346 (1309)	286 (1082)
60	1257	1131	694 (2627)	548 (2074)	482 (1824)	420 (1590)	362 (1370)	308 (1166)	259 (980)	214 (810)
40	838	754	462 (1748)	366 (1385)	321 (1215)	280 (1060)	241 (912)	206 (780)	173 (654)	143 (541)
Volume/Stroke, gal. (Liters)			11.57 (43.797)	9.14 (34.598)	8.03 (30.397)	7.00 (26.498)	6.03 (22.826)	5.14 (19.457)	4.32 (16.353)	3.57 (13.514)

*Rated maximum input horsepower and speed

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

† 9-inch liner requires special liner bushing and liner clamp

2 TECHNICAL SPECIFICATION



1.	Dimensions	
2.	Height, floor to center of front inlet suction, inches (mm)	19 ⁷ / ₈ (505)
3.	Height, floor to center of discharge, inches (mm)	49 ¹ / ₄ (1251)
4.	Overall length over skids, inches (mm)	218 ¹ / ₄ (5544)
5.	Width over frame, inches (mm)	91 (2311)
6.	Width over pinion shaft, inches (mm)	125 ³ / ₄ (3194)
7.	Height, floor to top of gear case, inches (mm)	84 ¹ / ₄ (2139)
8.	Height over fluid cylinders, inches (mm)	69 ¹ / ₈ (1756)
9.	Weight-complete, less sheave, lbs. (kg)	86,000 (39,007)
10.	Fluid Connections	
11.	Suction connection	10" ASA-150 lb. R.J. flange
12.	Discharge connection, cross	5" API-10,000 lb. R.J. flange
13.	Capacity Data	
14.	Maximum liner bore, inches (mm)	9 (228.6)
15.	Stroke, inches (mm)	14 (355.6)
16.	Maximum input horsepower (kW)	2200 (1640)
17.	Rated pump speed, spm	105
18.	Pinion speed, rpm	417
19.	Hydrostatic test pressure of fluid cylinders, psi (kg/cm ²)	11,250 (791)
20.	Mechanical Data	
21.	Fluid cylinder	Steel, 2 piece interchangeable modular design
22.	Valves, API number	MOD. 8
23.	Valve seats	Bottom shouldering, modified for high pressure
24.	Piston rod-piston connection	Piloted and shouldered, National CB-4
25.	Piston rod-intermediate rod connection	Piloted and shouldered, metal-to-metal lock
26.	Type of gears	Relieved herringbone
27.	Gear ratio	3.969
28.	Gear and pinion	Through hardened alloy
29.	Type of crosshead pin	Tapered
30.	Number and type of pinion shaft bearing	2 self aligning roller
31.	Number and type of main bearing	2 double row tapered roller
32.	Number and type of crosshead bearing	3 double row needle
33.	Number and type of crankshaft-connecting rod bearing	3 cylindrical roller
34.	Double extension on pinion shaft, inches (mm)	9 ¹ / ₄ Dia. x 18 ¹ / ₂ Long (234.95 x 469.9)
35.	Sprocket with QD Hub Type S-Dual Electric Motor Drive (Drive sprocket 1200 RPM max.)	Two- 75T 1 ¹ / ₂ " pitch quint.
36.	Ind. or rig drive-drive sprocket 1000 rpm max.	75T 1 ¹ / ₂ " pitch octuple
37.	Ind. or rig drive-drive sprocket 1100 rpm max.	75T 1 ¹ / ₂ " pitch tenwide
38.	Sheave, QD Hub Type S	53" OD 24-8V Section belts