



Product Datasheet

14-P-220

Triplex Mud Pump

REFERENCE 14-P-220	REFERENCE DESCRIPTION Triplex Mud Pump
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DOCUMENT NUMBER GSK-7465P	REV 03



REVISION HISTORY

Rev	Date (dd.mm.yyyy)	Reason for issue	Prepared	Checked	Approved
03	05.06.2008	Update	TMH	BMD	GH
02	09.05.2005	Updated to new template	PG		

CHANGE DESCRIPTION

Revision	Change Description
02	Updated to electronic format in new template
03	Updated web address and made minor format changes Page 6, Cross Discharge Connection changed to 5" API 10,000 lb. R.J. flange.

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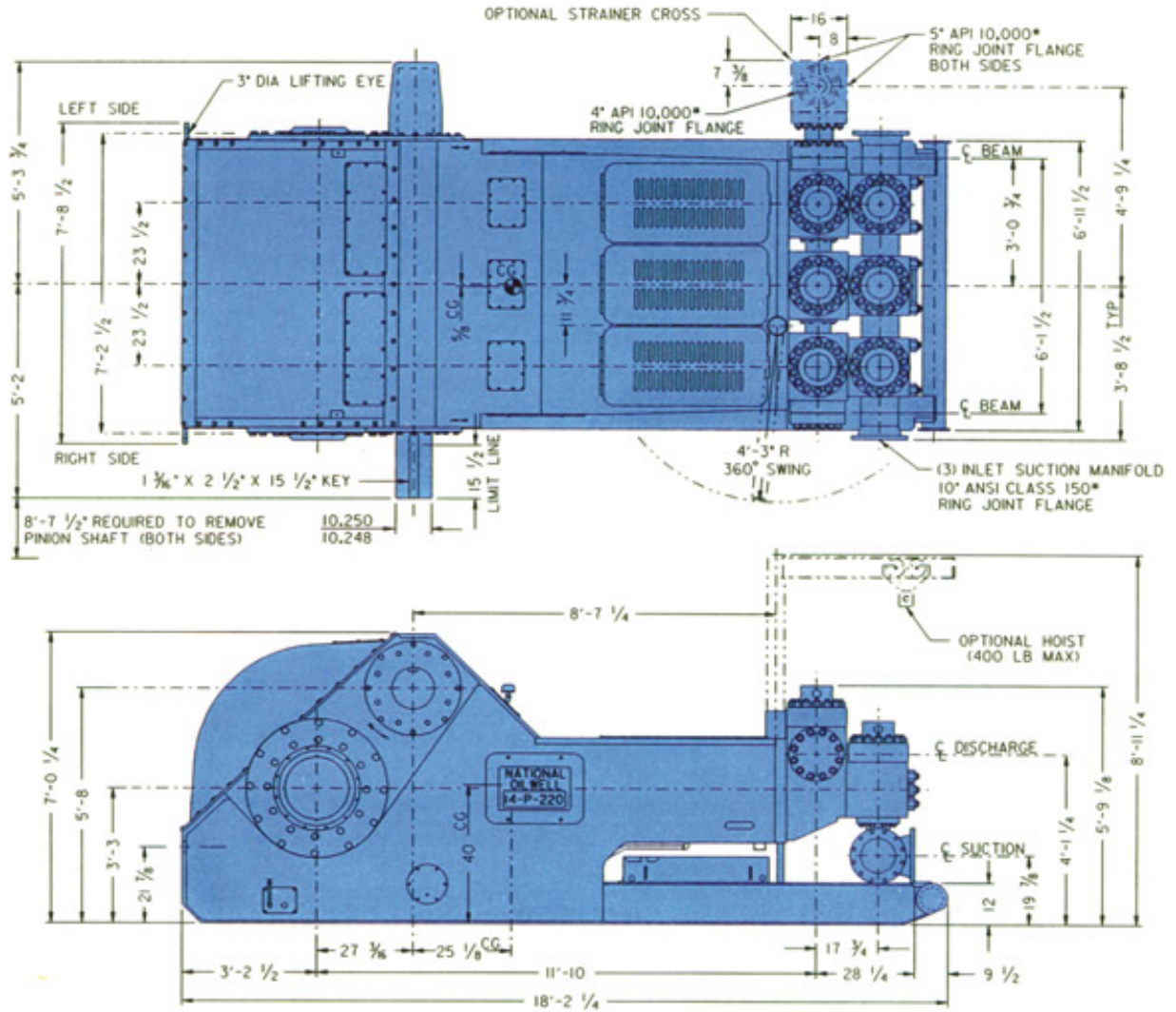
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1 PERFORMANCE DATA

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)
Pump Speed spm	Input HP, HP (kW)	Hyd.** HP, HP (kW)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)	GPM** (LPM**)
105*	2200* (1641*)	1980 (1476)	1215 (4600)	960 (3634)	843 (3191)	735 (2782)	633 (2396)	540 (2044)	454 (1718)	375 (1419)
80	1676 (1250)	1509 (1125)	925 (3501)	731 (2767)	643 (2434)	560 (2120)	483 (1828)	411 (1556)	346 (1309)	286 (1082)
60	1257 (937)	1131 (843)	694 (2627)	548 (2074)	482 (1824)	420 (1590)	362 (1370)	308 (1166)	259 (980)	214 (810)
40	838 (625)	754 (562)	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)
<p>*Rated maximum input horsepower and speed **Based on 90% mechanical efficiency and 100% volumetric efficiency ***5,000 PSI Fluid End configuration available † 9-inch liner requires special liner bushing and liner clamp</p>										

2 TECHNICAL SPECIFICATION

2.1 General Dimensions



2.2 Specifications for the 14-P-220

Dimensions	
Height, floor to center of front inlet suction, inches (mm)	19 ⁷ / ₈ (505)
Height, floor to center of discharge, inches (mm)	49 ¹ / ₄ (1251)
Overall length over skids, inches (mm)	218 ¹ / ₄ (5544)
Width over frame, inches (mm)	91 (2311)
Width over pinion shaft, inches (mm)	125 ³ / ₄ (3194)
Height, floor to top of gear case, inches (mm)	84 ¹ / ₄ (2139)
Height over fluid cylinders, inches (mm)	69 ¹ / ₈ (1756)
Weight-complete, less sheave, lbs. (kg)	86,000 (39,007)
Fluid Connections	
Suction connection	10" ASA-150 lb. R.J. flange
Discharge connection, cross	5" API-10,000 lb. R.J. flange
Capacity Data	
Maximum liner bore, inches (mm)	9 (228.6)
Stroke, inches (mm)	14 (355.6)
Maximum input horsepower (kW)	2200 (1640)
Rated pump speed, spm	105
Pinion speed, rpm	417
Hydrostatic test pressure of fluid cylinders (High Pressure Fluid End), psi (kg/cm ²)	11,250 (791)
Hydrostatic test pressure of fluid cylinders (Standard Fluid End), psi (kg/cm ²)	10,000 (703)
Mechanical Data	
Fluid cylinder	Steel, 2 piece interchangeable modular design
Valves, API number	MOD. 8
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	3.969
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
Sheave, QD Hub Type S	53" 10-8V Section belts