



W-440/446 SINGLE-ACTING TRIPLEX PUMP



The mud pumps use a forced **Lubrication System** to deliver oil to the guide plate of the crosshead and all of the bearings.

Model	W-440	W-446
Rated Input Power	440 HP	446 HP
Max Stroke	320 min ⁻¹ (320SPM)	300 min ⁻¹ (300SPM)
Stroke Length	6"	6"
Gear Ratio	4,578 : 1	4,578 : 1
Max Working Pressure	5000 psi	3000 psi
Valve	API #4	API #SA-4
Max Liner Diameter	4 ½"	6"
Max Liner Pressure	1710 psi	1050 psi
Suction Pipe Diameter	6" (150#) Flange	6" (150#) Flange
Discharge Pipe Diameter	3" (900#) Flange	3" (900#) Flange
Pinion Diameter	3.75"	3.75"
Key	0.87" X 0.63"	0.87" X 0.63"
Dimensions (in)	97.60" x 47.99" x 43.43"	97.60" x 47.99" x 43.43"
Weight	9,839 lbs	9,855 lbs

W-440 PUMP PARAMETERS		Stroke, min ⁻¹	320	270	220	170	120	70
		Input Power (Horsepower)	440	380	320	260	200	200
Liner Diameter	Pressure	Gallon, run ⁻¹	Gallon, run ⁻¹					
4 ½	1710	1.239	397	335	273	211	149	87
4 ¼	1917	1.105	354	299	243	188	133	77
4	2169	0.979	313	264	215	167	118	69
3 ¾	2468	0.861	275	232	189	146	103	60
3 ½	2816	0.750	240	202	165	127	90	52
3	3327	0.551	204	149	121	94	66	39
Mechanical efficiency : 90%, coefficient of fullness α = 100%, and volumetric efficiency : 100%								

W-446 PUMP PARAMETERS		Stroke, min ⁻¹	300	250	200	1750	50	100	50
		Input Power (Horsepower)	446	355	285	250	213	142	71
Liner Diameter	Pressure	Gallon, run ⁻¹	Gallon, run ⁻¹						
6	1050	2.203	661	550	440	386	330	220	110
5 ½	1248	1.851	555	463	370	324	278	185	63
5	1508	1.530	459	383	306	286	230	153	76
4 ½	1863	1.239	372	310	248	217	186	124	62
4	2357	0.979	294	245	196	171	147	98	491
3 ½	3000	0.750	225	188	150	131	113	75	38
Mechanical efficiency : 90%, coefficient of fullness α = 100%, and volumetric efficiency : 100%									