



# Specifications for 4D-13-23-20

## Gear Reducer

Peak Torque Rating ----- 13,000 in. lbs.  
 Nominal Horsepower Rating (at 20 SPM) ----- 2.0  
 Reduction Ratio (Double Reduction) ----- 40:1  
 Type of Bearings ----- Taperd Roller  
 Sheave Pitch Dia, Number of Grooves, and Section ----- 18 inches, 1-AB  
 Gear Design ----- Helical, Ductile Iron  
 Pinion Design ----- Helical, Heat Treated Steel  
 Oil Capacity ----- 2 Gallons

## Structure

Structure Rating ----- 2,300 lbs.  
 Stroke Length Selections ----- 14" - 16" - 20"  
 Well Working Center ----- 34 inches  
 Walking Beam size, weight, and section ----- 8" x 15# WF  
 Height of Saddle Bearing above top of foundation ----- 54 inches  
 Overall Length of T-Base Frame ----- 83 inches  
 Overall Length of Wide Base Frame ----- 106 inches  
 Width of Base of Samson Post ----- 30 inches  
 Main Base Members size, weight, and section ----- 5" x 6.7# C Channel  
 Beam Counterweights ----- 70 lbs. each  
 Approximate weight of the Pump Jack - T-Base Frame ----- 800 lbs.  
 Approximate weight of the Pump Jack - Wide Base Frame ----- 1,000 lbs.  
 Wrist Pins equipped with double row taper roller bearings.

Note: This model is not equipped with a brake. (Optional Brake is available.)

Stroke Length	Pump Diameter	Lbs Counterbalance Required Per 100' Depth Sucker Rod Diameter			10 S.P.M.				20 S.P.M.			
					Max Well Depth in Ft Sucker Rod Diameter			Bbbs Per 24 Hours	Max Well Depth in Ft Sucker Rod Diameter			Bbbs Per 24 Hours
		1/2	5/8	3/4	1/2	5/8	3/4		1/2	5/8	3/4	
14	1-1/16	45	68	92	2915	2043	1556	15	2807	1955	1485	30
	1-1/4	48	71	95	2569	1876	1452	20	2485	1793	1390	41
	1-1/2	54	77	101	2164	1642	1312	29	2104	1568	1262	54
	1-3/4	61	84	108	1823	1439	1179	40	1780	1395	1137	80
	1-25/32	62	85	109	1785	1415	1163	41	1744	1372	1123	83
	2	69	92	116	1543	1258	1055	52	1512	1225	1022	104
	2-1/8	73	96	120	1423	1177	997	59	1397	1148	968	118
	2-1/4	78	101	125	1314	1102	943	66	1292	1076	916	132
	2-1/2	88	111	135	1127	967	842	82	1111	947	821	163
2-3/4	99	122	146	947	852	754	99	962	837	737	198	
16	1-1/16	45	48	92	2915	2042	1556	17	2790	1941	1474	34
	1-1/4	48	71	95	2570	1866	1452	23	2472	1782	1380	47
	1-1/2	54	77	101	2164	1643	1312	34	2094	1577	1253	67
	1-3/4	61	84	108	1823	1438	1179	46	1774	1388	1131	91
	1-25/32	62	85	109	1785	1415	1163	47	1737	1366	1116	95
	2	69	92	116	1543	1258	1055	60	1507	1219	1017	119
	2-1/8	73	96	120	1423	1177	997	67	1392	1143	963	135
	2-1/4	78	101	125	1314	1102	943	76	1288	1072	912	151
	2-1/2	88	111	135	1127	967	843	93	1108	944	818	187
2-3/4	99	122	146	974	852	754	113	960	834	734	226	
20	1-1/16	45	68	92	2897	2027	1544	21	2757	1914	1452	42
	1-1/4	48	71	95	2555	1854	1441	29	2446	1759	1361	58
	1-1/2	54	77	101	2153	1635	1304	42	2075	1559	1238	84
	1-3/4	61	84	108	1816	1431	1176	57	1760	1374	1118	114
	1-25/32	62	85	109	1778	1407	1159	59	1724	1352	1104	118
	2	69	92	116	1538	1253	1049	75	1497	1209	1006	149
	2-1/8	73	96	120	1418	1172	992	84	1384	1134	954	168
	2-1/4	78	101	125	1310	1097	938	94	1281	1064	904	189
	2-1/2	88	111	135	1124	964	839	117	1103	938	811	233
2-3/4	99	122	146	972	850	751	141	956	829	792	282	

>>>Note: Well Production Based on Pump Efficiency of 80%

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