

This chart is based on the Engineering News Record (ENR) formula for pile bearing capacity and is provided as a convenience only.

**Pile bearing (Tons) =  $2E/(S + 0.1)/2000$** , where **E = Hammer energy (given by the Saximeter formula)**  
**S = Pile set (inch per blow)**

Blow per Minute	Ram Stroke (ft)	Hammer Energy (lb.ft)	Pile Set (Blows per inch)											
			1	2	3	4	5	6	7	8	9	10	11	12
35	11.52	63,509	58	106	147	181	212	238	262	282	301	318	333	346
36	10.88	59,939	54	100	138	171	200	225	247	266	284	300	314	327
37	10.28	56,655	52	94	131	162	189	212	233	252	268	283	297	309
38	9.73	53,627	49	89	124	153	179	201	221	238	254	268	281	293
39	9.22	50,828	46	85	117	145	169	191	209	226	241	254	266	277
40	8.75	48,237	44	80	111	138	161	181	199	214	228	241	253	263
41	8.32	45,833	42	76	106	131	153	172	189	204	217	229	240	250
42	7.91	43,598	40	73	101	125	145	163	180	194	207	218	228	238
43	7.53	41,518	38	69	96	119	138	156	171	185	197	208	217	226
44	7.18	39,578	36	66	91	113	132	148	163	176	187	198	207	216
45	6.85	37,766	34	63	87	108	126	142	156	168	179	189	198	206
46	6.54	36,071	33	60	83	103	120	135	149	160	171	180	189	197
47	6.26	34,483	31	57	80	99	115	129	142	153	163	172	181	188
48	5.99	32,993	30	55	76	94	110	124	136	147	156	165	173	180
49	5.73	31,593	29	53	73	90	105	118	130	140	150	158	165	172
50	5.49	30,276	28	50	70	87	101	114	125	135	143	151	159	165
51	5.27	29,036	26	48	67	83	97	109	120	129	138	145	152	158
52	5.06	27,867	25	46	64	80	93	105	115	124	132	139	146	152

**Caution:** Driving at more than 20 blows per inch (set of 0.05 inch per blow) is considered practical refusal.

This chart is based on the Engineering News Record (ENR) formula for pile bearing capacity and is provided as a convenience only.

**Pile bearing (kN) =  $100E/(S + 0.254)/6$** , where **E = Hammer energy (given by the Saximeter formula)**  
**S = Pile set (cm per blow)**

Blows per Minute	Ram Stroke (m)	Hammer Energy (kJ)	Pile Set (Blows per 2cm)											
			5	6	7	8	9	10	11	12	13	14	15	16
35	3.51	86	2196	2445	2661	2850	3016	3163	3295	3414	3521	3619	3708	3789
36	3.32	81	2073	2308	2512	2690	2846	2986	3110	3222	3324	3416	3500	3577
37	3.13	77	1959	2182	2374	2542	2690	2822	2940	3046	3142	3229	3308	3381
38	2.97	73	1854	2065	2247	2406	2547	2671	2783	2883	2974	3056	3131	3200
39	2.81	69	1758	1957	2130	2281	2414	2532	2638	2733	2819	2897	2968	3033
40	2.67	65	1668	1858	2021	2165	2291	2403	2503	2593	2675	2749	2817	2879
41	2.54	62	1585	1765	1921	2057	2177	2283	2379	2464	2542	2612	2676	2735
42	2.41	59	1508	1679	1827	1957	2071	2172	2263	2344	2418	2485	2546	2602
43	2.30	56	1436	1599	1740	1863	1972	2069	2155	2232	2303	2366	2425	2478
44	2.19	54	1369	1524	1659	1776	1880	1972	2054	2128	2195	2256	2311	2362
45	2.09	51	1306	1455	1583	1695	1794	1882	1960	2031	2095	2153	2206	2254
46	2.00	49	1248	1389	1512	1619	1713	1797	1872	1940	2001	2056	2107	2153
47	1.91	47	1193	1328	1445	1548	1638	1718	1790	1854	1913	1966	2014	2058
48	1.83	45	1141	1271	1383	1481	1567	1644	1713	1774	1830	1881	1927	1969
49	1.75	43	1093	1217	1324	1418	1501	1574	1640	1699	1752	1801	1845	1886
50	1.68	41	1047	1166	1269	1359	1438	1509	1572	1628	1680	1726	1768	1807
51	1.61	39	1005	1119	1217	1303	1380	1447	1507	1562	1611	1655	1696	1733
52	1.54	38	964	1074	1168	1251	1324	1389	1447	1499	1546	1589	1628	1664

**Caution:** Driving at more than 8 blows per cm (set of 0.125 cm per blow) is considered practical refusal.