

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	406,460	370	677	938	1161	1355	1524	1674	1806	1925	2032	2129	2217
36	10.88	383,613	349	639	885	1096	1279	1439	1580	1705	1817	1918	2009	2092
37	10.28	362,593	330	604	837	1036	1209	1360	1493	1612	1718	1813	1899	1978
38	9.73	343,210	312	572	792	981	1144	1287	1413	1525	1626	1716	1798	1872
39	9.22	325,300	296	542	751	929	1084	1220	1339	1446	1541	1626	1704	1774
40	8.75	308,716	281	515	712	882	1029	1158	1271	1372	1462	1544	1617	1684
41	8.32	293,330	267	489	677	838	978	1100	1208	1304	1389	1467	1536	1600
42	7.91	279,030	254	465	644	797	930	1046	1149	1240	1322	1395	1462	1522
43	7.53	265,717	242	443	613	759	886	996	1094	1181	1259	1329	1392	1449
44	7.18	253,300	230	422	585	724	844	950	1043	1126	1200	1267	1327	1382
45	6.85	241,703	220	403	558	691	806	906	995	1074	1145	1209	1266	1318
46	6.54	230,853	210	385	533	660	770	866	951	1026	1094	1154	1209	1259
47	6.26	220,688	201	368	509	631	736	828	909	981	1045	1103	1156	1204
48	5.99	211,152	192	352	487	603	704	792	869	938	1000	1056	1106	1152
49	5.73	202,194	184	337	467	578	674	758	833	899	958	1011	1059	1103
50	5.49	193,768	176	323	447	554	646	727	798	861	918	969	1015	1057
51	5.27	185,833	169	310	429	531	619	697	765	826	880	929	973	1014
52	5.06	178,351	162	297	412	510	595	669	734	793	845	892	934	973

**Caution:** Driving at more than 10 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	552	14055	15650	17031	18238	19301	20246	21091	21850	22537	23161	23731	24253	
36	3.32	521	13265	14771	16074	17213	18217	19109	19906	20623	21271	21860	22398	22890	
37	3.13	492	12538	13962	15194	16270	17219	18062	18816	19493	20106	20663	21171	21636	
38	2.97	466	11869	13216	14382	15401	16299	17097	17810	18452	19032	19559	20040	20480	
39	2.81	441	11249	12526	13632	14598	15449	16205	16881	17489	18039	18539	18994	19412	
40	2.67	419	10676	11888	12937	13854	14662	15379	16021	16598	17120	17594	18027	18423	
41	2.54	398	10144	11296	12293	13164	13931	14613	15223	15771	16267	16718	17129	17505	
42	2.41	379	9650	10746	11694	12522	13253	13901	14481	15003	15475	15903	16294	16652	
43	2.30	361	9190	10233	11136	11925	12621	13238	13791	14288	14737	15145	15517	15858	
44	2.19	344	8761	9755	10616	11368	12031	12620	13147	13620	14048	14437	14792	15118	
45	2.09	328	8360	9309	10130	10848	11481	12043	12545	12997	13406	13777	14116	14426	
46	2.00	313	7985	8891	9676	10361	10966	11503	11982	12414	12804	13159	13482	13779	
47	1.91	300	7634	8500	9250	9906	10483	10997	11455	11868	12241	12580	12889	13173	
48	1.83	287	7304	8133	8851	9478	10031	10522	10961	11355	11712	12037	12333	12604	
49	1.75	274	6994	7788	8476	9076	9606	10076	10496	10874	11216	11526	11810	12070	
50	1.68	263	6703	7464	8123	8698	9206	9656	10059	10421	10749	11047	11318	11567	
51	1.61	252	6429	7159	7790	8342	8829	9261	9647	9995	10309	10595	10855	11094	
52	1.54	242	6170	6871	7477	8007	8474	8889	9259	9593	9894	10168	10418	10647	

**Caution:** Driving at more than 4 blows per cm (set of 0.125 cm per blow) is considered practical refusal.