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PILECO Diesel Hammer D19 Pile Hammer Bearing Chart

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	46,235	42	77	107	132	154	173	190	205	219	231	242	252
36	10.88	43,636	40	73	101	125	145	164	180	194	207	218	229	238
37	10.28	41,245	37	69	95	118	137	155	170	183	195	206	216	225
38	9.73	39,040	35	65	90	112	130	146	161	174	185	195	204	213
39	9.22	37,003	34	62	85	106	123	139	152	164	175	185	194	202
40	8.75	35,116	32	59	81	100	117	132	145	156	166	176	184	192
41	8.32	33,366	30	56	77	95	111	125	137	148	158	167	175	182
42	7.91	31,740	29	53	73	91	106	119	131	141	150	159	166	173
43	7.53	30,225	27	50	70	86	101	113	124	134	143	151	158	165
44	7.18	28,813	26	48	66	82	96	108	119	128	136	144	151	157
45	6.85	27,494	25	46	63	79	92	103	113	122	130	137	144	150
46	6.54	26,260	24	44	61	75	88	98	108	117	124	131	138	143
47	6.26	25,103	23	42	58	72	84	94	103	112	119	126	131	137
48	5.99	24,019	22	40	55	69	80	90	99	107	114	120	126	131
49	5.73	23,000	21	38	53	66	77	86	95	102	109	115	120	125
50	5.49	22,041	20	37	51	63	73	83	91	98	104	110	115	120
51	5.27	21,139	19	35	49	60	70	79	87	94	100	106	111	115
52	5.06	20,287	18	34	47	58	68	76	84	90	96	101	106	111

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



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PILECO Diesel Hammer D19 Pile Hammer Bearing Chart

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	63	1599	1780	1937	2075	2196	2303	2399	2485	2564	2635	2699	2759
36	3.32	59	1509	1680	1828	1958	2072	2174	2264	2346	2420	2487	2548	2604
37	3.13	56	1426	1588	1728	1851	1959	2055	2140	2217	2287	2350	2408	2461
38	2.97	53	1350	1503	1636	1752	1854	1945	2026	2099	2165	2225	2280	2330
39	2.81	50	1280	1425	1551	1660	1757	1843	1920	1989	2052	2109	2161	2208
40	2.67	48	1214	1352	1472	1576	1668	1749	1822	1888	1947	2001	2051	2096
41	2.54	45	1154	1285	1398	1497	1585	1662	1732	1794	1850	1902	1948	1991
42	2.41	43	1098	1222	1330	1424	1507	1581	1647	1707	1760	1809	1853	1894
43	2.30	41	1045	1164	1267	1356	1436	1506	1569	1625	1676	1723	1765	1804
44	2.19	39	997	1110	1208	1293	1369	1436	1495	1549	1598	1642	1683	1720
45	2.09	37	951	1059	1152	1234	1306	1370	1427	1478	1525	1567	1606	1641
46	2.00	36	908	1011	1101	1179	1247	1308	1363	1412	1456	1497	1534	1567
47	1.91	34	868	967	1052	1127	1192	1251	1303	1350	1392	1431	1466	1498
48	1.83	33	831	925	1007	1078	1141	1197	1247	1292	1332	1369	1403	1434
49	1.75	31	796	886	964	1032	1093	1146	1194	1237	1276	1311	1343	1373
50	1.68	30	762	849	924	989	1047	1098	1144	1185	1223	1257	1287	1316
51	1.61	29	731	814	886	949	1004	1053	1097	1137	1173	1205	1235	1262
52	1.54	28	702	782	850	911	964	1011	1053	1091	1125	1157	1185	1211

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