(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D180 -42 or -52 Diesel Impact Hammer

The energy output is based on the identical Piston/Travel calculations utilized in the FHWA Gates Formula.

The pile bearing chart is based on the FHWA Gates Formula for pile bearing and is provided for the user's convenience only.

Pile Bearing (metric tons) = (((1.75*SQRT "E" LOG10*10N)-100) / 2000) *0.00045359237

E = Developed Energy and N =Number of Blows Per Inch

APE has no preference for these particular formulas and calculations over any other.

Enter Ram Weight in kgs: 18,000

Blows (per minute)	Stroke (m)	Energy (kNm)	Pile Set (Blows per cm)																			
			2.5	5.1	7.62	10	13	15	18	20	23	25	28	30	33	36	38	41	43	46	48
60	1.22	215.35	1025	1181	1292	1378	1448	1507	1559	1604	1645	1681	1715	1745	1774	1801	1825	1849	1871	1891	1911
59	1.27	224.18	1049	1208	1321	1408	1480	1540	1593	1639	1680	1718	1752	1783	1813	1840	1865	1889	1911	1932	1953
58	1.32	233.01	1072	1234	1349	1438	1511	1573	1626	1674	1716	1754	1789	1821	1850	1878	1904	1928	1951	1973	1993
57	1.37	241.83	1094	1259	1377	1468	1542	1605	1659	1707	1750	1789	1825	1857	1887	1916	1942	1967	1990	2012	2033
56	1.42	250.66	1116	1285	1404	1497	1572	1636	1692	1740	1784	1824	1860	1893	1924	1953	1979	2004	2028	2051	2072
55	1.47	259.48	1138	1309	1431	1525	1602	1667	1723	1773	1818	1858	1895	1928	1960	1989	2016	2042	2066	2089	2110
54	1.52	268.31	1159	1333	1457	1553	1631	1697	1755	1805	1850	1891	1929	1963	1995	2024	2052	2078	2103	2126	2148
53	1.58	278.90	1184	1362	1488	1586	1665	1733	1791	1843	1889	1931	1969	2004	2036	2067	2095	2121	2146	2170	2192
52	1.62	285.96	1201	1381	1508	1607	1688	1756	1815	1868	1914	1957	1995	2031	2064	2094	2123	2150	2175	2199	2222
51	1.68	296.55	1225	1408	1538	1639	1721	1791	1851	1904	1952	1995	2034	2070	2104	2135	2164	2191	2217	2242	2265
50	1.75	308.91	1253	1440	1573	1675	1759	1830	1892	1946	1995	2039	2079	2116	2150	2182	2211	2239	2266	2290	2314
49	1.83	323.03	1284	1475	1611	1716	1802	1875	1938	1993	2043	2088	2129	2166	2201	2234	2264	2293	2320	2345	2369
48	1.91	337.15	1315	1510	1649	1756	1844	1918	1982	2039	2090	2135	2177	2216	2252	2285	2316	2345	2373	2399	2423
47	1.98	349.51	1341	1540	1681	1790	1879	1955	2020	2078	2130	2177	2219	2258	2295	2329	2360	2390	2418	2444	2470
46	2.08	367.16	1378	1581	1726	1838	1930	2007	2074	2133	2186	2234	2278	2318	2355	2390	2422	2453	2481	2509	2534
45	2.19	386.58	1417	1626	1774	1889	1983	2063	2131	2192	2247	2296	2340	2382	2420	2455	2489	2520	2549	2577	2604
44	2.29	404.23	1452	1666	1817	1935	2031	2112	2182	2245	2300	2350	2396	2438	2477	2514	2548	2580	2610	2638	2665
43	2.39	421.88	1486	1704	1859	1979	2077	2160	2232	2296	2353	2404	2451	2494	2534	2571	2606	2638	2669	2698	2726
42	2.49	439.53	1519	1742	1900	2023	2123	2208	2281	2346	2404	2456	2504	2548	2589	2627	2662	2695	2727	2757	2785
41	2.62	462.48	1562	1790	1953	2078	2181	2268	2343	2410	2469	2523	2572	2617	2659	2698	2734	2768	2800	2831	2860
40	2.74	483.66	1600	1834	2000	2128	2233	2322	2399	2467	2528	2583	2633	2679	2722	2762	2799	2834	2867	2898	2927
39	2.90	511.91	1650	1890	2061	2193	2301	2393	2472	2542	2604	2661	2712	2760	2804	2845	2883	2919	2953	2985	3015
38	3.05	538.39	1695	1942	2117	2252	2363	2457	2538	2610	2674	2732	2785	2834	2879	2921	2960	2997	3032	3064	3096
37	3.20	564.86	1739	1992	2171	2310	2424	2520	2603	2676	2742	2801	2856	2906	2952	2995	3035	3073	3108	3142	3174
36	3.40	600.17	1797	2057	2242	2385	2502	2601	2687	2763	2830	2892	2947	2999	3046	3091	3132	3171	3208	3243	3276