



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart APE Model D220 -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.

$$\text{Pile Bearing (metric tons)} = (((1.75 * \text{SQRT "E" LOG}_{10}(10N) - 100) / 2000) * 0.00045359237$$

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: 22,000

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	263.21	1147	1319	1442	1537	1614	1680	1737	1787	1831	1872	1909	1943	1975	2004	2031	2057	2081	2104	2126
59	1.27	274.00	1173	1349	1474	1570	1650	1716	1774	1826	1871	1913	1950	1985	2017	2047	2075	2101	2126	2150	2172
58	1.32	284.79	1198	1378	1505	1604	1684	1752	1811	1864	1910	1952	1991	2026	2059	2090	2118	2145	2170	2194	2217
57	1.37	295.57	1223	1406	1535	1636	1718	1788	1848	1901	1948	1991	2031	2067	2100	2131	2160	2188	2213	2238	2261
56	1.42	306.36	1247	1434	1566	1668	1752	1822	1884	1938	1986	2030	2070	2106	2140	2172	2202	2229	2256	2280	2304
55	1.47	317.15	1271	1461	1595	1699	1784	1856	1919	1974	2023	2067	2108	2145	2180	2212	2242	2271	2297	2322	2346
54	1.52	327.93	1295	1488	1624	1730	1817	1890	1953	2009	2059	2104	2146	2184	2219	2252	2282	2311	2338	2364	2388
53	1.58	340.88	1323	1519	1658	1766	1855	1929	1994	2051	2102	2148	2190	2229	2265	2298	2329	2359	2386	2412	2437
52	1.62	349.51	1341	1540	1681	1790	1879	1955	2020	2078	2130	2177	2219	2258	2295	2329	2360	2390	2418	2444	2470
51	1.68	362.45	1368	1570	1714	1825	1916	1993	2060	2119	2171	2219	2262	2302	2339	2374	2406	2436	2465	2492	2517
50	1.75	377.56	1399	1605	1752	1866	1958	2037	2105	2165	2219	2267	2312	2352	2390	2425	2458	2489	2518	2546	2572
49	1.83	394.82	1433	1645	1794	1911	2006	2086	2155	2217	2272	2321	2367	2408	2447	2483	2516	2548	2578	2606	2633
48	1.91	412.08	1467	1683	1836	1955	2052	2134	2205	2267	2324	2374	2421	2463	2503	2539	2574	2606	2636	2665	2692
47	1.98	427.18	1496	1716	1872	1992	2091	2175	2247	2311	2368	2420	2467	2510	2550	2588	2623	2656	2686	2716	2744
46	2.08	448.75	1537	1762	1921	2045	2147	2232	2306	2372	2430	2483	2532	2576	2617	2655	2691	2725	2757	2787	2815
45	2.19	472.48	1580	1811	1975	2102	2206	2294	2370	2437	2497	2551	2601	2646	2689	2728	2765	2799	2832	2863	2892
44	2.29	494.06	1618	1855	2022	2152	2259	2348	2426	2495	2556	2612	2662	2709	2752	2792	2830	2865	2899	2930	2960
43	2.39	515.63	1656	1898	2069	2202	2310	2402	2481	2551	2614	2671	2723	2770	2814	2856	2894	2930	2964	2996	3027
42	2.49	537.21	1693	1939	2114	2250	2361	2454	2535	2607	2671	2729	2782	2830	2875	2917	2957	2993	3028	3061	3092
41	2.62	565.26	1740	1993	2172	2311	2425	2521	2604	2677	2743	2802	2857	2907	2953	2996	3036	3074	3109	3143	3175
40	2.74	591.14	1782	2041	2224	2366	2482	2581	2666	2741	2808	2869	2924	2975	3023	3066	3108	3146	3183	3217	3250
39	2.90	625.66	1837	2103	2292	2438	2558	2659	2746	2823	2893	2955	3012	3065	3113	3158	3201	3240	3278	3313	3347
38	3.05	658.03	1887	2160	2354	2504	2626	2730	2820	2899	2970	3034	3092	3146	3196	3242	3286	3326	3365	3401	3436
37	3.20	690.39	1936	2216	2414	2567	2693	2799	2891	2972	3045	3111	3170	3226	3277	3324	3369	3410	3450	3487	3522
36	3.40	733.54	2000	2288	2492	2650	2780	2889	2984	3068	3143	3210	3272	3329	3381	3430	3476	3519	3560	3598	3635