



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing

Chart APE Model D320 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) = $\frac{(((1.75 \times \sqrt{E} \times \log_{10}(10N) - 100) / 2000) \times 0.00045359237}$

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: 30,000

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	358.92	1361	1562	1705	1816	1906	1983	2049	2108	2160	2207	2251	2290	2327	2361	2393	2424	2452	2479	2504
59	1.27	373.63	1391	1596	1742	1855	1948	2026	2093	2153	2206	2255	2299	2339	2377	2412	2445	2475	2504	2532	2558
58	1.32	388.34	1421	1630	1779	1894	1988	2068	2137	2197	2252	2301	2346	2387	2426	2461	2495	2526	2556	2583	2610
57	1.37	403.05	1450	1663	1814	1932	2028	2109	2179	2241	2297	2347	2393	2435	2474	2510	2544	2576	2606	2634	2661
56	1.42	417.76	1478	1695	1849	1969	2067	2149	2221	2284	2340	2391	2438	2481	2521	2558	2592	2625	2655	2684	2712
55	1.47	432.47	1506	1727	1884	2006	2105	2189	2262	2326	2383	2435	2483	2526	2567	2604	2640	2673	2704	2733	2761
54	1.52	447.18	1534	1758	1918	2042	2143	2228	2302	2367	2426	2479	2527	2571	2612	2651	2686	2720	2752	2782	2810
53	1.58	464.84	1566	1795	1958	2084	2187	2274	2350	2416	2476	2530	2579	2624	2666	2705	2741	2776	2808	2838	2867
52	1.62	476.60	1587	1819	1984	2112	2216	2304	2381	2448	2508	2563	2613	2659	2701	2740	2777	2812	2845	2876	2905
51	1.68	494.26	1619	1855	2023	2153	2259	2349	2427	2495	2557	2612	2663	2710	2753	2793	2831	2866	2899	2931	2961
50	1.75	514.85	1655	1896	2067	2200	2308	2400	2479	2549	2612	2669	2721	2768	2812	2853	2892	2928	2962	2994	3024
49	1.83	538.39	1695	1942	2117	2252	2363	2457	2538	2610	2674	2732	2785	2834	2879	2921	2960	2997	3032	3064	3096
48	1.91	561.92	1735	1986	2165	2304	2417	2513	2596	2669	2735	2794	2848	2898	2944	2987	3027	3064	3100	3133	3165
47	1.98	582.52	1768	2025	2207	2348	2463	2561	2645	2720	2787	2847	2902	2953	2999	3043	3084	3122	3158	3193	3225
46	2.08	611.93	1816	2079	2265	2410	2528	2628	2715	2791	2859	2921	2977	3029	3077	3122	3164	3203	3240	3275	3309
45	2.19	644.30	1866	2136	2327	2476	2597	2700	2789	2867	2937	3001	3058	3112	3161	3207	3250	3290	3328	3364	3398
44	2.29	673.72	1911	2187	2383	2535	2659	2764	2855	2935	3006	3071	3130	3185	3235	3282	3326	3367	3406	3443	3478
43	2.39	703.14	1955	2237	2437	2592	2719	2826	2919	3001	3074	3140	3201	3256	3308	3356	3401	3443	3483	3520	3556
42	2.49	732.56	1998	2286	2490	2649	2778	2887	2982	3066	3140	3208	3270	3326	3379	3428	3474	3517	3557	3596	3632
41	2.62	770.80	2053	2348	2558	2720	2853	2965	3062	3148	3225	3294	3357	3415	3469	3520	3567	3611	3652	3692	3729
40	2.74	806.11	2103	2404	2618	2785	2920	3035	3134	3222	3300	3371	3436	3496	3551	3602	3650	3695	3738	3778	3816
39	2.90	853.18	2167	2477	2697	2868	3008	3126	3228	3318	3399	3472	3539	3600	3657	3710	3759	3805	3849	3891	3930
38	3.05	897.31	2225	2544	2770	2945	3088	3209	3314	3406	3489	3564	3632	3695	3753	3807	3858	3906	3951	3993	4033
37	3.20	941.44	2282	2609	2840	3019	3166	3290	3397	3492	3577	3654	3724	3788	3848	3903	3955	4004	4050	4093	4134
36	3.40	1,000.28	2357	2693	2931	3116	3267	3395	3506	3604	3691	3770	3842	3908	3970	4027	4081	4131	4178	4223	4266