



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D30 -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: 3,000

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	35.89	343	407	452	487	516	540	561	580	596	611	625	637	649	660	670	680	689	697	705
59	1.27	37.36	353	418	464	500	529	554	575	594	611	626	640	653	665	676	686	696	705	714	722
58	1.32	38.83	362	429	476	512	542	567	589	608	625	641	655	668	680	692	702	712	721	730	739
57	1.37	40.31	372	439	487	524	554	580	602	622	639	655	670	683	695	707	718	728	737	746	755
56	1.42	41.78	381	449	498	536	567	593	615	635	653	669	684	698	710	722	733	743	753	762	771
55	1.47	43.25	389	459	509	547	579	605	628	649	667	683	698	712	725	737	748	758	768	778	786
54	1.52	44.72	398	469	520	559	591	618	641	662	680	697	712	726	739	751	763	773	783	793	802
53	1.58	46.48	408	481	532	572	605	632	656	677	696	713	729	743	756	769	780	791	801	811	820
52	1.62	47.66	415	489	541	581	614	642	666	687	706	724	739	754	767	780	791	802	813	823	832
51	1.68	49.43	425	500	553	594	628	656	681	702	722	739	755	770	784	796	808	819	830	840	849
50	1.75	51.48	436	513	567	609	643	672	697	719	739	757	773	789	802	815	828	839	850	860	870
49	1.83	53.84	449	527	583	625	661	690	716	738	759	777	794	809	823	837	849	861	872	882	892
48	1.91	56.19	462	541	598	642	678	708	734	757	778	797	814	829	844	858	870	882	893	904	914
47	1.98	58.25	472	553	611	656	692	723	750	773	794	813	831	847	862	875	888	901	912	923	933
46	2.08	61.19	487	570	629	675	713	744	772	796	817	837	855	871	886	900	914	926	938	949	959
45	2.19	64.43	503	589	649	696	734	767	795	820	842	862	880	897	913	927	941	954	966	977	988
44	2.29	67.37	518	605	667	715	754	787	816	841	864	884	903	920	936	951	965	978	990	1002	1013
43	2.39	70.31	531	621	684	733	773	807	836	862	885	906	925	943	959	974	989	1002	1014	1026	1038
42	2.49	73.26	545	636	701	751	792	826	856	883	906	928	947	965	982	997	1012	1025	1038	1050	1062
41	2.62	77.08	562	656	722	773	815	851	881	909	933	955	975	993	1010	1026	1041	1055	1068	1081	1092
40	2.74	80.61	578	673	741	794	837	873	904	932	957	979	1000	1019	1036	1052	1067	1082	1095	1108	1120
39	2.90	85.32	598	697	766	820	864	902	934	963	988	1011	1032	1052	1070	1086	1102	1117	1130	1143	1156
38	3.05	89.73	617	718	789	844	890	928	961	990	1017	1040	1062	1082	1100	1117	1133	1148	1162	1176	1189
37	3.20	94.14	635	738	811	868	914	954	988	1017	1044	1069	1091	1111	1130	1147	1164	1179	1194	1208	1221
36	3.40	100.03	658	765	840	899	946	987	1022	1053	1080	1105	1128	1149	1169	1187	1204	1219	1234	1249	1262