



(800) 248-8498

## Diesel Hammer Energy Output and Pile Bearing Chart

### APE Model D36-42 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:      3,600

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	43.07	388	458	508	546	577	604	627	647	665	682	697	710	723	735	746	757	766	776	784
59	1.27	44.84	399	470	520	560	592	619	642	663	681	698	713	727	740	752	764	774	784	794	803
58	1.32	46.60	409	482	533	573	606	633	657	678	697	714	730	744	757	770	781	792	802	812	821
57	1.37	48.37	419	493	545	586	619	648	672	693	713	730	746	760	774	786	798	809	820	830	839
56	1.42	50.13	429	504	558	599	633	662	686	708	728	745	762	776	790	803	815	826	837	847	856
55	1.47	51.90	439	515	570	612	646	675	701	723	743	761	777	792	806	819	831	843	854	864	874
54	1.52	53.66	448	526	581	624	659	689	714	737	757	776	792	808	822	835	848	859	870	881	890
53	1.58	55.78	460	539	595	639	675	705	731	754	775	793	810	826	840	854	867	878	890	900	910
52	1.62	57.19	467	547	604	649	685	715	742	765	786	805	822	838	853	866	879	891	902	913	923
51	1.68	59.31	478	560	618	663	700	731	758	781	803	822	839	856	871	885	898	910	921	932	943
50	1.75	61.78	490	574	633	679	717	748	776	800	822	841	859	876	891	905	919	931	943	954	965
49	1.83	64.61	504	590	650	697	736	768	796	821	843	863	882	899	914	929	942	955	967	979	989
48	1.91	67.43	518	605	667	715	754	788	816	842	864	885	904	921	937	952	965	979	991	1002	1013
47	1.98	69.90	530	618	681	730	770	804	833	859	882	903	922	940	956	971	985	999	1011	1023	1034
46	2.08	73.43	546	637	702	752	793	827	857	884	907	929	948	966	983	999	1013	1027	1039	1052	1063
45	2.19	77.32	563	657	723	775	817	852	883	910	934	956	976	995	1012	1028	1043	1057	1070	1082	1094
44	2.29	80.85	579	675	742	795	838	874	906	934	958	981	1001	1020	1038	1054	1069	1083	1097	1110	1122
43	2.39	84.38	594	692	761	815	859	896	928	957	982	1005	1026	1045	1063	1080	1095	1110	1123	1136	1149
42	2.49	87.91	609	709	780	834	879	917	950	979	1005	1028	1050	1069	1088	1104	1120	1135	1149	1163	1175
41	2.62	92.50	628	730	803	859	905	944	978	1007	1034	1058	1080	1100	1119	1136	1152	1168	1182	1196	1209
40	2.74	96.73	645	750	824	882	929	968	1003	1033	1060	1085	1107	1128	1147	1165	1181	1197	1212	1226	1239
39	2.90	102.38	668	775	851	911	959	1000	1035	1067	1094	1120	1143	1164	1184	1202	1219	1235	1250	1265	1278
38	3.05	107.68	688	798	876	937	987	1029	1065	1097	1126	1152	1175	1197	1217	1236	1254	1270	1286	1300	1314
37	3.20	112.97	708	821	901	963	1014	1057	1094	1127	1156	1183	1207	1229	1250	1269	1287	1304	1320	1335	1349
36	3.40	120.03	733	850	932	997	1049	1093	1131	1165	1196	1223	1248	1271	1292	1312	1331	1348	1364	1380	1395