



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D50 -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: 5,000

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	59.82	480	563	621	666	703	734	761	785	807	826	844	860	875	889	902	914	926	937	947
59	1.27	62.27	493	577	636	682	720	752	779	804	826	845	863	880	895	909	923	935	947	958	969
58	1.32	64.72	505	590	651	698	736	769	797	822	844	864	883	900	915	930	943	956	968	980	990
57	1.37	67.18	517	604	666	713	753	786	814	840	862	883	902	919	935	950	963	976	989	1000	1011
56	1.42	69.63	528	617	680	729	769	802	831	857	880	901	920	938	954	969	983	996	1009	1021	1032
55	1.47	72.08	540	630	694	744	784	819	848	874	898	919	938	956	973	988	1002	1016	1029	1041	1052
54	1.52	74.53	551	643	708	758	800	834	865	891	915	937	956	975	991	1007	1022	1035	1048	1060	1072
53	1.58	77.47	564	658	724	776	818	853	884	911	936	958	978	996	1013	1029	1044	1058	1071	1084	1095
52	1.62	79.43	573	668	735	787	830	866	897	924	949	971	992	1010	1028	1044	1059	1073	1086	1099	1111
51	1.68	82.38	586	682	751	804	847	884	916	944	969	991	1012	1031	1049	1065	1080	1095	1108	1121	1134
50	1.75	85.81	600	699	769	823	867	905	937	966	991	1014	1036	1055	1073	1090	1105	1120	1134	1147	1160
49	1.83	89.73	617	718	789	844	890	928	961	990	1017	1040	1062	1082	1100	1117	1133	1148	1162	1176	1189
48	1.91	93.65	633	736	809	865	912	951	985	1015	1041	1065	1087	1108	1127	1144	1160	1176	1190	1204	1217
47	1.98	97.09	647	751	826	883	931	970	1005	1035	1062	1087	1110	1130	1149	1167	1184	1200	1214	1228	1241
46	2.08	101.99	666	773	850	909	957	998	1033	1064	1092	1117	1140	1162	1181	1199	1217	1233	1248	1262	1276
45	2.19	107.38	687	797	875	936	985	1027	1063	1095	1124	1150	1173	1195	1215	1234	1252	1268	1284	1298	1312
44	2.29	112.29	705	818	898	960	1010	1053	1090	1123	1152	1179	1203	1225	1246	1265	1283	1300	1315	1330	1345
43	2.39	117.19	723	838	920	983	1035	1079	1116	1150	1180	1207	1232	1254	1275	1295	1313	1330	1347	1362	1377
42	2.49	122.09	741	858	941	1006	1059	1104	1142	1176	1207	1234	1260	1283	1304	1324	1343	1361	1377	1393	1408
41	2.62	128.47	763	884	969	1035	1089	1135	1175	1210	1241	1270	1295	1319	1341	1362	1381	1399	1416	1432	1447
40	2.74	134.35	783	906	994	1062	1117	1164	1204	1240	1272	1301	1328	1352	1374	1395	1415	1433	1451	1467	1483
39	2.90	142.20	809	936	1026	1096	1153	1201	1243	1280	1313	1342	1370	1395	1418	1439	1459	1478	1496	1513	1529
38	3.05	149.55	833	963	1056	1127	1186	1235	1278	1315	1349	1380	1408	1433	1457	1479	1500	1519	1538	1555	1571
37	3.20	156.91	857	990	1084	1158	1217	1268	1312	1351	1385	1416	1445	1471	1496	1518	1539	1559	1578	1596	1613
36	3.40	166.71	887	1024	1122	1197	1259	1311	1356	1396	1432	1464	1493	1520	1546	1569	1591	1611	1631	1649	1666