



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D100 -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: 10,000

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	119.64	732	848	931	995	1047	1091	1129	1163	1193	1221	1246	1269	1290	1310	1328	1346	1362	1377	1392
59	1.27	124.54	749	868	952	1017	1071	1116	1155	1189	1220	1248	1274	1297	1319	1339	1358	1375	1392	1408	1423
58	1.32	129.45	766	887	973	1040	1094	1140	1180	1215	1246	1275	1301	1325	1347	1367	1387	1405	1422	1438	1453
57	1.37	134.35	783	906	994	1062	1117	1164	1204	1240	1272	1301	1328	1352	1374	1395	1415	1433	1451	1467	1483
56	1.42	139.25	800	925	1014	1083	1140	1187	1229	1265	1298	1327	1354	1379	1402	1423	1443	1462	1479	1496	1512
55	1.47	144.16	816	943	1034	1104	1162	1210	1252	1289	1322	1352	1380	1405	1428	1450	1470	1489	1507	1524	1541
54	1.52	149.06	832	962	1054	1125	1183	1233	1275	1313	1347	1377	1405	1431	1455	1477	1497	1517	1535	1552	1569
53	1.58	154.95	851	983	1077	1149	1209	1259	1303	1341	1376	1407	1435	1461	1485	1508	1529	1549	1567	1585	1602
52	1.62	158.87	863	997	1092	1166	1226	1277	1321	1360	1395	1426	1455	1481	1506	1529	1550	1570	1589	1607	1624
51	1.68	164.75	881	1017	1114	1189	1251	1302	1347	1387	1422	1455	1484	1511	1536	1559	1581	1601	1620	1638	1656
50	1.75	171.62	902	1041	1140	1216	1279	1332	1378	1418	1454	1487	1517	1545	1570	1594	1616	1637	1656	1675	1692
49	1.83	179.46	925	1067	1168	1247	1311	1365	1412	1453	1490	1524	1554	1582	1608	1633	1655	1677	1697	1716	1734
48	1.91	187.31	948	1093	1196	1276	1342	1397	1445	1487	1525	1559	1591	1619	1646	1671	1694	1716	1736	1755	1774
47	1.98	194.17	967	1115	1220	1302	1369	1425	1474	1517	1555	1590	1622	1651	1678	1703	1727	1749	1770	1790	1808
46	2.08	203.98	995	1146	1254	1338	1406	1464	1514	1558	1597	1633	1665	1695	1723	1749	1773	1796	1817	1837	1857
45	2.19	214.77	1024	1180	1290	1376	1446	1505	1556	1602	1642	1679	1712	1743	1771	1798	1823	1846	1868	1889	1908
44	2.29	224.57	1050	1209	1322	1410	1481	1542	1594	1641	1682	1719	1754	1785	1814	1841	1867	1890	1913	1934	1954
43	2.39	234.38	1075	1238	1353	1443	1516	1578	1632	1679	1721	1759	1794	1826	1856	1884	1910	1934	1957	1979	1999
42	2.49	244.19	1100	1266	1384	1475	1550	1613	1668	1716	1759	1798	1834	1867	1897	1925	1952	1977	2000	2022	2043
41	2.62	256.93	1132	1302	1423	1517	1593	1658	1714	1764	1808	1848	1885	1918	1949	1978	2005	2031	2055	2078	2099
40	2.74	268.70	1160	1334	1458	1554	1632	1699	1756	1807	1852	1893	1930	1965	1996	2026	2054	2080	2104	2128	2150
39	2.90	284.39	1197	1377	1504	1602	1683	1751	1810	1862	1909	1951	1989	2025	2058	2088	2117	2143	2169	2193	2215
38	3.05	299.10	1231	1415	1545	1647	1729	1799	1860	1913	1961	2004	2043	2080	2113	2145	2174	2201	2227	2252	2275
37	3.20	313.81	1264	1452	1586	1690	1774	1846	1908	1963	2011	2056	2096	2133	2168	2200	2230	2258	2284	2310	2333
36	3.40	333.43	1307	1501	1639	1746	1833	1907	1970	2027	2077	2123	2165	2203	2238	2271	2302	2331	2359	2385	2409