(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D138 -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.

Pile Bearing (metric tons) = (((1.75*SQRT "E" LOG10*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: 13,800

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	165.10	882	1019	1116	1191	1252	1304	1349	1389	1424	1456	1486	1513	1537	1561	1582	1603	1622	1640	1658
59	1.27	171.87	903	1042	1141	1217	1280	1333	1379	1419	1456	1488	1518	1546	1571	1595	1617	1638	1658	1676	1694
58	1.32	178.64	923	1065	1165	1244	1307	1361	1408	1450	1486	1520	1550	1578	1604	1629	1651	1672	1692	1711	1729
57	1.37	185.40	942	1087	1190	1269	1334	1389	1437	1479	1517	1551	1582	1610	1637	1661	1684	1706	1727	1746	1764
56	1.42	192.17	962	1109	1213	1295	1361	1417	1465	1508	1546	1581	1613	1642	1669	1694	1717	1739	1760	1780	1798
55	1.47	198.94	981	1131	1237	1319	1387	1444	1493	1537	1576	1611	1643	1673	1700	1726	1749	1772	1793	1813	1832
54	1.52	205.70	999	1152	1260	1344	1412	1470	1520	1565	1604	1640	1673	1703	1731	1757	1781	1804	1825	1846	1865
53	1.58	213.82	1021	1177	1287	1373	1442	1502	1553	1598	1638	1675	1708	1739	1767	1794	1818	1842	1864	1884	1904
52	1.62	219.24	1036	1193	1305	1391	1462	1522	1574	1620	1660	1697	1731	1762	1791	1818	1843	1866	1889	1910	1929
51	1.68	227.36	1057	1217	1331	1419	1491	1552	1605	1652	1693	1731	1765	1797	1826	1853	1879	1903	1926	1947	1967
50	1.75	236.83	1082	1245	1361	1451	1525	1587	1641	1688	1731	1769	1804	1837	1866	1894	1920	1945	1968	1990	2010
49	1.83	247.66	1109	1276	1395	1487	1562	1626	1681	1729	1773	1812	1848	1881	1912	1940	1967	1992	2015	2038	2059
48	1.91	258.48	1136	1306	1428	1522	1599	1664	1720	1769	1814	1854	1891	1924	1956	1985	2012	2037	2062	2084	2106
47	1.98	267.96	1158	1332	1456	1552	1630	1696	1753	1804	1849	1890	1927	1962	1993	2023	2051	2077	2101	2124	2147
46	2.08	281.49	1191	1369	1495	1594	1674	1741	1800	1852	1898	1940	1979	2014	2046	2077	2105	2132	2157	2181	2203
45	2.19	296.38	1225	1408	1538	1638	1721	1790	1851	1904	1951	1994	2034	2070	2103	2134	2163	2191	2216	2241	2264
44	2.29	309.91	1255	1443	1575	1678	1762	1834	1895	1950	1998	2042	2082	2119	2153	2185	2215	2243	2269	2294	2318
43	2.39	323.44	1285	1476	1612	1717	1803	1876	1939	1994	2044	2089	2130	2168	2203	2235	2266	2294	2321	2347	2371
42	2.49	336.98	1315	1510	1648	1755	1843	1917	1982	2038	2089	2135	2177	2215	2251	2284	2315	2344	2372	2398	2423
41	2.62	354.57	1352	1552	1694	1804	1894	1970	2036	2094	2146	2193	2236	2276	2312	2346	2378	2408	2436	2463	2488
40	2.74	370.81	1385	1590	1735	1848	1940	2018	2085	2144	2198	2246	2290	2330	2367	2402	2435	2465	2494	2522	2547
39	2.90	392.46	1429	1639	1789	1905	1999	2079	2149	2210	2264	2314	2359	2401	2439	2475	2509	2540	2570	2598	2624
38	3.05	412.76	1468	1684	1838	1956	2054	2136	2207	2269	2326	2376	2423	2465	2505	2542	2576	2608	2639	2667	2695
37	3.20	433.06	1507	1728	1885	2007	2106	2191	2263	2328	2385	2437	2485	2528	2569	2606	2642	2675	2706	2735	2763
36	3.40	460.13	1557	1785	1947	2073	2175	2262	2337	2403	2462	2516	2565	2610	2652	2690	2727	2761	2793	2823	2852