



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart APE Model D138-42

The energy output is based on the identical Piston/Travel calculations utilized in the *Pile Driving Analyzer* and the *Saximeter*.

The pile bearing chart is based on the Engineering News formula for pile bearing and is provided for the user's convenience only.

$$\text{Pile Bearing (tons)} = 2E / (S + .1) / 2000, \text{ where } E = \text{Hammer energy (ft-lbs)} \text{ and } S = \text{Pile set (inches per blow)}$$

Ram Weight(lbs): 30,429

APE has no preference for these particular formulas and calculations over any other.

Blows per Minute	Stroke (feet)	Energy (ft-lbs)	Pile Set (Blows per inch)																		
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
60	4.00	121,716	203	281	348	406	456	501	541	577	609	638	664	688	710	730	749	766	782	797	811
59	4.17	126,889	211	293	363	423	476	522	564	601	634	665	692	717	740	761	781	799	816	831	846
58	4.33	131,758	220	304	376	439	494	543	586	624	659	690	719	745	769	791	811	830	847	863	878
57	4.50	136,931	228	316	391	456	513	564	609	649	685	717	747	774	799	822	843	862	880	897	913
56	4.67	142,103	237	328	406	474	533	585	632	673	711	744	775	803	829	853	874	895	914	931	947
55	4.83	146,972	245	339	420	490	551	605	653	696	735	770	802	831	857	882	904	925	945	963	980
54	5.00	152,145	254	351	435	507	571	626	676	721	761	797	830	860	888	913	936	958	978	997	1014
53	5.17	157,318	262	363	449	524	590	648	699	745	787	824	858	889	918	944	968	991	1011	1031	1049
52	5.33	162,187	270	374	463	541	608	668	721	768	811	850	885	917	946	973	998	1021	1043	1063	1081
51	5.50	167,360	279	386	478	558	628	689	744	793	837	877	913	946	976	1004	1030	1054	1076	1096	1116
50	5.75	174,967	292	404	500	583	656	720	778	829	875	916	954	989	1021	1050	1077	1102	1125	1146	1166
49	6.00	182,574	304	421	522	609	685	752	811	865	913	956	996	1032	1065	1095	1124	1150	1174	1196	1217
48	6.25	190,181	317	439	543	634	713	783	845	901	951	996	1037	1075	1109	1141	1170	1197	1223	1246	1268
47	6.50	197,789	330	456	565	659	742	814	879	937	989	1036	1079	1118	1154	1187	1217	1245	1271	1296	1319
46	6.83	207,830	346	480	594	693	779	856	924	984	1039	1089	1134	1175	1212	1247	1279	1309	1336	1362	1386
45	7.17	218,176	364	503	623	727	818	898	970	1033	1091	1143	1190	1233	1273	1309	1343	1374	1403	1429	1455
44	7.50	228,218	380	527	652	761	856	940	1014	1081	1141	1195	1245	1290	1331	1369	1404	1437	1467	1495	1521
43	7.83	238,259	397	550	681	794	893	981	1059	1129	1191	1248	1300	1347	1390	1430	1466	1500	1532	1561	1588
42	8.17	248,605	414	574	710	829	932	1024	1105	1178	1243	1302	1356	1405	1450	1492	1530	1565	1598	1629	1657
41	8.58	261,081	435	602	746	870	979	1075	1160	1237	1305	1368	1424	1476	1523	1566	1607	1644	1678	1711	1741
40	9.00	273,861	456	632	782	913	1027	1128	1217	1297	1369	1435	1494	1548	1598	1643	1685	1724	1761	1794	1826
39	9.50	289,076	482	667	826	964	1084	1190	1285	1369	1445	1514	1577	1634	1686	1734	1779	1820	1858	1894	1927
38	10.00	304,290	507	702	869	1014	1141	1253	1352	1441	1521	1594	1660	1720	1775	1826	1873	1916	1956	1994	2029
37	10.50	319,505	533	737	913	1065	1198	1316	1420	1513	1598	1674	1743	1806	1864	1917	1966	2012	2054	2093	2130
36	11.17	339,892	566	784	971	1133	1275	1400	1511	1610	1699	1780	1854	1921	1983	2039	2092	2140	2185	2227	2266
35	11.25	342,326	571	790	978	1141	1284	1410	1521	1622	1712	1793	1867	1935	1997	2054	2107	2155	2201	2243	2282