



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D16-42 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.

$$\text{Pile Bearing (tons)} = ((1.75 * \text{SQRT "E" LOG10} * 10N) - 100) / 2000$$

E = Developed Energy and N = Number of Blows Per Inch

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

Ram Weight (lbs): 3,528

Blows (per minute)	Stroke (ft)	Energy (ft-lbs)	Pile Set (Blows per inch) *Measured in Tons																		
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
60	4.00	14,112	85	104	117	127	135	142	148	153	158	162	166	170	173	176	179	182	184	187	189
59	4.17	14,712	88	107	120	130	139	146	152	157	162	167	171	174	178	181	184	187	189	192	194
58	4.33	15,276	91	110	123	134	142	150	156	161	166	171	175	179	182	185	188	191	194	196	199
57	4.50	15,876	93	113	127	137	146	153	160	165	171	175	179	183	187	190	193	196	199	201	204
56	4.67	16,476	96	116	130	141	150	157	164	169	175	179	184	187	191	194	198	201	203	206	208
55	4.83	17,040	99	119	133	144	153	161	167	173	178	183	187	191	195	199	202	205	208	210	213
54	5.00	17,640	101	122	136	147	157	164	171	177	182	187	192	196	199	203	206	209	212	215	217
53	5.17	18,240	104	125	139	151	160	168	175	181	186	191	196	200	204	207	210	214	217	219	222
52	5.33	18,804	106	127	142	154	163	171	178	184	190	195	199	204	208	211	214	218	221	223	226
51	5.50	19,404	109	130	145	157	167	175	182	188	194	199	203	208	212	215	219	222	225	228	230
50	5.75	20,286	112	134	150	162	172	180	187	194	199	204	209	213	217	221	225	228	231	234	237
49	6.00	21,168	116	138	154	166	176	185	192	199	205	210	215	219	223	227	231	234	237	240	243
48	6.25	22,050	119	142	158	171	181	190	197	204	210	215	220	225	229	233	236	240	243	246	249
47	6.50	22,932	122	146	162	175	186	194	202	209	215	220	225	230	234	238	242	246	249	252	255
46	6.83	24,096	127	151	168	181	192	201	208	215	222	227	232	237	241	246	249	253	256	260	263
45	7.17	25,296	131	156	173	186	197	207	215	222	228	234	239	244	249	253	257	260	264	267	270
44	7.50	26,460	135	160	178	192	203	213	221	228	235	241	246	251	255	260	264	267	271	274	278
43	7.83	27,624	139	165	183	197	209	218	227	234	241	247	252	257	262	266	271	274	278	281	285
42	8.17	28,824	143	169	188	202	214	224	233	240	247	253	259	264	269	273	277	281	285	289	292
41	8.58	30,270	148	175	194	209	221	231	240	248	254	261	267	272	277	281	286	290	293	297	300
40	9.00	31,752	153	180	200	215	227	238	247	255	262	268	274	280	285	289	294	298	302	305	309
39	9.50	33,516	158	187	207	222	235	246	255	263	270	277	283	289	294	299	303	307	311	315	319
38	10.00	35,280	164	193	213	229	242	253	263	271	279	286	292	297	303	308	312	317	321	325	328
37	10.50	37,044	169	199	220	236	249	261	270	279	287	294	300	306	311	316	321	326	330	334	338
36	11.17	39,408	176	207	228	245	259	270	281	289	297	305	311	317	323	328	333	337	342	346	350