



**(800) 248-8498**

## Diesel Hammer Energy Output and Pile Bearing Chart

### APE Model D12-42 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.  
 Pile Bearing (tons) =  $((1.75 * \text{SQRT "E" LOG}_{10} * 10N) - 100) / 2000$   
*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): 2,646

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	10,584	67	83	94	103	110	116	121	126	130	134	137	140	143	146	148	151	153	155	157
59	4.17	11,034	70	86	97	106	113	120	125	130	134	138	141	144	147	150	153	155	157	159	161
58	4.33	11,457	72	88	100	109	117	123	128	133	137	141	145	148	151	154	156	159	161	163	166
57	4.50	11,907	74	91	103	112	120	126	132	137	141	145	149	152	155	158	160	163	165	168	170
56	4.67	12,357	77	94	106	115	123	129	135	140	145	149	152	156	159	162	164	167	169	172	174
55	4.83	12,780	79	96	108	118	126	133	138	143	148	152	156	159	162	165	168	171	173	175	178
54	5.00	13,230	81	99	111	121	129	136	142	147	151	155	159	163	166	169	172	174	177	179	182
53	5.17	13,680	83	101	114	124	132	139	145	150	155	159	163	166	170	173	176	178	181	183	185
52	5.33	14,103	85	103	116	127	135	142	148	153	158	162	166	170	173	176	179	182	184	187	189
51	5.50	14,553	87	106	119	129	138	145	151	156	161	165	169	173	177	180	183	185	188	191	193
50	5.75	15,215	90	109	123	133	142	149	155	161	166	170	174	178	182	185	188	191	193	196	198
49	6.00	15,876	93	113	127	137	146	153	160	165	171	175	179	183	187	190	193	196	199	201	204
48	6.25	16,538	96	116	130	141	150	158	164	170	175	180	184	188	191	195	198	201	204	206	209
47	6.50	17,199	99	120	134	145	154	162	168	174	180	184	189	193	196	200	203	206	209	211	214
46	6.83	18,072	103	124	138	150	159	167	174	180	185	190	195	199	202	206	209	212	215	218	221
45	7.17	18,972	107	128	143	155	164	172	179	186	191	196	201	205	209	212	216	219	222	225	227
44	7.50	19,845	110	132	147	159	169	177	185	191	197	202	206	211	215	218	222	225	228	231	234
43	7.83	20,718	114	136	152	164	174	182	190	196	202	207	212	216	220	224	228	231	234	237	240
42	8.17	21,618	117	140	156	169	179	187	195	201	207	213	217	222	226	230	234	237	240	243	246
41	8.58	22,703	122	145	161	174	184	193	201	208	214	219	224	229	233	237	241	244	247	250	253
40	9.00	23,814	126	149	166	179	190	199	207	214	220	226	231	235	240	244	248	251	255	258	261
39	9.50	25,137	130	155	172	186	197	206	214	221	227	233	238	243	248	252	256	259	263	266	269
38	10.00	26,460	135	160	178	192	203	213	221	228	235	241	246	251	255	260	264	267	271	274	278
37	10.50	27,783	140	165	184	198	209	219	228	235	242	248	253	258	263	267	271	275	279	282	286
36	11.17	29,556	146	172	191	206	217	228	236	244	251	257	263	268	273	277	282	286	289	293	296