



(800) 248-8498

## Diesel Hammer Energy Output and Pile Bearing Chart

### APE Model D25-52 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.

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

*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): 5,513

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	22,052	119	142	158	171	181	190	197	204	210	215	220	225	229	233	236	240	243	246	249
59	4.17	22,989	123	146	163	175	186	195	202	209	215	221	226	230	235	239	242	246	249	252	255
58	4.33	23,871	126	150	167	180	190	199	207	214	220	226	231	236	240	244	248	252	255	258	261
57	4.50	24,809	129	154	171	184	195	204	212	219	226	231	237	241	246	250	254	257	261	264	267
56	4.67	25,746	133	157	175	189	200	209	217	224	231	237	242	247	251	256	259	263	267	270	273
55	4.83	26,628	136	161	179	193	204	213	222	229	236	241	247	252	256	261	265	268	272	275	279
54	5.00	27,565	139	165	183	197	208	218	226	234	241	247	252	257	262	266	270	274	278	281	284
53	5.17	28,502	142	168	187	201	213	223	231	239	245	252	257	262	267	271	276	279	283	287	290
52	5.33	29,384	145	172	190	205	217	227	235	243	250	256	262	267	272	276	281	285	288	292	295
51	5.50	30,322	148	175	194	209	221	231	240	248	255	261	267	272	277	282	286	290	294	297	301
50	5.75	31,700	153	180	200	215	227	237	246	254	262	268	274	279	284	289	293	297	301	305	308
49	6.00	33,078	157	185	205	220	233	244	253	261	268	275	281	286	292	296	301	305	309	313	316
48	6.25	34,456	161	190	210	226	239	250	259	267	275	282	288	293	299	303	308	312	316	320	324
47	6.50	35,835	165	195	215	231	245	256	265	274	281	288	294	300	305	310	315	319	324	327	331
46	6.83	37,654	171	201	222	238	252	263	273	282	290	297	303	309	314	319	324	329	333	337	341
45	7.17	39,528	176	207	229	246	259	271	281	290	298	305	312	318	323	329	333	338	342	346	350
44	7.50	41,348	181	213	235	252	266	278	289	298	306	313	320	326	332	337	342	347	351	355	359
43	7.83	43,167	187	219	241	259	273	285	296	305	314	321	328	334	340	346	351	355	360	364	368
42	8.17	45,041	192	224	248	265	280	293	303	313	321	329	336	343	349	354	359	364	369	373	377
41	8.58	47,302	198	231	255	273	288	301	312	322	331	338	346	352	358	364	369	374	379	384	388
40	9.00	49,617	204	238	262	281	297	310	321	331	340	348	355	362	368	374	380	385	390	394	398
39	9.50	52,374	211	246	271	290	306	319	331	341	350	359	366	373	380	386	391	397	402	406	411
38	10.00	55,130	217	253	279	299	315	329	341	351	361	369	377	384	391	397	403	408	413	418	423
37	10.50	57,887	224	261	287	308	324	338	351	361	371	380	388	395	402	408	414	420	425	430	434
36	11.17	61,580	232	271	298	319	336	351	363	374	384	393	401	409	416	423	429	434	440	445	450