



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D30-52 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): 6,615

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	26,460	135	160	178	192	203	213	221	228	235	241	246	251	255	260	264	267	271	274	278
59	4.17	27,585	139	165	183	197	208	218	227	234	241	247	252	257	262	266	270	274	278	281	284
58	4.33	28,643	143	169	187	202	213	223	232	239	246	252	258	263	268	272	276	280	284	287	291
57	4.50	29,768	146	173	192	206	218	229	237	245	252	258	264	269	274	279	283	287	290	294	297
56	4.67	30,892	150	177	196	211	223	234	243	251	258	264	270	275	280	285	289	293	297	300	304
55	4.83	31,950	153	181	201	216	228	239	248	256	263	269	275	281	286	290	295	299	303	306	310
54	5.00	33,075	157	185	205	220	233	244	253	261	268	275	281	286	292	296	301	305	309	313	316
53	5.17	34,200	161	189	209	225	238	249	258	266	274	280	286	292	297	302	307	311	315	319	322
52	5.33	35,258	164	193	213	229	242	253	263	271	279	285	292	297	303	308	312	316	321	324	328
51	5.50	36,383	167	197	217	234	247	258	268	276	284	291	297	303	308	313	318	322	326	330	334
50	5.75	38,036	172	202	223	240	253	265	275	283	291	298	305	311	316	321	326	331	335	339	343
49	6.00	39,690	177	207	229	246	260	272	282	291	299	306	312	319	324	329	334	339	343	347	351
48	6.25	41,344	181	213	235	252	266	278	289	298	306	313	320	326	332	337	342	347	351	355	359
47	6.50	42,998	186	218	241	258	273	285	295	305	313	320	327	334	339	345	350	355	359	363	367
46	6.83	45,180	192	225	248	266	281	293	304	313	322	330	337	343	349	355	360	365	369	374	378
45	7.17	47,430	198	231	255	274	289	302	313	322	331	339	346	353	359	365	370	375	380	384	388
44	7.50	49,613	204	238	262	281	297	310	321	331	340	348	355	362	368	374	380	385	390	394	398
43	7.83	51,795	209	244	269	288	304	317	329	339	348	357	364	371	377	383	389	394	399	404	408
42	8.17	54,045	215	250	276	296	312	325	337	348	357	365	373	380	387	393	398	404	409	414	418
41	8.58	56,757	221	258	284	304	321	335	347	357	367	376	383	391	397	404	409	415	420	425	430
40	9.00	59,535	228	265	292	313	330	344	356	367	377	386	394	401	408	415	421	426	431	437	441
39	9.50	62,843	235	274	301	323	340	355	367	379	389	398	406	414	421	427	433	439	445	450	455
38	10.00	66,150	243	282	311	332	350	365	378	390	400	409	418	426	433	440	446	452	458	463	468
37	10.50	69,458	250	291	319	342	360	375	389	401	411	421	429	437	445	452	458	464	470	475	481
36	11.17	73,890	259	301	331	354	373	389	403	415	426	436	445	453	460	468	474	481	486	492	497