



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D62-42 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): 13,671

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	54,684	216	252	278	298	314	328	339	350	359	368	375	383	389	395	401	406	411	416	421
59	4.17	57,008	222	259	285	305	321	335	348	358	368	376	384	392	398	405	410	416	421	426	431
58	4.33	59,195	227	264	291	312	329	343	355	366	376	385	393	400	407	413	419	425	430	435	440
57	4.50	61,520	232	271	298	319	336	350	363	374	384	393	401	409	416	422	428	434	439	445	449
56	4.67	63,844	238	277	304	326	343	358	371	382	392	401	410	417	424	431	437	443	449	454	459
55	4.83	66,031	243	282	310	332	350	365	378	389	400	409	417	425	433	439	446	452	457	462	467
54	5.00	68,355	248	288	316	339	357	372	385	397	408	417	426	434	441	448	454	460	466	471	476
53	5.17	70,679	253	294	323	345	364	379	393	405	415	425	434	442	449	456	463	469	475	480	485
52	5.33	72,866	257	299	328	351	370	386	400	412	422	432	441	449	457	464	471	477	483	488	493
51	5.50	75,191	262	304	334	358	377	393	407	419	430	440	449	457	465	472	479	485	491	497	502
50	5.75	78,608	269	312	343	367	386	403	417	429	441	451	460	469	476	484	491	497	503	509	515
49	6.00	82,026	276	320	351	376	396	412	427	440	451	462	471	480	488	495	502	509	515	521	527
48	6.25	85,444	283	328	360	385	405	422	437	450	462	472	482	491	499	507	514	520	527	533	539
47	6.50	88,862	289	335	368	393	414	431	446	460	472	482	492	501	510	518	525	532	538	544	550
46	6.83	93,373	298	345	378	404	425	443	459	473	485	496	506	515	524	532	539	546	553	559	565
45	7.17	98,021	306	355	389	415	437	455	471	485	498	509	520	529	538	546	554	561	568	574	580
44	7.50	102,533	315	364	399	426	448	467	483	498	510	522	533	542	551	560	568	575	582	588	595
43	7.83	107,044	322	373	409	436	459	478	495	509	523	534	545	555	564	573	581	589	596	602	609
42	8.17	111,692	330	382	418	447	470	490	507	521	535	547	558	568	578	586	595	602	610	616	623
41	8.58	117,297	340	393	430	459	483	503	520	536	549	562	573	583	593	602	611	618	626	633	640
40	9.00	123,039	349	403	442	471	496	516	534	550	564	577	588	599	609	618	626	635	642	649	656
39	9.50	129,875	360	416	455	486	511	532	550	566	581	594	606	617	627	636	645	653	661	669	676
38	10.00	136,710	371	428	468	500	525	547	566	582	597	610	623	634	644	654	663	672	680	687	694
37	10.50	143,546	381	440	481	513	539	562	581	598	613	627	639	651	661	671	681	689	698	705	713
36	11.17	152,705	395	455	498	531	558	581	601	618	634	648	661	673	684	694	704	713	721	729	737