



(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D125-42 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): 27,563

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	110,252	328	379	415	444	467	486	503	518	531	543	554	564	574	582	590	598	605	612	619
59	4.17	114,938	336	388	425	454	477	497	515	530	543	556	567	577	587	596	604	612	619	626	633
58	4.33	119,348	343	397	434	464	488	508	525	541	555	567	579	589	599	608	616	624	632	639	646
57	4.50	124,034	351	405	444	474	498	519	536	552	566	579	591	601	611	621	629	637	645	652	659
56	4.67	128,719	358	414	453	483	508	529	547	563	578	591	603	614	624	633	642	650	658	665	672
55	4.83	133,129	365	422	461	492	518	539	558	574	589	602	614	625	635	645	654	662	670	678	685
54	5.00	137,815	373	430	470	502	528	549	568	585	600	613	625	637	647	657	666	675	683	690	697
53	5.17	142,501	380	438	479	511	537	559	579	595	611	624	637	648	659	669	678	687	695	703	710
52	5.33	146,911	386	445	487	520	546	569	588	605	621	635	647	659	670	680	689	698	706	714	722
51	5.50	151,597	393	453	496	529	556	579	598	616	631	645	658	670	681	691	701	710	718	726	734
50	5.75	158,487	403	465	508	542	569	593	613	631	647	661	674	686	698	708	718	727	736	744	752
49	6.00	165,378	413	476	520	555	583	607	627	645	662	676	690	702	714	724	734	744	753	761	769
48	6.25	172,269	422	486	532	567	596	620	641	660	676	691	705	718	729	740	750	760	769	778	786
47	6.50	179,160	432	497	543	579	609	633	655	674	691	706	720	733	745	756	766	776	785	794	802
46	6.83	188,255	444	511	558	595	625	650	673	692	709	725	739	753	765	776	787	797	806	815	824
45	7.17	197,627	456	525	573	611	642	668	690	710	728	744	759	772	785	796	807	818	827	836	845
44	7.50	206,723	468	538	587	626	657	684	707	727	746	762	777	791	804	816	827	837	847	857	865
43	7.83	215,818	479	550	601	641	673	700	724	744	763	780	795	809	822	835	846	857	867	876	885
42	8.17	225,190	490	563	615	655	688	716	740	761	780	798	813	828	841	854	865	876	886	896	905
41	8.58	236,491	504	579	632	673	707	735	760	782	801	819	835	850	863	876	888	899	910	920	929
40	9.00	248,067	517	594	648	690	725	754	779	802	822	840	856	871	885	898	911	922	933	943	953
39	9.50	261,849	533	611	667	711	746	776	802	825	845	864	881	897	911	924	937	949	960	970	980
38	10.00	275,630	548	629	686	730	767	798	824	848	869	888	905	921	936	950	963	975	986	997	1007
37	10.50	289,412	562	645	704	750	787	819	846	870	891	911	929	945	960	974	988	1000	1012	1023	1033
36	11.17	307,879	582	667	728	775	813	846	874	899	921	941	959	976	992	1007	1020	1033	1045	1056	1067