(800) 248-8498

Diesel Hammer Energy Output and Pile Bearing Chart

APE Model D8-42 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*SQRT "E" LOG10*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): 1,764

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	7,056	46	59	68	75	81	86	90	94	97	100	103	105	108	110	112	114	116	117	119
59	4.17	7,356	48	61	70	78	83	88	93	97	100	103	106	109	111	113	115	117	119	121	123
58	4.33	7,638	49	63	73	80	86	91	96	99	103	106	109	112	114	116	119	121	122	124	126
57	4.50	7,938	51	65	75	82	89	94	98	102	106	109	112	115	117	120	122	124	126	128	129
56	4.67	8,238	53	67	77	85	91	97	101	105	109	112	115	118	120	123	125	127	129	131	133
55	4.83	8,520	55	69	79	87	94	99	104	108	112	115	118	121	123	126	128	130	132	134	136
54	5.00	8,820	57	71	82	90	96	102	106	111	114	118	121	124	126	129	131	133	135	137	139
53	5.17	9,120	59	73	84	92	99	104	109	113	117	121	124	127	129	132	134	136	138	140	142
52	5.33	9,402	60	75	86	94	101	107	111	116	120	123	126	129	132	135	137	139	141	143	145
51	5.50	9,702	62	77	88	96	103	109	114	118	122	126	129	132	135	138	140	142	144	146	148
50	5.75	10,143	65	80	91	100	107	113	118	122	126	130	133	136	139	142	144	147	149	151	153
49	6.00	10,584	67	83	94	103	110	116	121	126	130	134	137	140	143	146	148	151	153	155	157
48	6.25	11,025	70	86	97	106	113	120	125	130	134	138	141	144	147	150	153	155	157	159	161
47	6.50	11,466	72	88	100	109	117	123	128	133	137	141	145	148	151	154	157	159	161	164	166
46	6.83	12,048	75	92	104	113	121	127	133	138	142	146	150	153	156	159	162	164	167	169	171
45	7.17	12,648	78	95	108	117	125	132	137	142	147	151	155	158	161	164	167	169	172	174	176
44	7.50	13,230	81	99	111	121	129	136	142	147	151	155	159	163	166	169	172	174	177	179	182
43	7.83	13,812	84	102	115	125	133	140	146	151	156	160	164	167	171	174	177	179	182	184	187
42	8.17	14,412	87	105	118	128	137	144	150	155	160	164	168	172	175	179	182	184	187	189	192
41	8.58	15,135	90	109	122	133	141	149	155	160	165	170	174	178	181	184	187	190	193	195	198
40	9.00	15,876	93	113	127	137	146	153	160	165	171	175	179	183	187	190	193	196	199	201	204
39	9.50	16,758	97	117	131	142	151	159	166	171	177	181	186	189	193	196	200	203	205	208	211
38	10.00	17,640	101	122	136	147	157	164	171	177	182	187	192	196	199	203	206	209	212	215	217
37	10.50	18,522	105	126	141	152	162	170	177	183	188	193	198	202	206	209	212	216	219	221	224
36	11.17	19,704	110	131	147	159	168	177	184	190	196	201	205	210	214	217	221	224	227	230	233