



**(800) 248-8498**

## Hammer Energy Output and Pile Bearing Chart APE Model 5-2 Hydraulic 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.

$$\text{Pile Bearing (tons)} = ((1.75 * \text{SQRT "E" LOG}_{10} 10N) - 100) / 2$$

*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): 10,000

Stroke (feet)	Energy (ft-lbs)	Pile Set (Blows per inch)																		
		<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
0.25	2,500	7	15	20	24	28	31	33	35	38	39	41	42	44	45	46	48	49	50	51
0.50	5,000	30	41	49	55	60	64	68	71	74	76	79	81	83	85	86	88	90	91	92
0.75	7,500	49	62	71	79	85	90	94	98	102	105	108	110	113	115	117	119	121	123	124
1.00	10,000	64	79	90	99	106	111	117	121	125	129	132	135	138	140	143	145	147	149	151
1.25	12,500	77	95	107	116	124	131	136	141	146	150	153	157	160	163	166	168	171	173	175
1.50	15,000	89	108	122	132	141	148	154	159	164	169	173	177	180	183	186	189	192	194	197
1.75	17,500	101	121	135	147	156	164	170	176	182	186	191	195	198	202	205	208	211	214	216
2.00	20,000	111	133	148	160	170	178	185	192	197	203	207	212	216	219	223	226	229	232	235

**Refusal for APE Hydraulic Impact Hammers is 10 blows per inch Maximum**