



(800) 248-8498

Ram Weight(lbs): 16,000

Hammer Energy Output and Pile Bearing Chart APE Model 8-3 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.

| Stroke (feet) | Energy (ft-lbs) | Pile Set (Blows per inch) | | | | | | | | | | | | | | | | | | |
|------------------|--------------------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 0.25 | 4,000 | 22 | 32 | 39 | 44 | 48 | 52 | 55 | 58 | 61 | 63 | 65 | 67 | 69 | 70 | 72 | 73 | 75 | 76 | 77 |
| 0.50 | 8,000 | 52 | 66 | 75 | 83 | 89 | 94 | 99 | 103 | 107 | 110 | 113 | 115 | 118 | 120 | 122 | 125 | 127 | 128 | 130 |
| 0.75 | 12,000 | 75 | 92 | 104 | 113 | 120 | 127 | 132 | 137 | 142 | 146 | 149 | 153 | 156 | 159 | 161 | 164 | 166 | 168 | 171 |
| 1.00 | 16,000 | 94 | 113 | 127 | 138 | 147 | 154 | 161 | 166 | 171 | 176 | 180 | 184 | 188 | 191 | 194 | 197 | 200 | 202 | 205 |
| 1.25 | 20,000 | 111 | 133 | 148 | 160 | 170 | 178 | 185 | 192 | 197 | 203 | 207 | 212 | 216 | 219 | 223 | 226 | 229 | 232 | 235 |
| 1.50 | 24,000 | 126 | 150 | 167 | 180 | 191 | 200 | 208 | 215 | 221 | 227 | 232 | 237 | 241 | 245 | 249 | 252 | 256 | 259 | 262 |
| 1.75 | 28,000 | 140 | 166 | 185 | 199 | 210 | 220 | 229 | 236 | 243 | 249 | 254 | 260 | 264 | 269 | 273 | 277 | 280 | 284 | 287 |
| 2.00 | 32,000 | 154 | 181 | 201 | 216 | 228 | 239 | 248 | 256 | 263 | 270 | 275 | 281 | 286 | 291 | 295 | 299 | 303 | 307 | 310 |
| 2.25 | 36,000 | 166 | 195 | 216 | 232 | 245 | 256 | 266 | 274 | 282 | 289 | 295 | 301 | 306 | 311 | 316 | 320 | 324 | 328 | 332 |
| 2.50 | 40,000 | 178 | 208 | 230 | 247 | 261 | 273 | 283 | 292 | 300 | 307 | 314 | 320 | 326 | 331 | 336 | 340 | 345 | 349 | 353 |
| 2.75 | 44,000 | 189 | 221 | 244 | 262 | 276 | 289 | 299 | 309 | 317 | 325 | 332 | 338 | 344 | 349 | 355 | 359 | 364 | 368 | 372 |
| 3.00 | 48,000 | 199 | 233 | 257 | 276 | 291 | 304 | 315 | 325 | 333 | 341 | 349 | 355 | 361 | 367 | 373 | 378 | 382 | 387 | 391 |

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