

Amplitude

$$A = \frac{2 \times Mt}{Mv}$$

Mv

Mt = Eccentric Moment in inch pounds

Mv = Total Vibrating Weight

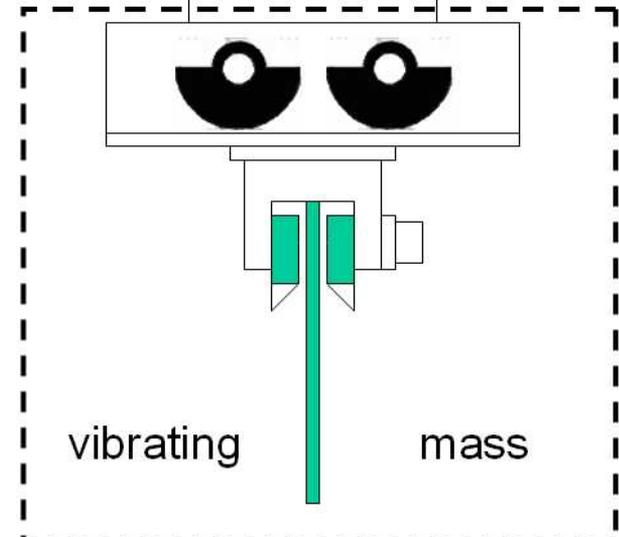
A = Amplitude in inches

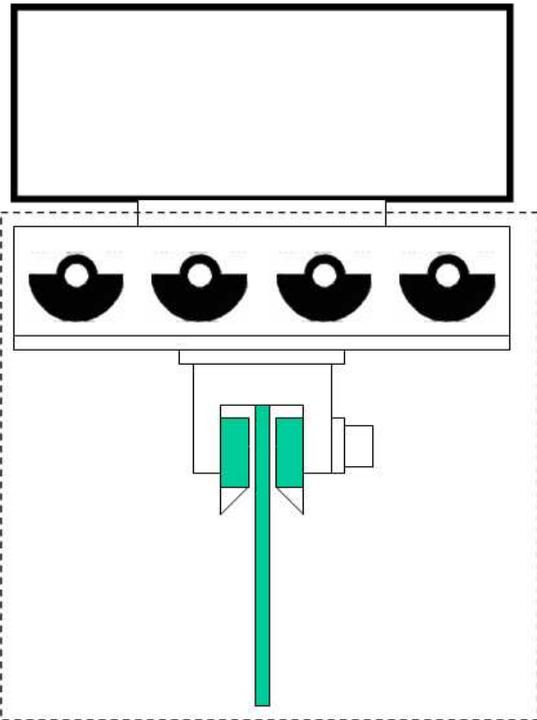
Vibrating weight: Mv

The vibrating weight is the sum of all the weights of the vibrating mass.

- B: Gear Box (vibrating mass)
- C: Clamping device including all plates or clamps
- D: Pile weight

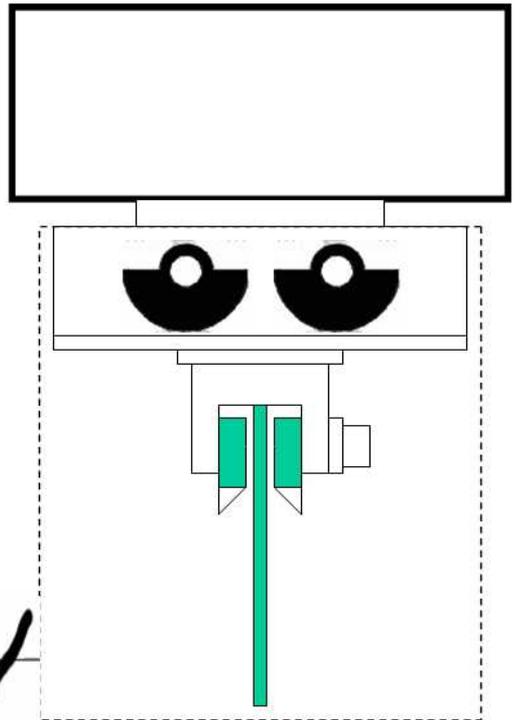
Suppressor does not vibrate.
Non-vibrating mass.





Amplitude

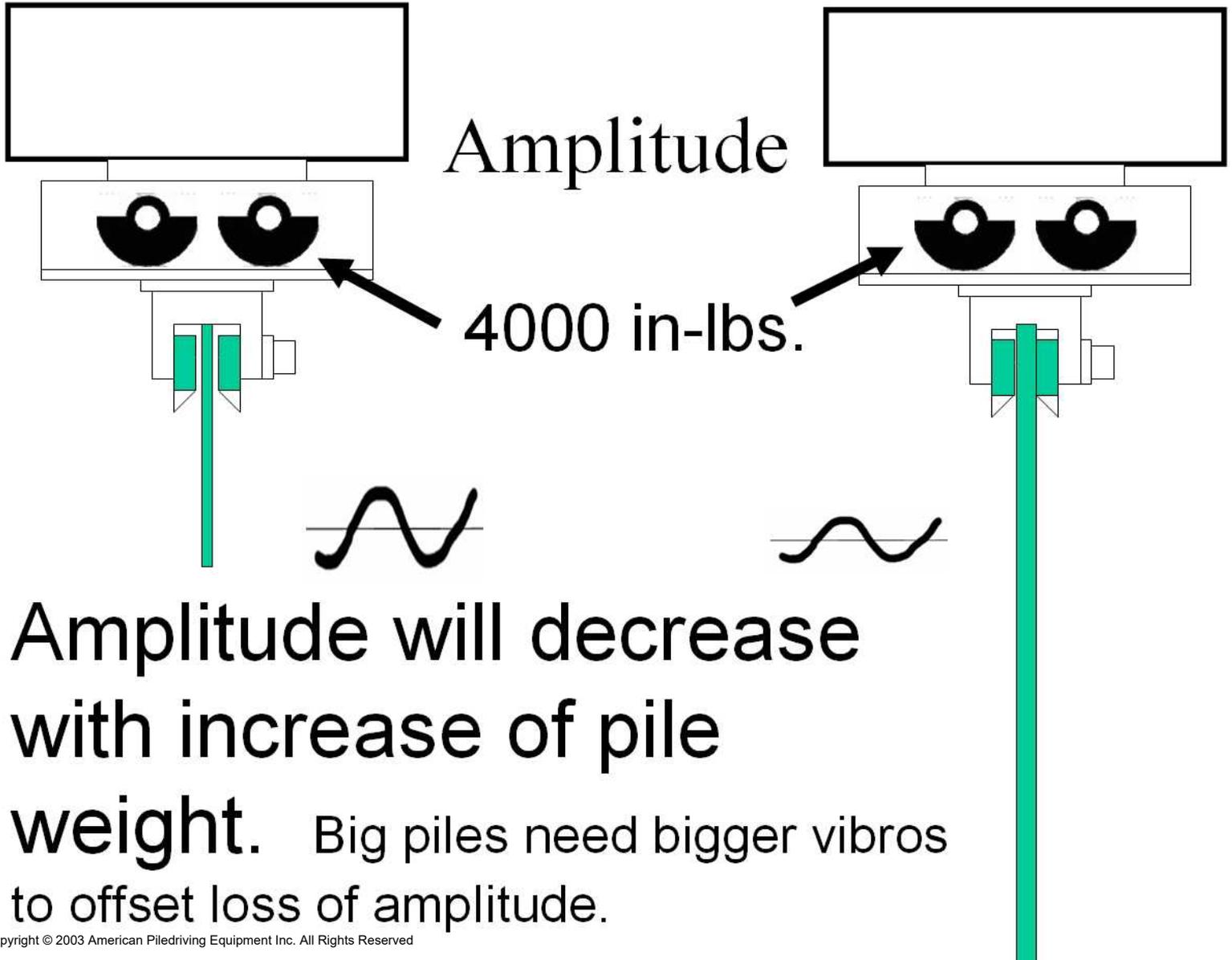
4000 in-lb.



Vibrating mass: 6500 lb

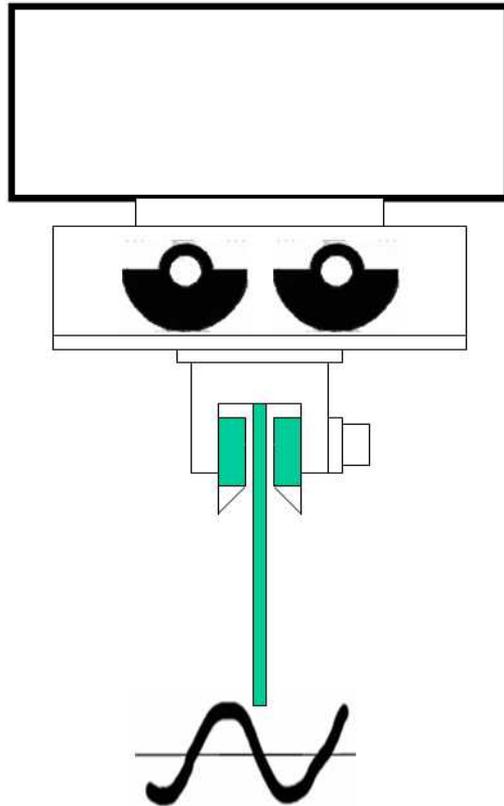
Vibrating mass: 5000 lb

The hammer on the left has the same eccentric moment but less amplitude because the vibrating mass is heavier.



Amplitude

Amplitude will decrease with increase of:



- Pile weight
- Soil resistance
- Weights, gears, shafts, hoses, motors
- Extra clamp attachments
- Anything that increases vibrating mass.

$$\text{Amplitude} = \frac{2 \times \text{EM}}{\text{VM}}$$

EM: Eccentric Moment

VM: Vibrating Mass