

Train Wt. = 385 tons = 770,000 lb.

" Speed = 6 mph = 8.8 fps

$$E_k = \frac{WV^2}{2g} = \frac{770,000(8.8)^2}{2(32.2)} = 925,913 \text{ ft-lb} \approx 926,000 \text{ ft-lb}$$

A 1,000,000 ft-lb Hyd. Cyl. has a max. resistive force of 400,000 lb. and a 30" stroke

Approx. Deceleration using the above Cylinder:

$$a = \frac{g E_k}{W S} = \frac{32.16(926,000)}{770,000(2.5)} = -15.47 \text{ fps} = 0.48 g's$$