

Homework 15

Mechanical work

Problems:

1. Find the minimal work which is necessary:
 - A) to accelerate a 800 ton train from 36 km/h to 54 km/h
 - B) to stop the train having the velocity of 72km/h
2. Compare the work done by the car's engine to accelerate the car from 0 km/h to 27 km/h with the work which is necessary to accelerate the car from 27 km/h to 54 km/h.
3. A 1000kg elevator is being pulled up wit a constant acceleration. The elevator passed a 1m distance with an average velocity of 5 m/s. After it passed the 1m distance its velocity was increased by 0.5 m/s. What was the work done by the pulling force at this 1m path?