

Question 24637

$$m=12000 \text{ kg}, v_2=20 \text{ m/s}, v_1=16 \text{ m/s}$$

Work done on the car is the difference of kinetic energies, when car had final and initial velocity. $A=-(T_2-T_1)=\frac{-m}{2}(v_2^2-v_1^2)=-86400 \text{ J}$ (we obtain negative sign, because work was done on car). So, the work done on car is 86400 J .