Actividad nº 10. pag 19. (TI).

Datos

$P = 16\ CV$

$m = 500\ kg$

$h = 20\ m$

$t = 25\ s$

$\eta = ?$

$$16\ \cancel{CV} \cdot \frac{735\ W}{1\ \cancel{CV}} = 11.760\ W \Rightarrow P_{suministrada}$$

la potencia útil vendrá dada por la E_p

$$W = E_p = mgh = 500 \cdot 9'8 \cdot 20 = 98.000\ J$$

$$P_{útil} = \frac{W}{t} = \frac{E_p}{t} = \frac{98000}{25} = 3920\ W$$

P_{sum} (11.760 W) → [$\eta = ?$] → $P_{útil}$ (3920 W)

$$\eta = \frac{P_{útil}}{P_{sum}} \cdot 100 = \frac{3920}{11760} \cdot 100 = 33'33\ \%$$