

FORMULEBLAD VIR MEGANIESE TEGNOLOGIE (MOTORKUNDE)

$$\text{Krag} = m \times a \quad \text{waar } m = \text{massa}$$

$$a = \text{versnelling}$$

$$\text{Arbeid} = \text{krag} \times \text{afstand} (F \times d)$$

$$\text{Drywing} = \frac{\text{krag} \times \text{afstand}}{\text{tyd}}$$

$$\text{Wringkrag} = \text{krag} \times \text{radius}$$

$$\text{Indikateursdrywing} = P \times L \times A \times N \times n$$

$$\text{waar } P = \text{gemiddelde effektiewe druk}$$

$$L = \text{slaglengte}$$

$$A = \text{area van suierkroon}$$

$$N = \text{aantal kragslae per sekonde}$$

$$n = \text{aantal silinders}$$

$$\text{Remdrywing} = 2 \pi N \times T$$

$$\text{waar } N = \text{omwentelinge per sekonde}$$

$$T = \text{wringkrag}$$

$$\text{Remdrywing (Prony - rem)} = F \times 2 \times \pi \times R \times N$$

$$\text{waar } F = \text{krag}$$

$$R = \text{remarm lengte}$$

$$N = \text{revolusies/omwentelinge per sekonde}$$

$$\text{Meganiese doeltreffendheid} = \frac{\text{remdrywing}}{\text{indikateursdrywing}} \times 100$$

$$\text{Kompressieverhouding} = \frac{\text{slagvolume} + \text{vry volume}}{\text{vry volume}}$$

$$\text{waar slagvolume} = \frac{\pi \times D^2}{4} \times L$$

$$\text{vry volume} = \frac{\pi \times D^2}{4} \times l$$

$$\text{waar } L = \text{slaglengte}$$

$$\text{waar } D = \text{boordiameter}$$

$$D = \text{boordiameter}$$

$$l = \text{vry lengte}$$

$$\text{Ratverhouding} = \frac{\text{produk van die aantal tande op die gedrewe ratte}}{\text{produk van die aantal tande op die dryfratte}}$$