

FORMULEBLAD VIR MEGANIESE TEGNOLOGIE: MOTORKUNDE

1. $F = m \times a$

Waar:

$m = \text{Massa}$

$a = \text{Versnelling}$

2. $\text{Arbeid verrig} = \text{Krag} \times \text{Verplasing}$ *OF* $W = F \times s$

3. $\text{Drywing} = \frac{\text{Krag} \times \text{Verplasing}}{\text{Tyd}}$ *OF* $P = \frac{F \times s}{t}$

4. $\text{Wringkrag} = \text{Krag} \times \text{Radius}$ *OF* $T = F \times r$

5. $AD = P \times L \times A \times N \times n$

Waar:

$AD = \text{Aangeduide drywing}$

$P = \text{Gemiddelde effektiewe druk}$

$L = \text{Slaglengte}$

$A = \text{Area van suier}$

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

$n = \text{Aantal silinders}$

6. $RD = 2\pi NT$

Waar:

$RD = \text{Remdrywing}$

$N = \text{Omwentelinge per sekonde}$

$T = \text{Wringkrag}$

7. $\text{Remdrywing met Pronyrem} = 2 \times \pi \times N \times F \times R$

Waar:

$RD = \text{Remdrywing}$

$N = \text{Omwentelinge per sekonde}$

$F = \text{Krag}$

$R = \text{Remarmlengte}$

$$8. \quad \text{Meganiese doeltreffendheid} = \frac{RD}{AD} \times 100\%$$

$$9. \quad \text{Kompressieverhouding} = \frac{SV + VV}{VV}$$

Waar:

$SV = \text{Slagvolume}$

$VV = \text{Vry volume}$

$$10. \quad SV = \frac{\pi D^2}{4} \times L$$

Waar:

$D = \text{Boordiameter}$

$L = \text{Slaglengte}$

$$11. \quad VV = \frac{SV}{KV-1}$$

$$12. \quad \text{Ratverhouding} = \frac{\text{Produk van tande op gedrewe ratte}}{\text{Produk van tande op dryfratte}}$$