$$I = ET + \Delta S - P$$

$$\Delta S = \theta E - \theta B$$

$$I = ET + D + \theta E - \theta B + R - P$$

$$I = ET + \Delta S - P$$

$Y = -4941 + 35.83(AW) - 0.0195(AW)^2$

$B = 8.2 + 16.4\ (I) - 0.4\ (I)^2$

$C = -5.2 + 19.5\ (I) - 1.2\ (I)^2 + 0.03\ (I)^3$

$$E_c = 100\frac{W_f}{W_r}$$

$$E_a = 100\frac{W_s}{W_f}$$

$W_f = W_s + R_f + D_f$

$$E_a = 100\frac{W_f - (R_f + D_f)}{W_f}$$

$$E_u = 100\frac{W_u}{W_d}$$

$$E_s = 100\frac{W_s}{W_n}$$

$$E_{cu} = 100\frac{W_{cu}}{W_d}$$

$$E_d = 100\left(1 - \frac{y}{d}\right)$$

$E = 0.0018\ (t + 25)^2\ (100 - f)$

$E = 0.35\ (e_s - e_a)(1+0.00984\ U_2)$

$$Q_E = \frac{E \times (b + 2Zd) \times L}{t}$$

$$\Delta Q = \frac{1}{200}(B + D)^{\frac{2}{3}}$$

$$\overline{\Delta Q} = 1.9\,Q^{\frac{2}{3}}$$

$Q = C.L.P.R^{0.5}$

$$Q_s = 11.6 \times C\sqrt{A}$$

$$Q_s = 0.012\sqrt{QL}$$

$$Q_s = C \cdot L \cdot P\sqrt{R}$$

$Q_{s\ s} = 1.9\ Q^{1/16}$

$Q = K\ (B + 2d)$

$$T_o = \frac{3(B + 2d)}{2}$$

$2\ x = q/k$

$Q = K\ (B + Ad)$

$2x = B + Ad$

$$V = \left[\frac{23 + \frac{0.00155}{S} + \frac{1}{n}}{\left(23 + \frac{0.00155}{S}\right)\frac{n}{\sqrt{R}} + 1}\right] \cdot \sqrt{RS}$$

$$V = C\sqrt{R_h S}$$

$$V = \frac{1}{n} R^{\frac{2}{3}} \cdot S^{\frac{1}{2}}$$

$V_o = K.d^{0.64}$

$V_o = 0.55\ m\ d^{0.64}$

$$m = \frac{V}{V_o}$$

$$V_o = \frac{1}{n} R^{\frac{3}{4}} S^{\frac{1}{2}}$$

$n = 0.0225\ f^{1/4}$

$V_o = 0.567\ D^{0.57}$

$V_o = 0.274\ b^{0.35}$

$$D = \left\{ F \left[\frac{-1 + \frac{10.905}{N_R^{0.9} \times \Phi(D)} + 2.5 \ln \Phi(\mathrm{D})}{(\ln \Phi(\mathrm{D}))^3} \right] \right\}^{\frac{1}{7}}$$

$$b = 2d \tan \frac{\theta}{2}$$

$$\left[\frac{m \cdot R_1 + p \cdot R_2}{\frac{C}{Y} + \frac{C}{2} \times \frac{r}{100}} \right] = \text{BCR}$$

$$\Phi(D) = \frac{\varepsilon}{3.7D} + \frac{5.74}{N_R^{0.9}}$$

$H_p = \sum h_L + S_o L$

$Hp = \sum h_L - S_o L$

$$h_f = f \frac{L}{D} \cdot \frac{v^2}{2g}$$

$$f = \frac{1.325}{\left[\ln \left(\frac{\varepsilon}{3.7D} + \frac{5.74}{(N_R)^{0.9}} \right) \right]^2}$$

$$A = \left\{ 2.457 \ln \left[\frac{1}{\left(\frac{7}{\mathrm{N_R}} \right)^{0.9} + 0.27 \left(\frac{\varepsilon}{D} \right)} \right] \right\}^{16}$$

$b = 7.8\ D^{1+61}$

$$B = \left(\frac{37530}{N_R} \right)^{16}$$

$$F = \frac{10.6 \times C_2 \times \gamma \times Q^3}{-g \cdot C \cdot E \cdot C_1 \cdot \gamma_p \cdot \pi^3}$$

$H_p = \sum h_L$

$h_L = h_f + h_s$

$$N_R = \frac{vD}{\upsilon}$$

$$f = 8 \left[\left(\frac{8}{N_R} \right)^{12} + \frac{1}{(A+B)^{1.5}} \right]^{\frac{1}{12}}$$