



LATENT HEAT LOSSES (approximation)

$$P = \left(\frac{\%CO}{\%CO_2 + \%CO} \right) \frac{A}{B} (23780)$$

P = loss in %

A = % of carbon by weight in fuel

B = Nett calorific value of fuel in kJ/kg

This formula can be further simplified
value for $\frac{A}{B} (23780)$

| | A in % | B in kJ/kg. | A/B (23780) |
|-------------------|--------|-------------|-------------|
| Heavy fuel oil | 86 | 40 200 | 50.88 |
| Light fuel oil | 86 | 42 700 | 47.89 |
| Dutch natural Gas | 57 | 38 260 | 35.41 |
| Coke-oven Gas | 35.3 | 35 660 | 23.53 |
| Coal | 85 | 29 300 | 68.97 |

Example : combustion of heavy fuel oil with 1 % CO and 13 % CO₂

$$p = \left(\frac{1}{13+1} \right) 50.88 = 3.63 \% \text{ loss.}$$