

COMPARISON WORK, POWER AND KINETIC ENERGY OF THE CCS TURBINE

Situation A



T

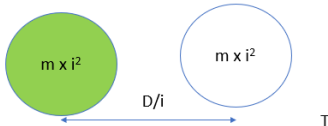
if a mass m covers a distance D in a window of time T we have

$$\text{Work} = m \times g \times D$$

$$\text{Power} = m \times g \times D / T$$

$$\text{Kinetic energy} = \frac{1}{2} m \times (D/T)^2$$

Situation B



T

If a mass $m \times i^2$ covers a distance D/i in a time T equal to the situation A..... we have

$$\text{Work} = m \times i^2 \times g \times D/i$$

$$\text{Power} = m \times i^2 \times g \times D/i / T$$

$$\text{Kinetic energy} = \frac{1}{2} m \times i^2 \times (D/i / T)^2$$

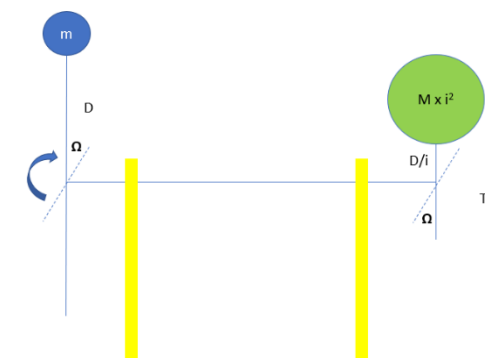
We now proceed to couple the SITUATION A to the SITUATION B

SITUATION A (thrust - input) coupled to the SITUATION B (power supply – output)

Basically the PERFECTED CCS TURBINE where the kinetic energy of the SITUATION A is the same as the SITUATION B

SITUATION A THRUST

SITUATION B SUPPLY



$$\text{KINETIC ENERGY A} = \text{KINETIC ENERGY B}$$

$$\frac{1}{2} m \times (D \times \Omega / T)^2 = \frac{1}{2} m \times i^2 \times (D/i \times \Omega / T)^2$$

POWER SITUATION A

$$m \times g \times D \times \Omega / T$$

POWER SITUATION B

$$m \times i^2 \times g \times D/i \times \Omega / T$$

$$\text{POWER SITUATION B} = m \times g \times D \times \Omega / T \times i$$

$$\text{POWER SITUATION B} = \text{POWER SITUATION A} \times i$$

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