

UVOD U GONILA

VRSTE GONIL : VIJAČNA

TORNA ✓

JERMENSKA ✓

VERIŽNA ✓

ZOBNIŠKA ✓

DELITEU GONIL GLEDE NA PRESTAVNO RAZMERJE

$$i = \frac{\omega_1 - \text{VHODNA \u017cotNA HITROST}}{\omega_2 - \text{IZHODNA \u017cotNA HITROST}}$$

$i = 1$ NEPOSREDEN PRENOS GIBANJA

$i > 1$ REDUKTOR

$i < 1$ MULTIPLIKATOR

DELITEV GONIL GLEDE NA IZHODNO ŽOTNO HITROST

$\omega_2 = \text{const}$ REDUKTOR, MULTIPLIKATOR

ω_2 SE SPREMINJA MENJALNIK
STOPENJSKO

ω_2 SE SPREMINJA VARIATOR
ŽUJEČNO

DELITEV GONIL GLEDE NA ŠTEVILO STOPENJ

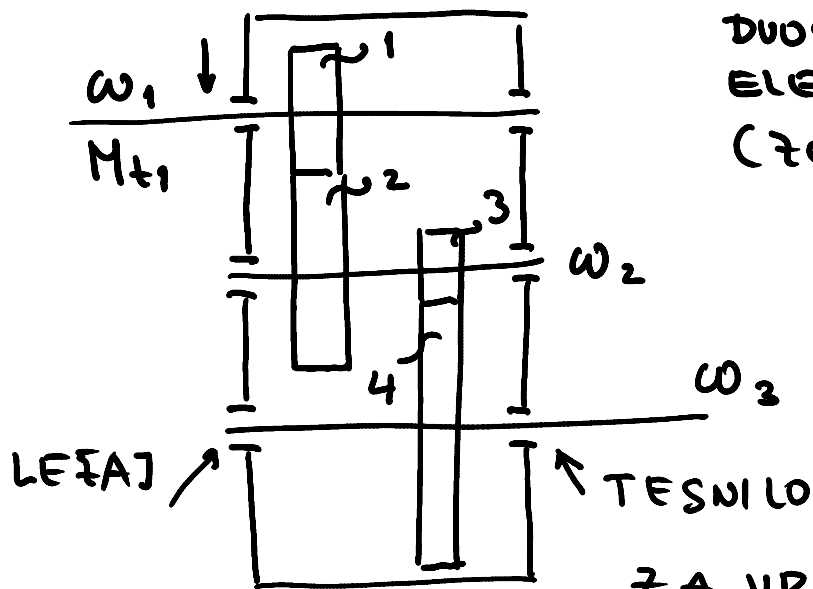
ENOSTOPENJSKA

VEČSTOPENJSKA

OBSTAJAJU SE DRUGE DELITVE GONIL

TESNILO

MOČI IN MOMENTI TER ĆOTNE HITROSTI



DVUSTOPENJSKO GONILO
ELEMENT ZA TRANSFORMACIJO
(ĖOBNIK, TORNO ĆOLO)

$$M_{t1} = M_{ps}$$

$$P_1 = M_{t1} \omega_1 = P_{ps}$$

$$M_{t1} = \frac{P_{ps}}{\omega_1}$$

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MOĖ POGONSKEGA
STROJA

$$P_2 = P_1 \eta_L^2 \eta_{12} \eta_T = M_{t2} \cdot \omega_2$$

ĖA VREDNOTENJE ĖREPI 1(i)JE
MERODAJEN $M_{t1}(i)$

$$M_{t2} \cdot \omega_2 = M_{t1} \cdot \omega_1 \eta_L^2 \eta_{12} \eta_T$$

$$M_{t2} = M_{t1} \frac{\omega_1}{\omega_2} \eta_L^2 \eta_{12} \eta_T$$

$$\frac{\omega_1}{\omega_2} = i_{12}$$

$$P_3 = P_2 \eta_L^2 \eta_{34}$$

$$M_{t3} \omega_3 = M_{t2} \omega_2 \eta_L^2 \eta_{34}$$

$$M_{t3} = M_{t2} \cdot \frac{\omega_2}{\omega_3} \eta_L^2 \eta_{34} \quad \blacksquare$$

$$i_{34} = \frac{\omega_2}{\omega_3}$$

$$P_{Ds} = P_3 \eta_L^2 \eta_T$$

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DELOVNI
STROJ

$$i_{12} \cdot i_{34} = i = \frac{\omega_1}{\omega_3} \quad \blacksquare$$

CELOTNO
PRESTAVNO
ZATMERJE

$$P_{Ds} = P_{Ps} \underbrace{\eta_L^6 \eta_{12} \eta_{34} \eta_T^2}_{\eta} \quad \blacksquare$$

η CELOTNI IZPORISTEK

$$M_{Ds} \cancel{\omega_3} = M_{t3} \cancel{\omega_3} \eta_L^2 \eta_T$$

$$M_{Ds} = M_{t2} \frac{\omega_2}{\omega_3} \eta_L^2 \eta_{34} \eta_L^2 \eta_T$$

$$= M_{Ps} \cdot \frac{\omega_1}{\omega_2} \eta_L^2 \eta_T \eta_{12} \frac{\omega_2}{\omega_3} \eta_L^2 \eta_{34} \eta_L^2 \eta_T$$

$$= M_{Ps} \frac{\omega_1}{\omega_2} \frac{\omega_2}{\omega_3} \eta_T^2 \eta_L^6 \eta_{12} \eta_{34}$$

$$\frac{\omega_1}{\omega_2} \frac{\omega_2}{\omega_3} \eta_T^2 \eta_L^6 \eta_{12} \eta_{34}$$

$$\frac{\quad}{i_{12}} \quad \frac{\quad}{i_{34}} \quad \frac{\quad}{\eta}$$

$$M_{Ds} = M_{Ps} i \eta$$

$$i_{12} i_{34} = i$$