

MECANISMOS

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GRAUS DE LIBERDADE EM MECANISMOS ¹

1 Exemplos

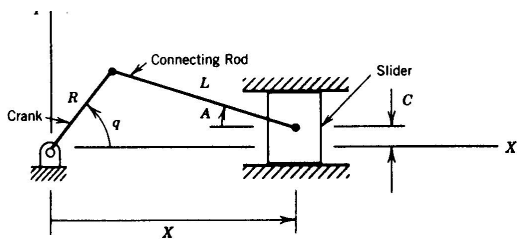


FIGURE 2.6 Typical Slider-Crank Mechanism

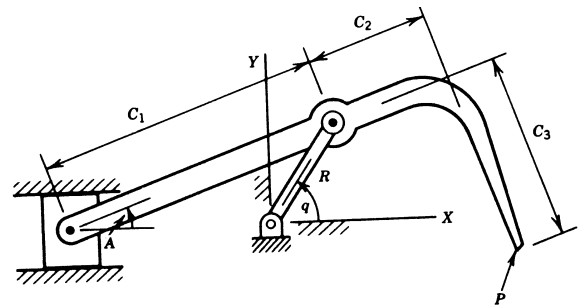


Figura 1: Biela-manivela

Figura 2: Biela-manivela

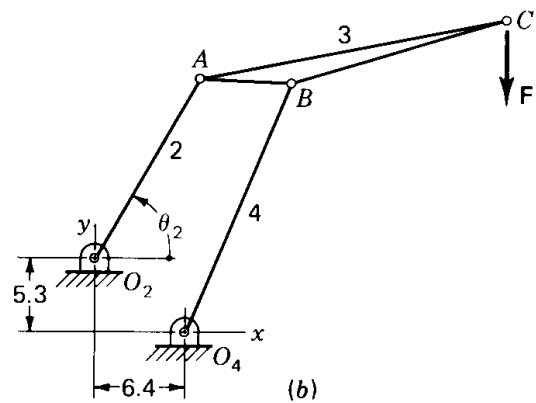


Figura 3: Guindaste

¹arquivo: EXERC-GRAULIB.tex - atualizado em 23 de fevereiro de 2016

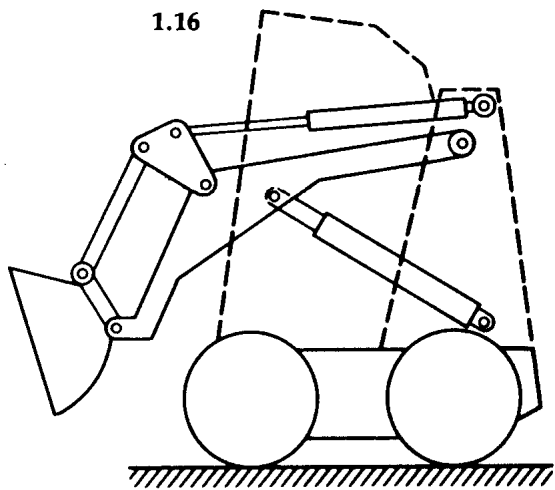


Figura 4: Mini Pá-Carregadeira

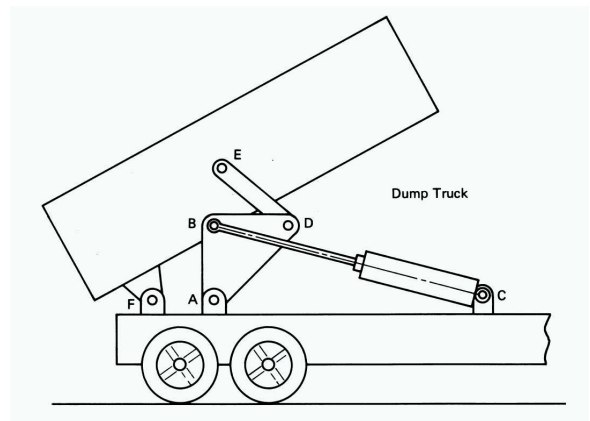


Figura 5: Caçamba

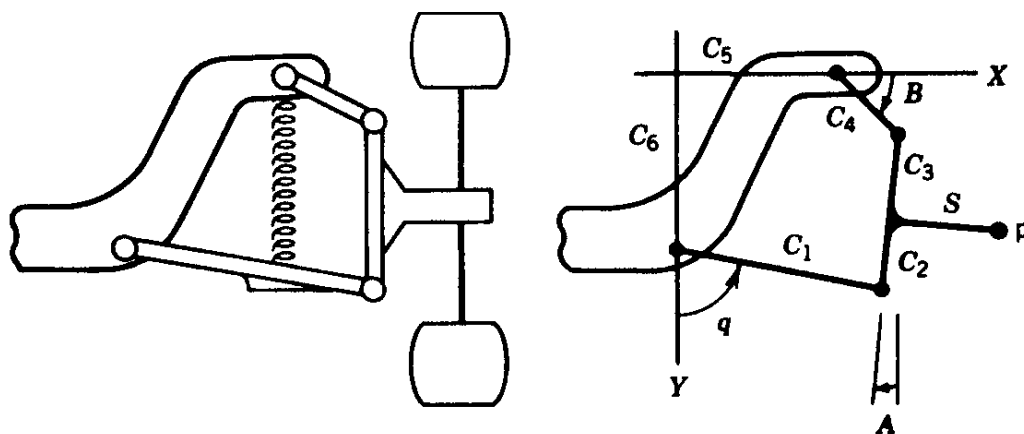


Figura 6: Suspensão de braços sobrepostos

2 Exercícios

Calcular o número de graus de liberdade dos mecanismos a seguir:

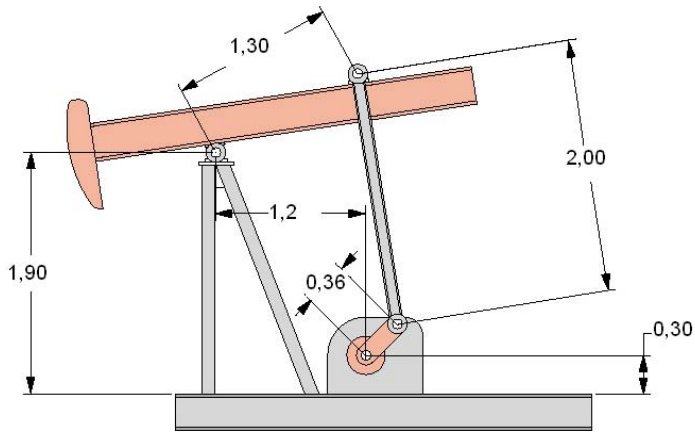


Figura 7: Bomba mecânica

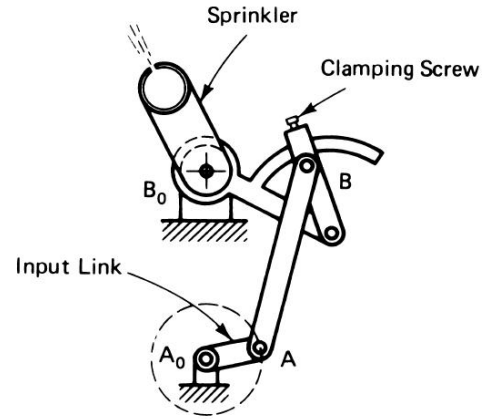


Figura 8: Hidrante

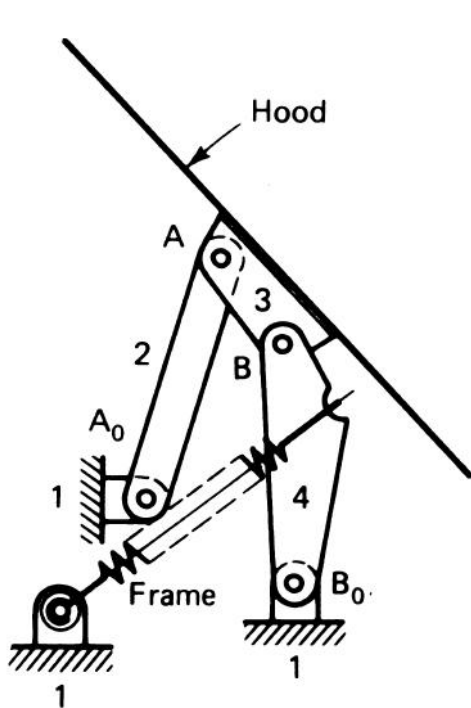


Figura 9: Capô do motor

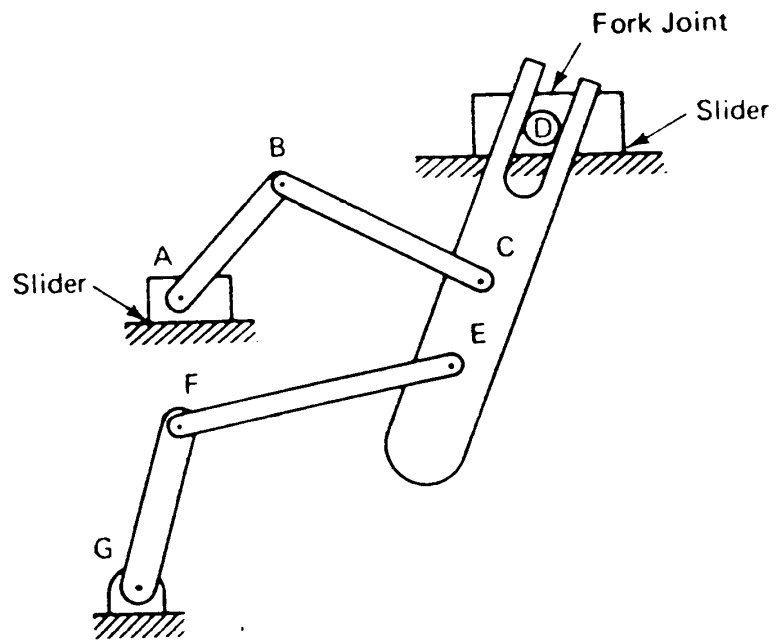


Figure P1.49

Figura 10: Cadeia composta (a)

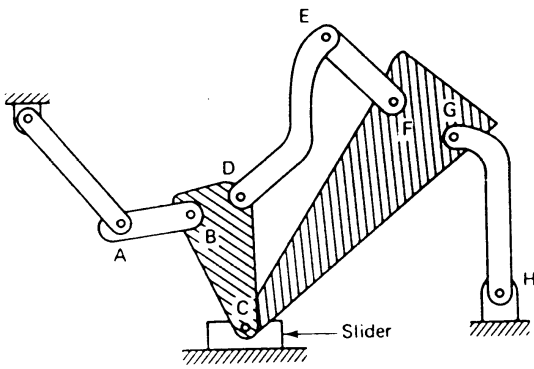


Figure P1.48

Figura 11: Cadeia composta (b)

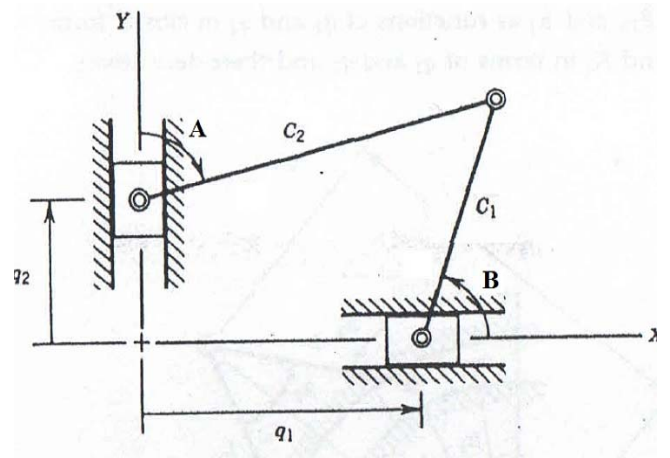


Figura 12: Elos deslizantes

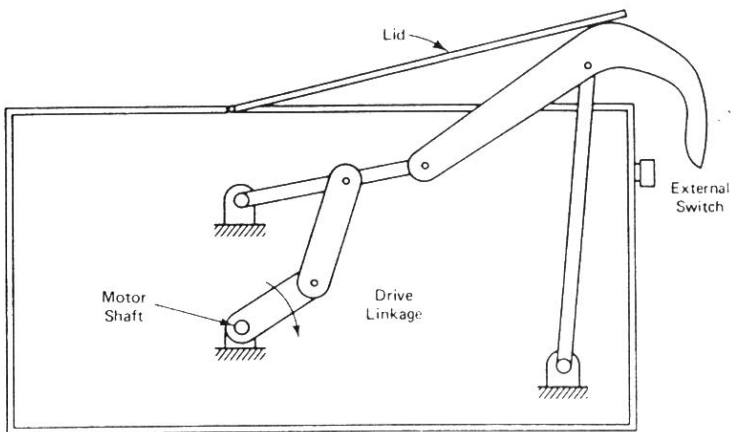


Figure P1.21

Figura 13: Caixa maluca

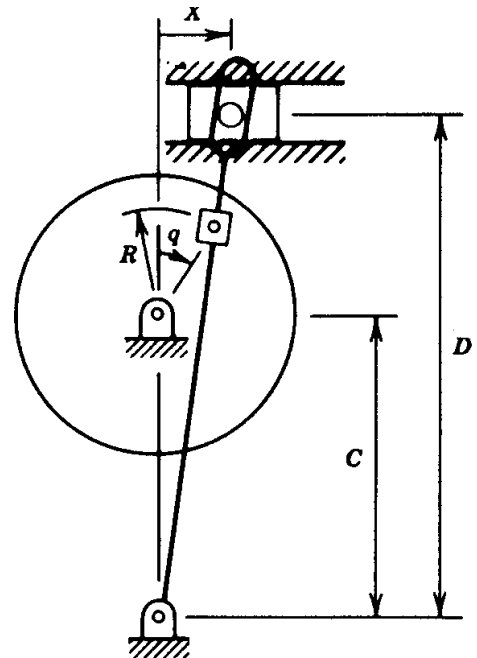


Figura 14: Plaina

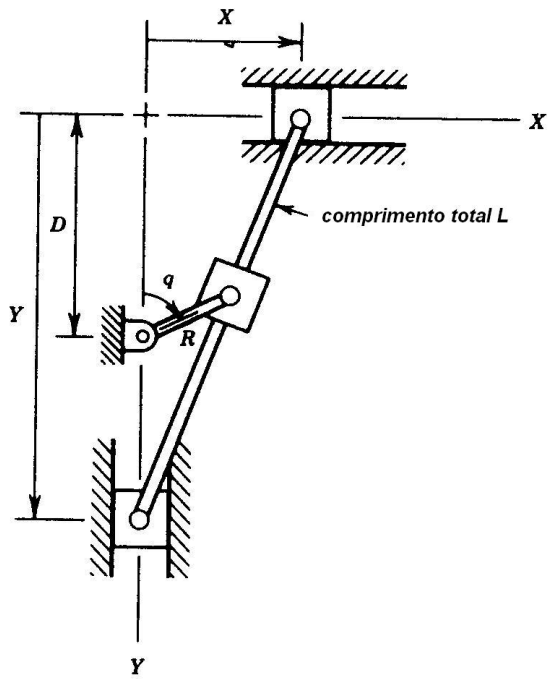


Figura 15: Retorno rápido

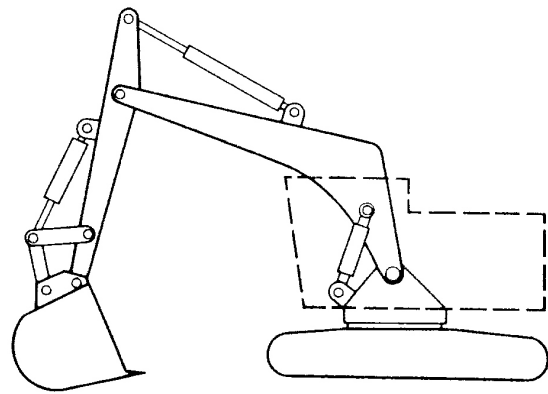


FIGURE 3.4 Pictorial Representation of a Power Shovel

Figura 16: Retroescavadeira

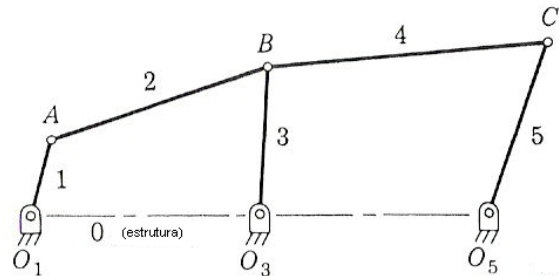
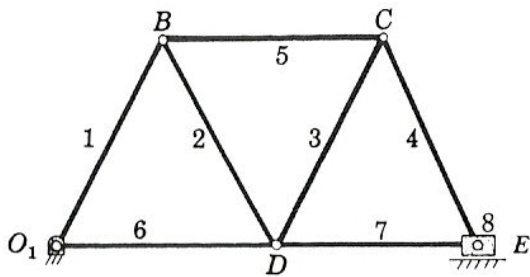


Figura 17: Mecanismo ou treliça?

3 Respostas

Fig. 7: 1 g.l.

Fig. 8: 1 g.l. (*Clamping Screw* apertado), 2 g.l. (*Clamping Screw* solto)

Fig. 9: 1 g.l.

Fig. 10: 4 g.l.

Fig. 11: 2 g.l.

Fig. 12: 2 g.l.

Fig. 13: 1 g.l.

Fig. 14: 1 g.l.

Fig. 15: 1 g.l.

Fig. 16: 3 g.l.

Fig. 17: a) 0 g.l; b) 1 g.l.