Nombre de alumno: Elioenai David López Espinosa

Nombre del profesor: Jorge David Oribe

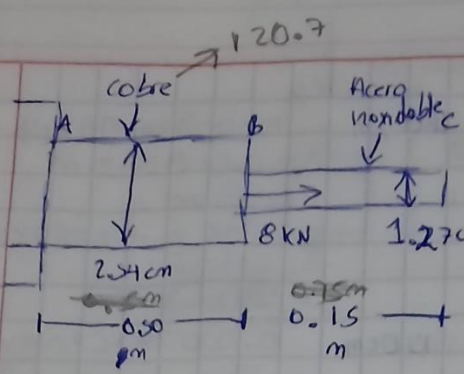
Nombre del trabajo: Esfuerzo Y Deformación

Materia: Resistencia De Materiales

Grado: 3ero

Grupo: “A”

Comitán de Domínguez Chiapas a 26 de noviembre de 2021.



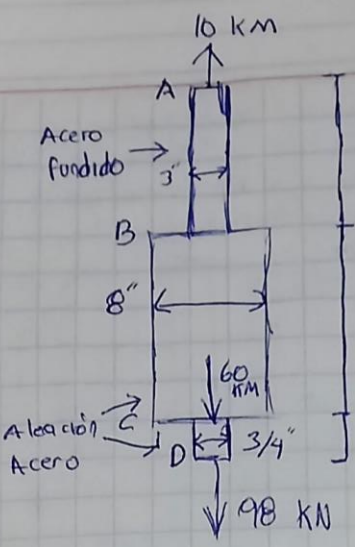
$$S = \frac{18 \times 0.15}{0.000127 \times 189,600,000,000} = \frac{27}{240,792,000}$$

$$\frac{8 \times 0.5}{0.000507 \times 120,700,000,000} = \frac{4}{61,194,900}$$

$S = 6.536^{E-8}\,m$

$S = 1.121^{E-8}\,m$

$SG = 7.657^{E-8}\,m$



CD

$P = 10\,kN - 60\,kN - 98\,kN \rightarrow -148\,kN$

$A = 0.000283\ m^2$

$2r = 0.25\ m$

$E = 206.8 \rightarrow 2.068 \times 10$

$S = \frac{-148\,(0.25)}{0.000283\,(2.068 \times 10)}$

$S = \frac{-37}{5852400}$

$S = 6.322 \times 10^{-07}$

AB

$P = 10\,kN$

$A = 0.00466\,m^2$

$2L = 1.80m$

$E = 1.034 \times 10$

$S = \frac{PLE}{AL}$

$S = \frac{10\,kN\,(1.80m)}{0.00466\,m^2\,(1.034 \times 10\ N/m^2)}$

$S = \frac{18\,kN.m}{481844000\ m^2.N/m^2}$

$S = 3.735 \times 10^{-08}$

AB 3.735×10^{-8}

BC -9.731×10^{-09}

CD $= -6.322 \times 10^{-07}$

-6.04581×10^{-07}

$B = -9.731 \times 10^{-09}$

BC P

$P = 10\,kN - 60\,kN \rightarrow -50\,kN$

$A = 0.0323\ m^2$

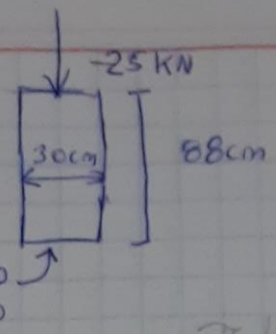
$2r = 1.30m$

$E = 206.8\ Gpa \rightarrow 2.068 \times 10$

$S = \frac{-50\,kN\,(1.30)}{0.0323\,m^2\,(2.068 \times 10)}$

$S = \frac{-65\,kN}{667964000}$

$S = -9.731 \times 10^{-09}$



$\delta = \frac{PL}{AE}$

$A = \frac{\pi \cdot d^2}{4} = 3.1416 (0.3m)^2/4$

$P = -25 KN$

$A = 0.070 m$

$L = 0.88 m$

$E = 210 = 63,000,000.$

$A = 0.070 m$

$\delta = \frac{-25 kN (0.88 m)}{0.070 (3000000)}$

$\delta = \frac{-22}{21000}$

$\delta = -1.0477 \times 10^{-03}$