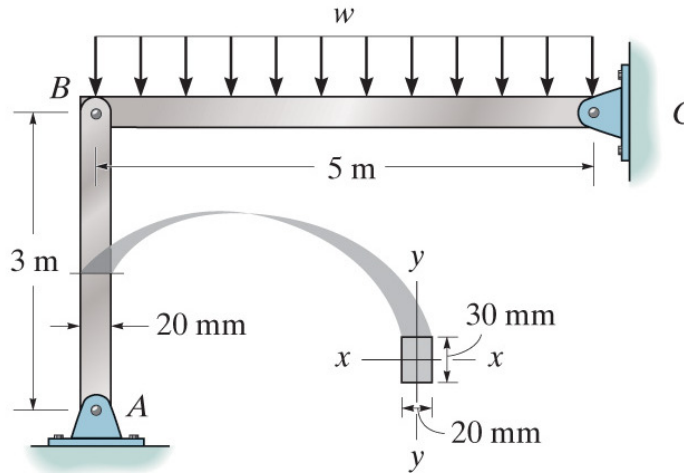


- 1) Dowling, Problem 7.39
- 2) A steel bar AB has a rectangular cross section. If it is assumed to be pin connected at its ends, determine if member AB will buckle if the distributed load $w = 2 \text{ kN/m}$. Let $E = 200 \text{ GPa}$ and $\sigma_0 = 360 \text{ MPa}$.



Suggested Problems:

Dowling 7.40	$\theta_c = 18.7^\circ$	$\tau_i = 33.42 \text{ MPa}$
7.41	$\sigma_{uc}' = -48.5 \text{ MPa}$	$\sigma_{ut}' = 10.97 \text{ MPa}$
7.47	(a) $X_{CM} = 11.2$	(b) $X_{CM} = 10.48$ (c) $X_{CM} = 9.59$
7.48	(a) $X_{CM} = 1.9$ (no failure)	(b) $p = 33.4 \text{ MPa}$

What are the critical loads applied to the following structures that cause buckling?

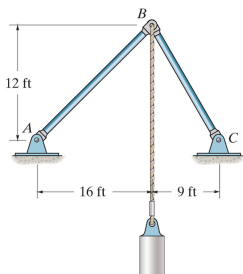


Figure: 13-14-19P13.031/032
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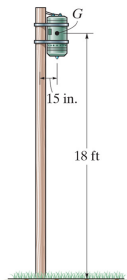


Figure: 13-34-11P13.122
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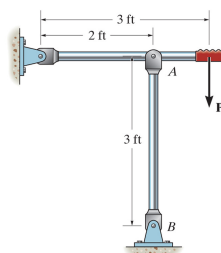


Figure: 13-14-08P13.012
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