Problem session 6

Choose a material for the cable support bracket shown with loading as indicated. Write an executive summary, in memo format, that summarizes your findings and recommendations for a material. Include all supporting analysis with your summary. You may work in groups or individually.

Your choices for materials are:

Gray Iron

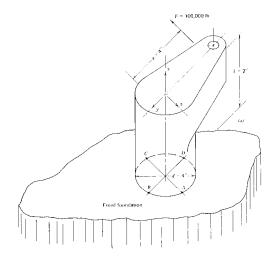
Sut = $60\ 000\ lb/in^2$ Suc = $170\ 000\ lb/in^2$ Elongation – 0.2%

Malleable Iron

Sut = $53\ 000\ lb/in^2$ Suc = $170\ 000\ lb/in^2$ Shear Strength = $20\ 500\ lb/in^2$ Elongation – 18%

1029 Steel

Sut = $60\ 000\ lb/in^2$ Elongation -38%



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