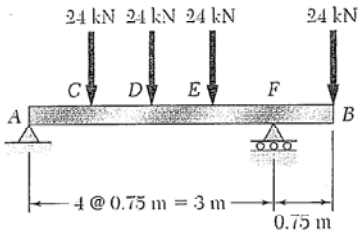

Fig. P5.8

5.7 and 5.8 Draw the shear and bending-moment diagrams for the beam and loading shown, and determine the maximum absolute value (*a*) of the shear, (*b*) of the bending moment.

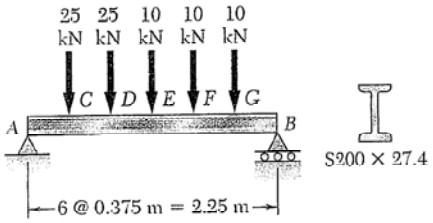

Fig. P5.20

***5.19* and 5.20** For the beam and loading shown, determine the maximum normal stress due to bending on a transverse section at *C*.

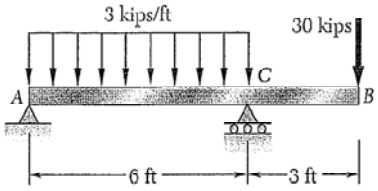

Fig. P5.10

5.43 Using the method of Sec. 5.3, Solve Problem 5.10

5.9 and 5.10 Draw the shear and bending-moment diagrams for the beam and loading shown, and determine the maximum absolute value (*a*) of the shear, (*b*) of the bending moment.

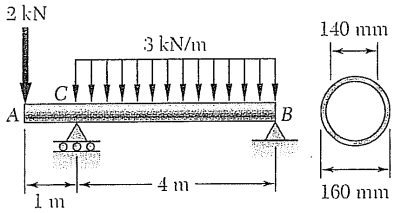

Fig. P5.59

5.58 and 5.59 Draw the shear and bending-moment diagrams for the beam and loading shown and determine the maximum normal stress due to bending.

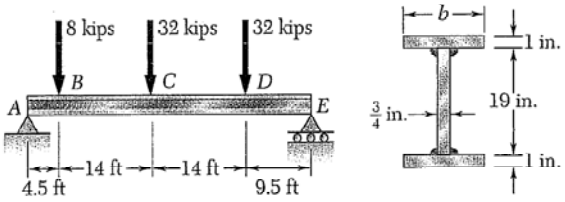

Fig. P5.80

5.80 Three steel plates are welded together to form the beam shown. Knowing that the allowable normal stress for the steel used is 22 ksi, determine the minimum flange width *b* that can be used.

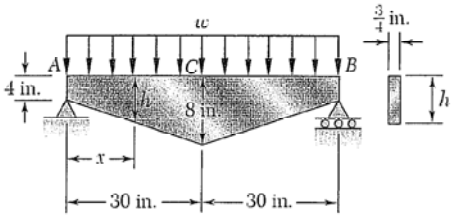

Fig. P5.148

5.148 For the tapered beam shown, determine (*a*) the transverse section in which the maximum normal stress occurs, (*b*) the largest distributed load *w* that can be applied, knowing that $\sigma_{all} = 24$ ksi.