13.6 Solve Prob. 13.5 assuming that the reinforcing plates are only 12 mm thick.

13.7 and 13.8 A column is fabricated by connecting the rolled-steel members shown by bolts of $\frac{3}{4}$-in. diameter spaced longitudinally every 5 in. Determine the average shearing stress in the bolts caused by a shearing force of 30 kips parallel to the y axis.

13.9 through 13.12 For the beam and loading shown, consider section n-n and determine (a) the largest shearing stress in that section, (b) the shearing stress at point a.

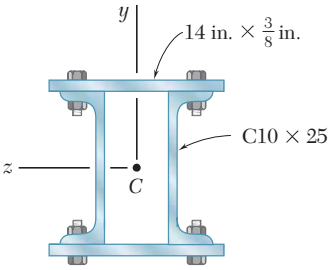
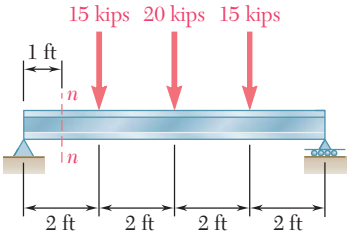


Fig. P13.7



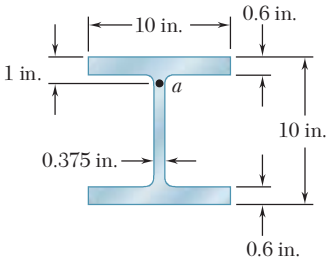


Fig. P13.9

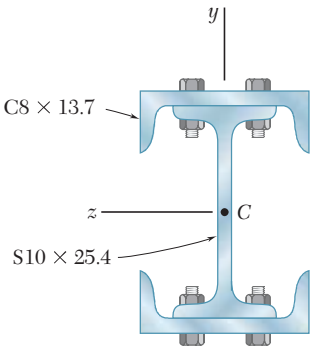
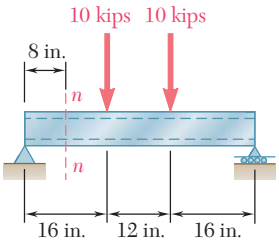


Fig. *P13.8*



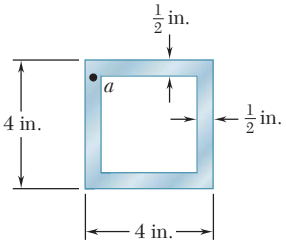
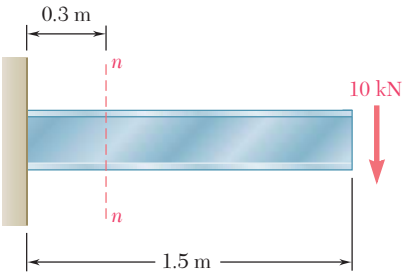


Fig. P13.10



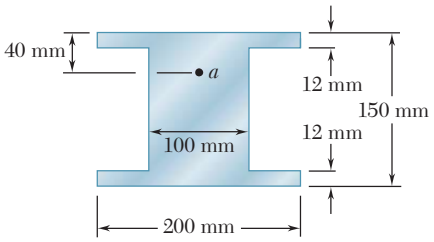
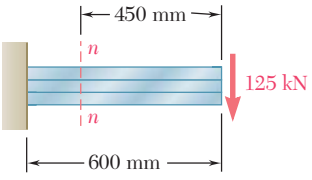


Fig. P13.11



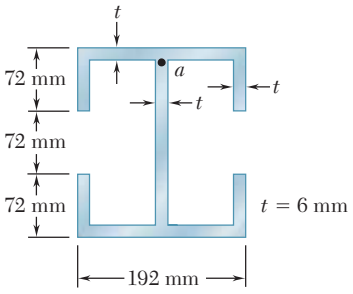


Fig. P13.12