

FIGURE P3.4-6

Block Shear

- 3.5-1** The tension member is a PL $\frac{3}{8} \times 5\frac{1}{2}$ of A242 steel. It is connected to a $\frac{3}{8}$ -in. thick gusset plate, also of A242 steel, with $\frac{3}{4}$ -inch diameter bolts as shown in Figure P3.5-1. Determine the nominal block shear strength of the tension member.

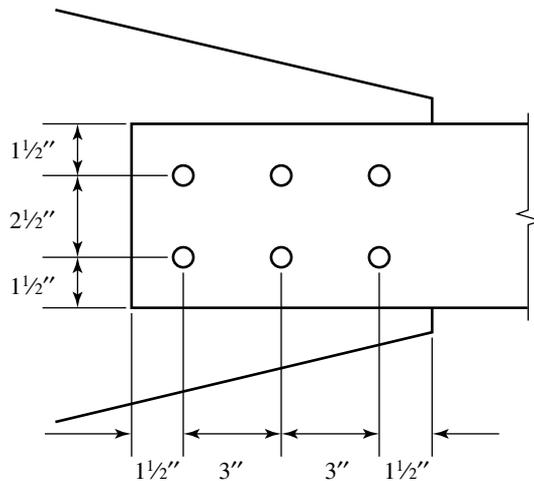


FIGURE P3.5-1

- 3.5-2** A square hollow structural section (HSS) is used as a tension member and is welded to a gusset plate of A36 steel as shown in Figure P3.5-2. Compute the nominal block shear strength of the gusset plate.

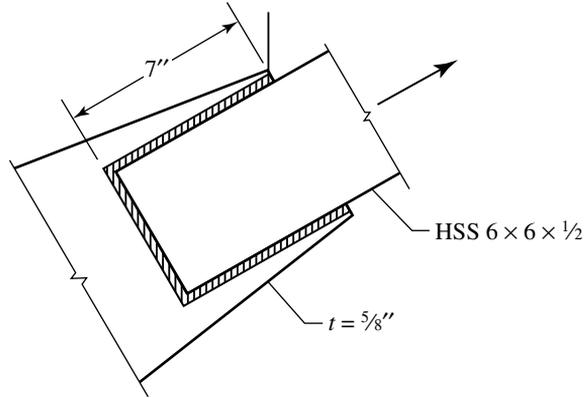


FIGURE P3.5-2

- 3.5-3** A WT8 \times 13 of A992 steel is used as a tension member. The connection is with $\frac{7}{8}$ -in. diameter bolts as shown in Figure P3.5-3. Compute the nominal block shear strength.

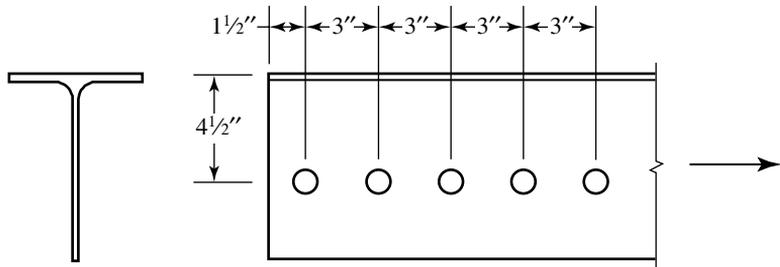


FIGURE P3.5-3

- 3.5-4** Compute the available block shear strength of the gusset plate.
- Use LRFD.
 - Use ASD.

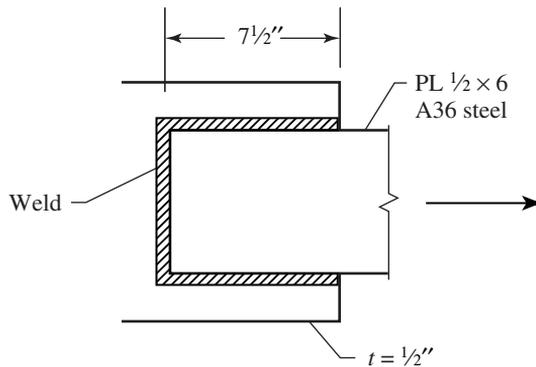


FIGURE P3.5-4