FIGURE 5-1. Four-bolt wide (a) end-plate configuration with bolt numbering scheme, and (b) controlling yield line pattern.

FIGURE 5-2. Bolt stresses vs. applied moment for standard specimen.
FIGURE 5-3. Bolt stresses vs. applied moment for standard specimen with $g_0 = -0.50$ in. (outside the flange tip).

FIGURE 5-4. Bolt stresses vs. applied moment for standard specimen with $g_0 = 0.00$ in. (at the flange tip)
FIGURE 5-5. Bolt stresses vs. applied moment for standard specimen with \( g_0 = 0.50 \text{ in.} \) (inside the flange tip).
FIGURE 5-6. Bolt stresses vs. applied moment for standard specimen with \( p_f = 2.25 \) in.

FIGURE 5-7. Bolt stresses vs. applied moment for standard specimen with \( p_f = 2.75 \) in.
FIGURE 5-8. Bolt stresses vs. applied moment for standard specimen with \( t_p = 0.875 \) in.

FIGURE 5-9. Bolt stresses vs. applied moment for standard specimen with \( t_p = 1.00 \) in.
FIGURE 5-10. Bolt stresses vs. applied moment for standard specimen with \( d_b = 0.75 \) in.

FIGURE 5-11. Bolt stresses vs. applied moment for standard specimen with \( d_b = 1.00 \) in.
FIGURE 5-12. Applied moment vs. beam tip deflection for standard specimen with varying end-plate thicknesses.