Example 7.5 For the gusset plate in the heavy bracing connection that is shown below, check whether the plate thickness of 1/2-in. is adequate to resist block shear. The steel grade is A36 ($F_y = 36$ ksi, $F_u = 58$ ksi), and the holes are dirlled, for 7/8-in. diameter A325 high-strength bolts.

