

HW 6

Reading:

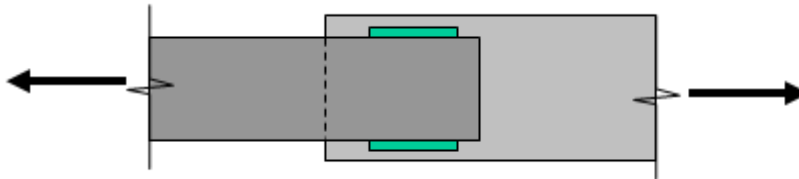
Read Chapter J of the Spec

Problem 1

For a 3/4" thick plates in a T joint, what is the min size fillet weld? If a lap joint using SMAW, what is the max size fillet weld for the same plates?

Problem 2

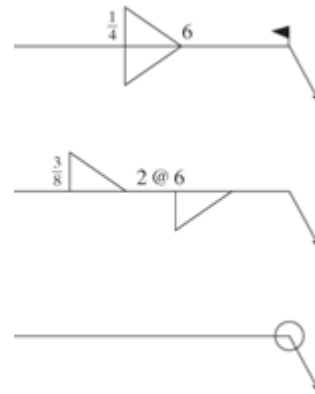
For 2 plates in a tension lap splice as shown below with welds in shear...



How long does the doubler sided fillet weld need to be if the weld is 270 kips ASD?

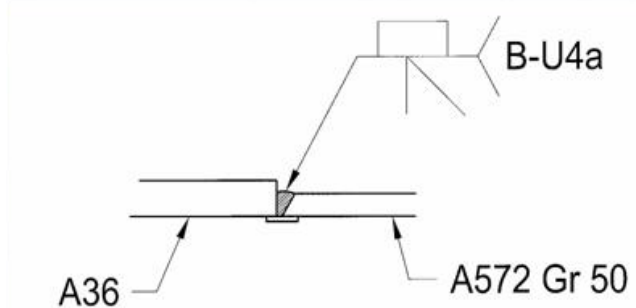
Problem 3

What do the flag and circle mean in a weld symbol?



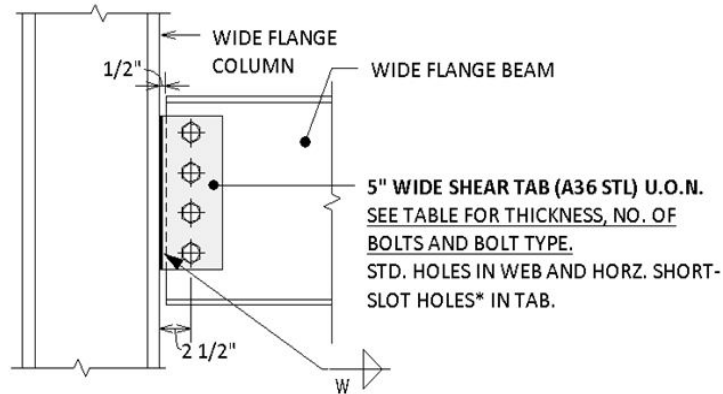
Problem 4

For the following connection tension splice between a 1x1 bar to a 2x2 bar (A36), what is the capacity of the CJP weld in ASD? (hint: CJP is not really calculated)



Problem 5

Assuming the weld is 1/4 fillet each side, and shear plate is 11.5" long, what is the LRFD shear capacity of the weld below....



BEAM TO WF COL FLANGE SHEAR TAB

Problem 6

What do the numbers and letter E7018 mean? Why do we specify E70XX?

Problem 7

What does SMAW, GMAW, FCAW, and SAW mean? Which one is stick welding? Which is MIG welding?

Problem 8

Name 4 different types of tests to determine the quality of the weld?

Problem 9

For a CJP weld using a single bevel type TC-U4a, what is the root dimension required for a 45 degree bevel?

