

**2017 NATIONAL FFA AGRICULTURAL TECHNOLOGY AND MECHANICAL SYSTEMS CAREER
DEVELOPMENT EVENT
STRUCTURAL SYSTEMS**

Please read and follow directions carefully! Use your time wisely!

GENERAL INFORMATION / DIRECTIONS:

Assume you are repairing a piece of agricultural equipment. While making the repair you are required to weld pipe to plate and plate to plate using SMAW. The pipe to plate joints must be leak-proof. This exercise represents this requisite skill.

PROCEDURES:

1. Safety: Because you are working in a welding area safety glasses must be worn at all times. A serviceable welding helmet with a shade ten (minimum) protective lens as well as leather gloves and long sleeves must be worn while welding.
2. Follow the provided plans to assemble and weld the required piece utilizing the shielded metal arc welding (SMAW) process.
3. Properly mark your completed assembly and turn it in to a contest official with this sheet.

<u>Activity Score Sheet</u>			
<u>Graded Items</u>	<u>Possible</u>	<u>Score</u>	
1. Correct assembly	3		_____
2. Bead width and contour	3		_____
3. Absence of undercut	3		_____
4. Bead uniformity	3		_____
5. Equal bead width on both mating surfaces	3		_____
6. Tie-in of beads	3		_____
7. Pressure test	9		_____
8. Safety and clean-up	3		_____
TOTAL POINTS: (Judge: Double check point total and enter at top)	30		_____