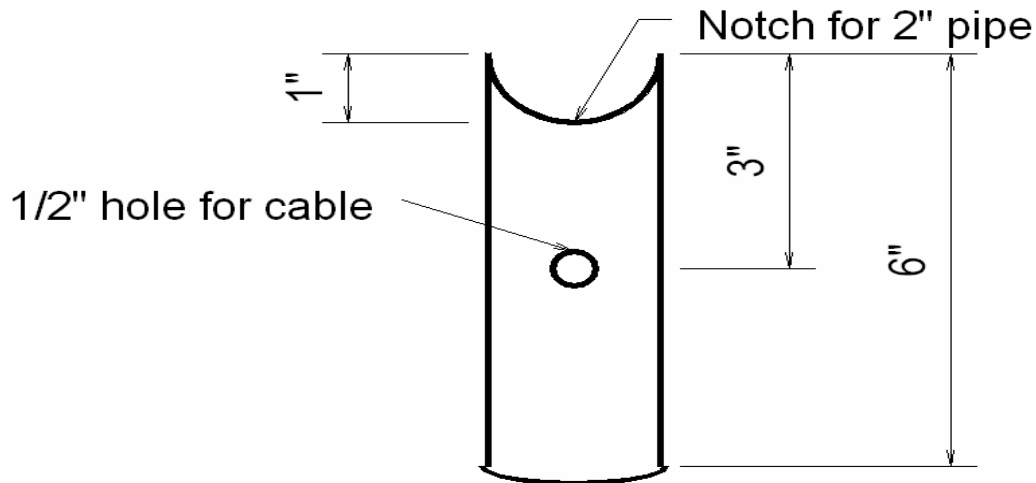




2006 State Competition
FFA Agricultural Mechanics Contest
University of Missouri
50 points

Contestant # _____
Contestant Name _____
Chapter _____

Oxy Welding



Problem:

This activity will require you to make the necessary cuts in a piece of 2'' round tubing that will be used as a post in a livestock facility. Cuts required will be a 1/2'' hole 3'' in from the end of the pipe to run a cable through and a notch at one end of the pipe so another 2'' pipe will cradle in this notch.

Materials:

1. 14 gauge x 6 inch x 2 inch steel pipe
2. Cutting attachment
3. Striker
4. Chipping hammer
5. Wire brush
6. Pliers
7. Soapstone

Directions:

1. Secure metal from contest official.
2. Use soapstone and measuring device to mark cut locations.
3. Cut hole for 1/2'' cable.
4. Cut notch in end of pipe for 2'' pipe to set in.
5. Cool metal thoroughly.
6. Clean cuts with a chipping hammer and wire brush.
7. Use soapstone to label your metal.
8. Submit metal and grading sheet to contest official.

Problems:

1. The part labeled # 1 is a/an _____. (2 pts)
2. What size is the tip labeled #2? (2 pts)_____.
3. What are the dimensions (to the nearest 1/8 inch) of the piece of steel labeled #3? (3 pts)
_____x_____x_____
4. What is read by the gauge labeled #4? (2 pts)
 - A. oxygen hose pressure
 - B. oxygen tank pressure
 - C. acetylene hose pressure
 - D. acetylene tank pressure
5. Which tank contains acetone? (2 pts)
 - A. 5a
 - B. 5b
 - C. 5c
 - D. 5d

Use the Smith Welding tables to answer the following questions.

6. What would be the proper tip size to cut the metal labeled #6? (2 pts)
 - A. 000
 - B. 00
 - C. 0
 - D. 1
7. If cutting the metal tagged #7 with oxy-propane, how many inches per minute should you travel? (2 pts)
 - A. 28
 - B. 26
 - C. 16
 - D. 12

Evaluation Criteria	Points Possible	Points Earned
1. Hole positioned properly.	5	_____
2. Hole fits 1/2" bolt.	5	_____
3. Notch is placed properly.	5	_____
4. Notch fits 2" pipe	5	_____
5. Uniformity/presentation.	5	_____
6. Use of correct flame type.	5	_____
7. Safety, work habits.	5	_____
8. Points from ID and general questions.	15	_____
Total Points	50	<input type="text"/>