

Grade 9/10 Metal Work
Welded Log and Axe



Description: In this introduction to SMAW or, “stick” welding you will practice running stringer beads on a 6 inch long piece of pipe. These stringer beads will eventually make the pipe take on the appearance of a log. Ends will be added to the log and a MIG welder will be used to weld the end grain onto the log. To top off the log a small axe will be fabricated and attached at the top.

Tools needed to be taught: This project will introduce you to different types of welders, power tools, and hand tools that are commonly found in a metal working shop. Some of these tools will include:

- a. The horizontal band saw
- b. The stick welder
- c. The MIG welder
- d. The pedestal grinder and sander
- e. Hand files
- f. Chipping hammers and wire brushes
- g. Scribes and compasses
- h. Tape measures and rulers

Materials List:

- 1.) 1- 6" long piece of 2" diameter pipe
- 2.) LOTS of 1/8" 7018 welding rod
- 3.) 3- 1" x 2" x 1/8" Cold Rolled Steel
- 4.) 2"x 1/8" dia. Steel bar

Procedure:



Step 1: select pipe



Step 2: Measure to 6" and cut on band saw



Step 3: Set-up Welder



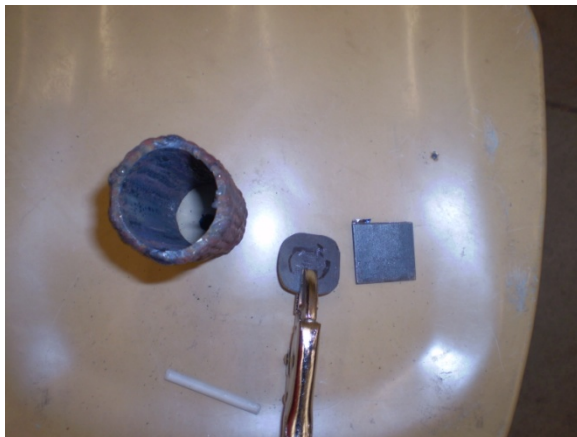
Step 4: Practice Stringers



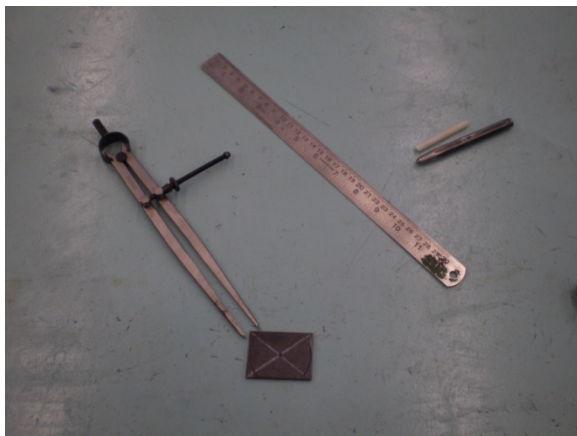
Step 5: watch out for electrode stick.



Step 6: Run stringers all around the pipe.*Be sure to move around on the pipe to prevent burn through.



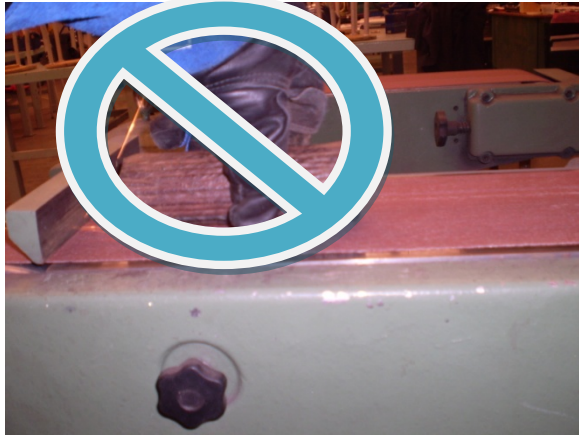
Step 7: Cut, lay-out and grind your pipe's end caps, once finished MIG weld the caps on.



Step 8: Cut out and Lay-out your axe head.

Step 9: Shape your axe head.

*****NO GLOVES WHEN USING SANDER**



Step 10: MIG weld on legs and sand them down evenly.
handle

Step 11: Attach your axe head to the
and MIG weld the axe to the Log



Step 12: Choose a color and paint your newly created, "Welded Log."