Sheet Metal Working Workshop
LESSON PLANS

Lesson One – 2 hour field trip to Sheet Metal Workers Local #73

I. Overview of the sheet metal working trade and local #73’s apprenticeship program.

II. Tour of the school and workshop

Lesson Two – 2 ½ hour workshop

I. Introduction to drafting/pattern making as related to sheet metal

II. Introduction project
   A. Introduction to drafting tools
   B. Explanation of drawing, definitions and symbols, line work guidelines.
   C. Review project instructions and walk students through the project.
   D. Assist students in completing their drawings.

Handouts: Patternmaking drawing and instructions, and definitions

Tools and materials: 18” x 12” drafting paper, T-squares, drawing boards, pencils, erasers, masking tapes, drafting triangles and eraser shield

Lesson Three – Approximately 3 to 4 hour session per group

I. Create fitting on the pattern completed during the previous class.
   A. Calculate a cut list
   B. Measure and scratch bends and mark the location of rivets (two on each side) for both pieces
   C. Drill holes for rivets
   D. Bend metal on hand brake
   E. Rivet seams

II. Students will connect their fitting to create a duct run.
   A. Bend back two sides on each end of the duct run using bar folder.
   B. Cut S and drive cleats to size.
   C. Work with a partner to connect with S and drive cleats.
   D. Continue until the class creates one long duct run.

Handouts: Safety rules, drawings from lesson two

Tools and Materials: 2- 26 to 28 gauge sheet metal sheets (10” x 11”), 1/8” drill bits, rivet gun, 1/8” rivets, Aviator snips, scratch awl and/or scriber, bar folder block of wood and C clamp to protect surface from drilling, seamers, Combination square, gloves, safety glasses, hammer, hand brake, S and drive cleat.

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