

Experiment No. 17

Statement:

Cutting of Sheet Metal

Desired Learning Objectives

2.This practical aim to make trainees understand the procedure and safety precautions of sheet metal cutting.

- (a) Trainees will be able to understand the operation of shear machine.
- (b) Trainees would be able to practice safety precautions for handling tools, and metal sheet.
- (c) Trainees will be able to perform sheet cutting using hand tools.

Equipment / Material Required

3. The following materials are required during practical:

- a. Gloves
- b. Face shield
- c. Rags
- d. Hand cutting tools (hand snip)
- e. Metal sheet
- f. Scriber
- g. Shear machine
- h. Measuring Tape
- i. Workbench
- j. File

Safety Precautions

During the practical, Trainees are to ensure following precautions: -

- (b) Don't Touch with Bare hands. Always use the gloves.
- (c) Do not use a paint stripper for marking.
- (d) Always use safety glasses and other protective equipment when using tools and equipment.
- (e) Avoid accidentally bending, scoring, or gouging the metal while using the tools.

Procedure:

Using Hand tool (Snips)

- (a) Place the sheet metal on top of the workbench and lay out your pattern using a tape measure and scriber.

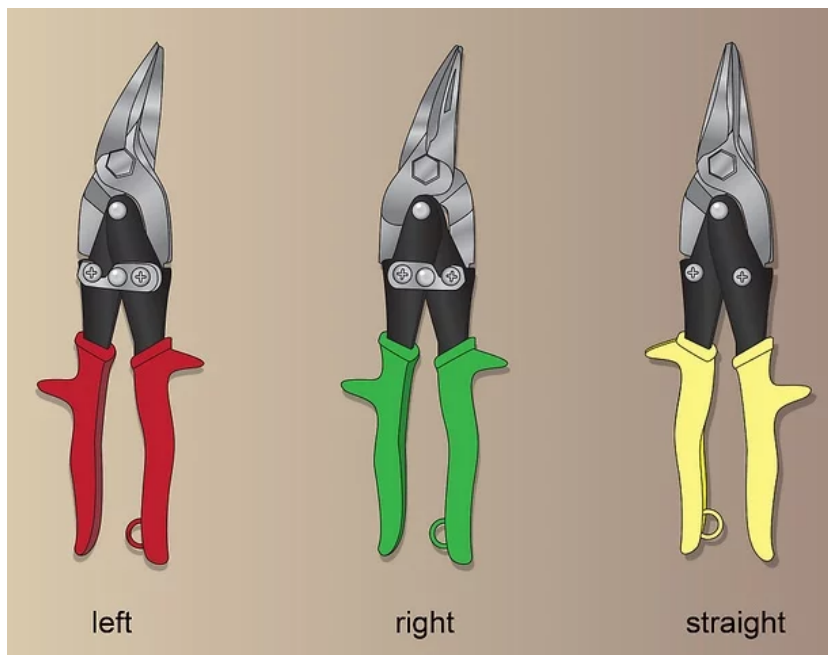


Fig: Snips used for cutting sheet metal

- (b) At the beginning of each cut, it is important to open the tool completely and seat the edge of the sheet metal as deep as possible in the jaws.
- (c) Align the tool's blade with your pattern line (the scribed line you intend to cut along), maintaining contact between the sheet metal and the upper blade of the hand tool (snip).

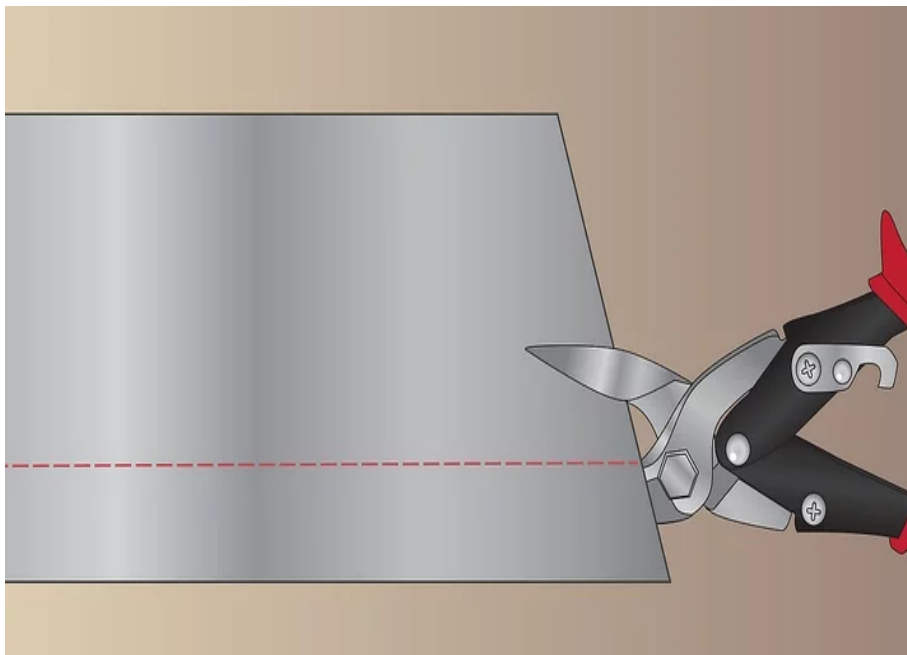


Fig: Marking sheet metal

- (d) Squeeze the handles in one hand to make the cut, and repeat this process until the cut is finished

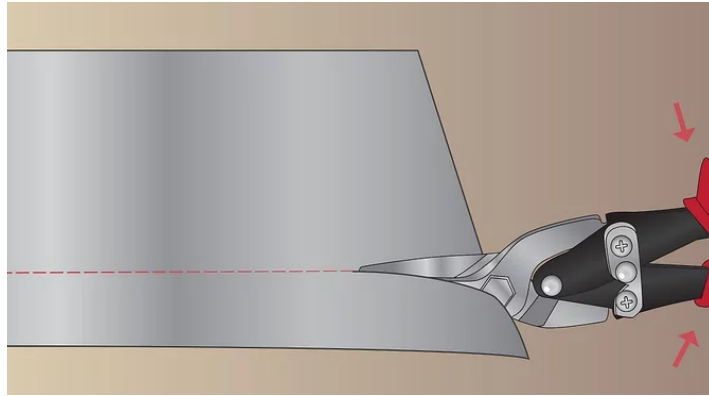


Fig: Sheet cutting (a)

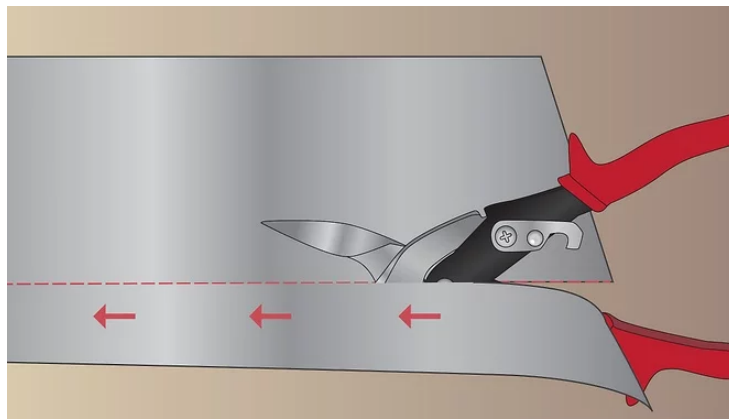


Fig: Sheet cutting (b)

- (e) After cutting, run a metal file along the edges to clean them up and remove any lingering burrs from your fresh cut.

Conclusion:

[illegible]
