Workshop

Name: Aditi Mahanjan

Section: M

Department: CSE IOT

USN: 20BTRC0067

Aditi Maharjan (20BTRC0067)

1) Sketch and explain Basic profile shape model in carpentry?

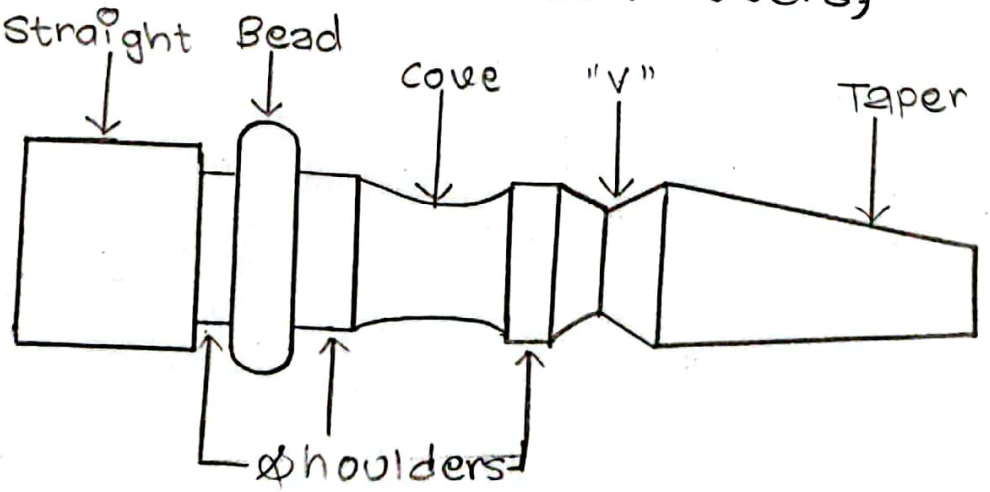
AIM: To make a Basic profile shapes model.

MATERIAL REQUIRED: Tead wood.

MACHINE REQUIRED: wood working lathe

TOOLS REQUIRED:

Roughing gouge (used for rapidly cutting raw wood into round stork), Deep flutted Bowl gouge (used for torning bowels and plates), Spindle gouge (used for turning beads, coves) Spear (used for fine scaping and delecate operations such as the forming of beads, parallel grooves and shallow vees etc..) Square scraper (used for diameter scraping and featureless scraping), parting tool (used to make cut off. Also used for scrapping and to set diameters)



PROCEDURE

1) Mark the centre on each end of workpiece
2) Install the workpiece by inserting the attached spur centre into the spindle taper on the headstock.

3) Bring tailstock into position, lock it the bed, advance quill with the handwheel in order to seat the live centre into the workpiece. lock the quill in place. Make sure the live centre point is centred on your mark.

4) Move tool rest into position. It should be parallel to workpiece, approximately at the centre line and (1/8)" from the closest part of the workpiece. Lock tool rest body and tool rest in place.

5) Rotate workpiece by hand to check for proper clearance from tool rest.

6) Start lathe at the lowest speed and bring it up to the appropriate rpm for the size of stock.

7) Using proper tools complete the model as per given sketch.

RESULT

The Basic profile shapes model is made sucessfully.

2) Sketch and explain Marking and measoring tools using in carpentry?

- Marking and measuring tool.

a) Rules.

Rules are used for measuring dimension For measuring and setting out dimensions various types of rules are used in carpentry shop. Steel Rule - Stainless steel Rule of length 30cm and 60cm is used as shown in figure. Flexible measuring Rule - for measuring large dimensions as well as curved or angular surface dimensions.

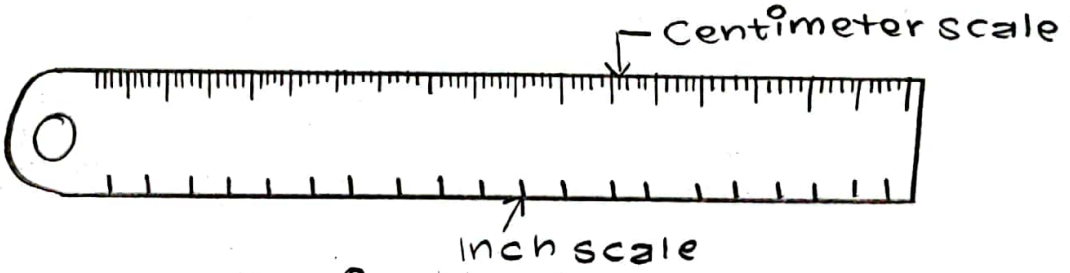


fig: steel

b) Straight Edge and Squares

This is a machined flat piece wood or metal having perfectly straight and parallel edges.

c) Steel Tape.

It is used for large dimention, such as marking on boards and checking the overall dimentions of the work.

d) Gauges.

Gauges are used to mark lines parallel to the edges of a wooden piece. It mainly consists of a wooden stem sliding inside a wooden stock. The stem carries

a steel point for marking lines. The stock position on the stem can be ~~if~~ varied & fixed rigidly by tightening the thumb screw. To mark a line parallel to an edge the gauge stock is held freely against the edge and pushed along it, pressing the steel points to the surface as shown in figure.

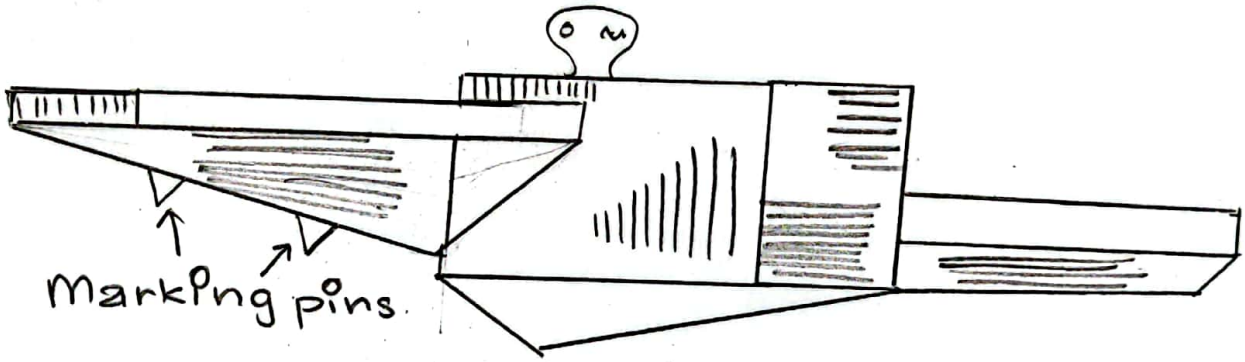


fig: Mortise Gauge

e) Marking knife or scriber

Marking knives are used to convert the pencil lines drawn on the wooden surface into deep scratch lines on the surface. They are made of steel with a sharp point at one end and flate blade at the other end.

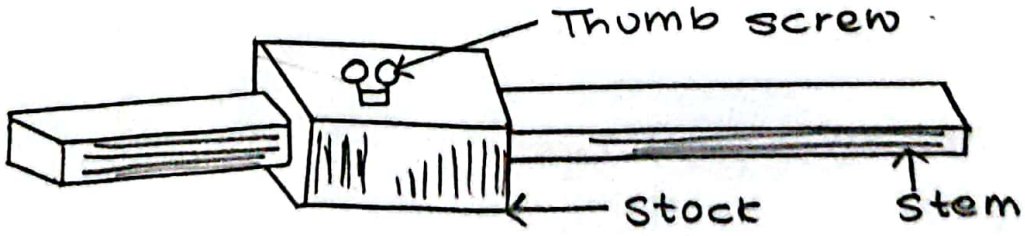


fig: Marking Gauge

f) Try square.

Try square consists of rectangle steel blade fixed rigidly to cast iron stock. The length of blade varies from 150mm to 300 mm as shown in fig:

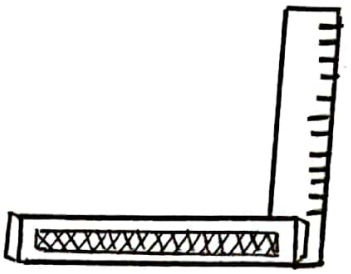


fig: Try square.

g) Bevel Square.

It is also called sliding level. It is an adjustable try-square used for measoring/ marking angles between 0° and 180° as shown in figure.

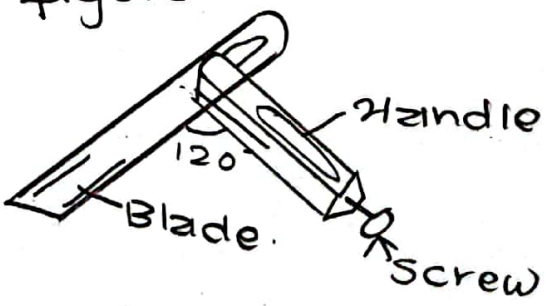


fig: Bevel square