Carpentry

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1) Write Carpentry safety Precautions.

Ans. i) Always use safety glasses, wear safety gloves to ~~wear~~ check finishing of the product and hearing protection while using noisy tools.

ii) Avoid loose fitting clothes, dangling jewelery and wear clothes which would protect from any particle flying from the machine.

iii) Never use dull tools as they are not safe as the worker would have to put more time thus causing errors.

iv) Disconnect the power supply before changing the blades

v) Always check the stock you are preparing to cut for any metals before beginning to cut.

vi) A router bit and saw blade should cut against the motion and not along it.

vii) Never put your near a running blade while removing cutoffs.

viii) Keep focus during the job, don't let ~~the~~ outside environment distractions you as it may cause accidents.

ix) Keep tools in good condition always.

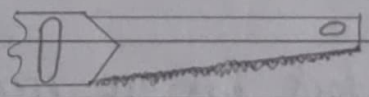
x) If you don't know what todo ask a superior or a teacher.

xi) Try using single extension board in this way you need to unplug anytime you do changes.

2) Explain with neat sketch following tools
a) Hand Saw
b) firmer chisel
c) Iron-Jack plane
d) Try-Square

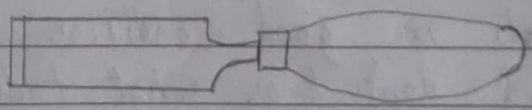
Ans. i) Handsaw
- Hand Saw is used to cut peices of wood into different shapes.
- The ~~edge~~ sharp edges ~~help~~ are used to cut wooden peices.

Hand saw



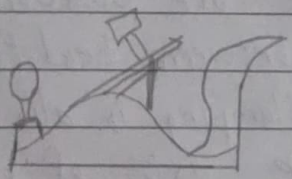
ii) firmer Chisel
- firmer chisel is one of four main chisel used in woodwork projects.
- It has thick strong plate that allows removal of large peices of wood in a single strike

firmer chisel



iii) Iron - Jack plane

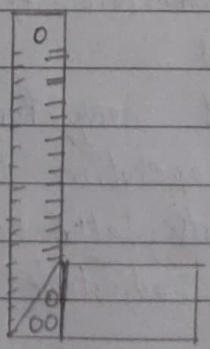
- A jack plane is a general purpose woodworking ~~device~~ bench plane used for dressing timber down
- It is usually the first plane used on a rough stock.



Iron Jack plane

iv) Try Square

- A try square with a steel blade rivetted into a wooden stock.
- It is a woodworking tool for checking 90° angles on peices of wood.
- Though many different types of square, try square is the most essential.

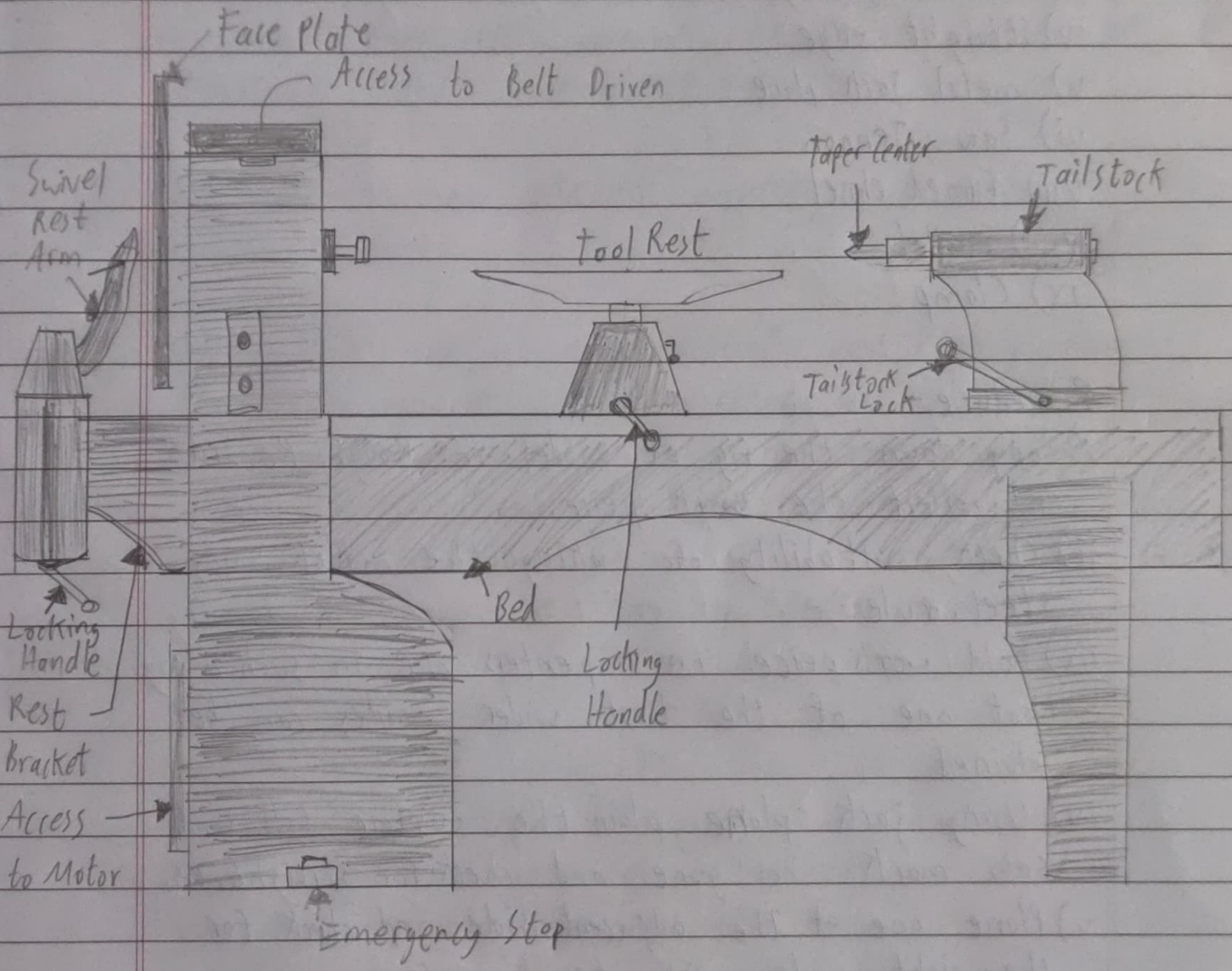


3) Explain with neat labelled diagram the use of wood turning lathe machine.

Ans. Lathe is a machine that helps in shaping several material piece in desired shapes. A lathe rotates the peices on the axis in order to perform various operations like cutting, facing, deforming and more. The most commonly used lathe machine are woodworking lathe. the wooden peice is placed between headstock and the tailstock of the lathe. Clamping is also used to work the peice about the axis of rotation with help of faceplate. Most wood working lathes are designed to be operated at a speed of 200 and 1400 revolutions per minute, with slighty over 1000rpm considered optimal for most such work and with larger workpeices required lower speeds.

Specific use of the machine

- wood turning lathe is typically used to sharp wood into cylindrical profiles.
- Items that can be made are furniture legs, lamp posts and other various things.
- Although wood lathe can take many forms depending upon primary turning operation those on clamps include the rotating headstock, lathe bed, tailstock for longer object and an adjustable tool rest.


Face Plate
Access to Belt Driven
Swivel Rest Arm
Tool Rest
Taper Center
Tailstock
Tailstock Lock
Bed
Locking Handle
Locking Handle
Rest Bracket
Access to Motor
Emergency Stop

4) write process of making T-lap joint.

Ans. for making a T-Lap joint we need the following tools:
i) steel rule
ii) try square
iii) monitoring guage
iv) Straight edge
v) metal jack plane
vi) Saw Tennon
vii) firmed chisel
viii) mullet
ix) Clamp

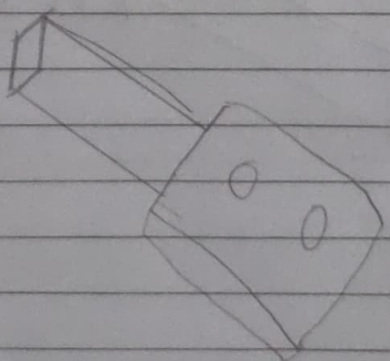
Procedure -
i) Copy down the fig of model in Rough Record and collect the work peice.
ii) check suitability of making the model using steel rule.
iii) Hold work peice in carpenters vice in such a way that one of the best wider sides can be plained.
iv) Using jack plane, plain the surface till band saw mark has gone and check for straightness.
v) Plane one of the adjacent side and check for the right angle using try square.
vi) Mark 44mm on wider sides with marking guage and plain to remove excess materid.
vii) Mark 22mm on thickness sides using marking gauge and plane to make thickness of 22mm

viii) Cut material to two pieces each measuring 120mm.
ix) Mark material to be removed on both the peice to make joint using steel rule, marking guage and try square.
x) Using Tennon saw, cut the material in the unwanted region leaving about 1 to 2mm from marked line to the required depth.
xi) Using Firmer chisel, remove the unwanted portion of material and assemble the joint.

5) Explain with neat stretch carpentry making or measuring tools.

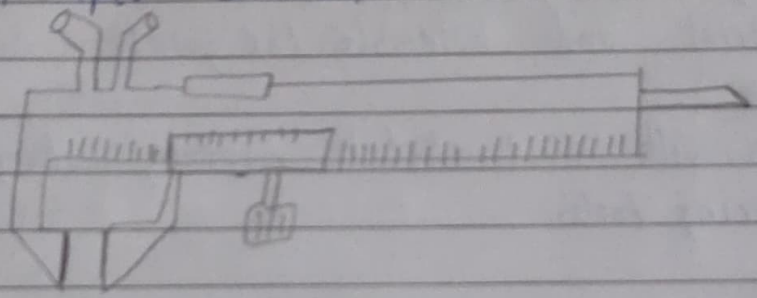
Ans. Knowing tools and where it is ideally used. Reading dimensions From drawings or stretches cursenty. use the right tools for the right job don't compromise. Check the accuracy of ~~mears~~ measuring and monitoring tools to ensure its accuracy.
Meauuring and making tools in workshop are:
- Marking Knife

A marking knife is a woodworking tool to accurately mark workpeice. It cuts a visible line which acts a reference while using handsaw, chisel or plane when marking across a grain of wood. The blades are spear shaped and maybe sharp on one or both ends.



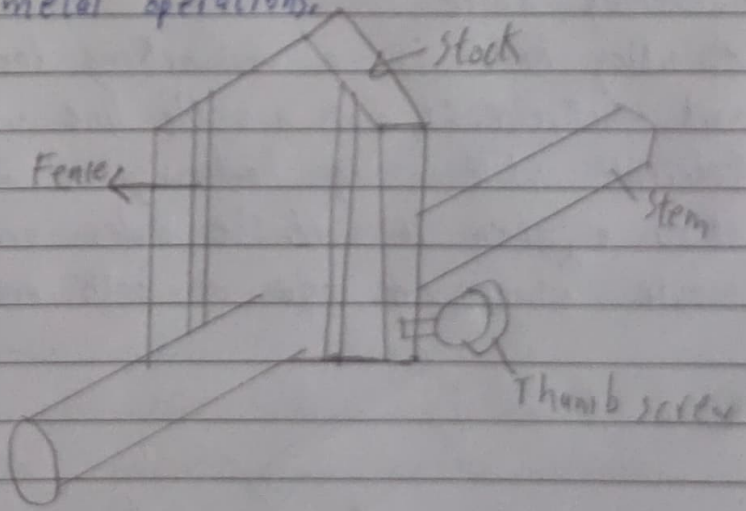
- Vernier Calliper

A calliper is a measuring tool to check dimensions of given object. These callipers comprise of a callibrated scale, with fixed jaw and another jaw with a pointer. The distance between the jaws is read differently for three types. They provide precision upto 0.01 mm.



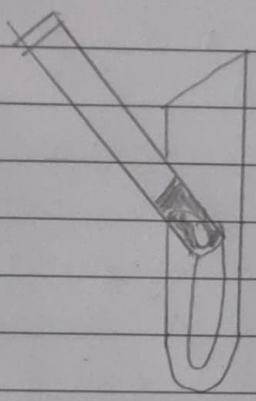
- Marking gauge

A marking gauge is used in woodworking to mark cut line for cutting of other operations. the purpose of gauge is to scribe a line parallel to a reference edge/surface. It is used in joinery and sheet metal operations.



• Sliding T bend

A bevel gauge of false square is an adjustable gauge for setting and manufacturing angles. Different from try square, which is fixed at 90°. Sliding T bend can set any angle and transfer it on another peice.



• Protractor

It is a measurment instrument typically made out of transparent plastic or glass. This is used to measure angle. Some protractors have 2 swinging arms which help in angle measurment.