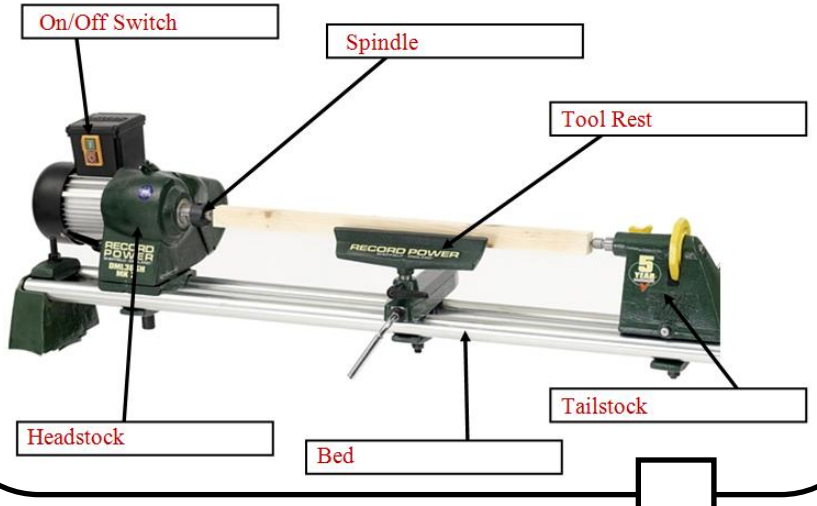
Lathe

A wood lathe is a machine used to form a piece of wood into a desired shape, whether it is a bowl, spindle, vase or a variety of other useful and/or decorative wood items. A piece of stock is attached to the headstock and tailstock and specialised lathe chisels are used to shape the piece of wood as it spins.



Bed- This is a horizontal beam which holds together the basic components.

Headstock- The motor is attached to the headstock and this powers the lathe to turn the **spindle** along the turning axis. A number of different sized faceplates can be attached to the spindle for completing different jobs.

Tailstock- This can be adjusted up and down the length of the lathe bed. It contains a pointed barrel which moves in and out but does not rotate. This locks the wood in place by driving it into the spindle grooves, therefore securing the stock in place during the turning process.

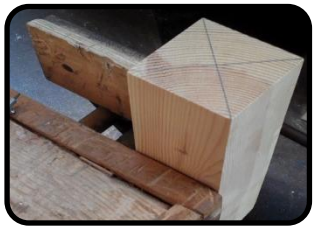
Tool Rest- The tool rest acts as a lever from which the lathe chisels can be worked to remove the required material. This can be adjusted along the bed to any desired position.

On/Off Switch- This turns on and off the machine.

Process

Step 1

- Before starting the process it important that long hair is tied up, sleeves are rolled up, any jewellery is removed and safety glasses/ visor are put on.



Step 2

- Before starting the operator needs to find the centre points of each end of a square length of stock. This is done by drawing two diagonals from the opposing corners.

Step 3

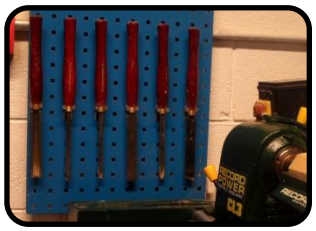
- If creating a spindle the edges should be also planed off to form a hexagonal shape. This makes it easier to remove material in the initial roughing out stage.

Step 4

- When setting up the stock it the lathe the centre points need to be lined up with the headstock spindle and the tailstock barrel. The tailstock should then be locked to the bed and the barrel should be tightened using the hand wheel.

Step 5

- The tool rest should then be set in place and brought up as close to the stock as possible but should never touch the wood. The stock should always be hand spun to make sure its not hitting off the tool rest.



Step 6

- There is a range of lathe chisels that can used during turning. Normally the first tool that would be used is the roughing gauge. This is a strong heavy chisel which can remove the initial waste relatively quickly and shape the wood into a cylindrical shape.

Step 7

- When operating the machine it is important to fully concentrate on the task. Always keep two hands on the chisel and work the chisel from along the tool rest.