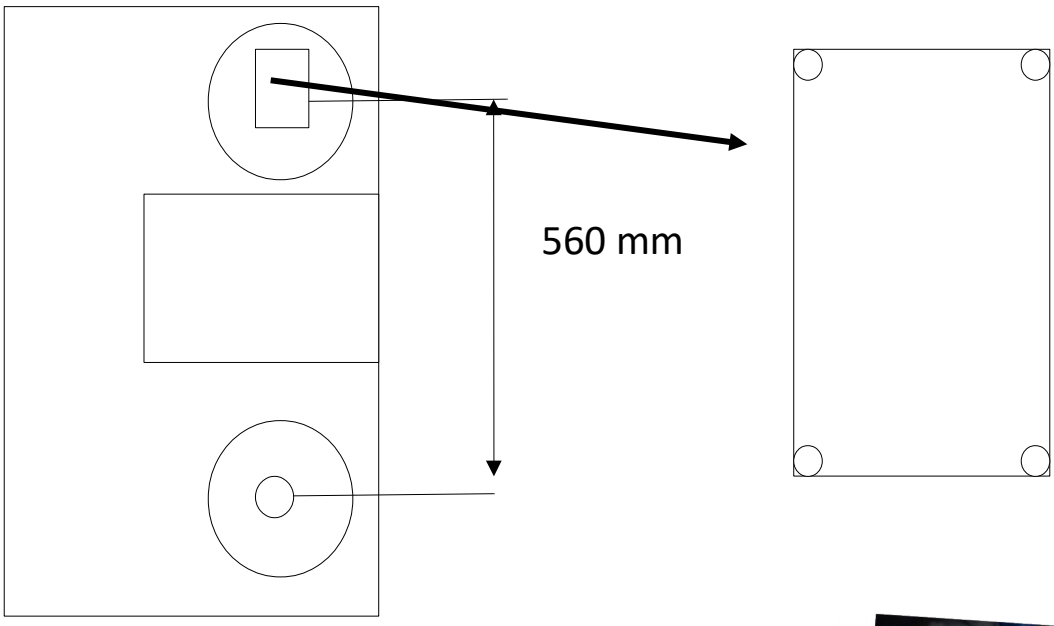
Terry's Bandsaw

Take 4 x table tops or sheets of 20mm ply.

First calculate how big the machine is going to be, for example if you use an 82.1/2 inch (2062 mm) long blade.
If you have a 300 mm dia wheel then:
300 x 3.142 = 943 circumference

2062 – 943 = 560 this gives you the wheel centres

2



Glue and screw two sheets together
Clamp all four sheets together and drill
Through 25 mm (for the shaft) and 4 x 6 mm
Holes in the corners of the rectangle.
Separate into 2 sheet thickness and jigsaw out the rectangle.
Cut lengths of wood for the spacing pieces 100 mm is a good size.

Insert the 25 mm shaft, then clamp, glue and screw the back spacing strip to join the two side together

Clamp and screw the gap below the table space and the bottom front to give stability.

Cut, rout and turn the wheels but with a slight convex shape

That will help the blade to track better.

Machine the pulley.

Drill the wheels 25mm dia for the shaft

And drill the pulley to fit the motor.

Drill and counter bore the bearing blocks, 2 for the box and 2 for the main shaft

Make a box (longer than the body width to fit into the rectangular hole. Make it a good fit sideways but make it so the box can be moved up and down, this is for the blade tensioning.

Make extra blocks to attach to the wheels, either from wood or metal, to give the wheels greater stability, i.e so that they are squarer to the shaft.
I used alloy plate that I bored out to fit the shafts.

Construct the blade guides, these can be bought or made to various designs (YouTube)

Fit blade guides to a ‘drop arm’

I used an a 10 inch bicycle inner tube that I cut out the valve from and used a contact adhesive for the wheels.

I cut, drilled and tapped M8 threads on a steel plate screwed to the box to give lift and tilt to the top wheel

Make a table to fit and remember it would be easy to leave off guarding but as the old saying goes ‘it’s not worth sinking the ship for a ‘hapeth of tar’ so safety first make guarding for the blade and motor pulley.

This is not entirely my design but I have made it to fit my requirements, size of the table tops and modified lifting device.

More information can be found on YouTube of several designs of Homemade Bandsaws

The blade bearings and the rip fence were purchased from Axminster Tools, the 2 x 25mm ground shafts were from internet as was the saw blade.