

SCROLLSAWS

By Jacob von Holzen

CUTTING;

It is important to try to stand or sit or in a relaxed and comfortable position when sawing. You are supposed to be enjoying your work. Just hold down the workpiece onto the table enough so the blade does not lift it on the upward stroke. Do not hurry the work into the blade. (More blades are broken because of this fault than any other reason.) Let the blade cut at it's own pace. Practice will soon teach you at what speed your blade will cut more comfortably. Each material is different, some will cut more easily than others.

A comment I hear often is "My saw will not cut straight, it tends to wander off to one side". With practice you will learn to compensate for this trend. It is good practice to try each new blade on a piece of scrap wood to see how true it cuts. If the blade cuts way out of true, I take a pair of pliers and bend the blade slightly just below the top clamp and also just above the bottom clamp in the opposite direction of it's bias. Usually this does the trick. Do not over bend. Just a little at a time, until you are satisfied with the results. If the blade only runs off true slightly don't worry about it.

Sawing with the grain (ripping) in timber you will experience more blade resistance and slower cutting than when cutting across the grain (cross cutting). Take care when changing direction from ripping to cross cutting and hold back a little on the turn as not to overshoot the corner. A little practice will soon tell you when to stop moving the workpiece forward, and to start your turn. Anticipate what the blade will do and compensate before you are way off the line you are sawing on.

Resist backing off if you have gone off the line, and into the work side of the design. Curve out gently and get back onto the line in a gently sweep. If however, you stray into the waste side of the line, back off to where you started to stray, press the workpiece sideways onto the blade, on the side you want to get back onto the line, move the work slowly forward until the blade teeth grip the side of the cut, and then you can relax the sideways pressure, and proceed as normal.

Whether you cut on the line, or just touching the line on the waste side is your choice. Most of my designs, I have drawn with a black fine tipped ball point pen, and I cut down the centre of the line. I'll be honest, this is not always easy to do. If the design is shaded in, I cut on the waste edge of line.

Before you attempt a serious project, I suggest you practice some basic cuts on some scraps of 6mm M.D.F. say about 150mm square; it has no grain and will cut at the same speed in any direction. Practice on wood when you are more confident, because as mentioned earlier, wood will cut faster across the grain, than with the grain, so it requires more control.

Back to the practice pieces. Draw a few straight lines, wavy lines, zigzags, half circles, squares, rectangles, and a few piercing cut-outs etc. Practice cut until you are able to



follow each line accurately and feel confident enough to start your first project.

YOUR FIRST PROJECT;

You have done all your practice cutting and are now eager to start on your first project. The design has been chosen, and the timber selected. Fit a suitable blade for the thickness of the timber to be used. As a guide I will give you the blade sizes recommended by "Hobbies".

00	veneer
0	fine overlay
1	3mm wood
2	4.5mm wood
3	6mm wood
4	9mm wood
5	12mm wood
6	18mm wood
7,8,9,10,11	for multiple cutting and various thicknesses of wood etc. and hard board.

This is only a guide. If you use a blade larger than a no.3, you will not be able to turn a tight corner without nibbling from more than one direction to get around. This can result in untidy cutting. If your Scrollsaw is designed to take only coarser blades, cut to the corner, then back up a few millimetres and cut a arc around in the waste wood, and finish the corner from the other direction. This takes time, and not taking care can result in a messy corner. One reason why I prefer to use finer blades.

For other than cutting veneer, I use a No. 2 blade for all wood up to 10mm thick. The No 2 blade results in a fine smooth cut which requires no touching up. Maybe it will take me a little longer to cut thicker material, but the finished result is worth it.

Again I remind you that the blade is always fitted with the teeth facing downwards, so it cuts on the downwards stroke. Fine blades can be tested by lightly rubbing your finger along the teeth edge to determine as to which way the teeth are facing.

Arranging the design;

Cut the design into its separated components and arrange on the timber, remembering the grain direction of each piece Either glue or tape each piece to the timber. Any pieces which are straight sided I cut to their exact size on the circular saw, before I tape on the design. I cut duplicate pieces in pairs where ever practicable, such as box sides and ends, and any other parts of the design which require more than one of the same. Tape the two pieces together with the face sides inwards and cut out together. This saves time and both parts will be identical. Any piece which has a straight side, fix this side to a machined edge of your timber. This saves having to attend to the edge after Scrollsawing is complete.

When a design has cut-outs, holes need to be drilled to allow the blade to pass through. I use a 1/16 (2mm) drill in my drill press for this. Plan where you drill the holes, keep within 2-3mm of where you will commence the cut. Near a corner or at the end of a point are ideal places to places to drill.

End of part 3.