

SCROLLSAWS

By Jacob von Holzen

Buying a Scrollsaw;

In the past I have had a number of inquiries from members as to which Scrollsaw to buy. This is a difficult question to answer, as a number of considerations need to be taken into account. I will try to answer some of the questions asked, by giving pointers to assist you in making your decision.

Most of you are aware that I use a "Hobbies Gem" treadle Fretsaw dating back to the 1930's, for cutting veneers for my Marquetry pictures, and plywood's, veneered M.D.F. and solid timber for my fretwork boxes etc. These saws are still manufactured in England, but unfortunately there is no agency in New Zealand.

The treadle fretsaw gives me instant speed control. I can treadle faster for easy cuts and immediately slow to a crawl for sharp corners and delicate cuts such as veneers and thin materials, all by adjusting the speed of my pedalling.

Another feature is the simple and easy blade release and retightening mechanism- in the form of a wing nut- which allows me to release the blade, pierce through the next cut-out and retighten in a matter of seconds. When making a project with perhaps 60 or 70 piercing cut-outs, releasing the blade, threading through the next hole and retightening, takes up much time if the process is not simple.

Considerations when buying a Scrollsaw.

Decide what sort of projects you plan to make with your Scrollsaw. If you only want to make simple outline cut-outs without piercings, just about any Scrollsaw will do the job. In this case there is no point spending a lot of money. If on the other hand you wish to do more intricate work, it is essential that the blade changing, release and tensioning system is quick and easy to operate. There is nothing more frustrating than an awkward blade change. Try this operation in the shop, and be entirely happy with the ease of the procedure before buying.

Another point is to ask if they carry a full range of blades for the particular Scrollsaw, which will only take a certain type of blade. Some saws will only take a blade designed for that particular brand. This is often the case with saws which are designed for pin ended blades. A Scrollsaw is of little use if the blades are hard to obtain.

Types of Scrollsaws;

There are two basic designs of Scrollsaws.

The **C-Arm** that pivots on one point and means the blade moves through a slightly arced



movement resulting in a faster cut.

The **Parallel arm** where each arm is independently pivoted which gives straight up and down movement of the blade. They are ideal for jig saw puzzles and stacked work where a square and accurate cut is essential.

Blades;

Some Scrollsaws have provision for both plain ended and pin ended blades. Plain ended blades are available in much thinner sizes and are able to do much finer work than their pin-ended counterpart. Pin ended blades are more robust because they need to be deep enough to allow for the pinhole, and as a result rule out fine work. They can also cause difficulty when turning sharp corners, necessitating attacking sharp corners from several directions before clearing. They also need a large hole to thread through piercing work to allow the pin to pass through. A plain-ended blade of up to no. 3 will turn sharp corners without having to back-off. The piercing hole can be of a much smaller diameter. Some brands of plain-ended blades have rounded backs, which makes turning sharp corners a breeze.

I use blades made by "**Hobbies**" and all are a standard length of 130mm, having a rounded back and slightly hooked teeth, which give a smooth and fast cut.

Speed Control;

Variable speed control, I think is a very important consideration if many and varied materials are to be used. A slower speed is a definite advantage if thin materials and intricate cutting are involved. At high speed it is difficult not to over-shoot a sharp corner and hard to control on intricate cuts.

A tip when cutting very thin materials, such as veneers or other brittle materials, tape the work onto a thin piece of backing material such as 3mm M.D.F. and cut through both. This will protect the workpiece and also alleviate much of the furring on the underside of the workpiece.

Tilting Table;

A tilting table is useful for angle cutting and auto-fretting. This again is another aspect to consider before buying.

Throat Size;

Throat size is the distance from the blade to the back of the saw arm, and will determine the size of the workpiece. In some cases it is possible to cut as far as you can go from one end, then remove the workpiece from the saw and approach from the other end, thus completing the cut. An alternative is to break down the workpiece into smaller segments for cutting and re-joining on completion.

Power Switch;

The power switch should be in a convenient, easy to reach place. Particularly in the case of a blade break, which can be a frightening and noisy experience.

Noise and Vibration;

Run the Scrollsaw in the shop and check for noise level. The quieter the running the more pleasant the machine is to work with over a long period of time. My own Scrollsaw makes an unpleasant droning and surging sound which, without earmuffs, is most irritating.

Remember you may have to listen to the sound of your machine for lengthily periods on a big job.

Vibration can cause problems by giving you a blurred vision of the line you are trying to cut along, So, in short, a quiet running and vibration free Scrollsaw is desirable.

To Sum Up;

- ◆ Think carefully before buying.
- ◆ What sort of projects do I plan to make?
- ◆ Type of Scrollsaw.
- ◆ Simple blade release and tensioning.
- ◆ Ease of operation.
- ◆ Type of blade
- ◆ Speed control
- ◆ Tilting table
- ◆ Throat size
- ◆ Power switch
- ◆ Noise and Vibration
- ◆ How much can I afford to spend?

I hope the above will have been of some help in your choice of Scrollsaw.

Shortly I will endeavour to write further chapters on how to use your Scrollsaw and reveal some helpful hints. In the meantime happy woodworking.

