Tuning, Caring for, and Using Your New Saw

A good quality handsaw should give at least one lifetime of satisfactory service providing that it is correctly used and cared for. New saws are often sent from the manufacturer with a protective a coat of lacquer, this will wear off in time or can be removed using a dab of meths or white spirit on a clean cloth.

Sharpening

Saw sharpening is not difficult as long as you approach it methodically and take your time. Before you begin, clamp the saw in a vice with a piece of planed up scrap timber on either side of the blade. The timber should sit in line with the bottom of the gullets so that your file just marks the wood with each pass. This makes it easier to control the depth, angles and spacing, and gives you an easy reference of where you have got to. Good light is essential.


Rip Saws

Rip saws are the easiest to sharpen because the teeth are sharpened straight across like a row of chisel tips. With rip saws you can do the whole sharpening job from one side without having to reposition the saw. The forward facing edges of rip teeth should be sharpened perpendicular to the back of the blade, in other words with zero rake. Positive rake is where the teeth lean forward into the cut, negative rake is where they lean back towards the handle.

When sharpening a saw you should apply gentle steady pressure with the file and push down and towards the handle slightly to ensure full contact between the file and the face of each tooth, it is this surface that you are working on.

To make a nice job of it, you will need to perform an identical stroke on each tooth. Get into a relaxed stance with your feet a shoulder's width apart and one foot slightly in front of the other. As you make your first stroke, listen to the sound of the file and be aware of how much pressure you are applying. Try to do exactly the same on the next tooth, and the next until you start to build a steady gentle rhythm.

Crosscut Saws

Sharpening crosscut saws is a little more challenging, but nothing to worry about. Start by planing the tops of your supporting timbers to an angle of about 20 degrees, this will set the slope for you and make it easy to keep it consistent. Slope produces a keener edge on the tooth and gives better clearance for sawdust: too much slope will cause the saw to tear the fibres of the wood rather than cutting them.

Mark lines on the chamfer at 20 degrees every so often, these will provide your reference for the fleam angle of the teeth. Fleam creates a sharp edge on the side of the tooth, which severs the fibres of the timber; alternate teeth have opposite fleam effectively creating two rows of knives that slice through the wood.


With your saw clamped up as before, begin filing to your marks with the file just grazing the timber each time. File every other tooth from one side and then turn the saw around and file the remaining teeth with the fleam in the opposite direction.

Crosscut saws should have a little negative rake; this helps the edges of the tooth to slice through the fibres cleanly and makes for a stronger tooth. With your guide chamfer taking care of the slope, and your marks keeping an eye on the fleam, rest your index finger on the top of the file to keep it level with your direction of cut, giving you 30 degrees of rake, which is about right.

Saw Files

Saw files are intended to be disposable items, you can rotate them and use all three corners but even the best quality ones will only be good for half a dozen blades (the really cheap ones will only do one). It is important to use the correct file for the pitch of the saw that you are sharpening, the teeth should stand a little less than halfway up the side of the file.

Set

Set refers to the amount that the teeth are bent outwards from the line of the blade. Some set is required in order for the blade to flow freely in the cut, it also allows you to steer the blade at the beginning of the cut until the kerf is established. Less set helps the saw track correctly once the cut is established and makes the saw cut faster as you are removing less material. In essence its a necessary evil, so the objective is to have only just enough.

Stoning

Set can be applied with a saw setting tool and removed by very, very lightly 'stoning' the sides of the teeth, be careful to treat both sides evenly and take a test cut after just lightly kissing the sides of the teeth with the stone. If your saw develops a tendency to veer to the left or right this can be corrected by stoning the side that it is veering towards.

Care

Good saw blades are made from unalloyed carbon steel as this provides the sharpest cutting edge. They are therefore prone to corrosion unless steps are taken to protect them. Always clean your saw after use, sawdust is hygroscopic so it will absorb moisture from the atmosphere and hold it against the blade, causing rust. A light coating of Shield Technology ProtecTool Wax applied to the blade before storing it will keep your saw in top condition and doesn't need to be wiped off before you use the saw again.

Storage

Store your saw safely where it will not bang against other tools, hanging it up on a nail or using a magnetic toolbar screwed to the wall both work well. If you are travelling with your saw, use a saw wallet to protect it during the journey. Avoid storing it in a wallet for extended periods as this can lead to a build up of moisture.

As soon as you feel the performance start to drop off, touch up the teeth again with a file. Little and often is much better than waiting until it's all but useless and having to start again.

Sawing

Finally we get to cut something! Make sure that your timber is firmly supported with as little material as possible protruding above the vice. You should be able to finish your cut without moving the timber and not risk cutting into the top of the vice, but any more than that simply causes excess vibration.

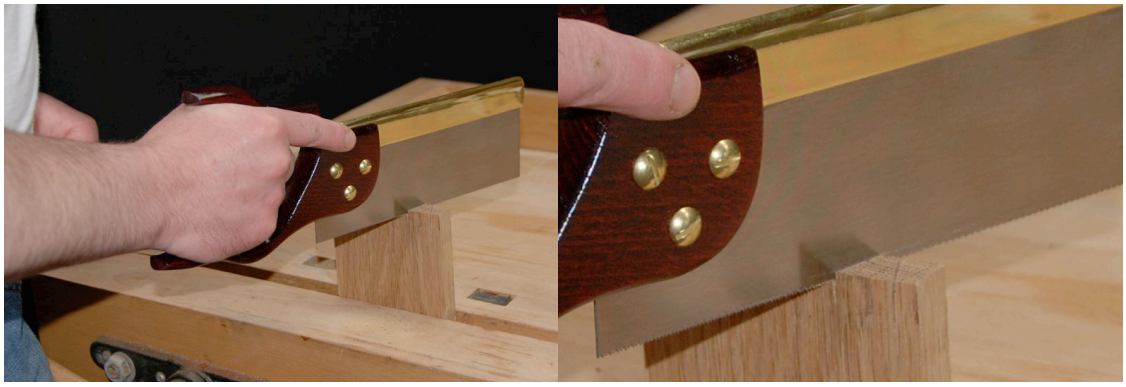
Starting the cut is something that many people struggle with until they get used to it. English backsaws have a heavy spine along the back of the blade, the weight of which provides the maximum pressure needed for an efficient cut. Your job is to control how much of that pressure is applied, so in the vertical plane you are working between no downward pressure (full acceleration) and the point where you are taking the whole weight of the saw (tickover).

To start the cut, rest the tip of the saw flat on the timber and taking almost all of its weight, gently ease it forward for one full stroke. Lift the saw out of the cut and move back to the starting position before taking a second light stroke running in the kerf of the first one, then start to ease the saw back and forth.

Gently allow the wood to take progressively more of the saw's weight as the cut becomes established. You have about ten strokes (depending on the amount of set), as you release the weight of the back, to steer the kerf straight.

Steering

To do this, observe the reflection of the timber in the side of the blade, if your timber is horizontal it should appear to carry on straight through, if it appears to be bending up or down then your blade is not plumb. All the steering is done with the thumb and forefinger of your sawing hand. This is what people are referring to when they talk about sawing 'by eye', because the reflection magnifies any error by a factor of two it is incredibly accurate and the vast majority of people only need to understand it to be able to do it really well.



Once the cut is established you can let the full weight of the saw rest on the timber and just push it to and fro, the blade will be steered by its own kerf, so as long as you started straight and the saw is tuned correctly it will just carry on cutting in a straight line. Be careful not to apply any downward pressure, you should be able to hold the handle between thumb and forefinger and slide the saw back and forth, 'let the tool do the work' is the adage that apprentices have had drummed into them for centuries.

The next thing you need to think about is where the cut will stop, I like to position a mirror behind the bench so that I can see both the front and the back of the timber without having to lean over the job and have a peek every now and again. As you approach the finish, slow right down and start to take the weight of the saw in your hand again. Better to creep up slowly on your mark than charge up to it at full throttle.

English backsaws are designed to cut vertically, the mass of the back is instrumental to the whole way that they function. So if you are sawing a line of dovetails for example, always cant the wood over to the appropriate angle so that all of your cuts are vertical and then reposition the timber before cutting the opposite sides. With the right tool and a little practice, you will find that they are delightfully accurate precision instruments, and you will soon be confident splitting a knife line with one side of the blade.

