

# OLD STREET TOOL, Inc.

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## The care, use and tuning of your new smooth plane:

***Warning:*** *Your new plane is a single iron plane. As such, there is nothing except a firmly set wedge to keep your plane's iron from falling through the mouth.*

*Handling these planes, without the wedge firmly set, can be hazardous. Please set the plane's iron while holding it over your bench; preferably not over material for an important project. Please explain this and supervise children or other users who may not be aware of the risks of single iron planes.*

## Sharpening

The iron supplied with your plane is sharp and ready for use. It is suggested that you accustom yourself to the plane with the iron as supplied before making changes to its edge.

Your sharpening stones (or what ever sharpening medium) must be flat. Once the face of the iron (often referred to as the back) is flat, it's best to only use your finer stones to remove any burr left from honing the iron's bevel. This will help limit enlarging the shaving aperture by keeping the iron near it's original thickness. Stropping can be done, but it is important to avoid rounding the front edge of the iron. Felt buffing wheels tend to round or dub the surfaces that form the edge.

We suggest you keep a perfectly straight edge on your iron and slightly "kill" or soften the corners at the sides of the iron by tilting it on your sharpening system.

If you use a honing guide (we recommend you learn to do without), please keep in mind that the iron tapers slightly, width-wise, from cutting edge to heel. This slight narrowing will need to be accounted for in this instance, as well as when re-establishing the edge when the iron needs to be ground.

## Setting

Finishing smooth planes are difficult to set. The ideal set will take a shaving approximately 1/1000" to 15/10,000" thick. These are essentially machinist tolerances and you will be trying to make that setting with a hammer while, at the same time, keeping the iron's cutting edge parallel with the sole. This is a difficult skill to achieve and takes some patience and practice. Investing the time and effort learning this skill will reward the user with finished surfaces superior to those possible with other tools.

We suggest you use a small (6 to 8 oz.) brass hammer to set your plane's depth of cut. This is done with light taps to the heel of the iron. Steel hammers will eventually mushroom the heel of the iron. When the final setting is reached, apply a final tap to set the wedge. It shouldn't take a lot of force to hold the iron in place. A mallet tap on the wedge is all that is necessary. A plastic faced mallet can be used to adjust depth of cut. A light tap on top of the toe section will back the iron off and a light tap on the heel of the iron will increase depth of cut. Each time the depth of cut is changed the wedge should be reset.

Remove the iron or set the wedge with a wooden, hard plastic or dead-blow mallet. These softer mallets will limit long term marring of your plane. A sharp rap, with your mallet, to the heel will release wedge pressure. A tone change will indicate the release of pressure.

## **Use**

Finishing smooth planes should be set to take a shaving of .001" (+/- .0005") in thickness. These shavings, about one fourth the thickness of a dollar bill, will have an appearance that resembles lace with most woods. The shavings should be about the same thickness as those you'd expect from a hand scraper.

If the corners of your iron have been properly prepared and your iron is sharpened to dead straight, the lap marks of successive signatures will be invisible.

Handling of difficult grain should be easy with your new plane and you'll find that you can even plane against the grain. Should you still encounter small problems with tear out simply angle the plane at a skew and continue planing with the grain if possible. This should eliminate any problems.

Fine shavings rarely have enough strength to actually eject from the plane as you may be used to. You may have to manually clear the escapement to keep a view of the cutting action. Should your plane's mouth appear to plug with shavings or "choke" simply take another cut. These planes will usually clear themselves on successive passes.

## **Tuning**

Seasonal or occasional tuning may be necessary. You may also have to do an initial tuning after your plane acclimates to the humidity level of your shop. It is suggested that you allow your new plane to acclimate to your shop's environment before making any gross changes to the sole; two or three weeks should be enough. Another high quality plane, set very fine, can do this or you can sand sole irregularities with fine sandpaper attached to thick (1/4" or more) plate glass. You should never have to use paper more coarse than 320 grit and we suggest you start with 400 or 600 grit. Care should be used to remove as little as possible and still get the sole flat. The wedge should be set to a normal working tightness with the iron withdrawn above cutting position when tuning or lapping the sole.

## **Maintenance**

The finish on your plane is Minwax “Antique Oil Finish” applied as a wiping varnish. It should be compatible with other high quality finishing oils. It’s a good idea to coat the sole with fresh finish after tuning and to maintain the finish in worn spots. After applying finish we suggest buffing with fine steel wool and waxing with a high quality wax such as Tre-Wax.

## **Storage**

We suggest removing the iron for long term storage. We also suggest relieving pressure on the wedge if the plane isn't going to be used for a day or two.