

## Jig User's Guide:

Always wear appropriate safety gear and eye protection when using any tools, whether power tools or hand operated.

WEBFoot Custom Calls jigs are made of tool steel, and hardened to ≈ Rc55-60 to resist damage or alteration by Carbon Steel, HSS, and Cobalt tools. Though the jig can withstand steel cutting tools, it cannot withstand Carbide tooling, Diamond files, Grinding Wheels, or Sand paper. Do not: Sand, grind, hammer, or drop your jig on hard surfaces as it may be damaged. Do not use tools made of carbide (including carbide tipped saw blades) or diamond faced tools can remove metal from the jig and change it's overall shape, possibly ruining the jig. Use only steel, HSS, or cobalt tooling. WEBFoot Custom Calls recommends Nicholson Mill files.

Despite the simple nature of the jig, there are a few tips and tricks to help achieve the best results from your jig.

## Using a saw:

There are many different types of saws and saw blades that one can use to remove the bulk of the excess material from the call part in the jig. Most commonly used saws are: Band Saws, Coping Saws, and Scroll Saws. Though you may have a preferred saw or method you already use.

When sawing the bulk of the material from your keg (aka: insert/stopper/exhaust) be careful not to let the saw blade contact the jig as you are cutting along the jig. The primary reasons for this are not as they may appear. Though over the course of years, regularly contact between the saw bland and the jig may cause some wear on the jig beyond that of normal use with a file, the real reason is for the sake of the call. Most all saw blades have a kerf in which each tooth of the saw blade is slightly offset form the main body of the blade. What can happen is the kerf rides along the hardened jig surface until it reaches the soft material being held by the jig. At that point, the blade is pulled somewhat into the material (due to lack of resistance) and actually cuts below the surface of the jig. In turn, that negates the benefit of the surface of the jig because you are unable to file the material that has been already cut below the jig surface.

## Filing your soundboard:

This is an area that requires a little bit of attention and experience, whether you are working with a public jig or a custom jig. Since the relational accuracy of the soundboard is so critical to the sound of your call, for example, if you are using a custom jig you just had made, the whole point of the jig is to replicate the soundboard of your prototype call as accurately as possible. Without paying particular attention to a couple areas, it is all too easy to file and file and file, and still not have filed the keg all the way down to the jig, leaving you wondering why the call does not sound like the prototype right off the jig. Here are some tips for when you are filling parts on your jig:

• The better your keg fits the jig, the less it will 'wiggle' around while sawing and filing. Recommended clearance is .001" to .002". If your keg is tapered or

- noticeably undersize the insert will not be held rigidly in the jig and the accuracy will be affected.
- Use a file that is thinner than your cork notch. It will make it easier to get the cork notch started and work the area at the back of the cork notch.
- Don't forget to work file the top of the cork notch. It's easy to forget.
- When working the front portion of the soundboard, notice if the insert is moving
  within the jig. If it is, the setscrew may not be tight enough or your keg was
  turned with a taper or turned undersize. You may wish to use setscrews in the
  bottom of the jig to support the bottom of the soundboard while filing to keep the
  board from flexing below the surface of the jig.
- For final filing, be sure that the file is resting on the jig on both sides of the keg to be sure that the keg will be filed symmetrically from side to side of the tone channel.
- Keep in mind when filing, if you are applying noticeable downward pressure on both the handle and the tip if the file while filing, the file will flex or bow a small amount in the middle. This bow results in an uneven surface or a bowing of the soundboards surface. One suggestion is to press down in the middle of the file with your thumbs while lifting up gently on the ends to help keep the file straight. Keep in mind; files are more brittle than regular steel because they are hardened. Do not apply too much pressure or the file may break.

## Mounting the Jig:

There are many ways to work with your jig. There are two threaded holes (¼" x 20 tpi threads) on the bottom of the jig that are 1" apart on each side of the bore that can be used for mounting the jig to a table, work bench, or other suitable surface. Another method is to hold the jig in a vise or clamp the jig to a suitable surface.

Another feature of the WFCC jigs is two additional threaded holes in the bottom of the jig along the bore of the jig. These also have  $\frac{1}{4}$ " x 20 tpi threads and are centered to the bore. You can add a setscrew to either or both of these threaded holes to adjust the tension, position, or angle of the keg in the jig giving you even more versatility from your jig, custom or public.