# Synopsis of 2016 National PTG Convention

Joe Goheen
9/19/2016

Steve Brady was presented with the Golden Hammer award.
When he started tuning he had five goals:

1. Work for a dealership
2. Work for a university
3. Concert-level work
4. Teach
5. Write

From now on, PTG will be run by the Board of Directors rather than the council and the by-laws.

VOICING (Kawai)
The most important thing with voicing is the shape of the hammer. It's easy to fool yourself if you pull the action out, voice a hammer, put it back in and listen to it. Voice a hammer without looking at which one you're working on by making a mark on the shank, then put the action back in and determine if you hear a difference.

*Voicing Tips:*

- Do pre-voicing at 9:00 and 3:00.
- Touch up mostly on the back side. When playing fortissimo we want the hammer to be harder on the side closest to the keys because that's the side that strikes the string, so voice on the other side.
- The key hits the bottom on a hard blow before the hammer hits the string. The key hits the bottom before the hammer goes through let-off.
- String leveling is affected by tuning.
- Level the strings, but don't over-lift. Level all three strings in one plane. If the strings are leveled to the hammer, the damper seating might be affected.
- When fitting hammers to strings, use a different pressure level.
- When we shape hammers we are going down to harder felt, which then may require some voicing.
- Once a hammer is filed, the rate of wear accelerates, and the need for voicing increases.
- Finish filing with 400, 600 and even 1000 grit, especially on denser, harder felt.

PIANO TUNING LIMITS (Daniel Spodeburg)
Wipe the string clean with a microfiber cloth and you can hear a difference. Simply wiping off dust makes a difference in the tone.
Boom = fundamental
Clang = mid-partials: pluck 5-6 cm with fingernail
Sizzle = at the end, like a centimeter

GRAND REGULATION (Joe Swenson, Samick)
Joe spends 6-8 hours on each grand at the end of the assembly line. He sets parameters in a logical sequence for blow, dip and key height, to get it to work. Take one sample white key and

adjust let-off and drop. Put after-touch gauge under front-rail (40/1000) and adjust the height of the capstan until the jack lets off, starting with a dip of 10 mm. Refer to the chart.

MASON & HAMLIN TOOL

To see if the stud is bottomed out, turn the studs up until they are off the balance rail. Then turn each stud down until the needle starts to move. This is a much more sensitive way to adjust rather than by knocking, listening and feeling. The gauge is placed next to the balance rail stud, between the key button and the pin block. The bottom of the gauge might need to be shimmed.

When the stud is off the key bed the needle doesn't move. Ed starts at the center stud, then goes left, then right, and works his way out, pre-checking along the way.

THE SOUND OF YOUR TUNING (Don Manino)

Order of importance:

1. Stability
2. Unisons
3. Bass octave
4. Treble octaves
5. Middle octaves
6. Octave width
7. Temperament

If you use a narrow octave temperament, your thirds will be slower; this narrow sound can be interpreted either as a more sweet sound or as more dull. Wider octaves produce brighter, wider sounds. Narrow means less expanded, like a pure 2:1. Pure fifths didn't work, so it was expanded to twelfths. Keep the thirds alive when going down low. Ed stretches the bass as far as he can, so that his octave-fifths are practically pure.

For noisy duplexes, take some masking tape and tape over those strings while tuning to get them quieter. Once the unison is tuned and stable on a new piano, Don will de-tune one string just so it doesn't repeat.

Roger finds it's more difficult to do a solid tuning when following up on someone else's tuning. How do we tune a piano in a way that we know the string will go out of tune? If we learn to tune so that the string intentionally goes in a certain direction, then we can learn to tune a piano that holds. The key to this skill is the pin-setting technique.

EAR TRAINING FOR VOICING (Keith Akin)

Keith played several recordings of orchestral piano music to hear differences. Our ears are conditioned to hear a certain kind of music. In classical Asian music there was no bass. Keith wrote an article for the Journal in January, 2001 (Voicing for the Rest of Us) and 2010 on this topic of ear-training. Keith used to work in piano retail. He sold a lot of pianos. Instead of qualifying them by price, he took the customers to the best pianos first, and then took them down until they could tolerate the sound that they could afford.

Voicing is a matter of controlling the speed of the hammer off the rebound from the string. The faster the hammer travels, the more the hammer flexes. Keith uses a pin vice with a depth stop for the needle. Going into the shoulder damages the felt by cutting the fiber. Instead, Keith goes in from the side around 9:00 or 3:00. You get the most bang for the buck by inserting the needle from the side directly under the strike point, about a needle's width below the surface.

If the hammers are really hard, use a surgical towel clamp and squeeze close to the strike point. The result can be dramatic. Another tool is a molar extractor for squeezing and softening the felt. For hardening, instead of using acetone or lacquer, he uses plexi-glass, which dries very quickly. Fill a container with a teaspoon of acetone and apply with a syringe.

TIPS

- When removing the action, Eric Schandell puts Teflon powder on the key-stop block, in addition to spraying McLube on the sides.
- Flourescent lights are designed to show no shadow. If you are looking at string grooves from the side of the hammers, use Stylus Reach, which uses AAAA batteries from Radio Shack.

VERTICAL REGULATION

On newer pianos, the damper springs are too strong. The key down-weight is the same as the damper spring resistance. When the damper load is too strong, the down-weight is a lot.

TUNING LEVERS