The Buckeye Backcheck

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Newsletter of the Columbus Chapter of the Piano Technicians Guild

In this issue:

From the Editor...

I was not able to attend the April Chapter Meeting, due to some health issues of my father, who has since rebounded in spectacular fashion, and who is now diligently working on critical areas of his golf game. The family is thrilled and thankful that he recovered so quickly and so well. Speaking of being thankful, I would wish to offer my gratitude to Mark Ritchie, Kim Hoessly and Chris Altenburg for their contributions to this issue of The Buckeye Backcheck. Their efforts really helped this issue come into fruition.

Meeting Minutes (excerpts)

President's Report
Our Regional VP, Bob Russell, spoke with Kim and reported that the Milwaukee PTG Regional Convention went well. The next regional event is scheduled for October 7th - 10th, 2004 in Indianapolis, IN. Kim again mentioned the PTG auction to be held at the National Convention. Anyone with items to auction should contact the convention team in Nashville as soon as possible.

Announcements
Announcements: Doug Brandt's father is recovering in Florida after a hospital stay due to heart trouble. (My father is currently doing very well, for which my family and I are very grateful. Thanks to all those folks who offered their concerns. -Doug)

Kim asked that anyone interested in a birdcage piano, thought to be about 80 years old, contact her directly. There was no expressed interest for the instrument among those attending April's

meeting.

Butts and Flanges

Mark Ritchie spoke of a Steinway O he had rebuilt for a church in Newark, but one he was not contracted to maintain. He had installed a Dampp- Chaser climate control system on the instrument before returning it to the church. Apparently, after the initial bottle of humidifier treatment was used up, the church's maintenance staff purchased a bottle of humidifier treatment from a local hardware store instead of the Damp-Chaser product. Because of this, the piano experienced serious corrosion problems on its strings, hitch pins and tuning pins. The action itself seemed to have escaped damage.

The upshot of this story is that Dampp-Chaser is both serious and accurate when it indicates that only its humidifier treatment should be used in the water of its climate control systems.

You have been warned.

Hammer Hanging Technical ...

The evening's technical was an enlightening discussion and demonstration by Ben Wiant and Mark Ritehie about grand hammer installation. While their techniques sometimes varied, the final result was always a proper installation. We're grateful for their instruction.
(Submitted by Chris Altenburg)

Ben Wiant presented a simple but eloquent method of hammer hanging using a 1 1/4 inch dowel under the hammer shanks to bring them to strike point. Ben locates strike points much the same as Mark with a string to match new hammers to samples, as well as aural verification in the note range of #64 - #88. Ben then uses a hand held straight edge to line up hammer shoulders and moldings, and the use of a carpenters square, standing on the work surface, to visually check hammers for alignment. Ben prefers Titebond to glue hammers to the shanks for the additional working time it allows with his method. He trims the excess shanks with pruning cutters and finishes off the tails with a four inch sanding disc mounted into a drill. The shanks are firmly clamped to avoid any damage to flange centers.

This method of hammer hanging is quite effective but does require some practice and Ben has many years of experience.

Bob Grubb also presented his hand made hammer hanging jig, built in the Spurlock style. It also offers a fixed plane in which to align the hammer shoulders while resting the hammer on its tail at strike point. The concept of this jig is similar to the Jaras, with the exception that it is not somehow attached to the action stack. The user would need to be careful not to have the jig move while work was in progress. It was quite adjustable in several planes and Bob said he had all the material on hand and his only cost was in the hardware and time. I admire homemade tools and think technicians leam much from constructing their own shop fixtures.

Mark's Outline for Hammer Hanging

Hanging Grand Hammers with Jaras Jig

Before teardown

1. Measure string height from keybed to bottom of string in all sections. Have a teardown sheet to make notes of anything unusual and keep track of measurements.
 a. Poor strike points/ listen for a good strike point at #64 and # 88 or as far down as you can hear.
 b. Hammer strike line may not be a straight line.
 c. A replacement set of hammers or poor originals.

2. Take measurements from keybed to hammer flange center pin. Subtract the center pin height from the string height to get bore distance.

3. Measure bore angle and rake and save sample hammers (all hammers until finished).

4. You may want to mark the strings on your regulating bench or make a pattern to help with realignment (I find this very helpful on Steinways in particular).

Tools required: Glue pot and hide glue, straight edge (machinist ruler), hammer shank, tapered reamer.

* Range rails should be cleaned, check for any damage to the rails (loose screws, splits, etc.). Replace sandpaper or cloth to rail, attach new shanks and align and travel as necessary.

1. Mix hide glue in a clean, small baby food jar and soak in water until dissolved. I use a fairly medium thick viscosity for hammer hanging, just running off the hammer shank in a continuous fluid stream after heating.

2. Find centerline of hammer molding, at bore, and pencil in a strike point line through the center of the molding on first and last hammers of each section.

3. Use tapered reamer to adjust bore diameter for a comfortable fit, not too loose or tight on the shank/set up hamming hanging jig.

4. Using original hammers as a guide, with strike lines marked, install the first and last new hammers in each section with the aid of a straight edge or string to match samples. Use the adjacent hammers to set the guide hammers/ or the strike point you have selected.

5. Ream remaining hammers as necessary and dry fit onto shanks.

6. Final adjustment of jig set to newly installed guide hammers.

7. Using beveled hammer shank place hide glue on hammer and hammer shank spin on and align to adjacent hammer and jig / note for glue collar.

8. Allow to dry overnight and then trim excess shank, check travel and for any warping of

shanks.

From Other Newsletters...

The following article is from the April 2004 issue of Capstans Courageous, the newsletter of the Northern Michigan Chapter of the Piano Technicians Guild. It was written by Virgil Smith, a renowned member of the Guild for many years.

Hammer Reshaping By Virgil Smith

Proper hammer reshaping is one of our most neglected operations and possibly one of the more difficult to master, but it can yield spectacular results in tone quality. Though it is an important part of piano service, few technicians do any filing, and still fewer do it properly.

To reshape hammers correctly, one must understand that originally the felt was one flat piece composed of many thin layers. When forced around the hammer core, the outside of the felt was put under tension while the inside was put under pressure. This combination of tension and pressure enables the hammer to transmit energy from the key to the string most effectively.

A smooth hammer surface and a rounded striking point, resulting in a small striking surface, are important for best tone production. Grooves form as the hammer is used. They gradually lengthen and deepen resulting in an enlarged strike point. The surface of the hammer can become flat, or even concave.

The outer layers of felt are slowly severed causing them to lose tension. This dead weight interferes with the free flexing of the remaining felt layers killing the tone. Correct reshaping of hammers is difficult because it involves removing all the broken layers of felt without damaging any of the remaining continuous layers.

Severely worn hammers may require the removal of considerable felt to uncover the first layer of tensioned felt. Regardless of the amount of felt removed, the result should be a hammer shaped as it was originally- only smaller.

I use a 50 grit sanding paddle. File at one end of the felt until a layer is started, then bring it around until it disappears at the striking point. File only at the edge of the layer. Don't file the layer itself, just peel it with the file. If there is still evidence of broken layers, more felt needs to be filed. Be careful not to file into the crown. I am happiest when there is still faint evidence of string cuts as I know then that I haven't removed too much.

After proper shape has been restored, the surface of the hammer should be one continuous layer under tension and made as smooth as possible. I do this by gang filing with wide strips of sandpaper of successively finer grit. Start with 100, then 150 and finally 200 grit. This can be done frequently to improve tone- before a concert or whenever the hammer surface becomes fuzzy.

New hammers often come with loose felt on the surface. This should be removed using the

reshaping and polishing procedures described above. Until this has been done, along with tuning and regulation, no voicing should be done as shaping and polishing are often enough to build tone

From the Arts Journal...

MET OPERA STILL LOOKING FOR RADIO FUNDING Last weekend, the Metropolitan Opera broadcast its final live performance of the season, the last time the series will carry a sponsorship credit for Texaco, which kept the opera on the air for more than six decades. And while the Met has found money to cover the cost of next season's broadcasts, the long-term future of the wildly expensive series is still very much in jeopardy. Met chairwoman Beverly Sills is spearheading the effort to solicit donations for future seasons, and her basic strategy is a simple appeal to the warm, gauzy memories of all the moneyed folks who grew up listening to the Met. Miami Hearald (AP) 04/29/04

CLEVELAND ORCH SPURNS PROMS OVER WEB PAYMENTS The Cleveland Orchestra has declined an invitation to perform at the BBC Proms because its concerts would be webcast on a BBC website with no additional payment to the Cleveland musicians. Norman Lebrecht cannot believe his ears: "Open access is what makes the Proms a magnet for the world's great orchestras who, after the formalities of their overlong seasons, feast upon its effervescent atmosphere like nomads at an oasis. The trade-off is that everyone does it on the cheap... We are not talking here of the poor and downtrodden of the musical earth. The basic wage in the Cleveland Orchestra is $97,090 per annum, twice the going rate for London musicians and for less than half the work." La Scena Musicale 04/28/04

CURTIS HITS ITS GOAL EARLY Philadelphia's Curtis Institute of Music, arguably the nation's top conservatory, has raised the $35 million it set as a goal in its latest fund drive several months ahead of schedule. The money will be distributed to several parts of the institution, but the bulk will go the the school's endowment, which - at $127 million - is larger than that of all but a few major American orchestras, and is a huge boon for a school which does not charge tuition to its 161 students. Philadelphia Inquirer 04/28/04

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Doug Brandt, Editor
1259-A Lake Shore Drive
Columbus, Ohio 43204
dougbrandt@hotmail.com

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