

THE SOONER TUNER

NEWSLETTER OF THE OKLAHOMA CHAPTER
OF THE PIANO TECHNICIANS GUILD, INC.



OCTOBER 11,
1989

COMING EVENTS:

October 21 Saturday 2:00 Chapter Meeting at Norman Cantrell's Piano Clinic, 221 N. Douglas Ave. in OKC. This is two blocks north of Main St. and about two blocks west of Western. Norman will do a technical presentation on key-weighting. I'm looking forward to this one...in all honesty, I can hardly wait!

November 18 Saturday 2:00 Chapter Meeting at Gary Bruce's new shop in Edmond. Technical on damper repairing and regulating.

December 9 Christmas Party

THANKS to Jesse Jones, Assoc., and Don Stephens, RTT, for their technical presentations at our last meeting.

TECH TALK:

I'd like to share a discovery with you that I am making on two of our Steinway concert grands at OU. They have both been known as having very heavy actions, and faculty, students and guest artists have complained at times. Several times I have gone through them after major weather changes to free tight (or loose) center pins. They are 1979 models, so they have teflon bushings. The re-pinning often satisfied the performers, but they still were relatively hard to play.

I am still gathering data and making the changes, but I'm encouraged and excited about a major step I've already taken. Some of you may remember that in my voicing technical last year I spoke of using a considerable amount of lacquer on these hammers. I replaced the hammers on both



of these pianos four years ago, and the hammers Steinway sent me were very soft. I filed them as I had been taught, taking off several even layers all the way around, but the tone didn't even begin to approach an acceptable level. After a concentrated effort to have fifty hours played on each piano, another technician (hired from out of state as a consultant) and I lacquered them. Gradually the tone improved and most performers have been pleased with one or both pianos since that time, except for the heaviness.

You may also remember from my voicing technical that I was proud to have achieved the tonal improvements without removing the one-eighth to one-quarter inch of felt which many technicians say is needed on Steinway hammers. Pride goeth before a fall... Can you see where I am leading?

Several weeks ago I determined that I would get both pianos right--whatever it took. With the helpful input from Jesse's technical at the last meeting, some conversations with several of you individually, and a David Pitch article sent to me by Keith two weeks ago, I was ready to evaluate one of the actions for friction and touchweight. After doing the basic regulating steps on some sample keys I got readings of downweight: 80 grams and upweight: 36 grams. This told me that the friction was good -- a 24 gram difference between the two readings is fine. But both are high, averaging 48 grams -- statistical verification of what we already knew. Time to re-weight the keys, right?

Hopefully not, I thought to myself. Especially since I haven't been to Norman's class on keyweighting coming this month. And keyweighting a good action is a last resort step. So what can I change? I could only come up with one other variable -- the weight of the hammer. But how could a little fuzz (or even a lot) weigh enough to matter? The whole pile of wool filing dust is nearly weightless, isn't it? Hmmm. I weighed one of the original hammers from this same piano

(from 1985). It looked the same size as the current corresponding hammer and it weighed seven grams. Then I took a lot of felt off the shoulders, leaving the striking point untouched and creating the "pointed egg shape." It weighed almost one gram less. Hmmm again. Well how much difference can a gram make? I set a one gram weight on the striking point of a hammer for which I had measured the key's touchweight, and I found it increased the downweight and upweight by about six grams! This makes sense when you realize the hammer travels about one and three-fourths inches while the key moves about one quarter inch.



I hope to soon experiment with how much the hammer shaping affects the center-pinning. The lighter hammer will swing fewer times, therefore to pass the swing test I will need less friction in the hammer centers. Each increased swing decreases downweight approximately one gram. The repetition springs will have to be relaxed considerably to correspond to this reduced friction and lighter hammer, and these changes will considerably decrease the pressure required on the key to press through escapement and aftertouch.

I have plenty of work ahead, but I'm enthused! I expect to be able to reduce the average weight factor by eight grams or so. I am curious about several questions raised by this discovery. How much of the weight I'm filing off the hammer is lacquer, and how much less lacquer might have been needed with the radical shaping done first when these hammers were new, particularly if I had used heat to iron them to make them more resilient? (Do read Susan Graham's article in this month's Journal about shaping hammers with the Foreman rotary tool.)



Please feel free to respond with your own discoveries or questions about this or other topics.
David



EDITOR:

David Bonham, RTT
8104 N. Brookside Drive, OKC 73132
721-0566

