The Special Care and Maintenance of the Teaching Piano

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For your students, your piano is much more than just a musical instrument--it's a unique vehicle for their self-expression. It can increase self-esteem and self-knowledge, and can also provide the opportunity for much-needed recognition. Your piano has a task far beyond teaching scales and chords, and it must be up to the challenge.

As every teacher knows, a good piano is a major investment. The cost of an instrument capable of performing up to professional standards and enduring constant use is considerable. And to keep that instrument performing its best over the longest possible time requires regular maintenance.

How often should I have my piano tuned?

Because of the amount of time your piano is in use and because ear training is such an important aspect of any musical education, your piano may require more tunings annually than other pianos. Your piano may also be used to make audition tapes for student scholarship competitions where impeccable intonation is vital for your students to sound their best.

The variations in the relative humidity of a studio or home are generally the most important criteria in determining how often a piano needs to be tuned. Normal homes may experience fairly drastic changes from season to season. Your situation is complicated by constant use which tends to deteriorate a tuning more quickly. A piano functions best under consistent conditions which are neither too wet nor dry, optimally at a temperature of 68 degrees Fahrenheit and 42 percent relative humidity.

You can reduce the severity of these climatic effects by placing your piano in the room so that it is away from windows or doors which are opened frequently. Avoid heating and air conditioning vents, fireplaces, and areas receiving direct sunlight.

While manufacturers' recommendations on the number of annual tunings vary, they generally agree that a piano should be tuned at least two to four times each year, with additional tunings as needed.

What about regulation?

Periodically your piano will require the adjustment of it mechanical parts to compensate for the effects of wear, the compacting and settling of cloth, felt and buckskin, as well as dimensional changes in wooden and wool parts due to changes in relative humidity. This series of adjustments is know as *regulation* which involves three systems of your piano: then action, trapwork and damper system.

The action is the mechanical part of the piano that permits efficient transfer of power from the fingers on the keys to the hammers that strike the strings. We have technical drawings available for both vertical and grand actions. Consisting of over 9,000 working parts, the action requires adjustment to critical tolerances to properly respond to a pianist's performance. Because the piano's action will go out of adjustment slowly over time, you may not notice accumulating sluggishness or unevenness as it occurs. Your student's performance, however, will be affected dramatically. No amount of practice will compensate for a poorly maintained action. Poor legato touch, chord playing where all the notes of the chord don't speak clearly, a gradual loss of subtlety in phrasing, and an inability to execute quick passages or note repetitions evenly may be the fault of the piano -- not the student. Smooth, even playing is as much a function of a well-maintained action as a well-rehearsed student.

The trapwork is the assemblage of levers, dowels, and springs that connects the pedals to the action. The damper system is the mechanical part of the piano that stops the motion of the strings and is controlled by the keys and pedal system. Incorrect pedaling techniques may be related to poor regulation of the trapwork or damper system. Fine adjustment is essential here if you are to teach the nuances of pedaling to your students.

What is voicing?

Your piano also may require periodic *voicing*. The process of voicing can adjust the relative brilliance of a piano and provide an even gradation of volume and tone over the entire range of the keyboard. Voicing procedures may involve reshaping the hammers, the use of needles on the hammer felt and/or the application of special softeners or hardeners in order to produce the best sound possible. You should discuss with your technician what changes in your piano's tone are practical and together, decide what steps should be taken to effect these changes.

Although you may have your piano tuned regularly, you must specifically request regulation or voicing procedures. These procedures aren't included in a normal tuning. It should also be noted that voicing can only be accomplished after a piano has been freshly tuned.

What should my regular maintenance program consist of?

The backbone of any maintenance program is regular tuning. These tunings should occur as needed to compensate for changes in humidity and temperature, and movement of strings from use. A rule of thumb is that tunings should be done often enough to hold pitch between A439 and A441. Depending upon your humidity control and the condition of your instrument, this probably will mean at least two to four tunings per year. Minor repairs and adjustments can be made at the same time.

Your teaching piano should be thoroughly cleaned, the action regulated, and the hammers reshaped and voiced approximately every three years, or as needed, depending upon the usage and quality of your instrument.

What about long-term maintenance?

If you are advised that regulation will not improve the performance of your instrument, or that your tuning may not hold for more than short periods of time, your piano may require reconditioning or rebuilding.

Reconditioning involves cleaning, repair, and adjustment of your piano, and replacement of parts only where indicated.

Rebuilding involves the complete disassembly of your piano. A qualified rebuilder inspects and replaces all worn or deteriorated parts which can include such major components as the pinblock, action, soundboard, and bridges. Thorough rebuilding will restore your instrument to its original condition.

How should I go about selecting a piano?

If you find yourself in need of another instrument, be sure to consider all options, both new and used. Fine used instruments become available for sale for a variety of reasons. Your technician can help you select a piano in good playing condition and give you an idea of what type of maintenance you can expect in the future. Like selecting a used car, it's important to seek the help of an expert when making your purchase to avoid costly repairs in the future. Your technician also can provide you with guidance regarding the selection of a new instrument best suited for your demanding needs.

How can I help my students improve the performance of their pianos?

Many students don't like to practice their lessons at home. It's possible their instrument at home isn't tuned regularly, has never been regulated or voiced, and just doesn't sound good. A student need a practice piano that functions properly in order to take full advantage of your instruction. You can help by introducing your students to a qualified technician and by letting them know how important it is to properly maintain their instruments.