

# General Condition

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## The Piano ... FIRST (the Player later)!

Although it might not be obvious to some people, the most important part of a Player Piano is the PIANO. This fact is too often overlooked, especially when the unit is capable of playing the rolls. And too often, the quality of the units performance has less to do with workings of the Player Mechanism than the workings of the Piano. Therefore, I have written a few guidelines to help anyone determine the condition of ANY PIANO.

### 1) Are the keys LEVEL?

Before I ever touch the piano, I look at the keys. I get down on my knees on either the left or right side of the instrument and I look across the tops of the keys all the way to the other side. They should be extremely level (or at the exact same height) all the way across. If they are, the chances are very great that, A) the unit has not been heavily played or abused, B) the Keybed felts are in good condition and C) there is no infestation of any sort.

If the keys are slightly dipped in the center region of the keyboard, this indicates relatively normal wear since most people play the piano in the center region.

If the keys are heavily dipped with a noticeable warping look across the whole range, this indicated relatively heavy wear.

If the keys are unevenly dipped with some keys being noticeably higher or lower than their closest neighbors, this indicates some form of infestation ([see Moth Damage-click here](#)) requiring much closer inspection and scrutiny.

### 1a) Are the keys damaged?

If the keys are damaged in any way, be it cracked, chipped or warped, this is a clear indication of POOR treatment, neglect or down-right abuse.

The condition of the keys can be likened to the condition of the paint on a car and typically indicates the care and the environment that the machine has seen (or been exposed to) over it's lifetime.

### 1b) Are the keys LOOSE?

Before actually playing any of the notes, the keys should be tested for 'side-play'. This is easily done by placing your finger on the front of the keys and seeing how much they move from side to side. Side-play should be very minimal and should not exceed 1/100th of an inch (or 0.010 in.) Excessive side-play indicates excessive wear, moth damage and/or missing felts.

## **2) Is the piano in tune?**

The very next thing I check when evaluating any instrument is how well it is tuned. The quality of the tuning tells a great deal about the care and maintenance afforded the unit and the general condition of the unit. It also tells a story about many of the critical internal components of the piano that can not readily be seen.

If the piano is well tuned and sounds pretty to the ear, it has most likely been tuned within the past year or two.

If it sounds reasonably in tune, it probably hasn't seen a tuner in five or more years.

If it's way out of tune, it might have been twenty years or more since it was last serviced. If it sounds pretty good except for a few very sour notes, that's an indication that the piece of wood that holds the tuning pins in their correct position (the pin block, pin ply or wrist plank) could be cracked or weak. It could also mean that the bridges (which transfer the sound waves from the strings to the sound board) are cracked.

If there is any 'buzzing' or 'fuzzy sounding' notes, that indicates splits in the sound board, bridges or frame.

The Point Here IS: Every Note Should Sound CLEAR and CLEAN. Anything less indicates problems.

## **3) Is the VOLUME of each note about the same?**

When I play every note on the piano for the first time, I attempt to strike each one with the same amount of force (usually rather firmly...some might even say loudly) to determine how even the Volume is from one end of the keyboard to the other. If they are all about the same volume, this indicates that the piano action is reasonably well regulated or at the very least evenly regulated. If some notes are noticeably louder than others or do not play at all, this indicates a number of possible problems. The worst of these problems is usually NOT breakage but EXTREME WEAR.

All machines wear out in time and [determining the extent of the wear](#) will be discussed later. After playing all the notes firmly, I play all the notes very softly. How the action responds to a very light touch will not only tell how well the action is regulated, it will also tell a lot about the regulation of the Keybed (the structure that supports all the keys).

If any of the notes fail to sound when played lightly, this indicates that the let-off adjustment (which controls how close the hammer comes to the string before escaping -- or releasing) is improperly set. This is not uncommon in older pianos that have not been well maintained. If any of the notes sound like they are blocking (clunking or not releasing), this could indicate very poor regulation, breakage or missing felts.

If the notes 'flutter' or 'bubble' (meaning they seem to be striking the string more than one time), this is a clear indication that the Keybed is quite far out of adjustment or that the felts under the keys have been ravaged by felt mites or moths (which eat felt).

#### **4) Determining the Extent of Action Wear**

Actually, this is not quite as hard as it might sound. First, look at the hammers (they strike the strings). In a new piano, the hammers have a perfect tear-drop shape. As the piano is used, grooves start developing in the face of the hammers. Left unattended for many years, these grooves become quite deep and eventually, the face of the hammers become flattened. Therefore, examining the face of the hammers is an excellent way to determine how much usage the piano has had in it's lifetime. If the grooves are less than 1/4 inch long in the center region of the piano action, this shows very moderate use. If the grooves are 3/8 inch to 1/2 inch, this shows pretty heavy use. If they are longer than 1/2 inch, this shows very heavy use. Hammers that are heavily worn will typically contribute to the 'tinny' nature of the pianos sound since the hammers are, in essence, slapping the strings with a flat object as opposed to striking them with a rounded object. This slapping action actually creates undesirable overtones which detract from the clarity of the sound.

#### **4a) Lost Motion**

Another good indicator of wear in the action of the piano is the amount of free-play between the piano keys and the piano hammers. As the piano is used, the felts located at all the contact points between the keys and the hammers wear slightly. Over time, this wear can become so severe that the notes began to 'flutter' or 'bubble' (strike the string more than one time when the keys are played with a medium strike). Lost motion is very easy to determine. Simply look at the hammers while touching the key. In a well adjusted (regulated) piano, the hammers will start to move as soon as the key is touched (depressed even slightly). When lost motion is present, the key can be depressed slightly and the hammer will remain stationary. If the key can be pressed down 1/16 inch before the hammer starts to move, this indicates slightly above average use. If it can be pressed 3/32 inch before the hammer starts to move, this is considered severe lost motion and indicates heavy wear.