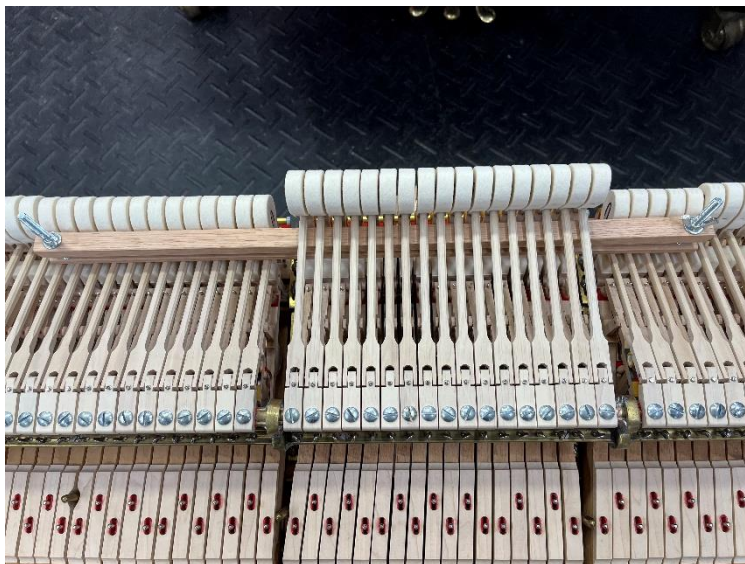


Instructions for Using the Let Off Rack

The only part of the action movement used in setting let off is that small part at the top of hammer rise, just as it "lets off. So why not mechanically raise the hammers to that spot so that we can use only that a small movement instead of having to control the entire amount of key movement, and, do it out side of the piano where we can see and work more efficiently?

In so many words, the tool lets a section of hammer shanks rest on the "straight edge" part of the tool, and by raising the hammers just a bit less than "let off height" by the adjustment nuts, depressing a key will make that hammer shank barely raise off the straight edge and fall-back during escapement.

1. While the action is in the piano, set the let off for first, middle, and last hammer in each section as correctly as you can. (You need to set the first two hammers in the bass {1&2} and the last two hammers in the treble {87 & 88}.) Also check for key dip with a block or the after touch feeling on the keyboard in general.
2. Remove the action from the piano onto the action caddy. See instructions in the other printout "Instructions for assembly"
3. Check the key dip and/or after touch with the action now on the caddy. Usually, the key dip will be less than in the piano because the center rail is not supported like it was in the piano, and needs to be the same height as in the piano in order to do any regulation. Place the center rail of the action over the "upside down" bedding screws in the center of the top rails of the caddy. Turn the adjustments upward until the "upside down" bedding screws on the caddy push upward against the center rail of the action until the key dip (or aftertouch) is the same as it was in the piano.
4. Raise about 1/2 of a section of hammers until they rest standing up. Include 2 pre-set hammers (from step 1). Setting 1/2 section at a time instead of a full section is more accurate because of possible uneven string line.
5. Place the let off tool over the space left by the raised hammers, with either end of the tool resting on hammer shanks that are not raised.
6. Drop the hammers that are standing up on top of the straight edge of the tool. Adjust the height of the left end of the straight edge until the first hammer Cone that you set in the piano) in that section barely moves when you depress its key. Do the same for the other pre-set hammer in the section. Recheck the first hammer again, and the last hammer a second time.



(Picture is of prototype supporting a full section, setting 1/2 section instead can be more accurate)

7. Now all that is necessary is to adjust the let off on all the other hammers to match the slight movement that you see on the correctly set ones at either end of the section. There is a slight sound created, and its volume changes with the amount of let off so volume and sight can both be used.
8. Since there are no hammer shanks below hammer #1 or above hammer 88, you have to leave one hammer shank down on the bottom of the first section and the top of the last section to support the tool. That is the reason for having to set 2 samples in these sections.