

Custom Action Leverage Design

CALD -- A Specialty at Skelley Piano!



SKELLEY
Sales & Service
PIANO

Inspiring Pianists to Create

The grand piano action has been with us for over 300 years, but it has only been in the last 10 years that piano technicians have been able to unravel the mysteries of weight, inertia, friction, and leverage that have made even high-end pianos feel sluggish.

As the public has demanded more volume from pianos during the last 50 years, manufacturers have accommodated us by making a heavier piano hammer.

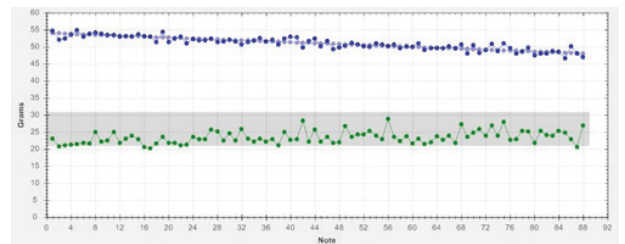
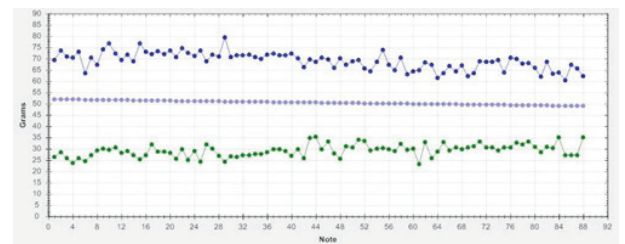


But as the hammer became heavier, it became necessary to add more weight to the key to counterbalance the weight of the hammer. This was done without much thought to the complicated series of arcs and levers within the action that provide the leverage for lifting the hammer.

The result is a piano that is weighted properly but still feels heavy due to high levels of inertia and improper friction. The designers of the computer program "Weight Bench," Darrell Fandrich and John Rhodes, have developed a way to quantify action inertia by measuring leverage within the action. This system replicates the fine responsive touch of German high-end instruments of the last century. If you've ever played one, we're sure you'll agree! At Skelley Piano we take pride in being able to take any piano of reasonably good design and construction and transform it into a fine instrument through CALD.



The blue dots represent the down weight of each note measure in grams. The first graph (before CALD) shows extremely heavy and uneven touch weight. The second graph (after CALD) shows what pianists describe as a powerfully responsive and silk-like touch.



Note: graphs are from an actual CALD job done at Skelley Piano on a well-known brand.