

What a Shock III! Newton Still Correct!

Kegel topography testing continued further.

January 18, 2010, by Lou Trunk

In this the third report on the joint venture topography testing being done by Kegel and my company, Bowling Installations. We have incorporated Storm Bowling Professionals into the testing of our findings. Pete Weber, Norm Duke, and Rhino Page visited the Kegel test facility in Florida and spent two days testing topography situations. The results were 10 times more dramatic than even I expected. Video and CATS data was recorded on lanes of varied topography and the results were again verified, as, again, Sir Isaac softly whispered "I told you so."

A road show, for introducing this groundbreaking data to the world has been developed and scheduled. We have now developed a slope system which serves at least two purposes. The first is to provide a "yardage book" for a bowler, and the second is to rate a lane regarding it's relative fairness, compared to other lanes. This slope ratio, gives equal weight to two factors: crostilt, and deviation from flatness with respect to crowns and depressions.

We have now discovered further amazing information. We have begun to relate non-flatness to energy loss or conservation, and related it to hitting power, and specifically to percentage pocket carry. The biggest factor in early energy burn is a depressed head. Depression in the head of the lane hastens precession change, in effect "rolling out" a shot earlier. Proprietors combat this condition, not even knowing why the need exists to do so, by lengthening and widening their oil patterns. Most of the time, throwing oil at a topography issue is a waste of time and oil. The reason, is that the ball displacement (movement from it's Newtonian path) in any direction, is largely not just a FRICTION issue, but also a GRAVITY issue. Adding more oil may actually hurt a bit (the ball for a right-hander spinning essentially counter-clockwise on a depression in which the rotational force at the lane surface \rightarrow is diametrically opposed to the gravitational force of the depression \leftarrow). So, the natural displacement will still take place as a function of Newton's Laws, but even more-so. The CONSTANT we have quantified specifically, can never be denied. If the slope of the board on which the ball is traveling is downhill to the left, then the ball will go to the left according to the ball's speed, weight, the amount of slope. I.E. the length of time a certain weight ball is on a slope. The oil pattern and hitting power are the further focuses of our testing and observing work. It is obvious that the early energy loss associated with depression in the heads, has a huge effect on hitting power.

I have often wondered why some centers are such good “deep inside” centers for right handed bowlers. Now I know. Depressed heads.

On depressed heads, the depression is usually a bowl shaped depression with a relatively flat plateau in the middle of the lane. A bowler playing the track, encounters a large gravity influence and a huge energy loss due to the → and ← described above. When the bowler gets deep enough, he finds the FLAT bottom of the “bowl” and loses much less energy early in the shot. If the bowler goes even further inside, he actually finds the left side depression, WHICH IS A RIGHT-HANDER’S **CROWN**. Now, even less energy is lost because rotation and gravity are in the same direction (→ →), so the ball hits better than a similar shot played in the track!



THIS IS HUGE! Newton again proud. (Can't find a picture of him smiling).

We set off to fix the worst depressed heads we have ever found.

We flattened the center. First, the proprietor had flooded the outsides in order to (in vane) try to stop the early hook and energy loss. This was a gravity problem, that he was trying to solve as if it was a friction problem. Plus, his pattern was very long, again to combat the early energy loss from the gravity problem.

After flattening, the better bowlers immediately KILLED them. The ball got through the heads and hit with incredible power compared to the old topography. The hitting power gain was obvious and dramatic to any trained eye, even though the pattern was now wrong for the new shape. The pattern had to be shortened and narrowed, as we predicted. The house bowlers had become ingrained with the “correction” for the huge slope they were playing on week after week for years. The ball here was actually displaced 3-4” from the time it left the bowler’s hand, until it GOT TO THE ARROWS (that’s right 3-4”). This gravitational displacement, had ingrained an inside-out armswing into the house bowlers. After flattening, these less talented bowlers would try to hit the second arrow and hit the 6 board. The oil, added to the outside by

the proprietor – the effort in vane to combat the head “hook” which was actually a simple gravitational displacement, doubled the errant misses outside of target by the less skilled, inside-out-ingrained bowlers. We had predicted this event and advised the proprietor to preemptively change the pattern. He did not do so. The first night of scratch league was a who’s-who indicator of “haves” and “have nots,” as the cream came to the top (a couple near-800’s and many high scores yet a struggle for the less talented). The proprietor now convinced, he shortened and narrowed the pattern to help-out the “have-nots” without hurting the “haves” and in a few weeks, all will see big improvement.

The carry difference is unbelievable. It looks like the kickbacks have been mysteriously changed to granite overnight. But it was all simple conservation of energy. It further confirms our theory that oil pattern is only half of the battle. Topography in fact, may be even more than half of what makes a lane, a pair of lanes, and a bowling center fair, playable, and high or low scoring.

This is proof of the proven. The carry, consistency, and fairness I produced at ABC Tournaments in 1989 Wichita, 1991 Toledo, 1993 Tulsa, 1996 Salt Lake, 2002 Billings and 2003 Knoxville (now the norm at all USBC Tournament installations) were not achieved by chance, oil pattern, oil or equipment brand. But rather – through controled Topography. Flatter is definitely better.

The research continues...