

The Corner Pin

Jan 09

Hi all and Happy New Year! Hope you all had a great holiday. Most of the leagues are now half way thru the season. Hope things are going well in your leagues. This month I will be discussing bowling balls, not brands, but covers and weight blocks in general. First, some local happenings.

Sadly we recently lost one of our local bowling matriarchs. On December 5th, Mildred Rosenthal passed away. I have known Mrs. Rosenthal, her husband Marty, son Jason, and daughter Tracy since my junior bowling days when we had traveling leagues. They have been good friends of mine since those days. I am going to make this short and sweet because that's the way Mildred kept it. If you asked her opinion on something she would give it to you without any fluff, without any bull. She always gave it to you straight. From the bowling community and myself, we will miss you Mildred.

Back in November we had the association record high series broken. Actually, almost twice in two days. On Monday Nov. 3rd, Chris Blaison came up one pin short with games of 279, 299, and 280 for an 858 series. Then the following day on Tuesday Nov. 4th, William "Bill" Decker III broke the record with games of 300, 289, and 279 for an 868 series. The previous record of 859 had been the record for seven years. It was set by Tom "Truck" Bailey. Congrats to Chris Blaison and the new record holder Bill Decker for some outstanding bowling.

On to bowling balls.....this is going to be a general lesson on construction. At this time, I'm not going to get into symmetrical or asymmetrical weight blocks, mass bias or any other more in depth subjects. If someone out there would like to pick my brain on more in depth info on the subject good luck finding it! (My brain that is)

Until the 1980's bowling balls were generally three piece balls, meaning they had a cover, a core, and a weight block. Which was usually flat or sometimes called a pancake weight located close to the outside cover. The cover was rubber or plastic. This weight block gave the ball a very stable reaction. You will still have this setup in plastic balls today, but they are also used in the low end reactive balls that are on the market. The weight block tends to carry the ball farther down the lane before reacting. The first urethane balls that came out in the 1980's had this

setup, but because of the discovery of using urethane for ball covers these urethane balls were much stronger than the rubber or plastic balls.

Soon after urethane came out a small ball company called "Hammer" came out with the first two piece weight block in a urethane cover. The weight block of the two piece ball was located more towards the center of the ball and it was offset from the center of the ball. The location of the weight block makes the ball roll up earlier on the lane and the offset created "wobble" in the ball. I'll explain this.....the three piece balls generally had a single track as you rolled the ball, meaning if you looked at the ball after going down the lane you would see one oil ring going around the ball. The ball generally had a stable roll. The offset weight block on the other hand, the "wobble", would cause several oil rings around the ball. This also made the ball stronger than the three piece balls. Over the years there have been many changes to the two piece weight blocks; shapes, densities, and multiple densities in the weight blocks. Today most of your middle and high end balls use the two piece weight blocks.

Next up are the coverstocks. There are four coverstocks used in balls today; plastic, urethane, reactive resin and particle. There are hybrids out there but they are generally made up of a mix of the four coverstocks. Today most use a mix of solid reactive resin and pearl reactive resin.

Plastic coverstocks have been around since at least the 1960's, maybe longer but you'll have to ask someone older than me. Today they are generally made with a three piece weight block and are used as "beginner" or used to shoot spares. Especially those corner pins!

Urethane was introduced in the 1980's as I noted earlier in the article. It had much more lane reaction because of the urethane coverstock and the porosity of the cover. It would hook earlier than the plastic covers out at the time. Plastic had basically reached the ceiling of what the ball companies could do with it. There were soft plastic covers out there, most notably the Columbia Yellow Dot, but they were at the limits of the hardness specs put out by the American Bowling Congress (now known as United States Bowling Congress). So urethane became the cover of choice for most bowlers. They had two and three piece weight blocks and also some covers were more porous than others. A few years after there were pearl cover urethane balls which would give you the "slide" on the lane of a plastic ball but still be a stronger hooking ball than plastic.

In the 1990's a small ball company called Nu-Line came out with a reactive resin coverstock. (The company was an offshoot of Columbia) The reaction of this

ball on the back end of the lanes was amazing compared to the urethane and plastic balls on the market at the time. What gives this ball the reaction on the back end of the lane? Ok....here's the theory: when you release a bowling ball you transfer energy from your hand to the ball, also called revs or rotation. In the front part of the lane where the oil is, the ball slides, giving up very little energy. So when the ball hits the back part of the lane where there is no, or very little oil, the ball still has most of it's energy to use and the high friction resin makes the ball grab and hook more then any plastic or urethane ball. Reactive resin is actually an additive to the ball companies urethane formulas. Today reactive covers are used from low end to high end bowling balls. It is the most widely used cover on all bowling balls.

The last cover is the particle coverstock. It again uses the urethane base but instead of reactive resin it used glass or rubber beads. This made the cover very porous and would grip very early on the lane. They were great when there was a lot of oil on the lane but not so great when the lanes did not have much oil. This is one of the reasons there are very few particle balls still on the market today. They gave up energy very early when there was no oil so when they got to the back end of the lane it did not have much energy left when it hit the pocket. They also required a lot of "maintenance", sanding and cleaning, to keep them reacting like new. I also think the bowling lane owners hated these balls because they would create more "wear" on the lanes.

Last subject: the surface of the coverstock. There are three surfaces to bowling balls today; shiny or polished, matte, and dull or sanded. Pearlized reactive coverstocks are usually polished, solid reactive coverstocks will usually have a matte or dull finish. But either coverstock can be made to be any of the three finishes. Keep in mind the theory of reactive finishes to the coverstock. As you go from polished to sanded the amount of energy left in the back part of the lane decreases.

A polished cover will give the ball the most skid down the lane and most saved energy for the back part of the lane. The pattern of this reaction is usually compared to looking like a hockey stick. The ball would have a long straight skid like the shaft of the hockey stick and then a sharp break at the end like the blade of the hockey stick.

A matte finish is a finely sanded finish. It's used to smooth out the ball reaction on the lane and make it roll a little bit earlier. Again a slight amount of energy will be lost in the back end but it may make the ball easier to control. This

finish can be accomplished by using a higher grade of sandpaper, usually 800 grit or higher.

A sanded finish will make the ball roll the earliest of the three finishes. Basically you are roughing up the texture of the ball surface to make it “grab” the lane. This is accomplished by using a lower grade of sandpaper, usually 600 or lower. Unless you have a ball spinner at home, have a pro shop do it for you.

Keep in mind the surface that is right for you is dependent on the amount of revolutions you put on the ball, your ball speed, the amount of oil, and the oil pattern on the bowling alley.

That wraps it up for this edition of “The Cornerpin”. Again I hope you all had a great holiday season and have a Happy, Healthy, and Safe New Year.