American Hi-Striker

Some observations on the use of the Auto Handicap feature

With the past generation of Hi-Striker it was noted that variation in temperature, air pressure, altitude, and hammer temperature all affected the ability to represent an accurate and constant game of skill. So with the introduction of the Hi-Striker X-TREME, there is a new more consistent Auto Handicap algorithm that uses a well know and extensively used method of characterizing population samples.

This is the calculation of the MEAN and STANDARD DEVIATION of a group of samples, or in this case, game hits. It has been demonstrated that in any group of samples, that there is a MEAN or average, and then a distribution about that average. How the other samples are distributed about that average is represented by the DEVIATION.

It has been shown that a graph of samples of persons heights of weights, or for that matter strengths in our case, can be represented a bell curve with an average (MEAN) and a distribution of differences about this average (DEVIATION). In simple terms, we are not all the same, but some are taller and some are shorter, although there is an average, like a 34" waist. Clothing manufacturers use this to plot and estimate the numbers of each size of clothing they should make in a production run, as well as the number of estimated scrape or fall out pieces. Seems like every thing in life follows these rules. Hair color, air temperature, rain fall, sunny days from year to year, early or late arrivals of flights, etc. etc. all follow this pattern, including the strengths of people in a given populous.

So what the new Auto Handicap does is to track the playing sample and compute the MEAN or average hit and the DEVIATIONS about this average and then figure at what point the handicap setting will yield winners in 16% of the playing population. And again, that is the strongest 16% or 1 STANDARD DEVIATION above the average. This mean that the game will self regulate regardless of temperature changes, air pressure changes, or any other variable that can affect the true representation of players ability to hit the game and win.

To accomplish this, the calculations begin with the first three games and are computed with each new game, until a total of 32 games are on record. Then the oldest sample is replaced with the newest. This assures consistency in a changing environment. Also, it has been shown that number of samples has little affect on the MEAN and STANDARD DEVIATION of a sample of a population. The same results are obtained whether 10 or 10,000 samples.

Each Handicap, Men's, Women's and Children's are calculated separately and tracked. The only caveat is, that when a player selects a hammer, RED (men's), YELLOW (Women's) or BACK (Children's), that handicap must be selected by the operator. For example, if a woman selects the RED Hammer, she must be selected into the Men's Handicap, as it is the power put into the hammer that is the basis for these calculations.