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30-Degree Rule for Caroms

Throughout *The Video Encyclopedia of Pool Shots*, a project that I recently completed in collaboration with *Billiards Digest* columnist, Dr. Dave Alciatore, we demonstrate many applications for the 30-Degree rule and Dr. Dave's famous peace-sign technique for predicting cue ball and object ball paths over a broad range of cut angles. So far in our discussion of the rule here we've seen how to apply it for accurate position play and to avoid scratches. Now we can move on to another useful application and one that will help win many games, particularly in 9 Ball.

As a review, for cut angles that range from $\frac{1}{4}$ ball to $\frac{3}{4}$ ball hits on the object ball, a naturally rolling cue ball will deflect from the object ball on a path that is roughly 30 degrees away from its path toward the object ball. Certain cut angles yield a slightly smaller angle while others yield a slightly larger angle. Across the range of cut angles however the average cue-ball deflection is 30 degrees. And, for shots where the angle is slightly smaller or greater, the difference is small enough to make a reliable prediction for the cue ball with the 30-degree rule.

Often in 9 Ball we encounter opportunities to win the game early with a combination or carom shot on the 9 Ball. Of course those shots are useful in all pool games but 9 Ball is the game where they offer the most dramatic advantage since a successful conversion can win the game. For that reason we will confine our discussion to a 9-Ball context.

In the diagram we see two shots that offer carom opportunities to win the game. With only two balls on the table for each shot it's easy to imagine them as the 8 and 9. However, each solid ball that you see can be any ball in the rack. The earlier in the rack that an opportunity arises to sink the 9 ball, the more sense it makes to consider going for it. For our purpose two balls work for each shot to illustrate the principles without cluttering the diagram. In Shot A we see a very tempting carom on the 9, especially with no good shot on the solid ball. But how do we know where to hit that solid? With a normal, 30-degree peace sign we can answer that question. For a shot like this one lay your peace sign next to the solid ball as shown and rotate it until your middle finger points on the line the cue ball must take to pocket the 9 ball. Then look at where your index finger points to find the aiming line for the cue ball. Aim along that line with natural, forward roll and somewhat gentle speed to pocket the 9 ball. Shot A also offers a combination shot but most experienced players would choose the carom for one important reason. Missing the combination can leave both balls together near the pocket and an easy combo for the opponent. Carom shots always separate the object ball from the 9 ball allowing us to avoid that disastrous possibility.

Shot B is similar except for one major detail. Here we have ball in hand and can employ the peace sign to determine the best placement for the cue ball. Naturally if that solid ball were the 8, the shooter with ball in hand would opt for the easy two-ball run

out, so imagine other balls on the table for this one. Lay your peace sign as shown with the middle finger pointing along the line to game winner. Then look at where a line coming backwards from the index finger would point, as shown with the dashed line in the diagram. Place the cue ball on that line far enough from the object ball for the cue ball to develop full, natural roll before contact. Once again aim along that line with an above center hit and slow to medium speed.

Both shots in the diagram are pocketed with close to a half-ball hit on the object ball. However, success does not demand perfect accuracy because the natural 30-degree roll occurs across a range of cut angles. Spend some time practicing the shots you see here and others like them to calibrate your peace sign and become comfortable with the technique. Also, a little experimentation will uncover the most reliable speed for various shots. With the 30-Degree Rule and a little practice you will be shooting caroms accurately and confidently in no time all.

The Video Encyclopedia of Pool Shots is the most comprehensive collection of pool shots ever published with over 750 different shots in 50 categories. On Disc I we demonstrate and describe a few dozen different caroms and kiss shots employing the 30-Degree Rule and other techniques for accurate execution of these very useful shots.

For a 30-Degree Template to Calibrate Your Peace Sign:

<http://billiards.colostate.edu/>

Click on Instructor and Student Resources then scroll down to Templates and Diagrams where you will find the 30-Degree Rule Angle Template.

