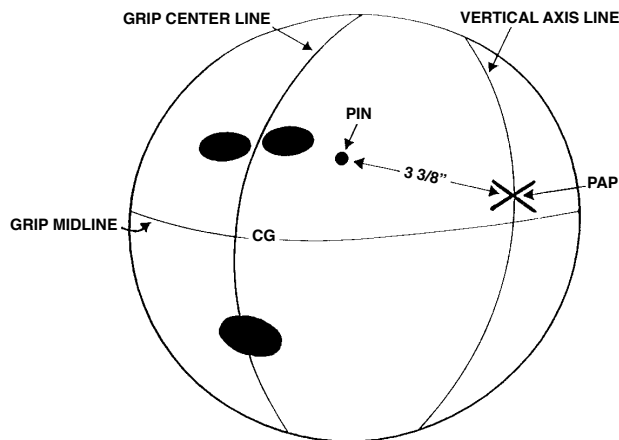




## SYMMETRIC DRILLING INSTRUCTIONS



### DRILLING #1 LABEL LEVERAGE

Ball Choice: pin out 1" to 4", all top weights  
 Reaction: Length...5 Backend...7 Overall Hook...8

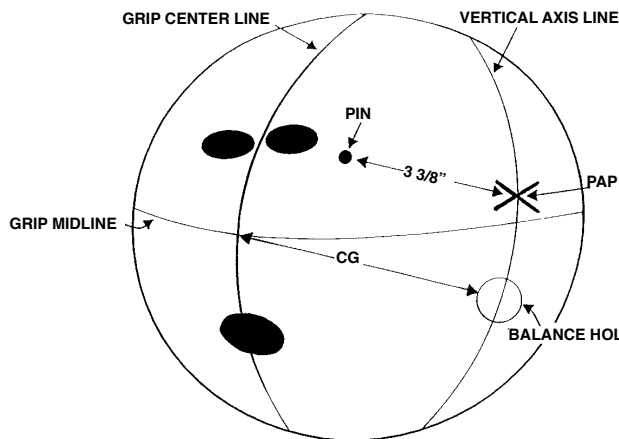
Hook Style: Medium hook, arc backend

Lane Condition: Medium to heavy oil with a hooking track, fresher backends, great for slower ball speeds and minimal axis rotation.

Pin Placement: 3 3/8" from PAP (flare safe area) in a 1:30 direction from CG.

CG Placement: 4" to 5 1/2" from PAP.

Balance Hole: No balance hole needed.



### DRILLING #2 12:00 LEVERAGE

Ball Choice: pin out 1" to 4", all top weights  
 Reaction: Length...3 Backend...10 Overall Hook...10

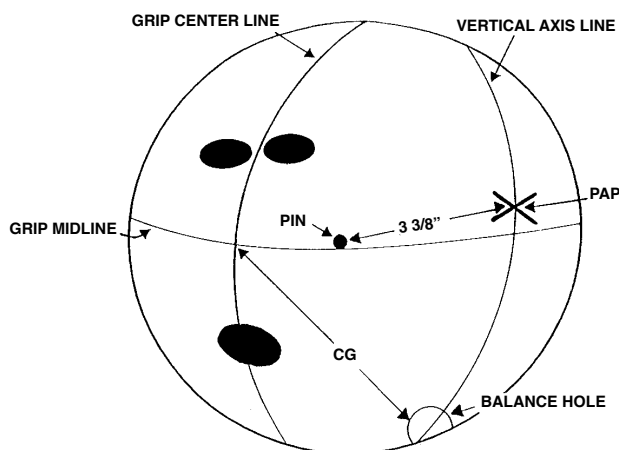
Hook Style: Maximum hook, sharp breakpoint

Lane Condition: Medium to heavy oil blend, open up the lane.

Pin Placement: 3 3/8" from PAP (on a line from the PAP to the ring finger) in a 12:00 direction from CG.

CG Placement: 3" to 3 1/2" from PAP (location may be above or below the grip midline depending on the pin out distance).

Balance Hole: Place on a line from the grip center through the CG on the vertical axis line. Drill back to 1/2 positive.



### DRILLING #3 REV LEVERAGE

Ball Choice: pin out 2" to 4", up to 3 oz. top weight  
 Reaction: Length...1 Backend...9 Overall Hook...9.5

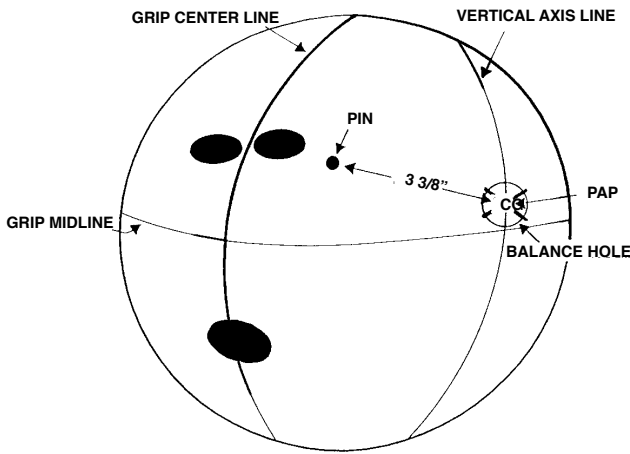
Hook Style: Large hook, controlled backend

Lane Condition: Medium to heavy oil with carrydown, good for players with low tracks, maximum axis rotation, and faster ball speeds.

Pin Placement: 3 3/8" from PAP slightly above the grip midline, in a 12:00 direction from CG.

CG Placement: 3" to 4" from PAP in the thumb positive quadrant (location depends on the pin out distance).

Balance Hole: 6" from the grip center on a line through the CG, drill back to 1/2 oz. negative side.



#### DRILLING #4 AXIS LEVERAGE

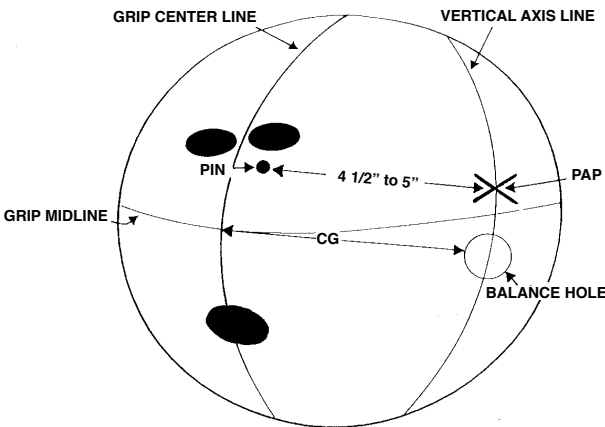
Ball Choice: pin out 2" to 4", 1.5 to 2.5 oz. top weights  
 Reaction: Length...2 Backend...8.5 Overall Hook...8.5

Hook Style: Medium hook, controlled backend  
 Lane Condition: Medium to heavy oil with fresher backends or spotty backends where predictable hook is most important.

Pin Placement: 3 3/8" from PAP (on a line from the PAP to the ring finger), in a 10:30 direction from the CG

CG Placement: on a line 0" to 1 1/2" from the PAP to the pin (location depends on the pin out distance).

Balance Hole: Place on PAP. Drill back to 1/2 oz. positive side.



#### DRILLING #5 MEDIUM RG - STRONG

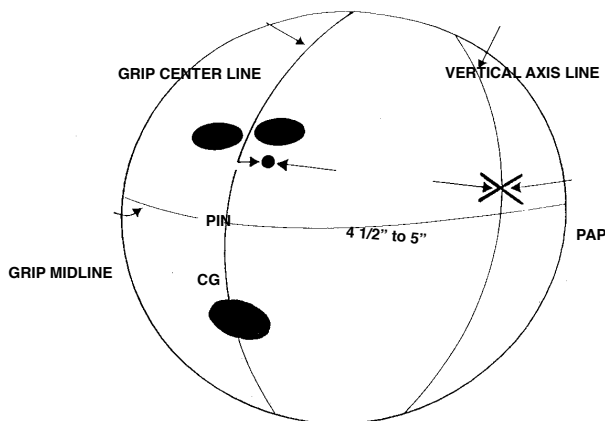
Ball Choice: pin out 1" to 4", all top weights  
 Reaction: Length...6 Backend...9.5 Overall Hook...9

Hook Style: Large hook, sharp backend  
 Lane Condition: Medium oil with carrydown, plays well inside of a defined oil line, great for medium to maximum axis rotation and above average ball speed.

Pin Placement: 4 1/2" to 5" from PAP below the ring finger in a 10:30 direction from the CG.

CG Placement: 3" from PAP (location may be above or below the grip midline depending on the pin out distance).

Balance Hole: Place on a line from the grip center through the CG on the vertical axis line. Drill back to 1/2 positive.



#### DRILLING #6 MEDIUM RG - ARC

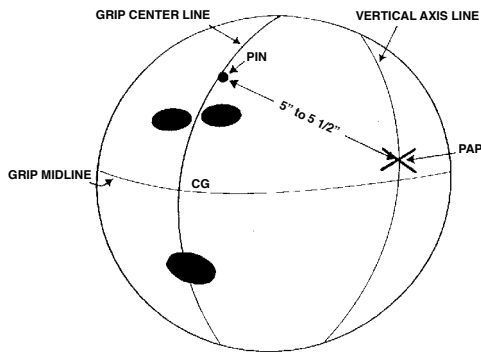
Ball Choice: pin out 1" to 2", all top weights  
 Reaction: Length...8 Backend...5 Overall Hook...6.5

Hook Style: Small to medium hook, arc  
 Lane Condition: Light to medium oil with hooking ball track, wet/dry conditions, great for players with slower ball speed, minimal axis rotation, or stronger revs.

Pin Placement: 4 1/2" to 5" from PAP below the ring finger in a 1:30 direction from the CG.

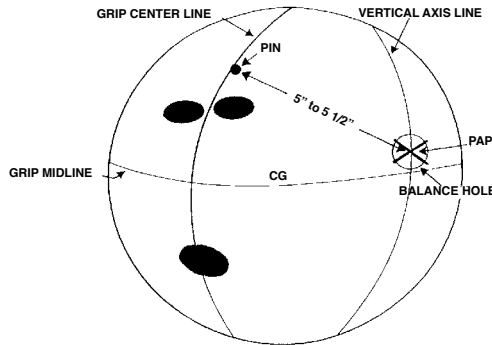
CG Placement: 1/2 oz. negative side.

Balance Hole: No hole needed.



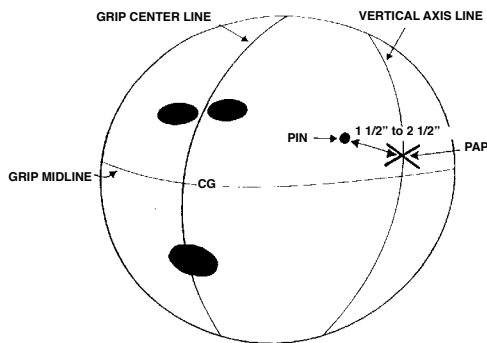
**DRILLING #7 HIGH RG - ARC**

Ball Choice: pin out 3" to 5", all top weights  
 Reaction: Length...10 Backend...6 Overall Hook...6  
 Hook Style: Small to medium hook, late revs, arc  
 Lane Condition: Light oil with hooking ball track, dry conditions, great for players with slower ball speed, minimal axis rotation, or stronger revs.  
 Pin Placement: 5" to 5 1/2" from PAP above fingers in a 12:00 direction from the CG.  
 CG Placement: 0 to 1/2 oz. positive side.  
 Balance Hole: No hole needed.



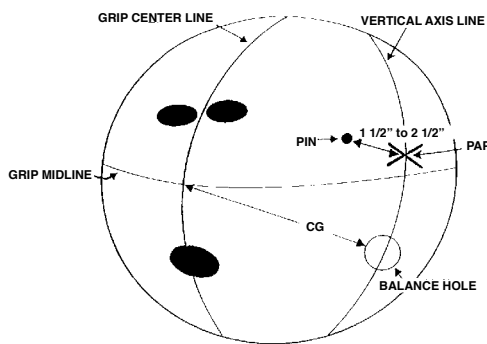
**DRILLING #8 HIGH RG - STRONG**

Ball Choice: pin out 3" to 6", all top weights  
 Reaction: Length...9 Backend...8 Overall Hook...7.5  
 Hook Style: Small to medium hook, late revs, sharp backend  
 Lane Condition: Lighter oil with carrydown, great for players with slower ball speed, medium axis rotation, or stronger revs.  
 Pin Placement: 5" to 5 1/2" from PAP above fingers in a 10:30 direction from the CG.  
 CG Placement: 2 1/2" to 3" from PAP (location may be above or below the grip midline depending on the pin out distance).  
 Balance Hole: Place on a line from the grip center through the CG on the vertical axis line. Drill back to 1/2 positive.



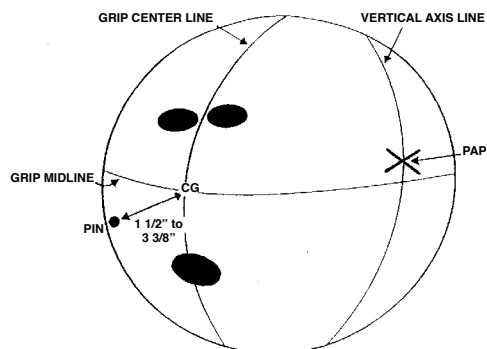
**DRILLING #9 LOW RG - ARC**

Ball Choice: pin out 2" to 4", all top weights  
 Reaction: Length...4 Backend...4 Overall Hook...5  
 Hook Style: Small to medium hook, early revs, arc backend  
 Lane Condition: Lighter oil, wet/dry conditions.  
 Pin Placement: 1 1/2" to 2 1/2" from PAP in a 2:00 direction from the CG.  
 CG Placement: 3 1/2" to 5" from PAP (direction depends on pin out distance).  
 Balance Hole: Place on PAP (if needed). Drill back to 1/2 positive.



**DRILLING #10 LOW RG - STRONG**

Ball Choice: pin out 2" to 4", 1 1/2 to 2 1/2 oz. top weights  
 Reaction: Length...3 Backend...6 Overall Hook...7  
 Hook Style: Small to medium hook, early revs, strong arc backend  
 Lane Condition: Light to medium oil, wet/dry conditions, lower track players, faster speed, medium to maximum axis rotation.  
 Pin Placement: 1 1/2" to 2 1/2" from PAP in a 2:00 direction from the CG (on a line from the PAP on the ring finger).  
 CG Placement: 3 1/2" to 5" from PAP (location depends on pin out distance).  
 Balance Hole: Place on a line from the grip center through the CG on the vertical axis line. Drill back to 1/2 positive.



**DRILLING #11 FULL ROLLER**

Ball Choice: pin out 1 1/2" to 4", all top weights  
 Reaction: 3 3/8" from grip center Length...3 Backend...10 Overall Hook...10  
 Lane Condition: Medium to heavy oil, maximum hook.  
 Pin Placement: 3 3/8" from grip center in an 8:30 direction from the CG.  
 CG Placement: Near center of span (location will depend on pin out distance).  
 Balance Hole: If needed, place on negative axis point (8:30 direction from grip center).  
 Reaction: 1 1/2" from grip center Length...1 Backend...8 Overall Hook...8  
 Lane Condition: Medium oil with carrydown.  
 Pin Placement: 1 1/2" from grip center in an 8:30 direction from the CG.  
 CG Placement: Near the grip center (location will depend on pin out distance).  
 Balance Hole: If needed, on the Positive Axis Point to 1/2 oz. positive side.