Omega

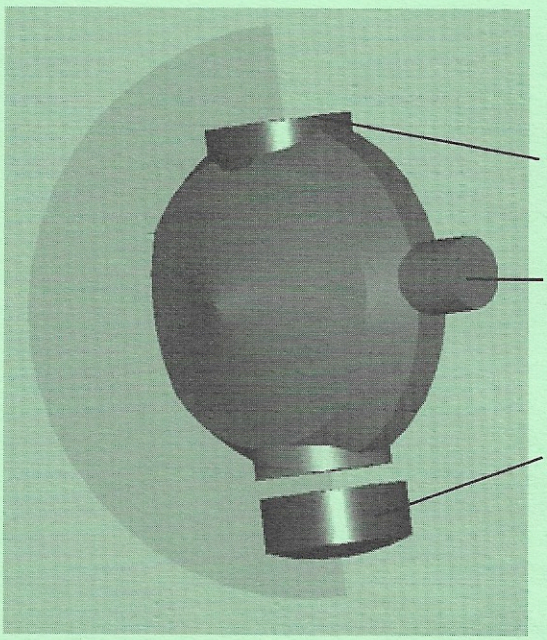
# Lion

## With Zirconium

## DRILLING SUGGESTIONS – BALL RATING SYSTEM

**Performance Characteristics:** The Omega Lion is the next evolution of our high performance line. The Lion features the versatility of the Level 4 Core with rock hard, high density Zirconium counter weights. The combination of the new core design and reformulated Reactive Resin™ veneer creates the length and hard hooking backend reaction desired in a bowling ball.

**LEVEL 4 CORE**




Completion Date: February 12, 1996

Veneer: Ebonite's most versatile Reactive Resin™ urethane cover stock. The thick shell construction contains over 8 lbs. of Reactive Resin™.

Core: High density Zirconium counter weight blocks. The weight blocks are more dense than ceramic.

Zirconium = 3.7 g/cm
Ceramic = 3.5 g/cm

C.G. Location: C.G. In

Hardness: 76 - 79

Color: Emerald Green Pearl

Available Weights: 12, 13, 14, 15, and 16 Pound

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EBONITE EQUIPMENT PROFESSIONAL

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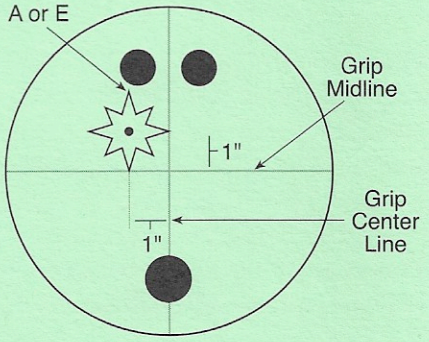
# RIGHT HAND LABEL DRILLING TECHNIQUES

**A or E 1" LEFT SHIFT**

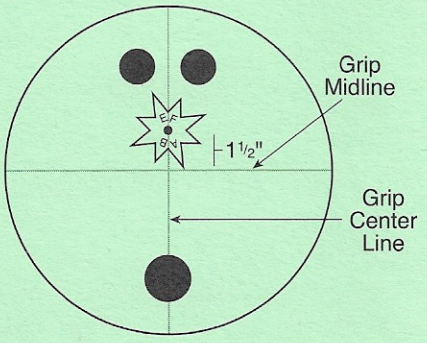



For CG in 'F,G,H' side...place 'E' at 12:00 to center of compass. Measure 1" from center of compass through 'A'. From this point, measure 1" right to locate center of grip.

For CG in 'B,C,D' side...place 'A' at 12:00 to center of compass. Measure 1" from center of compass through 'E'. From this point, measure 1" right to locate center of grip.

*Reaction:*
*Length...9 Backend...4 Flare...0" to 1"*
*Backend Style Hook...Arc*

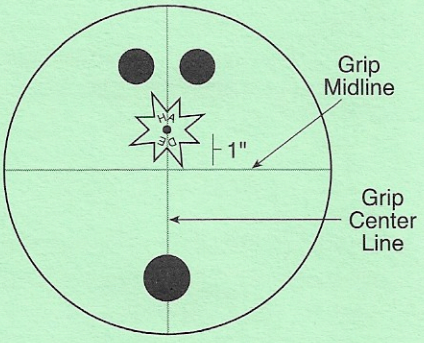
**E / F LABEL**




Draw a line splitting 'EF' and 'AB'. This is the grip center line. Place center of the compass **1-1/2" above** the center of grip.

*Reaction:*
*Length...5 Backend...5 Flare...1-1/2" to 3"*
*Backend Style Hook...Arc*

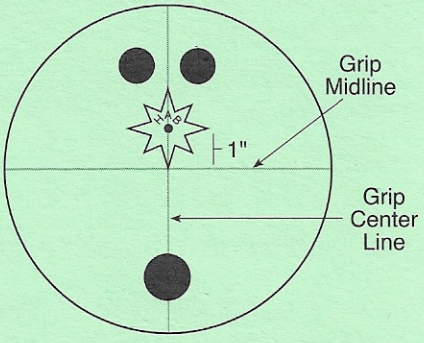
**A / H LABEL**




Draw a line splitting 'HA' and 'ED'. This is the grip center line. Place center of the compass **1" above** the center of grip.

*Reaction:*
*Length...4 Backend...7 Flare...1-1/2" to 3"*
*Backend Style Hook...Medium Flip*

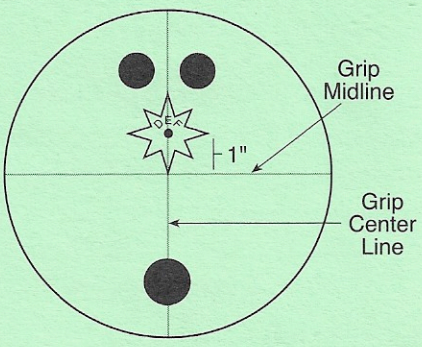
**A LABEL**




Place 'A' at 12:00 to center of compass. Place center of compass **1" above** the center of grip on the grip center line.

*Reaction:*
*Length...5 Backend...8 Flare...3" to 4-1/2"*
*Backend Style Hook...Flip*

**E LABEL**




Place 'E' at 12:00 to center of compass. Place center of compass **1" above** the center of grip on the grip center line.

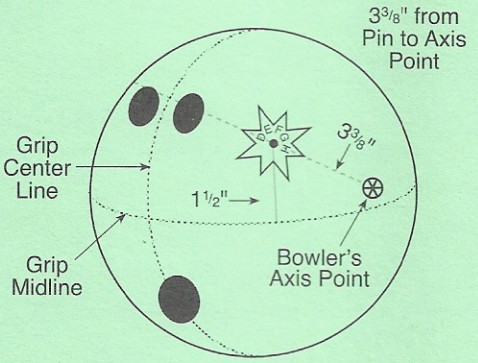
*Reaction:*
*Length...3 Backend...9 Flare...2-1/2" to 4"*
*Backend Style Hook...Flip*

# RIGHT HAND LEVERAGE DRILLING TECHNIQUES

## F LEVERAGE (HIGH RG LEVERAGE)

Place 'F' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 3-3/8" long through the point of letter 'H'. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. (The center of the compass should be approximately **1-1/2" above** the grip midline.) **Important: To be pin safe,** the 'HD' line must be angled 45° from the bowler's axis toward the ring finger. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

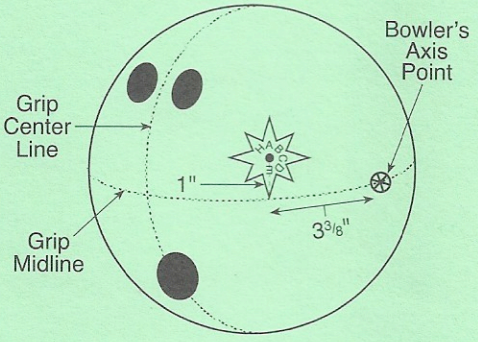
*Reaction:*
*Length...7* *Backend...8* *Flare...4" to 6"*
*Backend Style Hook...Skid/Flip*




## A LEVERAGE

Place 'A' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 1" long through E. Measure 3-3/8" to the right. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

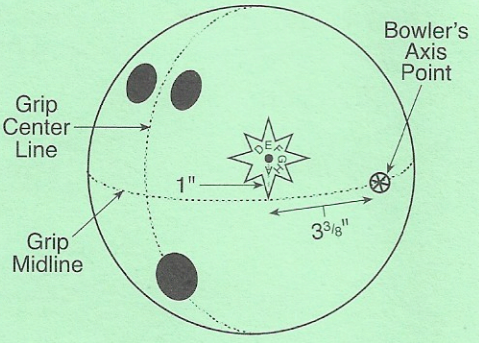
*Reaction:*
*Length...4* *Backend...10* *Flare...4" to 6"*
*Backend Style Hook...Strong Flip*




## E LEVERAGE

Place 'E' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 1" long through A. Measure 3-3/8" to the right. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

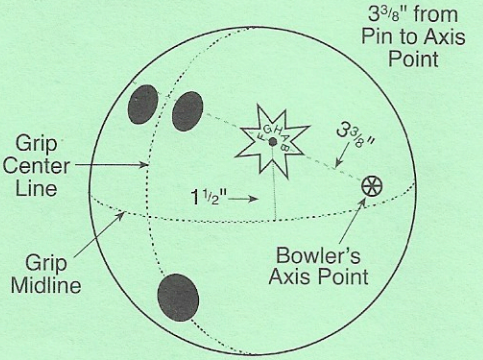
*Reaction:*
*Length...2* *Backend...7* *Flare...4" to 6"*
*Backend Style Hook...Strong Arc*



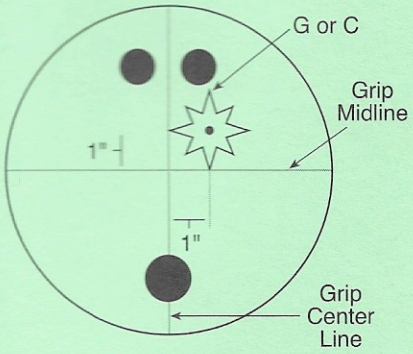

## H LEVERAGE (AXIS LEVERAGE REACTION)

Place 'H' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 3-3/8" long through the point of letter 'B'. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. (The center of the compass should be approximately **1-1/2" above** the grip midline.) **Important: To be pin safe,** the 'BF' line must be angled 45° from the bowler's axis toward the ring finger. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 8" from the center of span.**

*Reaction:*
*Length...6* *Backend...6* *Flare...2" to 4"*
*Backend Style Hook...Arc*



# LEFT HAND LABEL DRILLING TECHNIQUES

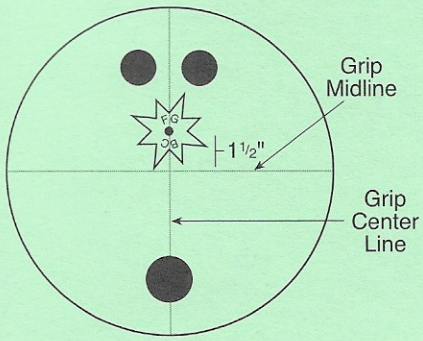



**G or C 1" RIGHT SHIFT**

For CG in 'H,A,B' side...place 'C' at 12:00 to center of compass. Measure 1" from center of compass through 'G'. From this point, measure 1" left to locate center of grip.

For CG in 'D,E,F' side...place 'G' at 12:00 to center of compass. Measure 1" from center of compass through 'C'. From this point, measure 1" left to locate center of grip.

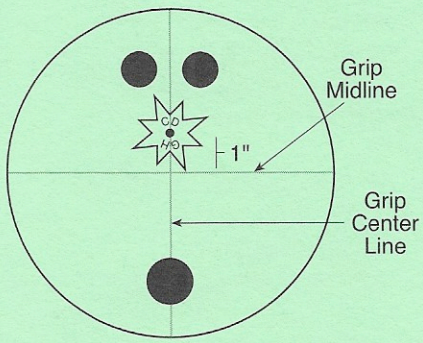
*Reaction:*
*Length...9 Backend...4 Flare...0" to 1"*
*Backend Style Hook...Arc*




**F / G LABEL**

Draw a line splitting 'FG' and 'CB'. This is the grip center line. Place center of the compass **1-1/2" above** the center of grip.

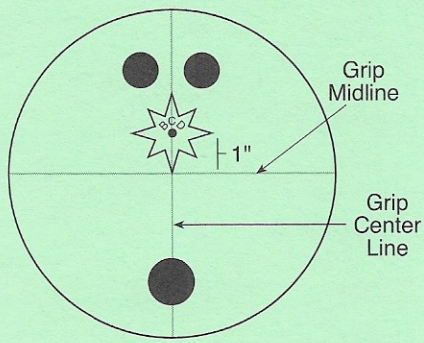
*Reaction:*
*Length...5 Backend...5 Flare...1-1/2" to 3"*
*Backend Style Hook...Arc*




**C / D LABEL**

Draw a line splitting 'CD' and 'HG'. This is the grip center line. Place center of the compass **1" above** the center of grip.

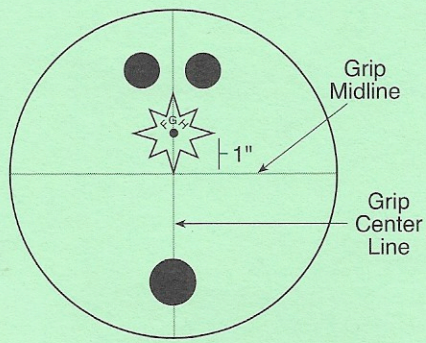
*Reaction:*
*Length...4 Backend...7 Flare...1-1/2" to 3"*
*Backend Style Hook...Medium Flip*




**C LABEL**

Place 'C' at 12:00 to center of compass. Place center of compass **1" above** the center of grip on the grip center line.

*Reaction:*
*Length...5 Backend...8 Flare...3" to 4-1/2"*
*Backend Style Hook...Flip*

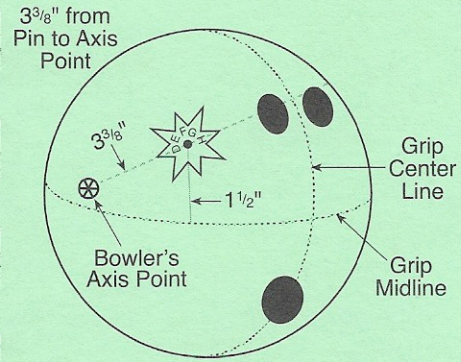



**G LABEL**

Place 'G' at 12:00 to center of compass. Place center of compass **1" above** the center of grip on the grip center line.

*Reaction:*
*Length...3 Backend...9 Flare...2-1/2" to 4"*
*Backend Style Hook...Flip*

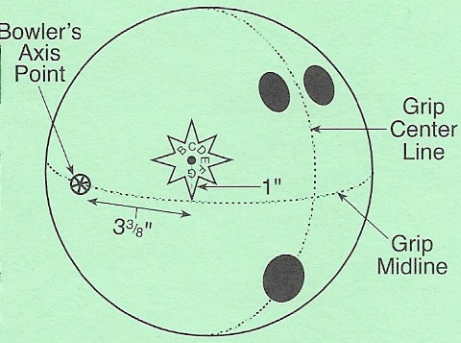
# LEFT HAND LEVERAGE DRILLING TECHNIQUES




## F LEVERAGE (HIGH RG LEVERAGE)

Place 'F' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 3-3/8" long through the point of letter 'D'. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. (The center of the compass should be approximately **1-1/2" above** the grip midline.) **Important: To be pin safe,** the 'HD' line must be angled 45° from the bowler's axis toward the ring finger. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

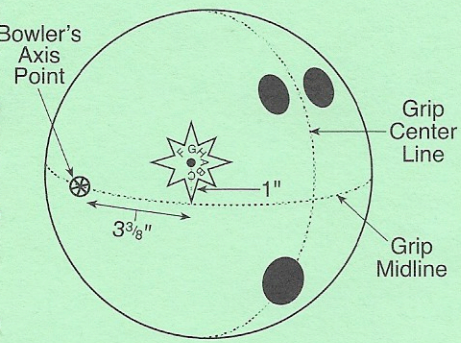
*Reaction:*
*Length...7* *Backend...8* *Flare...4" to 6"*
*Backend Style Hook...Skid/Flip*




## C LEVERAGE

Place 'C' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 1" long through G. Measure 3-3/8" to the left. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

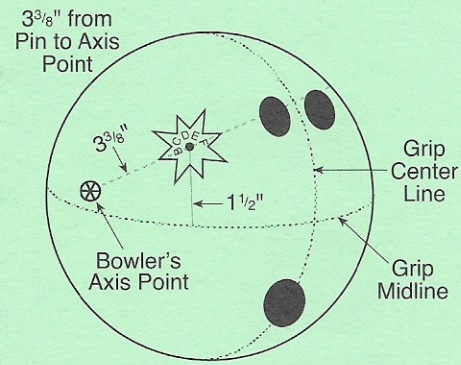
*Reaction:*
*Length...4* *Backend...10* *Flare...4" to 6"*
*Backend Style Hook...Strong Flip*




## G LEVERAGE

Place 'G' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 1" long through C. Measure 3-3/8" to the left. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 7-1/2" from the center of grip.**

*Reaction:*
*Length...2* *Backend...7* *Flare...4" to 6"*
*Backend Style Hook...Strong Arc*




## D LEVERAGE (AXIS LEVERAGE REACTION)

Place 'D' at 12:00 to the center of the compass. From the center of the compass (the pin) draw a line 3-3/8" long through the point of letter 'B'. Use this point as the bowler's axis. Reverse the bowler's axis coordinates to find the center of grip. (The center of the compass should be approximately **1-1/2" above** the grip midline.) **Important: To be pin safe,** the 'BF' line must be angled 45° from the bowler's axis toward the ring finger. Place balance hole on bowler's axis. **For maximum reaction from this layout, place the balance hole 8" from the center of span.**

*Reaction:*
*Length...6* *Backend...6* *Flare...2" to 4"*
*Backend Style Hook...Arc*

Omega

# Lion

## With Zirconium Reactive Resin™

**Why Zirconium?**

The Lion has high density Zirconium counter weights in the Level 4 Core. Zirconium is more dense than ceramic and is drillable. Unlike ceramic, Zirconium counter weights can be located near the surface of the ball to enhance performance.

**Core. What is so unique?**

The Lion Core, upon drilling grip holes, still maintains the dynamic integrity and the performance of the Level 4 Core. With the addition of the Zirconium counter weights to the Level 4 Core, the dynamics can be manipulated by use of weight holes which will change track flare position and bow-tie location. Use of weight holes will give consistent results in adjusting ball performance as in Level 2 Cores.

**Ball Rating System:** *Defining hook in four (4) components.*

(1) Length of Breakpoint
(2) Degree of Backend Reaction
(3) Flare Potential
(4) Backend Hook Style

**Ratings:***

(1) Length (L) – 1 being earliest hook point to 10 being the latest hook point
(2) Backend (B) – 1 being least amount of hook to 10 being the most hook potential
(3) Flare Potential – Rated as expected inches of flare

**All ratings are relative to the Omega Lion only and are not to be used to compare the Omega Lion to other balls on the market. The amount of oil on the lanes and the ball's surface roughness are the primary factors that govern a ball's breakpoint. Too much surface roughness or too little oil can cause a ball to make its translational hook move too quickly, thereby limiting the backend hook potential. For heavy oil conditions and heavy carry down, we suggest drilling the Omega LM Acryllium.*

**Identification Points**

✵ Driller's Compass
○ Small Pin
Ω Center of Gravity (CG)
● Extra Hole
⊛ Bowler's Axis Point

*Make sure the small locater pin is always in line with the Letter B.*
*C.G. In = 0-1-1/2".*

## Where Advanced Technology Has Striking Results . . .

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