

Standard Operating Procedure: SOP-BALL-3

## Top Weight of a Bowling Ball

<u>Rev</u>	<u>Date</u>	<u>Staff Member</u>	<u>Purpose</u>
1	12/18/19	A. Stanton	Updated equipment & added calibration procedure
Origination date: 02/18/19		Originator: J. Milligan	

**Purpose:** To determine the top weight of a bowling ball.

**Materials:**

- Bowling ball to be tested
- MyWeigh KD8000 digital scale
- Holtzman ball cradle
- Turbo 2-N-1 Pro Sect

**Procedure:**

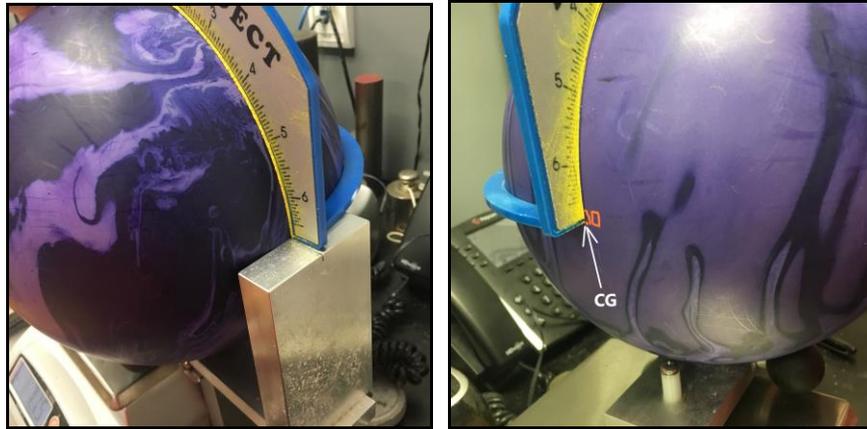
1. Slide the scale into the Holtzman ball cradle as pictured below.



2. Place the bowling ball in the cradle so the CG is aligned with the marking on the right edge of the frame's arm and the pin is aligned with the cradle arm facing upwards. Press "Tare" on the scale to zero out the reading.



3. While keeping the ball in the cradle, rotate the CG 180° to the opposite side of the ball (from right to left). To verify that the ball has been rotated correctly, place the Pro Sect atop the ball and line up one end with the marking on the cradle arm. Make sure the CG lines up at the other end of the Pro Sect.



4. Divide the reading on the scale by 2. Record the resulting value as the top weight of the bowling ball in the test sheet.

**If ball results indicate the top weight of the ball is out of spec:**

1. Verify that the scale is operating correctly by placing a known 5 oz. weight on the scale. The results should fall within  $\pm 0.05$  ounces.
2. If the results are within the  $\pm 0.05$  oz. tolerance, the scale and data are good.
3. If scale fails to match the known weight values, recalibrate using the instructions in the calibration section below.

**USBC Calibration**

1. The scale must be powered OFF. Press and hold [MODE] and [POWER]. Release both keys and wait for the display to read "CALE".
2. Place a **5 kg** weight on the platform. Wait a few seconds, then press [TARE]. Calibration is complete when the display reads "PASS". Now you can remove the weights.
3. Turn the scale OFF then turn it back ON and check some weight readings (5 kg). If calibration is still incorrect, repeat calibration.



**Yearly Calibration:**

This scale is to be professionally calibrated every 6 months by a technician from Mettler Toledo. If any test ball presents values outside of the top weight specifications, the scale must be verified. Please see previous section for instructions.

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