EQUIPMENT SPECIFICATIONS & CERTIFICATION

Purpose: To locate the center of gravity (CG) of a bowling pin.

Materials:

- Bowling pin to be tested
- Center of Gravity Scale
- Center of Gravity Scribe with Vernier Scale
- Permanent marker

Procedure:

1. Follow SOP-PIN-1 to find the total weight of the bowling pin.

2. Place the bowling pin in the front cradle of the CG Scale with the manufacturer's label facing upwards.

3. Using the total weight of the bowling pin, look at that graduated scale. Read the position of the CG in 64ths of an inch from the graduated scale.

4. Read the decimal equivalency for the height of the CG in 64ths from the "Decimal Equivalents Chart" located on the wall behind the CG Scale.

5. Record the decimal equivalent from the CG scale. The actual location of the CG will be the scale reading plus 5 inches.

6. Place the bowling pin on a flat, level surface.

7. Using the CG scribe with Vernier Scale, set the scribe to the actual CG location measurement.

8. Place the CG scribe on the flat, level surface next to the bowling pin. The etching end of the scribe should align on the side of the bowling pin with the manufacturer's label.

9. Etch a line where the CG is located on the bowling pin. This mark should be located on the same side of the bowling pin as the manufacturer's label.
    a. To make the CG locator mark place the corner of the etching end of the CG scribe on the surface of the bowling pin.
    b. While keeping the bowling pin steady, drag the CG scribe across the bowling pin surface.

10. Using the permanent marker, darken the CG location etch marking.