EQUIPMENT SPECIFICATIONS &
CERTIFICATION

Purpose: To determine the surface rebound hardness of a bowling pin.

Materials:

- Bowling Pin to be tested
- Scleroscope
- Scleroscope Test Stand

Procedure:

1. Rotate the wooden "L" shaped instrument position gauge that is on the left side of the jig towards the operator until it stops in the center of the jig. See figure 1 for location of the instrument position gauge.

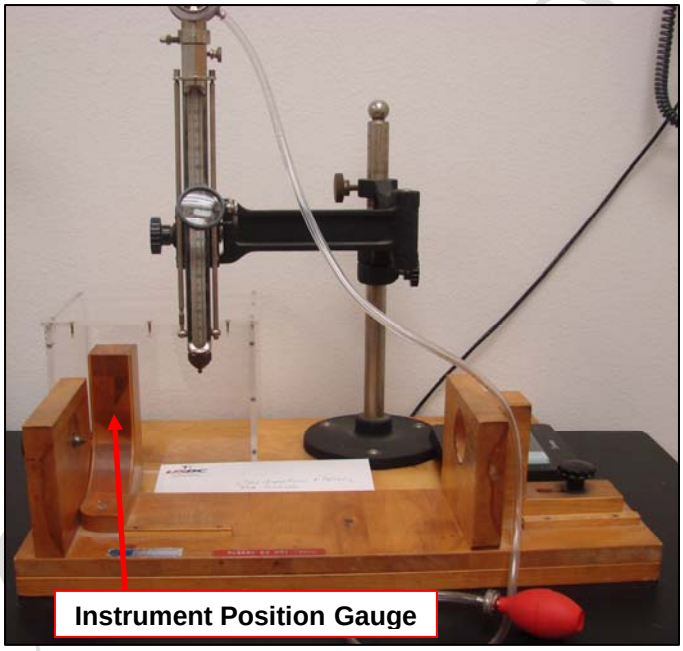

Figure 1 - Scleroscope and bowling pin jig

2. Lower the barrel of the Scleroscope until it is in contact with the "L" shaped instrument position gauge.

3. Align the small cylinder (hammer) that is at the bottom of the barrel with the hole at the top of the "L" shaped gauge. This ensures that the hardness of the bowling pin coating is being measured at the bowling ball contact point of the bowling pin. See Figure 2 which shows the position gauge used to align the barrel of the Scleroscope.

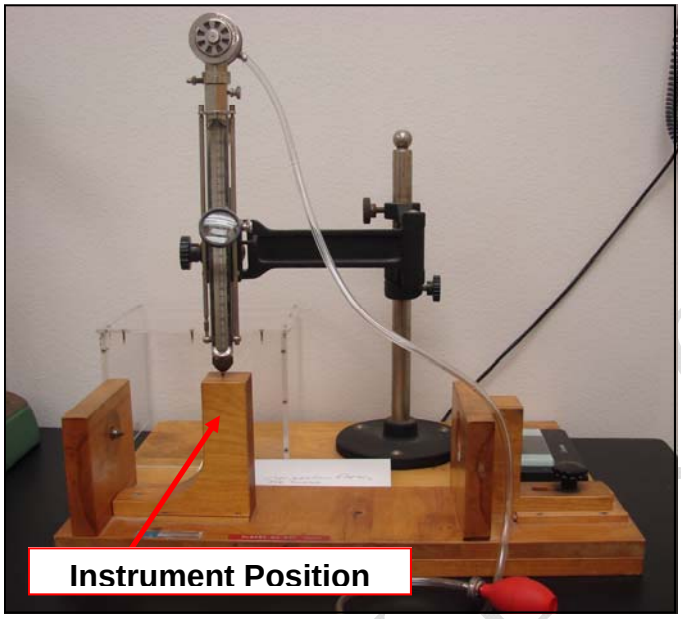

Figure 2 - Instrument position gauge aligning the barrel of the Scleroscope.

4. Rotate the wooden “L” shaped instrument position gauge away from the operator.

5. Turn the knob on the right end of the jig to loosen the clamp and pull the spring-loaded right end of the jig to the right and place the bowling pin into the jig.

6. Turn the knob on the right end of the jig to tighten the clamp and secure the bowling pin in the jig.

7. Lower the barrel of the Scleroscope until it touches the bowling pin in the jig.

8. Squeeze the bulb once to raise the hammer in the barrel of the Scleroscope.

9. Squeeze the bulb quickly to release the hammer in the barrel of the Scleroscope. The hammer will drop, hit the surface of the bowling pin and rebound back up the barrel. By looking at the graduated scale on the barrel, read the rebound height of the top of the hammer after the first contact with the bowling pin.

10. Record the height of the rebound of the first contact with the bowling pin based on the Shore C scale.

11. Turn the bowling pin on the horizontal axis one tenth of the circumference of the bowling pin.

12. Repeat steps 8-11 until a total of 10 hardness measurements have been taken at different points around the ball contact circumference of the bowling pin.