

L.A. ABRASION MACHINE AND STEEL SPHERES VERIFICATION PROCEDURE #3

June 26, 1996

Equipment Checked: L.A. ABRASION MACHINE AND STEEL SPERES (AASHTO T96)(ASTM C131)

Purpose:

This method provides instructions for checking the critical dimensions and general operating condition of the L.A. abrasion machine and the mass of the spheres used as test charges.

Inspection Equipment Required:

1. Steel rule readable to 1/16 inch (1mm).
2. Stopwatch readable to 0.1 sec.
3. Balance with a 5kg capacity, readable to 1g.

Tolerance:

The L.A. abrasion machine shall meet the dimensional tolerances specified in the applicable test method listed above and shall be in good operating condition. The steel spheres used to charge the L.A. machine shall meet the mass tolerance specified in the application test method listed above.

Procedure:

(L.A. Machine)

1. Measure and record the inside diameter of the drum at the left and right edges to the nearest 1mm.
2. Measure and record the width and height of the opening to the nearest 1mm.
3. Measure and record the wall thickness at the left and right edge to the nearest 1/16 inch.
4. Determine if the cylinder is horizontal using a steel ball to check left-to-right roll.
5. Measure and record the shelf width inside the drum to the nearest 1/16 inch.
6. Measure and record the distance from the shelf to the opening in the direction of rotation.
7. Using the stopwatch, determine the RPM to the nearest whole number over a 5-minute period. Record the RPM.
8. Check that the number of revolutions is 500 by looking at the counter on the machine.

(Steel Spheres)

1. Determine and record the mass of each individual sphere to the nearest 1 g.
2. Determine and record the mass of the collective charge(s) to the nearest 1 g.