

3. Other Mechanical Devices

Inaccessible or short sections of HMA may be placed with specialty equipment approved by the Engineer.

(d) Compaction Equipment

80 Compaction equipment shall be self-propelled, steel wheel or pneumatic tire types, in good condition, and capable of reversing direction without backlashing. All roller wheels shall be equipped with scrapers to keep the wheels clean, have water spraying devices on the wheels, and steering devices capable of accurately guiding the roller.

1. Tandem Roller

A roller having two axles and a minimum weight of 10 t.

2. Three Wheel Roller

A roller having three wheels with a minimum bearing of 300 lb/in. on the rear wheels. The crown of the wheels shall not exceed 2.5 in. in 18 ft.

90 A tandem roller which has a drive wheel bearing of no less than 300 lb/in. may be used in lieu of the three wheel roller.

3. Pneumatic Tire Roller

A pneumatic tire roller shall have a minimum rolling width of 5.5 ft. The roller shall be equipped with compaction tires, minimum size 7:50 by 15, exerting an average contact pressure from 50 to 90 psi uniformly over the pavement.

100 The wheels on at least one axle shall be fully oscillating vertically and mounted to prevent scuffing of the pavements during rolling or turning operations. Charts or tabulations showing the contact areas and pressures for the full range of tire inflation pressures and for the full range of tire loadings for each compactor shall be furnished to the Engineer.

4. Vibratory Roller

A vibratory roller shall have both drums equipped for vertical impact forces, a variable amplitude system, a speed control device, and have a minimum vibration frequency of 2,000 vibrations per minute. A reed tachometer shall be provided for verifying the frequency of vibrations.

110 5. Oscillatory Roller

An oscillatory roller shall have both drums equipped for horizontal and vertical shear forces or one drum equipped for horizontal and vertical shear force and the other drum equipped for a vertical impact force.

6. Trench Roller

A trench roller shall have a compaction wheel bearing of no less than 300 lb/in.