

permitted in Class 1 and excepted track.

**§ 213.137 Frogs.**

(a) The flangeway depth measured from a plane across the wheel-bearing area of a frog on Class 1 track shall not be less than 1<sup>3</sup>/<sub>8</sub> inches, or less than 1<sup>1</sup>/<sub>2</sub> inches on Classes 2 through 5 track.

(b) If a frog point is chipped, broken, or worn more than five-eighths inch down and 6 inches back, operating speed over the frog shall not be more than 10 m.p.h.

(c) If the tread portion of a frog casting is worn down more than three-eighths inch below the original contour, operating speed over that frog shall not be more than 10 m.p.h.

(d) Where frogs are designed as flange-bearing, flangeway depth may be less than that shown for Class 1 if operated at Class 1 speeds.

**§ 213.139 Spring rail frogs.**

(a) The outer edge of a wheel tread shall not contact the gage side of a spring wing rail.

(b) The toe of each wing rail shall be solidly tamped and fully and tightly bolted.

(c) Each frog with a bolt hole defect or head-web separation shall be replaced.

(d) Each spring shall have compression sufficient to hold the wing rail against the point rail.

(e) The clearance between the holddown housing and the horn shall not be more than one-fourth of an inch.

**§ 213.141 Self-guarded frogs.**

(a) The raised guard on a self-guarded frog shall not be worn more than three-eighths of an inch.

(b) If repairs are made to a self-guarded frog without removing it from service, the guarding face shall be restored before rebuilding the point.

**§ 213.143 Frog guard rails and guard faces; gage.**

The guard check and guard face gages in frogs shall be within the limits prescribed in the following table—

| Class of track            | Guard check gage<br>The distance between the gage line of a frog to the guard line <sup>1</sup> of its guard rail or guarding face, measured across the track at right angles to the gage line <sup>2</sup> , may not be less than— | Guard face gage<br>The distance between guard lines <sup>1</sup> , measured across the track at right angles to the gage line <sup>2</sup> , may not be more than— |
|---------------------------|---|--|
| Class 1 track .....       | 4' 6 <sup>1</sup> / <sub>8</sub> " .....  | 4' 5 <sup>1</sup> / <sub>4</sub> "   |
| Class 2 track .....       | 4' 6 <sup>1</sup> / <sub>4</sub> " .....  | 4' 5 <sup>1</sup> / <sub>8</sub> "   |
| Class 3 and 4 track ..... | 4' 6 <sup>3</sup> / <sub>8</sub> " .....  | 4' 5 <sup>1</sup> / <sub>8</sub> "   |
| Class 5 track .....       | 4' 6 <sup>1</sup> / <sub>2</sub> " .....  | 4' 5"  |

<sup>1</sup> A line along that side of the flangeway which is nearer to the center of the track and at the same elevation as the gage line.  
<sup>2</sup> A line <sup>5</sup>/<sub>8</sub> inch below the top of the center line of the head of the running rail, or corresponding location of the tread portion of the track structure.

