

WAC 296-24-24005 Load ratings. (1) Load ratings—Where stability governs lifting performance.

(a) The margin of stability for determination of load ratings, with booms of stipulated lengths at stipulated working radii for the various types of crane mountings is established by taking a percentage of the loads which will produce a condition of tipping or balance with the boom in the least stable direction, relative to the mounting. The load ratings must not exceed the following percentages for cranes, with the indicated types of mounting under conditions stipulated in (1)(b) and (c) of this section.

Type of crane mounting:	Maximum load ratings (% of tipping loads)
Locomotive, without outriggers;	
Booms 60 feet or less	85
Booms over 60 feet	85 ¹
Locomotive, using outriggers fully extended .	80
Crawler, without outriggers	75
Crawler, using outriggers fully extended	85
Truck and wheel mounted without outriggers or using outriggers fully extended	85

¹ Unless this results in less than 30,000 pound-feet net stabilizing moment about the rail, which must be minimum with such booms.

(b) The following stipulation must govern the application of the values in (1)(a) of this section for locomotive cranes:

(i) Tipping with or without the use of outriggers occurs when half of the wheels farthest from the load leave the rail.

(ii) The crane must be standing on track which is level within 1% grade.

(iii) Radius of the load is the horizontal distance from a projection of the axis of rotation to the rail support surface, before loading, to the center of vertical hoist line or tackle with load applied.

(iv) Tipping loads from which ratings are determined must be applied under static conditions only, i.e., without dynamic effect of hoisting, lowering, or swinging.

(v) The weight of all auxiliary handling devices such as hoist blocks, hooks, and slings must be considered a part of the load rating.

(c) Stipulations governing the application of the values in (1)(a) of this section for crawler, truck, and wheel-mounted cranes must be in accordance with Crane Load-Stability Test Code. Society of Automotive Engineers (SAE) J765.

Note: The effectiveness of these preceding stability factors will be influenced by such additional factors as freely suspended loads, track, wind, or ground conditions, condition and inflation of rubber tires, boom lengths, proper operating speeds for existing conditions, and, in general, careful and competent operation. All of these must be taken into account by the user.

(2) **Rated capacity chart.** You must post a chart indicating the manufacturer's rated capacity at all operating radii for all permissible boom lengths and jib lengths with alternate ratings for optional equipment affecting such ratings in all mobile type cranes. Rated capacity charts must be readily visible to the operator in the normal operating position.

(3) **Inspection classification.** Initial inspection. You must inspect all new and altered cranes prior to initial use to ensure compliance with provisions of these standards.

(4) You must ensure that all hooks are of the safety latch-type or the hook must be moused.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 15-24-100, § 296-24-24005, filed 12/1/15, effective 1/5/16. Statutory Authority: Chapter 49.17 RCW. WSR 94-15-096 (Order 94-07), § 296-24-24005, filed 7/20/94, effective 9/20/94. Statutory Authority: RCW 49.17.040, 49.17.150, and 49.17.240. WSR 79-08-115 (Order 79-9), § 296-24-24005, filed 7/31/79; Order 73-5, § 296-24-24005, filed 5/9/73 and Order 73-4, § 296-24-24005, filed 5/7/73.]