WAC 296-56-60097 Unit proof load test and inspection. (1) You must make sure cranes and derricks are proof load tested, rated and certified in tons (2,000 lbs. = 1 ton). Cranes and derricks must be inspected and unit proof load tested prior to being put into use, after any significant modification or repairs of structural parts, or when deemed necessary by the assistant director of consultation and compliance or their designee. However, each crane or derrick must be unit proof load tested at least once during each twelve-month period. Unit proof load tests must be carried out by the use of weights as a dead load. When use of weights for unit proof load tests is not possible or reasonable a dynamometer or other recording test equipment may be used. Such equipment must be tested for accuracy with certified calibrating equipment within twelve months prior to being used and a copy of the certified calibration test must be made available to authorized representatives of the division of consultation and compliance upon request.

(2) The weight of the objects used for a dead load weight test must be certified and a record of the weight must be made available upon request. Any replacements or repairs deemed necessary by the person conducting a test must be carried out before application of the required proof load unit test.

(3) The proof load tests for derricks must be conducted as follows:

Safe Working Load	Proof Load
To 20 tons	25% in excess
20-50 tons	5 tons in excess
Over 50 tons	10% in excess of manufacturer's recommended lifting capacity.

Proof load must be applied at the designed maximum and minimum boom angles or radii, or if this is impractical, as close to these as practical. The angles or radii of test must be stated in the certificate of test. Proof loads must be swung as far as possible in all directions. The weight of auxiliary handling devices such as spreader bars, robots, clams, magnets, or other gear must be considered a part of the load. Brakes must be tested by holding the proof load suspended without other mechanical assistance. After satisfactory completion of a unit proof load test the derrick and all component parts thereof must be carefully examined and nondestructive tests may be conducted to assure that the equipment is safe for use and has not been damaged in the unit proof load testing process.

(4) Unit proof load tests for cranes must be carried out with the boom in the least stable direction relative to the mounting, based on the manufacturer's specifications.

(5) Unit proof load tests for cranes must be based on the manufacturer's load ratings for the conditions of use and must, except in the case of bridge type cranes utilizing a trolley, consist of application of a proof load of ten percent in excess of the load ratings at maximum and minimum radius, and at such intermediate radii as the certifying authority may deem necessary in the circumstances. (The manufacturer's load ratings are usually based upon percentage of tipping loads under some conditions and upon limitations of structural competence at others, as well as on other criteria such as type of crane mounting, whether or not outriggers are used, etc. Some cranes utilizing a trolley may have only one load rating assigned and applicable at any outreach. It is important that the manufacturer's ratings be

used.) Trolley equipped cranes must be subject to a proof load of twenty-five percent in excess of the manufacturer's load rating. In cases of foreign manufacture, the manufacturer's specifications must be subject to approval by the certifying authority. The weight of all auxiliary handling devices such as magnets, hooks, slings, and clam-shell buckets must be considered part of the load.

(6) If the operation in which equipment is engaged never utilizes more than a fraction of the safe working load rating, the owner of the equipment may, at their option, have the crane or derrick certified for and operated at a lesser maximum safe working load in keeping with the use and based on radius and other pertinent factors, however, the equipment concerned must be physically capable of operation at the original load rating and the load reduction must not be for the purpose of avoiding correction of any deficiency.

(7) Safe working load ratings must not be increased beyond the manufacturer's ratings or original design limitations without prior approval by the accredited certification agency. Such prior approval must be based on the manufacturer's approval of such increase or documented engineering design analysis or both. All necessary structural changes must be completed prior to approval by the accredited certification agency.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 15-24-102, § 296-56-60097, filed 12/1/15, effective 1/5/16. Statutory Authority: RCW 49.17.040. WSR 99-02-024, § 296-56-60097, filed 12/30/98, effective 3/30/99. Statutory Authority: Chapter 49.17 RCW. WSR 95-04-007, § 296-56-60097, filed 1/18/95, effective 3/1/95. Statutory Authority: RCW 49.17.040 and 49.17.050. WSR 86-03-064 (Order 86-02), § 296-56-60097, filed 1/17/86; WSR 85-01-022 (Order 84-24), § 296-56-60097, filed 12/11/84.]