

WAC 296-155-53212 Additional inspection criteria and proof load testing—Derricks. (1) After it is determined that the derrick configurations meet the criteria in WAC 296-155-53200, the accredited derrick certifier must visually inspect the following items, if applicable, on derricks for sound physical condition and that they are functional within the manufacturer's recommendations (not including removal of inspection covers):

(a) All control and drive mechanisms for adjustments interfering with proper operation and for excessive wear or contamination by lubricants or other foreign matter;

(b) All chords and lacing, tension in guys, plumb of the mast, external indication of deterioration or leakage in air or hydraulic systems;

(c) Derrick hooks for deformation or cracks, distortion causing an increase in throat opening of 5% not to exceed one-quarter inch or as recommended by the manufacturer. Any wear exceeding 10% (or as recommended by the manufacturer) of the original section dimension of the hook;

(d) Rope reeving for noncompliance with derrick manufacturer's specifications;

(e) Hoist brakes, clutches, and operating levers;

(f) Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt and moisture accumulation;

(g) Structural members for deformation, cracks, and corrosion;

(h) Crane cleanliness and housekeeping. Inspect for trash, oil, grease, debris or excessive dirt on crane components and catwalks, if applicable;

(i) Bolts and rivets for tightness;

(j) Parts such as pins, bearings, shafts, gears, sheaves, drums, rollers, locking and clamping devices, for wear, cracks, and distortion;

(k) Gudgeon pin for cracks, wear and distortion;

(l) Foundation or supports for continued ability to sustain the imposed loads;

(m) A legible and applicable operator's manual and load chart is in the operator's cab or station;

(n) A portable fire extinguisher, with a basic minimum extinguishing rating of 10 BC must be installed in the cab or at the machinery housing.

(2) **Annual proof load testing of derricks.**

(a) **Annual proof load testing.** After the derrick has passed the visual and operational tests, the accredited derrick certifier must ensure a proof load test is conducted and must be performed at the maximum and minimum boom angles or radii or as close to these as practical and at such intermediate radii as the derrick manufacturer or RPSE may deem necessary. This test must be documented on the form or in the format approved by the department. A copy of this completed form and inspection worksheets must be sent to the department within 10 working days upon completion of the examination.

(b) Proof load tests and safe working load ratings must be based on the designed load ratings at the ranges of boom angle or operating radii. Proof loads must be as per the manufacturer's recommendations. When the manufacturer recommendations are not available follow the requirements in Table 2 below:

Table 2 - Derrick Load Test

Safe Working Load SWL	Proof Load
Up to 20 tons	25 % in excess
20-50 tons	5 tons in excess
Over 50 tons	10 % in excess

(c) Hoist the test load a few inches and hold to verify that the load is supported by the derrick and held by the hoist brake(s).

(d) Swing the derrick, if applicable, the full range of its swing, at the maximum allowable working radius for the test load.

(e) Boom the derrick up and down within the allowable working radius for the test load.

(f) Lower the test load, stop and hold the load with the brake(s).

(g) After satisfactory completion of a proof load test, the derrick and all component parts thereof must be carefully examined in all applicable requirements in this section.

(h) This test must be documented on the form or in the format approved by the department. A copy of this completed form and inspection worksheets must be sent to the department within 10 working days upon completion of the examination.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-53212, filed 4/19/16, effective 5/20/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.440, 49.17.060, and 29 C.F.R. 1926, Subpart CC. WSR 12-01-086, § 296-155-53212, filed 12/20/11, effective 2/1/12. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.17.400, 49.17.410, 49.17.420, 49.17.430, and 49.17.440. WSR 08-22-080, § 296-155-53212, filed 11/4/08, effective 1/1/10.]