

WAC 296-155-53204 Additional inspection criteria and proof load testing—Articulating boom cranes. (1) After it is determined that the crane configurations meet the criteria in WAC 296-155-53200, the accredited crane certifier must visually inspect the following items, if applicable, on cranes 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) Safety devices for malfunction;

(c) All hydraulic hoses, particularly those which flex in normal operation of crane functions;

(d) Hooks and latches for deformation, chemical damage, cracks, and wear;

(e) Rope reeving for compliance with crane manufacturer's specifications;

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

(g) Hydraulic system for proper oil level and leaks;

(h) Excessively worn or damaged tires. Recommended inflation pressure, cuts, and loose wheel nuts;

(i) Connecting pins and locking device for wear and damage;

(j) Deformed, cracked, or corroded members in the crane structure and carrier;

(k) Loose bolts, particularly mounting bolts;

(l) Cracked or worn sheaves and drums;

(m) Worn, cracked, or distorted parts such as pins, bearings, shafts, gears, rollers, and locking devices;

(n) Excessive wear on brake and clutch system parts and lining;

(o) Travel steering, braking, and locking devices, for malfunction;

(p) Hydraulic, pneumatic and other pressurized hoses, fittings and tubing, as follows:

(i) Flexible hose or its junction with the fittings for indications of leaks.

(ii) Threaded or clamped joints for leaks.

(iii) Outer covering of the hose for blistering, abnormal deformation or other signs of failure/impending failure.

(iv) Outer surface of a hose, rigid tube, or fitting for indications of excessive abrasion or scrubbing;

(q) Hydraulic and pneumatic pumps and motors, as follows:

(i) Performance indicators: Unusual noises or vibration, low operating speed.

(ii) Loose bolts or fasteners.

(iii) Shaft seals and joints between pump sections for leaks;

(r) Hydraulic and pneumatic cylinders, as follows:

(i) Drifting.

(ii) Rod seals and welded joints for leaks.

(iii) Cylinder rods for scores, nicks and dents.

(iv) Case (barrel) for significant dents;

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

(t) Legible warning labels and decals as required by the manufacturer;

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

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

(2) **Annual proof load testing of articulating boom cranes.**

(a) **Annual proof load testing.** After the crane has passed the visual and operational tests, the accredited crane certifier must ensure a proof load test is conducted and must be performed within the structural and stability section of the manufacturer's load chart, as applicable. 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) Test loads must not be less than 100% or more than 110% of the rated load, unless otherwise recommended by the manufacturer.

(c) Hoist the test load to assure that the load is supported by the crane and held by the hoist brake(s).

(d) Swing the crane, if applicable, the full range of its swing.

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

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

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-53204, 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, § 296-155-53204, 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, § 296-155-53204, filed 11/4/08, effective 1/1/10.]