

**WAC 296-155-620 Pile driving equipment. (1) General requirements.**

(a) Boilers and piping systems which are a part of, or used with, pile driving equipment must meet the applicable requirements of the American Society of Mechanical Engineers, Powers Boilers (section I).

(b) All pressure vessels which are a part of or used with, pile driving equipment must meet the applicable requirements of the American Society of Mechanical Engineers, Pressure Vessels (section VIII).

(c) You must provide overhead protection, which will not obscure the vision of the operator, and which meets the requirements of Part L of this chapter. Protection must be of 2-inch planking or other solid material of equivalent strength.

(d) You must provide stop blocks for the leads to prevent the hammer from being raised against the head block.

(e) You must provide a blocking device, capable of safely supporting the weight of the hammer for placement in the leads under the hammer at all times while employees are working under the hammer.

(f) You must provide guards across the top of the head block to prevent the cable from jumping out of the sheaves.

(g) When the leads must be inclined in the driving of batter piles, you must make provisions to stabilize the leads.

(h) You must visually inspect all working equipment at the beginning of each shift.

(i) Fixed leads must be provided with ladder, and adequate rings, or similar attachment points, so that the loft workers may engage their full body harness lanyard to the leads. If the leads are provided with loft platform(s) such platform(s) must be protected by standard guardrails.

(j) Pile drivers with swinging leads must have a wire rope safety strap on top end.

(k) Spud bars must be of hard wood with smooth round handle end for safe handling. Iron shod spud bars are prohibited.

(l) A follower block or driving cap must be used with a drop hammer on all piling except sheet piling.

(m) Steam hose leading to a steam hammer or jet pipe must be securely attached to the hammer with an adequate length of at least 1/4-inch diameter chain or cable to prevent whipping in the event the joint at the hammer is broken. Air hammer hoses must be provided with the same protection as required for steam lines.

(n) You must provide safety chains, or equivalent means, for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.

(o) Steam line controls must consist of two shutoff valves, one of which must be a quick-acting lever type within easy reach of the hammer operator.

(p) You must provide guys, outriggers, thrustouts, or counterbalances as necessary to maintain stability of pile driver rigs.

(q) You must install ladders constructed in compliance with this chapter on all pile drivers from the hoist platform to the head block, and in such position that workers using ladders will not come in contact with lines, sheaves, etc.

(r) You must not use drop hammers which have been chipped on the face for pile driving.

(s) You must replace or properly repair groove worn drums or spools to present a smooth working surface.

(t) You must maintain at least two full wraps of cable on hoisting drums.

(u) You must provide proper racks for storage of cross-cut saws.

(v) Every hoisting drum used as a pile driver must be equipped with manually operated dogs or pawls to hold suspended loads. You must only use foot brakes to hold suspended loads until drum dogs are engaged. The dogs must be visible from the operator's station or be equipped with a positive direct connected telltale which must be visible to the operator.

(w) No counterweight or spring arrangement on dogs is permitted which would allow dog to be automatically disengaged either by relieving the load or rolling the drum.

(x) In every crew you must designate a signalperson. The driver operator or drum person must receive signals from no others, except when loftworker is above. The hammer must not be lowered except on the loftworker's signal.

(y) You must not use spliced hammer lines.

(2) **Pile driving from barges and floats.** Barges or floats supporting pile driving operations must meet the applicable requirements of WAC 296-155-630.

(3) **Pile driving equipment.**

(a) Engineers and winchperson must accept signals only from the designated signalperson.

(b) You must keep all employees clear when piling is being hoisted into the leads.

(c) When piles are being driven in an excavated pit, the walls of the pit must be sloped to the angle of repose or sheet-piled and braced.

(d) When steel tube piles are being "blown out," you must keep employees well beyond the range of falling materials.

(e) When it is necessary to cut off the tops of driven piles, you must suspend pile driving operations except where the cutting operations are located at least twice the length of the longest pile from the driver.

(f) When driving jacked piles, you must provide all access pits with ladders and bulkheaded curbs to prevent material from falling into the pit.

(g) Floating equipment such as dredges and pile drivers must maintain a signal system to shore in the event of an emergency.

(h) The distribution of machinery on floating equipment must be such that the completed unit floats on an even keel.

(i) Fuel tanks below decks must be vented to outside of hull and vents must be equipped with flame arrestors.

(j) All hull compartments must be ventilated. No person must work in hull compartments until it is shown the compartments contain no flammable or toxic concentrations.

(k) Light fixtures installed or used within the hull must be explosion proof.

(l) All floating rigs must be equipped with ladderways extending from the deck to the waterline where the deck is more than 36 inches above the water. You must hang a wire rope along both sides of the hull or float so that it is near or at the waterline.

(m) Doors of deck houses where deck house sets within 36" of edge of deck and doorways in hull must be equipped with guard rails or cross chains.

(n) Deck houses must have a substantial grab rail installed on all sides where such installation will not interfere with operations.

(o) You must guard pile driver and dredge fairlead sheaves, and spudline sheaves to prevent workers or tools being drawn into them.

(p) You must keep all work deck clear of debris, unnecessary tools and equipment in order to minimize the stumbling hazard. You must coil lines, store tools and stack materials clear of working spaces.

(q) Night operations must be adequately lighted for all activity while work is in progress and must be maintained until workers leave the work area.

(r) Electrical installation and equipment must be installed and maintained in compliance with the National Electric Code.

(s) All walkways over water and on dredge pontoon discharge pipe lines must be a minimum of 20" in width with standard handrail along one side on structures and gang planks. Walkways on pontoon lines may be equipped with hand lines in lieu of standard handrail.

(t) You must provide adequate fire extinguishing equipment and maintain it in a serviceable condition.

(u) You must use protective equipment when working with creosote timbers. Protective creams must be used on exposed skin surfaces and gloves and eye protection worn especially when driving piles.

(v) Pulling piles with hammer or pile line rigged through the head block is prohibited unless driver and rigging are designed to safely withstand the imposed strain.

(w) Truck runways and platforms must be equipped with a wheel guard on all outside edges. Top of wheel guards must be a minimum of 10 inches above deck.

(x) Use of foot blocks at base of leads for hammer line or pile line is prohibited.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-620, filed 4/19/16, effective 5/20/16. Statutory Authority: Chapter 49.17 RCW. WSR 94-15-096 (Order 94-07), § 296-155-620, filed 7/20/94, effective 9/20/94; WSR 91-03-044 (Order 90-18), § 296-155-620, filed 1/10/91, effective 2/12/91; Order 76-29, § 296-155-620, filed 9/30/76; Order 74-26, § 296-155-620, filed 5/7/74, effective 6/6/74.]