

WAC 296-304-17003 Unit proof test—Winches, derricks and gear accessory thereto. (1) Winches, with the whole of the gear accessory thereto (including derricks, goosenecks, eye plates, eye bolts, or other attachments), must be tested with a proof load which must exceed the safe working load as follows:

Safe working load	Proof load
Up to 20 tons.....	25 percent in excess.
20-50 tons.....	5 tons in excess.
Over 50 tons.....	10 percent in excess.

(2) The proof load must be lifted with the vessel's normal tackle with the derrick at an angle not more than 15 degrees to the horizontal, or, at the designed minimum angle when this is greater, or, when this is impracticable, at the lowest practicable angle. The angle at which the test was made must be stated in the certificate of test. After the proof load has been lifted, it must be swung as far as possible in both directions. In applying the proof load, the design factors of the gear concerned will determine whether the load is applied with a single part fall or with a purchase and the certificate of test shall state the means used. Where winches are fitted with mechanical brakes for manual operation they must be demonstrated to be in satisfactory operating condition.

(3) In the case of heavy lift derrick barges, proof loads must be applied, except as limited by design and stability considerations, at the maximum and minimum radius for which designed, as well as at any intermediate radius which the surveyor may deem necessary, and must be swung as far as possible in both directions. Data with respect to each proof load applied must be entered in the test certificate.

(4) No items of cargo gear furnished by outside sources must be used as a part of the vessel's gear for the purpose of accomplishing the proof test.

(5) All tests prescribed by this section should in general be carried out by dead load, except that in the case of quadrennial tests, replacements, or renewals, spring or hydraulic balances may be used where dead loads are not reasonably available. However, no exception must be allowed in the case of gear on new vessels.

(6) The test must not be regarded as satisfactory unless the indicator remains constant under the proof load for a period of at least 5 minutes.

(7) The safe working load, determined pursuant to the requirements of this section, must be applicable only to a swinging derrick. When using two fixed derricks in "union purchase" rigs, the safe working load should generally be reduced. It is recommended that owners obtain union purchase safe working load certification based upon design study and analysis by, or acceptable to, a qualified technical office of an accredited gear certification agency, with the recognition that such determinations are valid only for the conditions contemplated in the analysis.

Where both guys and preventers are fitted, union purchase certification must state whether the guy or the preventer is the working strength member, when the guy is for slewing only, and when the guy and preventor should share working loads as far as practicable.

(8) When necessary in the proof testing of heavy derricks, the appropriate shrouds and stays must be rigged.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-18-075, § 296-304-17003, filed 9/5/17, effective 10/6/17; Order 74-25, § 296-304-17003, filed 5/7/74.]