§ 1919.60  General duties, exemptions.

(a) The requirements of subpart H of this part shall be strictly observed: Provided, however, That in cases of practical difficulties or unnecessary hardship, the Assistant Secretary in his discretion may grant exemptions or variations from any provision in that subpart.

(b) Except as otherwise noted in this part, all functions required by subpart H of this part shall be carried out by or under the supervision of a person accredited for the purpose or by his authorized representative.

(c) All required unit proof load tests shall be carried out by the use of weights as a dead load. Only where this is not possible may dynamometers or other recording test equipment be used. Any such recording test equipment owned by an accredited person shall have been tested for accuracy within the 6 months next preceding application for accreditation or renewal thereof. Such test shall be performed with calibrating equipment which has been checked in turn so that indications are traceable to the National Bureau of Standards. A copy of test reports shall accompany the accreditation application. Where test equipment is not the property of the accredited person, that person shall not issue any certificate based upon the use of such equipment unless its owner has made available a certificate of accuracy based on the requirements of this paragraph obtained within the year prior to such use, and stating the errors of the equipment. In any event, reasonable standards of accuracy shall be met and proof loads adjusted as necessary.

(d) The qualifications of any person appointed or recognized by any accredited person for the purpose of carrying out certification functions shall meet with the approval of the Assistant Secretary.

(e) Sections 1919.10(e) and (g) and 1919.11 shall govern, to the extent applicable, persons accredited under subpart F of this part.

§ 1919.70  General provisions.

(a) Certification of shore-based material handling devices shall conform to the requirements contained in this subpart, except in cases for which exemptions or variations have been granted by the Assistant Secretary as provided in §§1919.50(d) and 1919.60(a).

(b) Any replacements or repairs deemed necessary by the accredited person shall be carried out before application of a proof test.

(c) 70\text{ton} in this subpart means a ton of 2,000 pounds.

(d) When applied to shore-based material handling devices, ratings may be stated in pounds rather than tons. When stated in tons of 2,000 pounds, this fact shall be indicated.

§ 1919.71  Unit proof test and examination of cranes.

(a) Unit proof tests of cranes shall be carried out at the following times:

(1) In the cases of new cranes, before initial use and every 4 years thereafter.

(2) In the cases of uncertificated cranes which have been in use, at the time of initial certification and every 4 years thereafter.

(3) After important alterations and renewals and after repairs due to failure of, or damage to major components.

(b) Unit proof load tests of cranes shall be carried out where applicable with the boom in the least stable direction relative to the mounting, based on the manufacturer’s specifications.

(c) Unit proof load tests shall be based on the manufacturer’s load ratings for the conditions of use and shall, except in the case of bridge type cranes utilizing a trolley, consist of application of a proof load of 10 percent in excess of the load ratings at maximum and minimum radii, and at such intermediate radii as the certifying authority may deem necessary in the circumstances.1 Trolley equipped cranes

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1The 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.
shall be subject to a proof load of 25 percent in excess of the manufacturer’s load rating. In cases of foreign manufacture, the manufacturer’s specifications shall be subject to approval by the certificating authority as being equivalent to U.S. practice. The weight of all auxiliary handling devices such as, but not limited to, magnets, hooks, slings, and clamshell buckets, shall be considered part of the load.

(d) An examination shall be carried out in conjunction with each unit proof load test. The accredited person, or his authorized representative, shall make a determination as to correction of deficiencies found. The examination shall cover the following points as applicable:

(1) All functional operating mechanisms shall be examined for improper function, maladjustment, and excessive component wear, with particular attention to sheaves, pins, and drums. The examination shall include operation with partial load, in which all functions and movements, including, where applicable, maximum possible rotation in both directions, are performed.

(2) All safety devices shall be examined for malfunction.

(3) Lines, tanks, valves, drains, pumps, and other parts of air or hydraulic systems shall be examined for deterioration or leakage.

(4) Loose gear components, such as hooks, including wire rope and wire rope terminals and connections, shall be checked with particular attention to sections of wire rope exposed to abnormal wear and to sections not normally exposed for examination. The provisions of §1919.24 shall apply in wire rope examinations. Cracked or deformed hooks shall be discarded and not reused on any equipment subject to the provisions of part 1918 of this chapter and this part 1919.

(5) Rope reeving shall comply with manufacturer’s recommendations.

(6) Deformed, cracked, or excessively corroded members in crane structure and boom shall be repaired or replaced as necessary.

(7) Loose bolts, rivets, or other connections shall be corrected.

(8) Worn, cracked, or distorted parts affecting safe operation shall be corrected.

(9) Brake and clutch system parts, linings, pawls, and ratchets shall be examined for excessive wear and free operation.

(10) Load, boom angle, or other indicators shall be checked over their full range for any significant inaccuracy. A boom angle or radius indicator shall be fitted.

(11) It shall be ascertained that there is a durable rating chart visible to the operator, covering the complete range of the manufacturer’s capacity ratings at all operating radii, for all permissible boom lengths and jib lengths, with alternate ratings for optional equipment affecting such ratings. Necessary precautions or warnings shall be included. Operating controls shall be marked or an explanation of controls shall be posted at the operator’s position to indicate function.

(12) Where used, clamshell buckets or other similar equipment such as magnets, etc., shall be carefully examined in all respects, with particular attention to closing line wires and sheaves. The accredited person may supplement such examination by requesting any operational tests as may be appropriate.

(13) Careful examination of the junction areas of removable boom sections, particularly for proper seating, cracks, deformities, or other defects in securing bolts and in the vicinity of such bolts.

(14) It shall be ascertained that no counterweights in excess of the manufacturer’s specifications are fitted.

(15) Such other examination or supplemental functional tests shall be made as may be deemed necessary by the accredited person under the circumstances.

§ 1919.72 Annual examination of cranes.

(a) In any year in which no quadrennial unit proof test is required, an examination shall be carried out by an accredited person or his authorized representative. Such examination shall be made not later than the anniversary