

**CODE RULE 23**  
**SUBPART 23-8**  
**MOBILE CRANES, TOWER CRANES AND DERRICKS**

**Historical Note**

Subpart added, filed May 30, 1972 eff. June 1, 1972.

**§ 23-8.1 General provisions.**

(a) *Stability and strength.* Mobile cranes, tower cranes and derricks used in construction, demolition and excavation operations shall be so constructed, placed and operated as to be stable. No component or part of any such crane or derrick shall be stressed beyond its rated capacity as determined by the manufacturer or builder.

(b) *Inspection.* (1) Every mobile crane, tower crane and derrick shall be thoroughly inspected by a competent, designated employee or authorized agent of the owner or lessee of such mobile crane, tower crane or derrick at intervals not exceeding one month. Such inspections shall include but not be limited to all blocks, shackles, sheaves, wire rope, connectors, the various devices on the mast or boom, hooks, controls and braking mechanisms.

(2) A written, dated and signed record of each such inspection shall be completed by the competent, designated employee or authorized agent who made the inspection on an inspection form provided by the commissioner. The most recent record of inspection of a mobile crane, tower crane or derrick shall be posted inside the cab of such crane or derrick under a transparent protective covering or shall be filed in an office on the job site available for examination by the commissioner. Attached to such record of inspection shall be a written designation naming the competent employee or authorized agent. Such attached designation shall be signed by the owner or lessee of such mobile crane, tower crane or derrick.

(3) Every mobile crane, tower crane and derrick shall be inspected before being erected or operated for the first time on any job.

(4) Adjustments and repairs to mobile cranes, tower cranes and derricks shall be made only by competent, designated persons.

(5) A preventive maintenance program shall be established for each mobile crane, tower crane and derrick based on the manufacturer's recommendations. Dated and detailed records of such programs shall be available on the job site for examination by the commissioner.

(c) *Footings.* A firm footing shall be provided for every mobile crane, tower crane and derrick.

(d) *Hoisting mechanism brakes and locking devices.* (1) Every power-operated mobile crane, tower crane and derrick shall be provided with hoisting mechanism brakes capable of sustaining at rest one and one-half times the maximum rated load on a single part line. Hand or foot operated brakes shall be provided with a substantial locking device to lock any such brake in engagement. Pedals of foot-operated brakes shall be constructed so that the operators' feet cannot easily slip off. Nonslip pedal surfaces are acceptable for this purpose.

(2) Power-controlled lowering devices, when provided, shall be capable of handling rated loads and speeds in order to provide precision lowering and reduce demands on the brake loads.

*Exception:* This paragraph does not apply to any mobile crane provided with a clamshell or dragline used in excavation operations.

(3) Electrically-driven mobile cranes, tower cranes and derricks shall be provided with devices which will automatically hold the loads in cases of power failure.

(e) *Load handling.* (1) Mobile cranes, tower cranes and derricks shall not be loaded beyond their rated capacities.

(2) Hoisting ropes for concrete buckets used with mobile cranes, tower cranes or derricks shall be provided with safety hooks or closed shackles.

(3) Where slings are used to hoist material of long length, spreader bars shall be used to space and keep the sling legs in proper balance.

(4) Reinforcing rods, conduit and lumber, when of uneven lengths as well as column clamps and similar items which cannot be easily secured to form safe drafts or loads shall be hoisted in boxes. Each such box shall be substantially constructed and supported from its four corners by individual lengths of wire rope having spliced or clipped loops for attachment to the load line. The construction and suspension of each such box shall be capable of holding at least four times the load for which it is intended.

(5) In steel erection, when a load is suspended from a mobile crane, tower crane or derrick at two or more points with slings, the eyes of the lifting legs of the slings shall be shackled together and this shackle or the eyes of the shackled slings shall be placed on the hook. Alternatively, the eyes of the lifting legs may be shackled directly to the hoisting block, ball or balance beam. The eyes may be placed on the lifting hook without shackles if the hook is of the safety type.

(6) No more than one load shall be suspended from the same load line of a mobile crane, tower crane or derrick at one time.

(f) *Hoisting the load.* (1) Before starting to hoist with a mobile crane, tower crane or derrick the following inspection for unsafe conditions shall be made:

(i) The hoisting rope shall be free from kinks.

(ii) Multiple part lines shall not be twisted around each other.

(iii) The hook shall be brought over the load in such manner and location as to prevent the load from swinging when hoisting is started.

(iv) The load is well secured and properly balanced in the sling or lifting device before it is lifted more than a few inches.

(v) If there is a slack rope condition, it shall be determined that the hoisting rope is properly seated on the drum and in the sheaves.

(2) During the hoisting operation the following conditions shall be met:

(i) There shall be no sudden acceleration or deceleration of the moving load unless required by emergency conditions.

(ii) The load shall not contact any obstruction.

(3) The side loading of booms on mobile cranes, tower cranes and derricks shall be limited to freely suspended loads.

(4) Mobile cranes, tower cranes and derricks shall not be used for dragging loads sideways.

(5) Mobile cranes, tower cranes and derricks shall not hoist, lower, swing or travel while any person is located on the load or hook.

(6) Mobile cranes, tower cranes and derricks shall not hoist or carry any load over and above any person except as otherwise provided in this Part (rule).

(7) The operator of any mobile crane, tower crane or derrick shall not leave his position at the controls while any load is suspended nor shall any person be permitted to work or pass under a stationary suspended load.

(g) *Limitations on modifications of mobile cranes, tower cranes or derricks.* No load-bearing component or part of any mobile crane, tower crane or power-driven derrick shall be replaced by another component or part nor shall any mobile crane, tower crane or derrick be modified by the addition thereto or the removal therefrom of any load-bearing component or part unless such replacement or modification shall be as certified by either the manufacturer or builder of such crane or derrick or by a professional engineer licensed to practice in the State of New York.

(h) *Cast iron.* Cast iron shall not be used for members or parts of any mobile crane, tower crane or derrick subject to tension or torsion except for brake and clutch drums.

(i) *Guarding moving parts.* Exposed moving components or parts of mobile cranes, tower cranes and derricks such as gears, set screws, projection keys, chains, chain sprockets and reciprocating parts which might constitute a hazard under normal operating conditions shall be guarded and such guards shall be securely fastened in place. Each such guard shall be capable of supporting without permanent distortion the weight of a 200 pound man, unless such guard is located where it is impossible for a person to step or ply his weight on it.

(j) *Protection from the elements.* Friction brakes and clutches of mobile cranes, tower cranes and derricks shall be provided with adequate protection from the elements.

(k) *Wire ropes and reeving accessories.* (1) Rope safety factors. Wire rope provided for use on any mobile crane, tower crane or derrick shall be in compliance with the safety factor requirements listed as follows:

(i) For supporting rated loads (including boom suspensions):

(a) The safety factor for live or running ropes that wind on drums or pass over sheaves shall be not less than 3.5.

(b) The safety factor for boom pendants or standing ropes shall be not less than 3.0.

(ii) For supporting the boom and working attachments at recommended travel or transit positions and boom lengths:

(a) The safety factor for live or running ropes shall be not less than 3.5.

(b) The safety factor for boom pendants and standing ropes shall be not less than 3.0.

(iii) For supporting the boom under recommended boom erection conditions:

(a) The safety factor for live or running ropes shall be not less than 3.0.

(b) The safety factor for boom pendants or standing ropes shall be not less than 2.5.

(iv) The safety factors specified in subparagraphs (i), (ii) and (iii) above shall be determined on the basis of rope loads resulting from crane or derrick manufacturers' ratings, with approved reeving, published nominal breaking strengths of new ropes and with load and boom stationary.

(2) Hoisting rope. When the hook of the hoist of any mobile crane, tower crane or derrick is resting on the ground or equivalent elevation at least two full wraps of the hoisting rope shall remain on the drum of such crane or derrick.

(3) Replacement rope. Replacement ropes for any mobile crane, tower crane or derrick shall be at least the equivalent in strength and grade as the original ropes furnished by the manufacturer or builder of such crane or derrick.

(4) Eye splices. Eye splices shall be made in an acceptable manner and rope thimbles shall be used in the eye.

(5) U-bolt clips. U-bolt clips shall have the U-bolt section on the dead or short end, and the saddle on the live or long end of the rope. Spacing and number of clips shall be in accordance with manufacturer's recommendation. Clips shall be of drop-forged steel. When a newly installed rope has been in operation for at least one hour, all nuts on the clip bolts shall be re-tightened and they shall be re-checked for tightness at monthly intervals thereafter.

(6) Special fittings. Swaged, compressed or wedge-socket fittings shall be applied as recommended by the manufacturer of the rope or fittings or by the manufacturer or builder of the mobile crane, tower crane or derrick.

(7) Rope inspection. (i) *Daily*. All running ropes in continuous service on a mobile crane, tower crane or derrick shall be visually inspected at least once every working day.

(ii) *Monthly*. All ropes in use on a mobile crane, tower crane or derrick shall be thoroughly inspected by a competent, designated person at least once a month. A full written, dated and signed report of each such inspection, which shall include the condition of all ropes, shall be kept on file on the job site available for examination by the commissioner. Any rope damage or deterioration which might result in appreciable loss of original rope strength shall be carefully noted and a determination shall be made by the designated person as to whether continued use of such damaged or deteriorated rope constitutes a hazard.

(1) *Lubrication*. (1) Sheave bearings. All sheave bearings on mobile cranes, tower cranes and derricks shall be regularly lubricated according to the recommendations of the manufacturers or builders of such cranes or derricks.

(2) Moving parts. All moving parts of mobile cranes, tower cranes and derricks for which lubrication is specified, including ropes and chains, shall be regularly lubricated. Lubricating systems shall be frequently checked for proper delivery of the lubricant. Lubricating points shall be accessible without moving guards or other parts.

(m) *Operation near power lines*. The operation of any mobile crane, tower crane or derrick near or around any power line or power facility shall be done only in accordance with the provisions of Subpart 23-1 of this Part (rule).

(n) *Use of mobile cranes in concrete work.* In building construction where concrete is raised by mobile cranes, such loads raised to elevations more than 150 feet shall be deposited or discharged only in hoppers or other appropriate facilities which are so located as to permit operation of the boom of any such crane at a minimum load radius.

#### **Historical Note**

Sec. added, filed May 30, 1972 eff. June 1, 1972.

#### **§ 23-8.2 Special provisions for mobile cranes.**

(a) *Inspection.* (1) A mobile crane which is moved from one job site to another without dismantling beyond the folding of the boom and such additional dismantling as may be necessary for that purpose is not required to be inspected before being first erected or operated on each job site to which it is moved, providing the monthly inspections are performed on schedule.

(2) The inspection and repair of mobile crane booms shall be made only when such booms are lowered and adequately supported.

(b) *Footings and outriggers.* (1) Footings. A firm footing shall be provided for every mobile crane. Where such firm footing is not naturally available, it shall be provided by substantial timbers, cribbing or other structural members sufficient to distribute the load so as not to exceed the safe bearing capacity of the underlying material.

(2) Outriggers. (i) Means shall be provided to hold all outriggers of mobile cranes in their retracted positions while such cranes are traveling and in their extended positions when blocked for hoisting.

(ii) Where used on mobile cranes, power-operated jacks shall be provided with means to prevent loss of jack support under load.

(iii) Each outrigger on a mobile crane shall be visible from its actuating location.

(iv) Means shall be provided to securely fasten outrigger floats to the outriggers when in use.

(c) *Hoisting the load.* (1) Before hoisting a load the person directing the lift shall see that the mobile crane is level and, where necessary, blocked.

(2) Before hoisting any load at a new job site, the boom of a mobile crane shall be test operated to its maximum height.

(3) Loads lifted by mobile cranes shall be raised vertically so as to avoid swinging during hoisting except when such operations are permitted by the capacity chart. A tag or restraint line shall be used when rotation or swinging of any load being hoisted by a mobile crane may create a hazard.

(4) When a mobile crane is operated at a fixed radius, the boom-hoist pawl or other positive locking device shall be engaged.

(d) *Mobile crane travel.* (1) A mobile crane traveling to or from one job site to another or traveling on a street or highway shall not carry any jibs, attachments, buckets or other devices or material attached in any way to the boom whether the boom is in the folded position or not.

*Exception:* A hydraulic crane where the jib is permanently hinged to the boom or any crane where the manufacturer authorizes that the design of

such crane guarantees the safe transport of the jib or other attachments.

(2) Mobile cranes shall not travel with suspended loads unless such crane is under the control of a competent, designated person who shall be responsible for the position of the load, boom location, ground support, travel route and speed of movement.

(3) A mobile crane, with or without load, shall not travel with the boom so high that it may bounce back over the cab.

(e) *Counterweights for mobile cranes.* Counterweights shall be provided for and used on mobile cranes as specified by the manufacturers or builders of such cranes or by professional engineers licensed to practice in the State of New York. A mobile crane shall not be operated without the full amount of ballast or counterweight in place. Mobile cranes that do not have the ballast or counterweight attached may be operated temporarily with special care when handling light loads. The ballast or counterweight in place on any mobile crane shall not exceed the manufacturer's or builder's specifications.

(f) *Mobile crane construction.* (1) Booms.

(i) Booms, boom sections and jibs of every mobile crane shall be constructed of suitable steel and shall be used only for the purposes recommended by the manufacturer or builder of such mobile crane.

(ii) The boom of any mobile crane shall not be raised from the level of the surface on which the crane rests other than by the use of its own hoisting capabilities. The design, construction and length of any boom shall be such that there is no undue stress imposed on the crane structure or mechanism during such raising operations.

(iii) Boom stops shall be provided on mobile cranes to prevent overtopping.

(iv) Any boom extension used on a mobile crane which is not provided by the manufacturer or builder of the crane shall be designed by a professional engineer licensed to practice in the State of New York. A copy of the design plans for such boom extension shall be kept at the job site available for examination by the commissioner.

(2) Braking mechanism. In addition to the hoisting mechanism brakes required by this Subpart, every mobile crane shall be provided with the following:

(i) An adequate braking mechanism for the boom hoist.

(ii) A swing lock or swing brake capable of preventing rotation.

(iii) A brake or other equivalent device adequate to bring the mobile crane to a stop from any travel for which such crane is designed, together with a means of locking such mobile crane so as to hold it stationary.

(3) Boom sheave guard. The sheave at the end of a mobile crane boom on which the hoisting rope operates shall be provided with a guard to prevent the rope from leaving the sheave in case of rope slack or any other condition.

(g) *Mobile crane capacity charts.* (1) Load ratings for mobile cranes.

(i) Load ratings shall not exceed the percentages listed in Table XVII of this Subpart of the tipping loads for mobile cranes.

(ii) The stability of mobile cranes will be influenced by such factors as freely suspended loads, track, wind or ground conditions, condition and inflation of tires, boom lengths and proper operating speeds for existing conditions. All such factors shall be taken into account in determining mobile crane stability.

**TABLE XVII  
MAXIMUM LOAD RATINGS FOR MOBILE CRANES**

<i>Type of mobile crane mounting</i>	<i>Maximum load ratings (Percentages of tipping loads)</i>
Crawler without outriggers .....	75
Crawler, outriggers fully extended .....	85
Truck and wheel mounted (with or without outriggers fully extended) .....	85

(2) Mobile crane capacity chart required. (i) Every mobile crane shall be provided with a capacity chart which shall be posted and maintained clearly legible in the cab of the crane visible to the crane operator from his operating position. Such chart shall set forth the safe loads which may be hoisted by such crane at various lengths of boom at various boom angles and radial distances. Where outriggers are provided, such safe loads shall be set forth on the capacity chart with and without the use of the outriggers. Such chart shall also indicate whether or not such handling accessories as hooks, blocks and slings are included.

(ii) Unless furnished by the manufacturer or builder of the mobile crane, the required capacity chart shall be prepared and certified by a professional engineer licensed to practice in the State of New York and a copy thereof submitted, on request, to the commissioner.

(iii) No load shall be lifted by any mobile crane that exceeds the relevant maximum specified by its capacity chart.

(h) *Boom angle indicator.* Every mobile crane having either a boom exceeding 40 feet in length or a maximum rated capacity exceeding 15 tons shall be provided with an approved boom angle indicator. Such boom angle indicator shall indicate the boom angle in degrees and shall be clearly visible to the mobile crane operator from his operating position at all times. Such boom angle indicator shall emit a visible or audible warning signal whenever the boom angle is unsafe.

*Exception:* Boom angle indicators are not required to be operative when such mobile cranes are used for excavation work with clamshells or dragline buckets.

(i) *Unauthorized operation.* The operator's cab of every mobile crane shall be kept locked whenever the operator is not present. No unauthorized person shall enter the cab of or remain immediately adjacent to any mobile crane in operation. Ignition locks, locking bars or other equivalent devices shall be provided to prevent unauthorized operation of mobile cranes.

(j) *Operation of a mobile crane with a demolition ball.* In addition to the general requirements of this Part (rule) for mechanical demolition, the operation of a mobile crane with a demolition ball shall be subject to the following provisions:

- (1) The weight of any demolition ball shall not exceed 50 percent of the safe load capacity of the boom length used at its lowest angle of operation.
- (2) During operation with a demolition ball the swing of the boom shall not exceed 30 degrees from the center line, front to back, of the crane mounting.
- (3) The windows of such crane cabs shall be constructed of shatterproof glass or shall be protected by adequate metal screens.
- (4) The load line and the attachment of the demolition ball to the load line shall be inspected at least twice daily.
- (5) Track-mounted mobile cranes without outriggers shall not be used with a demolition ball.

#### **Historical Note**

Sec. added, filed May 30, 1972 eff. June 1, 1972.

#### **§ 23-8.3 Special provisions for tower cranes.**

(a) *Tower crane erection.* (1) Every tower crane used in construction shall be erected in accordance with the manufacturer's recommendations and under the supervision of a competent, designated person experienced in tower crane erection.

(2) Prior to the erection of any tower crane the ability of the supporting system, including slabs, foundations and the underlying soil to support the loads intended to be imposed thereon shall be certified by a professional engineer licensed to practice in the State of New York.

(3) Tower cranes shall be erected so that the jibs and counterweights can swing 360 degrees without striking any building, structure or any other object.

(4) Prior to initial use, a newly erected tower crane shall undergo a static overload test in the direction of least stability. Such test shall consist of suspending a load at the rated load and at the maximum radius for a period of at least one hour. Subsequent to such test, settlement of the equipment and load-bearing foundation shall be within the limits specified by the tower crane manufacturer. A written report of such test shall be kept on the job site available for examination by the commissioner.

(b) *Tower crane capacity chart.* Every tower crane shall be provided with a capacity chart which shall be posted and maintained legible in the cab of the crane clearly visible to the operator from his operating position. Where a remote control stand is used a duplicate of such capacity chart shall be affixed to such control stand. Such capacity chart shall be furnished by the manufacturer of the crane and shall include a full and complete range of crane load ratings at all stated operating radii for each allowable speed and for each recommended counterweight loading.

(c) *Tower crane construction.* (1) Limit switches. Limit switches which shall be sealed against unauthorized tampering shall be provided as follows:

- (i) To limit trolley travel at either end of the jib.
- (ii) To limit load block upward motion to prevent two-blocking.



(iii) To limit the load being lifted to no more than 110 percent of the rated load upon completion of the static overload test as specified in paragraph (a) (4) of this section 23-8.3, above.

(2) Cabs and remote control stations. (i) Tower crane cabs and remote control stations for such cranes shall be protected from falling objects and material and from the elements.

(ii) Cab windows shall be constructed of transparent safety glazing material and shall provide clear visibility in all directions.

(iii) Cabs and remote control stations for tower cranes shall be heated to a temperature of at least 60 degrees Fahrenheit during cold weather whenever occupied.

(iv) Cabs and remote control stations for tower cranes shall be adequately ventilated.

(3) Accessibility. Adequate and safe means of access to and egress from the cabs and machinery platforms of tower cranes shall be provided. Where it is necessary to inspect the jib attachments located on the jib of any tower crane, a footwalk with suitable handrails shall be provided for such inspections.

(4) Brakes. In addition to the hoisting brakes required by this Subpart, tower cranes shall be provided with the following:

(i) *Slewing brake.* Every tower crane shall be provided with a brake having adequate holding power in either direction to prevent movement of the jib when desired during normal crane operation. Such brake shall be capable of being set in the holding position and kept there without attention from the operator.

(ii) *Trolley brake.* The trolley of every tower crane shall be provided with an automatic brake or device capable of stopping movement of the trolley in case of trolley rope breakage.

(5) Electrical equipment. (i) All electrical equipment of tower cranes shall be grounded.

(ii) All tower cranes shall be provided with lightning protection.

(iii) All controls of tower cranes shall be of the deadman type.

(iv) In the event of power failure, all tower crane brakes shall be set automatically.

(6) Climbing jacks. Where climbing jacks are provided for tower cranes such jacks shall be equipped with over-pressure relief valves, pressure gages and check valves designed to retain pressure in case of hydraulic line failure.

(7) Wind velocity device. Every tower crane shall be provided with a device for measuring wind velocity. The sensing portion of every such device shall be mounted on the highest point of the crane while the readout of every such device shall be located in the cab or remote control station of the tower crane.

(8) Counterweights. Counterweights used on tower cranes shall be in accordance with the manufacturers' recommendations. Counterweights shall be securely fastened to the counter jib to prevent pieces from being accidentally dislodged.

(d) *Inspection and maintenance.* (1) Tower cranes shall be inspected and maintained in accordance with the manufacturers' recommendations.

(2) Where the mast of any tower crane runs through floor openings in the building or other structure in which the crane is mounted and the mast is secured by wedges or braces, such wedges or braces shall be inspected for tightness and dislocation at least twice each working day.

(e) *Operation of tower cranes.* (1) Operators. Tower cranes shall be operated only by persons who are qualified in accordance with the provisions of section 23-8.5 of this Subpart.

(2) Operation in windy conditions. Tower cranes shall not be operated when the wind speed is at any time greater than 30 miles per hour. Tower cranes shall not be raised to new operating levels when the wind speed exceeds 20 miles per hour.

(3) Operation without counterweight prohibited. No tower crane shall be operated without the full amount of ballast or counterweight in place as specified by the manufacturer or builder of the crane or by a professional engineer licensed to practice in the State of New York.

#### **Historical Note**

Sec. added, filed May 30, 1972 eff. June 1, 1972.

#### **§ 23-8.4 Special provisions for derricks.**

(a) *Bracing of foot blocks.* The foot blocks of every derrick shall be securely supported and firmly anchored against movement in any direction.

(b) *Guys.* (1) Number and spacing. The top of any guy derrick mast more than 25 feet in height shall be steadied by not less than six wire rope guys so spaced as to make the angles between adjacent guys approximately equal.

(2) Attachment. Wire rope guys shall be secured by either weldless steel sockets, thimble and splice connections, thimbles with proper size and numbers of rope clips or cast steel guy plates having grooved bearing surfaces of the same shape and size as the wire rope thimbles, using a spliced or wire rope clip attachment.

(3) Anchoring. Guys shall be attached to strong permanent construction or to substantial "dead men" securely anchored in the ground.

(c) *Breast-type derricks.* Breast-type derricks shall be guyed from both the front and rear. Where front guys are not possible because of derrick operation, provisions shall be made to prevent such derricks from tipping over backward. Breast-type derricks which are operated by hand power shall have hand grips securely and positively fastened to the shaft and a ratchet and pawl shall be provided which will hold any load.

(d) *Derrick construction.* (1) Materials. The mast, boom, frame and similar parts of a derrick shall be constructed of suitable steel or of selected wood of proper strength and durability.

(2) Mast fittings. On derricks which have booms larger than the masts, the gudgeon pins, mast tops and goosenecks shall be securely fastened to the tops of the masts to prevent such parts from pulling out when the booms are raised.

(e) *Derrick capacity charts.* (1) A capacity chart shall be provided for every derrick and such chart shall be posted conspicuously on the job site. Unless furnished by the manufacturer or builder of the derrick, the capacity chart shall be prepared and certified by

a professional engineer licensed to practice in the State of New York and a copy thereof shall be submitted, upon request, to the commissioner.

(2) A derrick shall not lift any load that exceeds the relevant maximum specified on its capacity chart.

(f) *Derrick boom raising.* The boom of any derrick shall not be raised from the level of the surface on which the derrick rests other than by the use of its own hoisting capabilities. The design, construction and length of the boom shall be such that there is no undue stress imposed on the derrick structure or mechanism during such raising operations.

#### **Historical Note**

Sec. added, filed May 30, 1972 eff. June 1, 1972.

#### **§ 23-8.5 Special provisions for crane operators.**

(a) *Finding of fact.* The board finds that the trade or occupation of operating cranes of the type described in subdivision (b) of this section, in construction, demolition and excavation work involves such elements of danger to the lives, health and safety of persons employed in such trade or occupation as to require special regulations for their protection and for the protection of other employees and the public in that such cranes may fall over, collapse, contact electric power lines, dislodge material and cause such material to fall or fail to support intended loads and convey them safely, unless such cranes are operated by persons of proper ability, judgment and diligence.

(b) *Limited application of this section.* This section applies only to mobile cranes having a manufacturers' maximum rated capacity exceeding five tons or a boom exceeding forty feet in length and to all tower cranes operating in construction, demolition and excavation work. The word crane as used in this section refers to tower cranes and to such mobile cranes of the following type: a mobile, carrier-mounted, power-operated hoisting machine utilizing hoisting rope and a power-operated boom which moves laterally by rotation of the machine on the carrier.

(c) *Certificate of competence required.* No person, whether the owner or otherwise, shall operate a crane in the State of New York unless such person is a certified crane operator by reason of the fact that:

(1) he holds a valid certificate of competence issued by the commissioner to operate a crane; or

(2) he is at least 21 years of age and holds a valid license issued by the Federal government, a State government or by any political subdivision of this or any other State and such license has been accepted in writing by the commissioner as equivalent to a certificate of competence issued by him; or

(3) he is a person who:

(i) is at least 21 years of age and is employed by the Federal government, the State or a political subdivision, agency or authority of the State and is operating a crane owned or leased by the Federal government, the State or such political subdivision, agency or authority and his assigned duties include operation of a crane;

(ii) is at least 21 years of age and is employed only to test or repair a crane and is operating it for such purpose while under the direct supervision of a certified crane operator; or under the direct supervision of a person employed by the Federal

government, the State or a political subdivision, agency or authority of the State and his assigned duties include the operation of a crane;

(iii) an apprentice or learner who is at least 18 years of age and who has the permission of the owner or lessee of a crane to take instruction in its operation and is operating such crane under the direct supervision of a certified crane operator or under the direct supervision of a person employed by the Federal government, the State or a political subdivision, agency or authority of the State and whose assigned duties include the operation of a crane.

(d) *Application forms and photographs.* An application for a certificate of competence or for a renewal thereof shall be made on forms provided by the commissioner. Upon notice from the commissioner to an applicant that a certificate of competence or a renewal thereof will be issued to him, the applicant must forward photographs of himself in such numbers and sizes as the commissioner shall prescribe, and such photographs must have been taken within 30 days of the request for such photographs.

(e) *Physical conditions.* No person suffering from a physical handicap or illness, such as epilepsy, heart disease, or an uncorrected defect in vision or hearing, that might diminish his competence, shall be certified by the commissioner.

(f) *Experience required.* An applicant for a certificate of competence must be at least 21 years of age and must have had practical experience in the operation of cranes for at least three years and, in addition, have a practical knowledge of crane maintenance.

(g) *Examining board.* The commissioner may appoint an examining board which shall consist of at least three members, at least one of whom shall be a crane operator who holds a valid certificate of competence issued by the commissioner, and at least one of whom shall be a representative of crane owners. The members of the examining board shall serve at the pleasure of the commissioner and their duties will include:

- (1) the examination of applicants and their qualifications, and the making of recommendations to the commissioner with respect to the experience and competence of the applicants;
- (2) the holding of hearings regarding appeals following denials of certificates;
- (3) the holding of hearings prior to determinations of the commissioner to suspend or revoke certificates, or to refuse to issue renewals of certificates;
- (4) the reporting of findings and recommendations to the commissioner with respect to such hearings;
- (5) the acts and proceedings of the examining board shall be in accordance with regulations issued by the commissioner.

(h) *General examination.* Each applicant for a certificate of competence will, and each applicant for a renewal thereof may, be required by the commissioner to take an appropriate general examination.

(i) *Operating examination.* An applicant who passes the general examination will also be required to take a practical examination in crane operation, except that the commissioner may waive this requirement with respect to an applicant for a renewal of a certificate of competence.

(j) *Contents of certificate.* Each certificate of competence issued shall include the name and address of the certified crane operator, a brief description of him for the purpose of identification and his photograph.

(k) *Term of certificate.* Each certificate of competence or renewal thereof shall be valid for three years from the date issued, unless its term is extended by the commissioner or unless it is sooner suspended or revoked. The commissioner may extend the term of any certificate of competence as he may find necessary to relieve a certified operator of unnecessary hardship.

(l) *Carrying certificate.* Each certified crane operator shall carry his certificate on his person when operating any crane and failure to produce the certificate upon request by the commissioner shall be presumptive evidence that the operator is not certified.

(m) *Renewals.* An application for renewal of a crane operator's certificate of competence shall be made within one year from the expiration date of the certificate sought to be renewed, except that the commissioner may extend the time to make such application to prevent any undue hardship to a certified crane operator.

(n) *Suspension, revocation, refusal to renew, denials of certificates, hearings.* (1) The commissioner may, upon notice to the interested parties and after a hearing before the examining board, suspend or revoke a certificate of competence upon finding that the certified operator has failed to comply with an order of the commissioner or that the certified operator is not a person of proper competence, judgment or ability in relation to the operation of cranes, or for other good cause shown.

(2) Prior to a determination by the commissioner not to renew a certificate of competence, the commissioner shall require a hearing before the examining board upon notice to the interested parties.

(3) (i) An applicant whose application for a certificate has been denied by the commissioner may, upon his written request made to the commissioner within 30 days after the mailing or personal delivery to him of a notice of such denial, have a hearing before the examining board.

(ii) Such hearing shall be held by the examining board which shall make its recommendations to the commissioner within three days after such hearing has been concluded. A written notice of the commissioner's decision, containing the reasons therefore, shall be promptly given to the certified operator or applicant, as the case may be, and to any interested parties who appeared at the hearing. Every such hearing shall be held in accordance with such regulations as the commissioner may establish.

#### **Historical Note**

Sec. added, filed May 30, 1972 eff. June 1, 1972.