

Chapter:	59J	FACTORIES AND INDUSTRIAL UNDERTAKINGS (LIFTING APPLIANCES AND LIFTING GEAR) REGULATIONS	Gazette Number	Version Date
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		Empowering section		30/06/1997
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(Cap 59, section 7)

[1 November 1974] *L.N. 211 of 1974*

(Originally L.N. 17 of 1974)

Part:	I	PRELIMINARY		30/06/1997
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Regulation:	1	Citation		30/06/1997
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These regulations may be cited as the Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations.

Regulation:	2	Application		30/06/1997
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(1) These regulations shall apply to lifting appliances and lifting gear used for raising or lowering or as a means of suspension in any industrial undertaking. (L.N. 191 of 1978; L.N. 285 of 1993)

(2) (Repealed L.N. 285 of 1993)

Regulation:	3	Interpretation	L.N. 260 of 2003	28/11/2003
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(1) In these regulations, unless the context otherwise requires- (L.N. 285 of 1993)

"automatic safe load indicator" (安全負荷自動顯示器) means a device intended to be fitted to a crane that automatically gives an audible and visible warning to the operator thereof that the crane is approaching its safe working load and that automatically gives a further audible and visible warning when the crane has exceeded its safe working load;

"competent examiner" (合資格檢驗員), in relation to the carrying out of any test and examination required by these regulations, means a person who is-

- (a) appointed by the owner required by these regulations to ensure that the test and examination is carried out; (L.N. 285 of 1993)
- (b) a registered professional engineer registered under the Engineers Registration Ordinance (Cap 409) within a relevant discipline specified by the Commissioner; and (L.N. 285 of 1993)
- (c) by reason of his qualifications, training and experience, competent to carry out the test and examination; (L.N. 285 of 1993)

"competent person" (合資格的人), in relation to any duty required to be performed by him under these regulations, means a person who is-

- (a) appointed by the owner required by these regulations to ensure that the duty is carried out by a competent person; and
- (b) by reason of training and practical experience, competent to perform the duty;

"construction site" (建築地盤) means a place where construction work is undertaken and includes any area in the immediate vicinity which is used for the storage of materials or plant used or intended to be used for the purpose of the construction work; (L.N. 285 of 1993)

"crane" (起重機) means any appliance equipped with mechanical means of raising and lowering a load and for transporting the load while suspended; and also all chains, ropes, swivels, or other tackle (down to and including the hook), used in the operation of a crane; but does not include-

- (a) a hoist block running on a fixed rail or wire;

(b) a stacker or conveyer whereby a load is moved by means of a belt or platform; or

(c) an earth or mineral moving or excavating appliance not fitted with a grab;

"lifting appliance" (起重機械) means a crab, winch, teagle, pulley block or gin wheel used for raising or lowering, and a crane, sheerlegs, excavator, pile driver, pile extractor, dragline, aerial ropeway, aerial cableway transporter or overhead runway, and also any part of any such appliance; (L.N. 285 of 1993)

"lifting gear" (起重裝置) means a chain sling, rope sling, ring or similar gear, and a link, hook, plate clamp, shackle, swivel or eyebolt;

"maintained" (維修、保持) means maintained in an efficient state, in efficient working order and good repair;

"owner" (擁有人), in relation to any lifting appliance or lifting gear, includes the lessee or hirer thereof, and any overseer, foreman, agent or person in charge or having the control or management of the lifting appliance or lifting gear, and the contractor who has control over the way any construction work which involves the use of the lifting appliance or lifting gear is carried out and, in the case of a lifting appliance or lifting gear situated on or used in connection with work on a construction site, also includes the contractor responsible for the construction site; (L.N. 285 of 1993; L.N. 260 of 2003)

"raising or lowering or as a means of suspension" (升降或作懸吊之用) means raising or lowering or as a means of suspension of a load on a lifting appliance or lifting gear;

"repair" (修理) includes renewal, alteration or addition;

"safe working load" (安全操作負荷), in relation to a lifting appliance or to lifting gear, means either-

(a) the appropriate safe working load for operating the lifting appliance or lifting gear as specified in the current certificate of test and thorough examination delivered in the approved form by a competent examiner in respect of that lifting appliance or lifting gear for the purposes of these regulations; or (L.N. 23 of 1994)

(b) where no such certificate is required, the relevant safe working load shown in the table referred to in regulation 18(1)(b);

"thorough examination" (徹底檢驗) means a visual examination, carried out as carefully as the conditions permit in order to arrive at a reliable conclusion as to the safety of the parts examined, and if necessary for the purpose the visual examination shall be supplemented if necessary by other means such as a hammer test and, parts of the lifting appliance or lifting gear shall be dismantled.

(2) For the purposes of these regulations, a contractor is responsible for a construction site if he is undertaking construction work there or, where there is more than one contractor undertaking construction work at the site, if he is the principal contractor undertaking construction work there. (L.N. 285 of 1993)

Part:	II	LIFTING APPLIANCES		30/06/1997
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Regulation:	4	Construction		30/06/1997
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The owner of a lifting appliance shall ensure that it is not used unless-

- (a) it is of good mechanical construction, made of strong and sound materials, and free from patent defect;
- (b) it is properly maintained; (L.N. 285 of 1993)
- (c) the arrangements for fixing and anchoring the appliance are adequate to secure its safety;
- (d) it is adequately and securely supported; and (L.N. 285 of 1993)
- (e) every structure supporting it is of good construction and adequate strength, of sound materials and free from patent defect. (L.N. 285 of 1993)

Regulation:	5	Lifting appliances to be tested and examined prior to use		30/06/1997
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(1) The owner of a lifting appliance shall ensure that it is not used unless it has been thoroughly examined by a competent examiner at least once in the preceding 12 months, and a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe working order has been obtained.

(2) The owner of a lifting appliance other than a crane, crab or winch shall ensure that it is not used unless it has been tested and thoroughly examined by a competent examiner in the manner prescribed in the First Schedule, and a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe

working order has been obtained.

(3) The owner of any crane, crab or winch shall ensure that it is not used unless during the preceding 4 years it has been tested and thoroughly examined by a competent examiner in the manner prescribed in the First Schedule, and a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe working order has been obtained.

(4) If any lifting appliance of the description mentioned in paragraph (1) or (2) has been thoroughly examined or tested and thoroughly examined, as the case may be, in accordance with those paragraphs but has since undergone substantial repair, re-erection, failure, overturning or collapse, the owner of the lifting appliance shall ensure that it is not used unless it has been further tested and thoroughly examined by a competent examiner, and there has been obtained from him in respect of the test and thorough examination a certificate in the approved form in which he has made a statement to the effect that it is in safe working order.

(5) If any crane, crab or winch has been tested and thoroughly examined but has since undergone substantial repair, re-erection, failure, overturning or collapse, the owner of the crane, crab or winch shall ensure that it is not used unless it has been further tested and thoroughly examined by a competent examiner, and there has been obtained from him in respect of the test and thorough examination a certificate in the approved form in which he has made a statement to the effect that it is in safe working order.

(L.N. 285 of 1993)

Regulation:	6	(Repealed L.N. 285 of 1993)		30/06/1997
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(Repealed L.N. 285 of 1993)

Regulation:	6A	Report by competent examiner		30/06/1997
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(1) Where a test or a thorough examination under regulation 5 shows that any lifting appliance-

- (a) is in safe working order, the competent examiner shall deliver the certificate issued under regulation 5(1), (2), (3), (4) or (5) to the owner of the lifting appliance within 28 days after the test or the thorough examination; or
- (b) cannot be used safely unless certain repairs are carried out, the competent examiner shall immediately inform the owner of the lifting appliance of that fact and shall, within 14 days after the test or the thorough examination, deliver a report to the owner of the lifting appliance and a copy of it to the Commissioner.

(2) Where the owner of the lifting appliance is informed under paragraph (1)(b) that repairs must be carried out he shall ensure that the lifting appliance is not used until the repairs have been effected.

(L.N. 285 of 1993)

Regulation:	7	(Repealed L.N. 285 of 1993)		30/06/1997
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(Repealed L.N. 285 of 1993)

Regulation:	7A	Periodical inspection by a competent person		30/06/1997
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The owner of a lifting appliance shall ensure that it is not used unless it has been inspected within the preceding 7 days by a competent person and the competent person has given the owner a certificate in the approved form in which he has made a statement to the effect that the lifting appliance is in safe working order.

(L.N. 285 of 1993)

Regulation:	7B	Automatic safe load indicator required		30/06/1997
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(1) The owner of a crane shall ensure that it is not used unless it is fitted with an automatic safe load indicator that-

- (a) functions properly;
- (b) has been tested by a competent examiner on each occasion that a test and thorough examination of the crane is required under regulation 5 and the competent examiner has given the owner a certificate in

the approved form in which he has made a statement to the effect that the automatic safe load indicator is in good working order; and

- (c) has been inspected by a competent person and determined to be in safe working order during each inspection of the crane required under regulation 7A and the competent person has given the owner a certificate in the approved form in which he has made a statement to the effect that the automatic safe load indicator is in good working order.

(2) This regulation does not apply to a crane with a maximum safe working load of 1 tonne or less or a crane that operates with a grab or any electro magnetic means. (L.N. 23 of 1994)

(L.N. 285 of 1993)

Regulation:	7C	Poles or beams supporting pulley blocks or gin wheels		30/06/1997
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The owner of any pulley block or gin wheel which is suspended from or supported by a pole or beam shall ensure that the block or wheel is not used for raising or lowering any load unless-

- (a) it is effectively secured to the pole or beam; and
- (b) the pole or beam is-
 - (i) of adequate strength for the purpose for which it is intended to be used; and
 - (ii) adequately and properly secured so as to support the block or wheel and the load with safety and to prevent undue movement of the pole or beam.

(L.N. 285 of 1993)

Regulation:	7D	Stability of lifting appliances		30/06/1997
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(1) Before a lifting appliance is used at or moved in an industrial undertaking, the owner of the appliance shall take appropriate precautions to ensure its stability.

- (2) The owner of a crane shall, for the purpose of securing the stability of the crane, ensure that before use-
 - (a) the crane is securely anchored, or adequately weighted by suitable ballast which is properly placed on the structure of the crane and secured in a manner sufficient to prevent the ballast from being accidentally displaced; and
 - (b) no part of any rail on which the crane is mounted, or any sleeper supporting such rail, is used as an anchorage.

(L.N. 285 of 1993)

Regulation:	7E	Anchoring and ballasting of cranes		30/06/1997
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(1) The owner of a crane shall ensure that all of the devices used for the anchoring or ballasting of the crane are thoroughly examined by a competent examiner on each occasion before the crane is erected.

(2) After each erection of a crane, and after each removal of a crane to a new location, or any adjustment to any component member of a crane (being a removal or adjustment which involves changes in the arrangements for anchoring or ballasting the crane), the owner of the crane shall, before it is taken into use, cause the crane to be tested by a competent examiner, by the imposition either-

- (a) of a load of 25% above the maximum load to be lifted by the crane as erected, at the positions where there is a maximum pull on each anchorage; or
- (b) of a lesser load arranged to provide an equivalent test of the anchorage or ballasting arrangements.

(3) The owner shall obtain a certificate of the examination and test under paragraphs (1) and (2) from the competent examiner in the approved form in which the competent examiner has made a statement to the effect that the crane is in safe working order.

(4) If the competent examiner making the test under paragraph (2) considers that the maximum load which may safely be lifted by that crane as erected is less than the safe working load of the crane he shall specify the new maximum load in his certificate and in which case, the new maximum load shall be the modified safe working load.

- (5) Where a maximum load has been specified under paragraph (4), the owner shall cause a loading diagram-
 - (a) appropriate to the stability of the crane as at the time of the test (taking into account, in the case of a crane mounted on wheels, the conditions of the track); and
 - (b) indicating the modified safe working load,

to be affixed in a position where it can readily be seen by the crane driver.

(6) The modified safe working load referred to in paragraph (5)(b) shall, for the purpose of these regulations, be deemed to be the safe working load of the crane as erected.

(L.N. 285 of 1993)

Regulation:	7F	Stability of cranes secured by removable weights		30/06/1997
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Where the stability of a crane is secured by means of removable weights, the owner of the crane shall, before it is used, cause a diagram or notice indicating the position and amount of the weights, to be affixed to the crane in a place where it can easily be seen.

(L.N. 285 of 1993)

Regulation:	7G	Use of cranes in bad weather		30/06/1997
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(1) Every owner of a crane shall ensure that no crane of his is used under weather conditions likely to endanger its stability.

(2) Before a crane is taken into use after exposure to weather conditions likely to have affected the stability of the crane, the owner shall-

- (a) cause the devices used for the anchoring or ballasting of the crane to be examined in the manner prescribed in regulation 7E(1) and cause the crane to be tested in the manner prescribed in regulation 7E(2), by a competent examiner as soon as practicable after such exposure and obtain a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe working order; and (L.N. 23 of 1994)
- (b) in the event of the anchorage or ballast being found on such test to be unsafe, take such steps as will again ensure the crane's stability as soon as practicable.

(L.N. 285 of 1993)

Regulation:	7H	Erection, dismantling or alteration of cranes to be under supervision of a competent person		30/06/1997
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The owner of a crane shall ensure that-

- (a) it is not erected, or dismantled; or
 - (b) the structure thereof, as originally designed, is not altered,
- except under the supervision of a competent person.

(L.N. 285 of 1993)

Regulation:	7I	Multiple lifting appliances		30/06/1997
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Where more than one lifting appliance is used to raise or lower one load, the owner of such lifting appliances shall ensure that-

- (a) each lifting appliance is so arranged and fixed that it is at no time loaded beyond its safe working load or rendered unstable in the raising or lowering of the load; and
- (b) a competent person is specially appointed to supervise the operation.

(L.N. 285 of 1993)

Regulation:	7J	Load to be safely secured		30/06/1997
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(1) The owner of a lifting appliance shall, before it is used, ensure that every part of any load to be raised or lowered by the lifting appliance is-

- (a) securely suspended or supported; and
- (b) adequately secured so as to prevent danger arising to persons or property as a result of the slipping or displacement of any part of the load.

(2) Where, by reason of the nature or position of the operation, a load is liable, while being moved on a lifting appliance or on lifting gear, to come into contact with any object so that the object may become displaced, the owner shall take all reasonable steps to ensure that no person lawfully on or near the industrial undertaking upon which the

lifting appliance or lifting gear is being used is endangered by the displacement of the object. (L.N. 23 of 1994)

(3) Where a receptacle is used in connection with any lifting appliance or lifting gear for raising or lowering stones, bricks, tiles, slates, or other objects, the owner of the lifting appliance or lifting gear shall cause the receptacle to be enclosed or to be so constructed or designed as to prevent the accidental fall of any of such objects.

(4) Paragraph (3) shall not apply to a grab, shovel or similar excavating receptacle if the owner takes effective steps to prevent persons being endangered by a fall of objects therefrom.

(L.N. 285 of 1993)

Regulation:	8	Precautions to be taken where lifting appliance has travelling or slewing motion		30/06/1997
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(1) Subject to paragraph (2), on every stage, gantry, or similar place where a lifting appliance having a travelling or slewing motion is in use, the owner of the appliance shall ensure that an unobstructed passageway, not less than 600 millimetres wide, is maintained between any part of the appliance liable so to move and any nearby guard rail, fence or other fixture. (L.N. 238 of 1984)

(2) If at any time it is impracticable to maintain any such passageway at any particular place, the owner shall ensure that all reasonable steps are taken to prevent persons from having access to that place when the appliance is in use.

Regulation:	9	Platforms for crane drivers and signallers		30/06/1997
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(1) Where a crane has a platform for the use of the person driving or operating the crane, or for any signaller (where good safe working practice requires a signaller in connexion with the use of the crane), the owner shall ensure that it is not used unless the platform is-

- (a) of sufficient area for the persons employed on it;
- (b) either close planked or plated; and
- (c) provided with a safe means of access.

(2) If any such platform has a side from which a person may fall a distance of more than 2 metres, the owner shall ensure that the crane is not used unless-

- (a) there is affixed to the platform a suitable guard rail of adequate strength to a height of not less than 900 millimetres above the platform and above any raised standing place therein;
- (b) the side is provided with one or more toe boards placed-
 - (i) at a height not less than 200 millimetres above the level of the platform and any raised standing place on it; and
 - (ii) in a position that will prevent as far as possible the fall of persons, materials, and tools, from the platform; and
- (c) the space between any toe board on the platform and the lowest guard rail above it does not exceed 700 millimetres. (L.N. 238 of 1984)

(3) Notwithstanding anything in this regulation, a guard rail or toe board required under this regulation may be removed or remain unerected for such period and to such extent as is necessary for any person to gain access to and egress from the platform or for materials to be removed to it or from it.

Regulation:	10	Cabins for drivers		30/06/1997
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(1) The owner of a power-driven lifting appliance shall ensure that it is not used unless it is provided with a suitable cabin which- (L.N. 285 of 1993)

- (a) affords the driver or operator of the appliance adequate protection from the weather; and
- (b) is so constructed as to-
 - (i) give him a clear and unrestricted view that will enable him to use the appliance safely; and
 - (ii) afford ready access to those parts of the appliance that are within the cabin and require periodic inspection or maintenance.

(2) Paragraph (1) shall not apply-

- (a) where the driver or operator is indoors or otherwise adequately protected from the weather;
- (b) to a lifting appliance mounted on wheels and having a maximum safe working load of 1 tonne or less;
- (c) to any machine incorporating a lifting appliance where the primary purpose of that machine is not that

- of a lifting appliance; or
- (d) to a lifting appliance intended for occasional use or for use for only short periods. (L.N. 285 of 1993)

Regulation:	11	Marking of safe working loads	30/06/1997
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(1) The owner of a lifting appliance shall ensure that the appliance is not used unless the safe working load for the time being applicable to the appliance is clearly and legibly marked on it, in English and Chinese, together with an appropriate mark to distinguish it from other similar appliances.

(2) The owner of a crane (including a crane with a derricking jib) which has a variable operating radius shall ensure that the crane is not used unless it-

- (a) has clearly and legibly marked on it the safe working load at various radii of the jib, trolley or crab, and, in the case of a crane with a derricking jib, the maximum radius at which the jib may be worked; and
- (b) is fitted with an accurate indicator, clearly visible to the driver, which shows the radius of the jib, trolley or crab at any particular time and the safe working load applicable to that radius.

Regulation:	12	Load not to exceed the safe working load	30/06/1997
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The owner of a lifting appliance shall ensure that it is not used if it is loaded beyond the maximum safe working load:

Provided that, for the purpose of enabling tests of any such appliance to be carried out, the safe working load may be exceeded by such amount as the competent examiner appointed to carry out the test may authorize.

Regulation:	12A	Competent person to be in charge if load left suspended	30/06/1997
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The owner of a lifting appliance shall ensure that no load is left suspended from a lifting appliance unless a competent person is in charge of the lifting appliance during the period of suspension.

(L.N. 191 of 1978)

Regulation:	13	Scotch and guy derrick cranes	30/06/1997
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(1) The owner of a Scotch derrick crane shall ensure that it is not used-

- (a) if the jib of the crane is erected between the crane's backstays; and
- (b) unless appropriate measures are taken to prevent the foot of the king post of the crane from being lifted out of its socket or support when the crane is in use; or
- (c) to move any load in the angle between the crane's backstays.

(2) Where the guys of a guy derrick crane cannot be fixed-

- (a) at approximately equal angles to the mast of the crane; and
- (b) so that the angles between adjacent pairs of guys are approximately equal,

the owner of the crane shall take such other measures as will ensure its stability.

Regulation:	14	Cranes with derricking jibs	30/06/1997
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(1) The owner of a crane having a derricking jib operated through a clutch mechanism shall ensure that the crane is not used unless it is provided with a properly maintained and effective locking arrangement, placed between the derricking clutch and the pawl sustaining the derricking drum, which will ensure that-

- (a) the clutch cannot be disengaged unless the pawl is effectively engaged with the derricking drum; and
- (b) the pawl cannot be disengaged unless the clutch is effectively engaged with the derricking drum.

(2) This regulation shall not apply to a crane in which-

- (a) the hoisting drum and the derricking drum are independently driven; or
- (b) the mechanism driving the derricking drum is self locking.

Regulation:	15	Restriction on the use of cranes		30/06/1997
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(1) Without prejudice to paragraph (2), the owner of a crane shall ensure that the crane's hoisting mechanism is not used for any purpose other than raising or lowering a load vertically unless-

- (a) he has taken all reasonable steps to see that no undue stress is imposed on any part of the structure or mechanism of the crane thereby endangering the stability of the crane; and (71 of 1989 s. 13)
- (b) such use is supervised by a competent person.

(2) The owner of a crane which has a derricking jib shall ensure that it is not used with the jib extended at a radius which exceeds the maximum radius specified for the jib in the current certificate of test and thorough examination relating to that crane.

Regulation:	15A	Operators of cranes and lifting appliances	L.N. 183 of 2007	01/01/2008
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(1) The owner of a crane shall ensure that it is only operated by a person who-

- (a) has attained the age of 18 years;
- (b) holds a valid certificate issued by the specified body or by any other person specified by the Commissioner; and (12 of 2006 s. 84)
- (c) in the opinion of the owner, is competent to operate the crane by virtue of his experience.

(2) The owner of a power-driven lifting appliance, other than a crane, shall ensure that it is only operated by a person who-

- (a) has attained the age of 18 years; and
- (b) in the opinion of the owner, is trained and competent to operate the appliance.

(3) This regulation does not apply where a person undergoing training is operating a lifting appliance providing he does so under the supervision of a person who meets the requirements of paragraph (1) or (2) as the case may be.

(4) In this regulation, "specified body" (指明機構) means-

- (a) the body known as the Construction Industry Training Authority before the commencement* of section 71 of the Construction Industry Council Ordinance (Cap 587); or
- (b) the Construction Industry Council established by section 4 of the Construction Industry Council Ordinance (Cap 587). (12 of 2006 s. 84)

(L.N. 285 of 1993)

* **Commencement date : 1 January 2008.**

Regulation:	15B	Operation		30/06/1997
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(1) Where a person operating a lifting appliance-

- (a) does not have a clear and unrestricted view of-
 - (i) the load carried by the lifting appliance;
 - (ii) its vicinity;
 - (iii) the point of attachment for a load where no load is being carried; and
- (b) such view is necessary for the safe working of the appliance,

the owner of a lifting appliance shall, subject to paragraph (2), appoint and station such persons as may be necessary to give effective signals to the person operating the lifting appliance to ensure its safe working.

(2) No person appointed under paragraph (1) shall be under the age of 18 years unless he-

- (a) is a person undergoing training to operate the appliance; and
- (b) acts under the supervision of a competent person.

(3) If it is impracticable to comply with paragraph (1), the owner of a lifting appliance shall ensure that effective signalling arrangements or other means of communication exist between the person operating the appliance and the person employed in the loading or unloading of the appliance to ensure its safe working.

(L.N. 191 of 1978)

Regulation:	15C	Steam not to obscure workplace		30/06/1997
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The owner of a crane or winch shall ensure that the exhaust steam from and, so far as practicable, live steam to

any crane or winch does not obscure any workplace at which a workman is employed.

(L.N. 191 of 1978)

Regulation:	16	Brakes, controls, safety devices, etc.		30/06/1997
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(1) The owner of a crab, crane or winch shall ensure that it is not used unless it is fitted with one or more efficient brakes, or other similar safety devices, which will prevent a load suspended from the appliance from falling uncontrollably or dangerously.

(2) Subject to paragraph (3), the owner of a lifting appliance shall ensure that it is not used unless-

- (a) every lever, handle, switch or other device used for controlling the operation of any part of the appliance (being a lever, handle, switch or other device the accidental movement or displacement of which is liable to cause danger) is, where practicable (unless it is so placed or the appliance is so constructed as to prevent accidental movement or displacement), provided with a suitable spring or other locking arrangement to prevent any such accidental movement or displacement; and
- (b) every lever, handle, switch or other device for controlling the operation of any part of the appliance has either on or adjacent to it clear markings to indicate its purpose and the mode of operation.

(3) Paragraph (2)(b) shall not apply to rotating handles for raising or lowering a load in the case of a winch or non-derricking jib crane operated by manual power.

(4) If any person is employed or working on or near the wheel track of an overhead travelling crane in a place where he would be liable to be struck by the crane, the owner shall take effective measures, by warning the driver of the crane or otherwise, to ensure that the crane does not approach within 6 metres of that place. (L.N. 238 of 1984)

(5) If any person is employed or working otherwise than mentioned in paragraph (4) but in a place above floor level where he would be liable to be struck by an overhead travelling crane, or by any load carried by such a crane, the owner of the crane shall take effective measures to ensure that such person is warned of the approach of the crane, unless his work is so connected with or dependent on the movements of the crane as to make a warning unnecessary.

Regulation:	17	Drums and pulleys		30/06/1997
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(1) The owner of a lifting appliance which has a drum or pulley on which a rope is carried shall ensure that the appliance is not used unless the drum or pulley is of sufficient diameter and construction for the rope used.

(2) If the rope terminates at the winding drum of the appliance, the owner shall ensure that the appliance is not used unless-

- (a) the rope is properly secured to the drum; and
- (b) at least 2 turns of the rope remain on the drum at every operating position of the appliance.

Part:	III	CHAINS, ROPES AND LIFTING GEAR		30/06/1997
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Regulation:	18	Construction, testing, examination and safe working load of chains, ropes and lifting gear		30/06/1997
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(1) The owner of any chain, rope or lifting gear used for raising or lowering or as a means of suspension shall ensure that the following provisions are complied with-

- (a) no chain, rope or lifting gear shall be used unless it is of good construction, sound material, and adequate strength, and is free from patent defect;
- (b) subject to paragraph (2), a table, in English and Chinese, showing the safe working loads of each kind and size of chain, rope or lifting gear in use, and, in the case of a multiple sling, the safe working load at different angles of the legs, shall be posted in a prominent position in the premises or place where the chain, rope or lifting gear is kept; and no chain, rope or lifting gear not shown in the table shall be used;
- (c) no chain, rope or lifting gear shall be used for any load exceeding its safe working load as shown in the table referred to in sub-paragraph (b) or marked as mentioned in paragraph (2);
- (d) no chain, rope or lifting gear (except a fibre rope or fibre-rope sling) shall be used unless it has been tested and thoroughly examined by a competent examiner in the manner prescribed in the First

Schedule and a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe working order has been obtained; (L.N. 285 of 1993)

- (e) each chain, rope and lifting gear in use shall be thoroughly examined by a competent examiner in the preceding 6 months before it is used and a certificate in the approved form in which the competent examiner has made a statement to the effect that it is in safe working order has been obtained; (L.N. 285 of 1993)
- (ea) each chain, rope and lifting gear shall be inspected before use on each occasion by a competent person; (L.N. 191 of 1978)
- (eb) chains shall not be shortened by tying knots in them and adequate precautions shall be taken to prevent injury to them from sharp edges; (L.N. 191 of 1978)
- (f) (Repealed L.N. 285 of 1993)
- (g) the chain, rope or lifting gear in use has clearly and legibly marked on it its safe working load together with an appropriate mark to distinguish it from other similar lifting gear; (L.N. 285 of 1993)
- (h) the chain, rope or lifting gear is not loaded beyond its safe working load except for the purpose of testing or examination by a competent examiner; and (L.N. 285 of 1993)
- (i) no wire rope shall be used for raising or lowering or as a means of suspension if in any length of 10 diameters, the total number of visible broken wires exceeds 5% of the total number of wires in the rope. (L.N. 285 of 1993)

(2) Paragraph (1)(b) shall not apply in relation to any lifting gear if its safe working load, or in the case of a multiple sling, the safe working load at different angles of the legs, is plainly marked upon it in English and Chinese.

(3) Paragraph (1)(g) shall not apply to a rope or sling if-

- (a) its safe working load is specified in a certificate required by paragraph (1)(d) and the rope or sling is so marked as to enable its safe working load to be ascertained from the certificate; or (L.N. 23 of 1994)
- (b) in the case of a fibre rope or fibre sling, its safe working load can be ascertained from a table of safe working load posted in accordance with paragraph (1)(b). (L.N. 285 of 1993)

Regulation:	18A	Multiple slings		30/06/1997
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The owner of any double or multiple sling shall ensure that it is not used in raising or lowering or as a means of suspension if-

- (a) the upper ends of the sling legs are not connected by means of a shackle, ring or link of adequate strength; or
- (b) the safe working load of any sling leg is exceeded as a result of the angle between the sling legs.
(L.N. 285 of 1993)

Part:	IIIA	MISCELLANEOUS		30/06/1997
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(Part IIIA added L.N. 285 of 1993)

Regulation:	18B	Carrying of persons by means of lifting appliances		30/06/1997
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(1) A person may be raised, lowered or carried by a power-driven lifting appliance-

- (a) on the driver's platform in the case of a crane;
- (b) on a suspended scaffold of such design and construction as ensures the safety of any person carried thereon;
- (c) without the use of a builder's lift or tower working platform to which the Builders' Lifts and Tower Working Platforms (Safety) Ordinance (Cap 470) applies or a suspended scaffold where its use is impracticable, provided that- (L.N. 550 of 1995)
 - (i) the appliance can be operated from one position only;
 - (ii) the appliance is so constructed that the brake is applied when the control lever, handle or switch is not held in the operating position;
 - (iii) where the person is carried in a chair, cage, skip or other receptacle at least 900 mm deep, the receptacle is of good construction, sound material and adequate strength, and is provided with suitable means to prevent any occupant from falling out and does not contain material or tools liable to interfere with his hand hold or otherwise endanger him, or where the person is carried in

a boatswain's chair or other similar plant or equipment less than 900 mm deep, a suitable safety belt attached to an independent lifeline is provided to and worn by the occupant and the lifeline is securely suspended;

- (iv) suitable measures are taken to prevent such chair, cage, skip or other receptacle from spinning or tipping in a manner dangerous to any occupant; and
- (v) if a hook is fitted to the lifting appliance, it is so designed and maintained as to prevent the accidental displacement of such chair, cage, skip or other receptacle from the hook;
- (d) from an aerial ropeway or cableway or an overhead runway, provided that the provisions of subparagraph (c)(ii), (iii), (iv) and (v) are complied with.

(2) The owner of a power-driven lifting appliance shall ensure that it is not used for raising, lowering or carrying persons other than in accordance with paragraph (1).

Regulation:	18C	Keeping and displaying of certificates and reports	32 of 2000	09/06/2000
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(1) The owner of a lifting appliance, or any chain, rope or lifting gear shall keep the certificates and reports issued in respect of any test, examination or inspection required by these regulations in a safe place and shall not dispose of any certificate or report until 2 years after the date on which the certificate or report of the subsequent test, examination or inspection, as the case may be, is received by the owner or until 2 years after the date on which the lifting appliance, or any chain, rope or lifting gear is disposed of. (L.N. 23 of 1994)

(2) The owner of a lifting appliance shall ensure that a copy of the relevant and the most recent certificate or report is displayed in the driving cabin or other prominent place on the equipment to which it relates or in a prominent place nearby.

(3) Paragraph (1) applies whether or not the lifting appliance, chain, rope or lifting gear is still in use.

(4) The owner of a lifting appliance, or any chain, rope or lifting gear shall at all reasonable times make available for inspection by any occupational safety officer who requests to see them all certificates or reports required to be kept by him under paragraph (1). (L.N. 23 of 1994; 32 of 2000 s. 48)

(5) The owner of a lifting appliance, or any chain, rope or lifting gear shall, upon request in writing by an occupational safety officer within such period (being not less than 7 days) as may be specified in the request, deliver to the occupational safety officer a copy of or an extract from any certificate or report required to be kept by him under paragraph (1). (L.N. 23 of 1994; 32 of 2000 s. 48)

Regulation:	18D	Forms		30/06/1997
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Every form to be used in these regulations shall be in such form as the Commissioner for Labour may from time to time approve by notice in the Gazette.

Part:	IV	OFFENCES AND PENALTIES		30/06/1997
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Regulation:	19	Offences by owners		30/06/1997
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Any owner who contravenes any of the provisions of regulation 4, 5, 6A(2), 7A, 7B(1), 7C, 7D(1) or (2), 7E(1), (2) or (3), 7F, 7G(1) or (2), 7H, 7I, 7J(1), (2) or (3), 8, 9(1) or (2), 10(1), 11, 12, 12A, 13, 14(1), 15, 15A(1) or (2), 15B, 15C, 16(1), (2), (4) or (5), 17, 18(1), 18A, 18B(2) or 18C(1), (2), (4) or (5) shall be guilty of an offence and shall-

- (a) in respect of a contravention of regulation 4, 5, 6A(2), 7A, 7B, 7D, 7E, 7F, 7H, 7I, 7J(1), (2) or (3), 9(1) or (2), 12, 12A, 13, 15, 15B(1) or (3), 18(1) or 18A, be liable to a fine of \$200000; (L.N. 23 of 1994)
- (aa) in respect of a contravention of regulation 7G(1) or 18B, be liable, where the offence was committed without reasonable excuse, to a fine of \$200000 and to imprisonment for 12 months and in any other case to a fine of \$200000; (L.N. 23 of 1994)
- (ab) in respect of a contravention of regulation 7G(2), be liable to a fine of \$200000 and to imprisonment for 12 months; (L.N. 23 of 1994)
- (b) in respect of a contravention of regulation 7C, 8, 10, 11, 14(1), 15A(1) or (2), 15B(2), 15C, 16(1), (2),

- (4) or (5), 17 or 18C(1), (2), (4) or (5), be liable to a fine of \$50000;
(c) (Repealed L.N. 23 of 1994)

(L.N. 191 of 1978; L.N. 116 of 1981; L.N. 285 of 1993; L.N. 23 of 1994)

Regulation:	20	Offences by persons employed		30/06/1997
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Any workman employed or working on or near any lifting appliance or lifting gear to which these regulations apply, who wilfully and without reasonable cause does anything likely to endanger himself or others shall be guilty of an offence and shall be liable on conviction to a fine of \$50000.

(L.N. 116 of 1981; L.N. 23 of 1994)

Regulation:	21	Offences by competent examiners		30/06/1997
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(1) Any competent examiner who having carried out any test, inspection or examination required by these regulations-

- (a) fails or refuses to deliver forthwith, or within a reasonable time thereafter, to an owner a report referred to in regulation 6A(1)(b);
- (b) fails or refuses to deliver forthwith, or within a reasonable time thereafter, to an owner a certificate referred to in regulation 5(1), (2), (3), (4) or (5), 7B(1)(b), 7E(3), 7G(2) or 18(1)(d) or (e); or
- (c) fails to comply with regulation 6A(1)(b) or 7E(4),

shall be guilty of an offence and shall be liable on conviction to a fine of \$50000. (L.N. 285 of 1993)

(2) Any such competent examiner who delivers to an owner a certificate or makes a report which is to his knowledge false as to a material particular shall be guilty of an offence and shall be liable on conviction to a fine of \$200000 and to imprisonment for 12 months. (71 of 1989 s. 13; L.N. 285 of 1993)

(L.N. 116 of 1981; L.N. 23 of 1994)

Regulation:	22	Offences by competent person		30/06/1997
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(1) Any competent person who having carried out any test, inspection or examination required by these regulations fails or refuses to deliver forthwith or within a reasonable time thereafter, to an owner a certificate referred to in regulation 7A or 7B (1)(c) shall be guilty of an offence and shall be liable on conviction to a fine of \$50000.

(2) Any such competent person who delivers to an owner a certificate which is to his knowledge false as to a material particular shall be guilty of an offence and shall be liable on conviction to a fine of \$200000 and to imprisonment for 12 months.

(L.N. 23 of 1994)

Schedule:	1	PROCEDURE FOR TESTING AND EXAMINING LIFTING APPLIANCES AND LIFTING GEAR		30/06/1997
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[regulations 5(1) & 18(1)(d)]

1. (1) Every winch, together with its accessories, (including any derrick, gooseneck, eye-plate, eyebolt, or other attachments) shall be tested with a proof load which shall exceed the safe working load as follows-

- (a) if the safe working load is less than 20 tonnes, the proof load shall exceed the safe working load by at least 25 per cent;
- (b) if the safe working load is 20 tonnes but not more than 50 tonnes, the proof load shall exceed the safe working load by at least 5 tonnes;
- (c) if the safe working load is more than 50 tonnes, the proof load shall exceed the safe working load by at least 10 per cent.

(2) The proof load shall be applied either-

- (a) by hoisting movable weights; or
- (b) by means of a spring or hydraulic balance or a similar appliance, with a derrick at an angle to the horizontal which shall be specified in the certificate of the test.

(3) In the case of a proof load applied under sub-paragraph (2)(a), after the movable weights have been hoisted, or in the case of a proof load applied under sub-paragraph (2)(b), after the proof load has been applied, the derrick shall be swung as far as practicable first in one direction and then in the other.

2. (1) Every crane and every lifting appliance, together with its accessories, other than a lifting appliance referred to in sub-paragraph (1), shall be tested with a proof load which shall exceed the safe working load as follows-

- (a) if the safe working load is less than 20 tonnes, the proof load shall exceed the safe working load by at least 25 per cent;
- (b) if the safe working load is 20 tonnes but not more than 50 tonnes, the proof load shall exceed the safe working load by at least 5 tonnes;
- (c) if the safe working load is more than 50 tonnes, the proof load shall exceed the safe working load by at least 10 per cent.

(2) The proof load shall be hoisted and then swung as far as is practicable first in one direction and then in the other.

(3) Where a crane with a jib which has a variable vertical operating radius is to be tested, the test shall be carried out by applying a proof load in accordance with sub-paragraph (1) at both the maximum radius and the minimum radius of the jib.

(4) Where in testing a hydraulic crane it is, because of the limitation of pressure, impossible to hoist a load which exceeds the safe working load by 25 per cent, it is sufficient compliance with this paragraph if the crane has the greatest possible load applied to it.

3. Every item of lifting gear (whether an accessory to any lifting appliance or not) shall be tested with a proof load in accordance with the following provisions-

- (a) if the item is a chain sling, rope sling, ring, hook, shackle, or swivel, the proof load shall be at least twice the safe working load;
- (b) if the item is a single sheave pulley block, the proof load shall be at least 4 times the safe working load; (L.N. 191 of 1978)
- (ba) if the item is a multiple sheave pulley block with a safe working load of up to and including 20 tonnes, the proof load shall be at least twice the safe working load; (L.N. 191 of 1978)
- (c) if the item is a multiple sheave pulley block with a safe working load of more than 20 tonnes, but not more than 40 tonnes, the proof load shall exceed the safe working load by at least 20 tonnes;
- (d) if the item is a multiple sheave block with a safe working load of more than 40 tonnes, the proof load shall be at least 1 1/2 times the safe working load.

4. After being tested in accordance with paragraph 1, 2 or 3 each lifting appliance (including its accessories) and all loose gear shall be examined so as to ensure that no part of the lifting appliance or lifting gear has been damaged during the test. For the purpose of carrying out the examination of a pulley block the examiner shall remove the sheaves and pins of the block.

5. Where any wire rope is tested, a sample of the rope shall be tested to destruction, and the safe working load shall not exceed 20 per cent of the breaking load of the sample tested.

(L.N. 238 of 1984)

Schedule:	2	(Repealed L.N. 285 of 1993)		30/06/1997
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(Repealed L.N. 285 of 1993)