

JAMAICA

THE FACTORIES ACT

REGULATIONS (under section 12)

THE DOCKS (SAFETY, HEALTH AND WELFARE) REGULATIONS, 1968

L.N..215/68
Amd.
L.N. 315/69

(Made by the Minister on the 27th day of May, 1968)

[1st October, 1968.]

PART I Preliminary

Short title

1. These Regulations may be cited as the Docks (Safety, Health and Welfare) Regulations. 1968.

Interpretation.

2. In these Regulations, unless the context otherwise requires -

“competent person” means a person having such practical and theoretical knowledge and actual experience of the lifting machinery or lifting gear which he has to examine or inspect, as the case may be, as will enable him to detect defects or weaknesses which it is the purpose of the examination to discover and to assess their importance in relation to the strength and function of the particular lifting machinery or gear, as the case may be;

“employed” means employed in the processes;

“fibre rope” includes synthetic fibre rope;

“hatch” means an opening in a deck used for the purpose of the processes or for trimming, or for ventilation;

“hatchway” means the whole space within the square of the hatches from the top

deck to the bottom of the hold;

“lifting machinery” means any crane, winch, hoist, derrick boom, derrick and mast bands, goose neck, eyebolt, and any other permanent attachment to the derricks, masts and decks, used in hoisting or lowering in connection with the processes;

“plant” includes any gang-way, ladder, cargo stage, deck stage, hatch covering or hatch beam;

“processes” means the processes referred to in sub-paragraph (b) of paragraph (1) of regulation 3;

“pulley block” means pulley block gin, and similar gear, other than a crane block specially constructed for use with a crane to which it is permanently attached;

“raising or lowering” means the raising, lowering or carrying, by a lifting machine, of a load consisting of any person, goods, material or plant of any description;

“ship” includes every description of vessel used in navigation not propelled by oars;

“union purchase rig” means a method of raising or lowering by the simultaneous use of two ships’ derricks in such manner that the load is supported by the hoist rope of each derrick.

Application.

3. (1) Subject to the provisions of this regulation these Regulations shall apply to –

(a) every dock, wharf or quay (including any warehouse belonging to the owner of any such dock, wharf or quay and any line or siding used in connection with and for the purposes of any such dock, wharf or quay and not forming part of a railway) and every other warehouse (not forming part of a factory) in or for the purposes of which mechanical power is used; and

(b) the processes of loading, unloading, moving and handling goods in, on or at, any dock, wharf or quay, and the processes of loading, unloading and fuelling any ship in any dock or harbour.

3. (2) Nothing in Parts III to VII shall apply to the unloading of fish from a ship or boat employed in the catching of fish.

3. (3) Nothing in regulations 19, 20, 21, 22, 23, 25, 26, 46(1) and 65 shall apply to a barge or lighter.

3. (4) Regulations 28(2), 29(1), 30(1) and 32(1) shall not, so far as

regards the tests and examinations required under those regulations, apply to machinery chains, or other gear taken into use, or wire rope purchased, before the 1st day of October. 1968.

3. (5) Nothing in these Regulations shall apply to the loading, unloading or fuelling of naval ships when any such process is undertaken solely by members of the armed forces.

3. (6) The Chief Factory Inspector may, subject to such conditions as he may think fit, in writing exempt from all or any of the provisions of these Regulations –

(a) any harbour, dock, wharf or quay at which the processes are only occasionally carried on or the traffic is small and confined to small ships;
or

(b) any specified ship or class of ship.

Application of certain provisions of Factories Regulations..

4. (1) The provisions of the Factories Regulations specified in paragraph (2) shall apply to the places and processes referred to in paragraph (1) of regulation 3 and to any machinery and plant used in such places and processes as if -

(a) such places were factories;

(b) such process were carried on in a factory;

(c) the person who carries on such process were the occupier of a factory; and

(d) such machinery and plant were machinery and plant in a factory.

4. (2) The provisions of the Factories Regulations referred to in paragraph (1) are –

(a) such provisions of Part II of those Regulations as relate to the generation, transformation, distribution and use of electrical energy and to steam boilers and air receivers, so however, that this sub-paragraph shall not apply in relation to any machinery or plant which is on board a ship and is the property of the shipowner;

(b) such provisions of Part III of those Regulations as relate to sanitary conveniences;

(c) regulation 79 of those Regulations, with such adaptations and

modifications as may be necessary.

Duties.

5. (1) It shall be the duty of the person having the general management and control of a dock, wharf or quay, to comply with Part IV:

Provided that –

(i) if any other person has the exclusive right to occupation of any part of the dock, wharf or quay, and has the general management and control of such part, the duty in respect of that part shall devolve upon that other person; and

(ii) it shall be the duty of the employer of the persons employed to comply with the provisions of regulation 16 of these Regulations in so far as they apply to persons employed on board a ship not lying at a wharf or quay.

5. (2) It shall be the duty of the owner, master, or officer in charge of a ship to comply with Part III.

5. (3) It shall be the duty of the owner of machinery or plant used in the processes, and in the case of machinery or plant carried on board a ship not being a ship registered in Jamaica. it shall also be the duty of the master of such ship, to comply with Part IV:

Provided that it shall be the duty of the person who by himself, his agents, or workmen, carries on the processes to comply with the provisions of regulation 38(3) so far as they relate to the stability of any mobile crane used by him and under his control.

5. (4) It shall be the duty of every person who by himself, his agents, or workmen carries on the processes, and of all agents, workmen, and persons employed by him in the processes. to comply with Part V:

Provided that, where the processes are carried on by a stevedore or other person other than the owner of the ship, it shall be the duty of the owner, master, or officer in charge of the ship to comply with regulation 46 so far as it concerns –

(a) any hatch not taken over by the said stevedore or other person for the purpose of the processes;

(b) any hatch which, after having been taken over by the said stevedore or other person for the purpose of the processes., being a hatch at which the processes have been completed or completed for the time

being, has been left by the said stevedore or other person fenced or covered as required by regulation 46. or has been taken into use by or on behalf of the owner of the ship;

(c) the covering of any hatch fitted with a mechanically operated cover the control of which is solely within the responsibility of the owner, master or officer in charge of the ship.

5. (5) It shall be the duty of all persons whether owners, occupiers, or persons employed, to comply with Part VII.

5. (6) Part VII shall be complied with by the persons on whom the duty is placed in that Part.

PART II Requirements on Shore

Means of approach and fire precautions.

6. (1) Every regular approach over a dock, wharf or quay which persons employed have to use for going to or from a working place at which the processes are carried on and every such working place on shore shall be maintained with due regard to the safety of the persons employed.

In particular the following parts shall, so far as is practicable having regard to the traffic and working, be securely fenced so that the height of the fence shall be in no place less than three feet six inches, and the fencing shall be maintained in good condition ready for use—

(a) all breaks, dangerous corners and other dangerous parts or edges of a dock, wharf or quay:

(b) the edges of all ditches, pits, dangerous openings and excavations, provided that such fencing shall not be required if secure covering is provided and maintained.

6. (2) Where any mobile crane or power-driven road vehicle is regularly employed at or in the immediate vicinity of the edge of a dock, that edge shall be protected by a permanent sill or coping of adequate strength to a height of not less than one foot.

6. (3) Adequate means of escape in case of fire shall be provided and maintained in every building in use for the processes in which persons are employed, and the contents shall be so arranged or stacked that there is a free passageway to a means of escape for all persons employed.

6. (4) Where necessary, effective means, capable of being operated without exposing any worker to undue risk, shall be provided and maintained in any such building for giving audible warning in case of fire.

6. (5) Where an outbreak of fire is likely to cause injury to any person employed there shall be provided and maintained appropriate means for fighting fire, which shall be so placed as to be readily available for use.

Lighting.

7. All places on shore in which persons are employed and any dangerous parts of the regular road or way over a dock, wharf or quay, forming the approach to any such place from the nearest highway, shall be efficiently lighted.

Means of rescue from drowning.

8. Provision for the rescue from drowning of persons employed shall be made and maintained, and shall include –

(a) a sufficient number of lifebuoys kept in readiness on the dock, wharf or quay and spaced at intervals not exceeding two hundred feet. Each such lifebuoy shall be fitted with not less than 90 feet of suitable heaving line and shall be adequately protected from the weather;

(b) effective means at or near the surface of the water, at reasonable intervals, for enabling a person immersed to support himself or escape from the water, which shall be reasonably adequate having regard to all the circumstances;

(c) suitable vertical ladders extending from the water to the edge or coping of the dock, wharf or quay, and spaced at intervals of not more than 200 feet to enable a person to escape from the water.

Provision of First-Aid boxes or cases.

9. (1) A sufficient number of first-aid boxes or cases shall be provided at every working place, and, if more than one is provided, at reasonable distances from each other.

9. (2) Every first-aid box or case provided in pursuance of this regulation shall be distinctively marked "FIRST-AID".

9. (3) Every first-aid box or case shall be kept stocked and in good order and shall be placed under the charge of a responsible person, who shall always be readily available during working hours. Such person shall, except at docks, wharves or quays at which the total number of persons employed at any time does not exceed fifty, be a person trained in first-aid, including competence to administer artificial respiration.

Contents of First-Aid boxes or cases.

10. (1) Nothing except appliances or requisites for first-aid shall or be kept in first-aid boxes or cases.

10. (2) Each first-aid box or case at any working place shall contain the equipment and materials specified in relation to that working place in the **First Schedule**.

10. (3) All materials for dressings contained in first-aid boxes or cases shall be those designated in, and of a grade or quality not lower than the standards specified by the British Pharmaceutical Codex including any supplement thereto.

Stretchers

11. (1) There shall be provided and maintained at every dock, wharf or quay and so as to be readily accessible, a sufficient number of stretchers so constructed as to enable injured persons to be raised from a hold in a safe manner and further transported upon them.

11. (2) Two clean blankets shall be provided for each stretcher.

Provision of ambulances.

12. There shall be provided and maintained in good condition for use at every dock, wharf or quay at which the total number of persons employed at any time exceeds fifty -

(a) a motor vehicle so constructed or adapted as to be able to carry sick or injured persons on the stretchers referred to in regulation 11; or

(b) where such persons have to be carried by water, a suitably equipped boat propelled by mechanical power.

unless arrangements have been made for obtaining such a vehicle or boat when required from a hospital or other place situated not more than two miles from such dock, wharf or quay and in telephonic communication therewith.

First-Aid rooms.

13. (1) There shall be provided and maintained in good order and in a clean condition for use at every dock, wharf or quay at which the total number of persons employed at any time exceeds 100 a properly constructed and suitable first-aid room with smooth interior surfaces. The first-aid room shall be used only for purposes of treatment and rest and shall be in the charge of a person trained in first-aid treatment who shall always be readily available during working hours.

13. (2) Every first-aid room provided in pursuance of this regulation shall contain at least the following equipment, namely –

- (a) a sink having smooth impervious internal surfaces with hot and cold water always available;
- (b) a table with a smooth impervious top;
- (c) means of sterilizing instruments;
- (d) a supply of suitable dressings, bandages and splints;
- (e) a couch;
- (f) suitable and sufficient stretchers including a sling stretcher;
- (g) sufficient blankets and hot water bottles; and
- (h) a foot bath, or basin or bowl suitable for use as a foot bath.

Notices as to First-Aid appliances.

14. Notices shall be exhibited in prominent positions at every dock, wharf or quay stating –

- (a) the position of each first-aid box and the place where the person in charge thereof can be found;
- (b) the position of stretchers or other appliances;
- (c) the position of the ambulance vehicle or boat or, where such is not provided, the position of the nearest telephone and the name and telephone number of the hospital or other place at which such vehicle or boat may be obtained.

Washing and bathing facilities.

15. (1) There shall be provided and maintained for the other persons employed adequate and suitable facilities for washing, which shall include a supply of clean running water. If workers of both sexes are employed the wash places shall be separate for each sex.

15. (2) Where persons employed are exposed to skin contamination by poisonous, infectious or irritating substances or oil, grease or dust, at least one shower bath supplied with hot and cold water and with suitable arrangement for privacy, shall be provided for every six workers regularly employed who are exposed to such contamination and cease work at the same time.

Drinking water.

16. (1) An adequate supply of wholesome, cool drinking water shall be provided and maintained at suitable points conveniently accessible to all persons employed.

16. (2) A supply of drinking water which is not laid on shall be contained in suitable vessels (provided with cover and tap or spout) and shall be renewed at least daily, and all practicable steps shall be taken to preserve the water and vessels from contamination

Accommodation for clothing and taking meals.

17.—(1) There shall be provided for the use of persons employed and conveniently accessible to them –

(a) adequate and suitable accommodation for the changing of clothing and for accommodating clothing not worn during working hours. Where persons of both sexes are employed separate clothing accommodation shall be provided for persons of each sex;

(b) adequate and suitable accommodation, including sufficient tables and seats or benches, for taking meals, with facilities for boiling water, heating food, and washing dishes.

17. (2) In determining whether accommodation of any kind provided at an: time and place is adequate, regard shall be had to the number of persons likely to use such accommodation at that time and place.

17. (3) All accommodation provided in pursuance of sub-paragraph (a) and (b) of paragraph (1) shall be kept in a clean and orderly condition.

17. (4) No building or part of a building provided for the purposes of sub-paragraphs (a) and (b) of paragraph (1) shall be used for the deposit or storage of materials or plant.

Sanitary conveniences.

18.(1) Sufficient and suitable sanitary conveniences for the persons employed at every dock, wharf or quay, so arranged as to be conveniently accessible, shall be provided, maintained and kept clean. Where persons of both sexes are employed, the conveniences shall be separate for each sex and the number of conveniences, not including urinals, shall be not less than one for every twenty-five persons.

18. (2) Every sanitary convenience shall be under cover and shall have a proper door fastening.

18. (3) Effective provision shall be made for lighting the sanitary conveniences.

18. (4) Every sanitary convenience shall be sufficiently ventilated and shall not communicate with any workroom or messroom except through the open air or through an intervening ventilated space.

PART III Safety Provisions on Board Ship

Means of access from ship to shore and shore to ship.

19. When a ship is lying at a dock, wharf or quay for the purpose of loading or unloading or fuelling, there shall be safe means of access for the use of persons employed at such times as they have to pass from the ship to the shore or from the shore to the ship and such means of access shall be –

- (a) where reasonably practicable the ship's accommodation ladder or gangway or a similar construction not less than twenty-two inches wide, properly secured, and fenced throughout on each side to a height of at least two feet nine inches by means of upper and lower rails, taut ropes or chains or by other equally safe means;
- (b) in other cases one or more rigid ladders of sound material and adequate length which shall be properly secured to prevent slipping:

Provided that –

- (i) Nothing in this regulation shall apply to cargo stages or cargo gangways, if other safe means of access is provided in conformity with these Regulations; and
- (ii) as regards any ship not exceeding 200 tons net registered tonnage this regulation shall not apply if and while the conditions are such that it is possible without undue risk to pass to and from the ship without the aid of any special appliance.

Means of access for ship to ship.

20. If a ship is alongside any other ship, and persons employed have to pass from one to the other, safe means of access shall be provided for their use, unless conditions are such that it is possible to pass from one to the other without undue risk without the aid of any special appliance.

If one of such ships is a ship of relatively low freeboard the means of access shall be provided by the ship which has the higher freeboard.

Means of access to holds, etc.

21. (1) If the depth from the level of the deck to the bottom of the hold exceeds five feet, there shall be maintained safe means of access from the deck

to the hold in which work is being carried on.

21. (2) Save as hereinafter provided, such access shall be afforded by ladder and by ladder cleats or cups on the coamings, and shall not be deemed to be safe –

(a) unless the ladders between the lower decks are in the same line as the ladder from the top deck, and that arrangement is practicable having regard to the position of the lower hatch or hatches;

(b) unless the ladders provide a foothold of a depth, including any space behind the ladder, of not less than 44 inches for a width of 10 inches and a firm handhold;

(c) unless the cleats or cups provided on the coamings –

(i) provide a foothold of a depth, including any space behind the cleats or cups, of not less than 4 1/2 inches for a width of 10 inches and a firm handhold;

(ii) are so constructed as to prevent a man's foot from slipping off the side;

(iii) are placed vertically one above the other and in the same line as the ladders to which they give access;

(d) unless the cargo is stowed sufficiently far from the ladder to leave at each rung of the ladder foothold of a depth, including any space behind the ladder, of not less than 44 inches for a width of 10 inches and a firm handhold;

(e) unless there is room to pass between a winch or other obstruction and the coamings at the place where the ladder leaves the deck;

(f) if the ladder is recessed under the deck more than is reasonably necessary to keep the ladder clear of the hatchway:

Provided that such access may be afforded –

(i) where the provisions of a ladder on a bulkhead or in a trunk hatchway can be shown to be reasonably impracticable, by cleats or cups complying with the requirements of subparagraph (c);

(ii) by ladders or steps, separate from any hatchway or sloping from deck to deck, if such ladders or steps comply with the requirements of sub-paragraphs (b). (d) and (e).

21. (3) Shaft tunnels shall be equipped with adequate handhold and foothold on each side.

Lifting gear for hatch beams.

22. All hatch beams used for hatch covering shall have suitable for lifting them on and off without it being necessary for any person to go upon them to adjust such gear.

Marking of hatch coverings and hatch beams.

23. All hatch coverings shall be kept plainly marked to indicate the deck and hatch to which they belong and their position therein:

Provided that this regulation shall not apply in cases where all the hatch coverings of a ship are interchangeable, or in respect of making of position, where all hatch coverings of a hatch are interchangeable.

This regulation shall apply to hatch beams as it applies to hatch coverings.

Maintenance of hatch beams and hatch coverings.

24. All hatch beams used for hatch coverings and all hatch coverings shall be maintained in good condition.

Provision of hand grips on hatch coverings.

25. All hatch coverings shall be provided with suitable means for lifting them off and on and such means shall be –

- (a) adequate hand grips; or
- (b) if the size, weight or construction of the hatch coverings is such as to render them incapable of being lifted into and out of position by two men, consist of adequate provision for the attachment of a sling.

Working space around hatches.

26. Where the working space around a hatch is less than two feet wide, such provision shall be made as will enable persons employed to remove and replace in safety all hatch beams used for hatch covering and all hatch coverings.

Lighting of ships.

27. When the processes are being carried on –

- (a) the places in the hold and on the decks where work is being carried on;
- (b) the means of access provided in pursuance of regulations 19 and

20; and

- (c) all parts of the ship to which persons employed may be required to proceed in the course of their employment.

shall be efficiently lighted, due regard being had to the safety of the ship and cargo, of all persons employed and of the navigation of other vessels.

PART IV

Lifting Machinery, Plant and Lifting Gear

Lifting machinery.

28. (1) All parts and working gear (including anchoring appliances) of lifting machinery shall be of good construction, sound material, adequate strength and free from patent defect and shall be properly maintained.

28. (2) All lifting machinery shall have been tested and examined by a competent person in the manner set out in the **Second Schedule** before being taken into use; or taken into use for the first time after it has undergone any substantial alteration or repair.

28. (3) All derricks and permanent attachments, including bridle chains to the derricks, mast and deck, used in hoisting or lowering shall be inspected by a competent person once in every twelve months and shall be thoroughly examined by a competent person once at least in every four years.

28. (4) All other lifting machinery shall be thoroughly examined by a competent person once at least in every twelve months.

28. (5) For the purposes of this regulation thorough examination means a visual examination, supplemented if necessary by other means such as a hammer test, 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, parts of the machine and gear must be dismantled.

Lifting gear.

29. (1) No chain, ring, hook, shackle, swivel or pulley block shall be used in hoisting or lowering unless –

- (a) it is of good construction, sound material, adequate strength and free from patent defect; and
- (b) it has been tested and examined by a competent person in the manner set out in the **Second Schedule**.

29. (2) All chains, rings, hooks, shackles and swivels other than bridle chains attached to derricks or masts, chains, rings, hooks, shackles and swivels of a class or description specified in the **Third Schedule** or exempted by certificate of the Chief Factory Inspector upon the ground that they are made of such material or so constructed that they cannot be subjected to heat treatment without risk of damage, shall, be effectively annealed or subjected to some appropriate form of heat treatment, under the supervision of a competent person and at the following intervals –

- (i) half inch and smaller chains, rings, hooks, shackles and swivels in general use, once at least in every six months;
- (ii) all other chains, rings, hooks, shackles, swivels in general use once at least in every twelve months:

Provided that in the case of such gear used solely on cranes and other hoisting appliances worked by hand, twelve months shall be substituted for six months in sub-paragraph (i) and two years for twelve months in sub-paragraph (ii).

29. (3) All chains, other than bridle chains attached to derricks or masts and all rings, hooks, shackles, swivels and pulley blocks, cargo trays and similar gear shall be inspected by a competent person immediately before each occasion on which they are used in hoisting or lowering unless they have been inspected within the preceding three months.

29. (4) All chains, rings, hooks, shackles or swivels used in hoisting or lowering which have been lengthened, altered or repaired by welding shall before being again taken into use be tested and re-examined by a competent person in the manner set forth in the Second Schedule.

Ropes.

30. (1) No rope shall be used in hoisting or lowering unless –

- (a) it is of suitable quality and free from patent defect; and
- (b) in the case of wire rope, it has been examined and tested by a competent person in the manner set out in the Second Schedule.

30. (2) Every wire rope in general use for hoisting or lowering shall be inspected by a competent person once at least in every three months, provided that after any wire has broken in such rope it shall be inspected at least once in every month.

30. (3) No wire rope shall be used in hoisting or lowering if in any length of ten diameters the total number of visible broken wires exceeds five per cent of the total number of individual wires or the rope shows signs of excessive wear,

corrosion or other defect which, in the opinion of the person who inspects it renders it unfit for use.

30. (4) A thimble or loop splice made in any wire rope shall have at least three tucks with a whole strand of the rope and two tucks with one-half of the wires cut out of each strand. The strands in all cases shall be tucked against the lay of the rope:

Provided that this regulation shall not operate to prevent the use of another form of splice or fastening which can be shown to be as efficient as that laid down in this regulation.

30. (5) Every fibre rope sling shall be inspected by a responsible person before being taken into use for the first time on each day that it is used.

Competent persons.

31. For the purposes of regulations 28, 29 and 30 a person shall not be deemed to be a competent person if and in so far as the Chief Factory Inspector has given notice in writing that such person is in his opinion not technically qualified to carry out the tests, examination or heat treatment required by these Regulations:

Provided that any person whom the Chief Factory Inspector may then declare not to be competent shall have the right to appeal against such declaration to the Factories Appeal Board, whose decision shall be final.

Registration of lifting machine and gear.

32. (1) Certificates in the form prescribed in the Fourth Schedule and containing the prescribed particulars with regard to the tests, and examinations, inspections or annealing required under regulations 28, 29(1) and (2) and 30(1) shall be obtained, and entered in, or attached to the register prescribed in the abovementioned **Fourth Schedule** before the machinery, chain, rope or other gear to which the certificate refers is subsequently taken into use in connection with the processes:

Provided that in the case of any test, examination, inspection or heat treatment not carried out in Jamaica, the requirements of this regulation shall be deemed to have been complied with if a register or a certificate prescribed under the Docks Regulations, 1934 of Great Britain. or a register or certificate conforming to the standard international register or certificate approved by the International Labour Organization. or containing substantially the same particulars~ is entered in or attached to the register.

32. (2) The prescribed register with the certificates required to be attached to it shall be kept on the premises unless some other place has been approved in

writing by the Chief Factory Inspector.

Marking of safe working loads on pulley block.

33. No pulley block shall be used in hoisting or lowering unless the safe working load is clearly stamped upon it.

Marking of safe working loads on slings.

34. (1) Means shall be provided to enable any person using a chain or rope sling to ascertain the safe working load for such chain or sling in relation to the conditions in which it may be used.

34. (2) As regards chain slings such means shall consist of marking the safe working load in plain figures or letters upon the sling or upon a tablet or ring of durable material attached securely thereto.

34. (3) As regards wire rope slings and fibre rope or slings such means shall consist of either the means specified in paragraph (2) or a notice or notices, so exhibited as to be easily read by any person concerned, stating the safe working loads for the various sizes of wire rope and fibre rope and slings used.

34. (4) Before any fibre rope or sling or any wire rope sling is taken into use for the first time, the safe working load of that rope or sling shall be assessed by a competent person.

Marking of safe working loads on cranes and derricks.

35. Every crane and derrick shall have the safe working load plainly marked upon it and every shore crane if so constructed that the safe working load may be varied by the raising or lowering of the jib or otherwise shall have attached to it an automatic indicator of safe working loads provided that, in cases where the jib may be raised or lowered, provision on the crane of a table showing the safe working loads at corresponding inclinations of the jib or corresponding radii of the load shall be considered sufficient compliance.

Fencing of machinery and parts.

36. (1) All motors, cog wheels, chain and friction gearing, shafting, renting of live electric conductors and steam pipes shall (unless it can be shown that by their position or construction they are equally safe to every person employed as they would be if securely fenced) be securely fenced so far as is practicable without impeding the safe working of the ship.

36. (2) The intakes within reach between the belts and drums of every belt conveyor shall be securely fenced.

36. (3) All fencing provided in pursuance of the provisions of paragraphs (1) and (2) shall be of substantial construction, and constantly maintained and kept in position while the parts required to be fenced are in motion or in use.

Special provisions regarding conveyors.

37. (1) Every conveyor, including roller conveyors and chutes used in the processes shall be of good construction, sound material, adequate strength and free from patent defect.

37. (2) Every conveyor driven by mechanical power shall be provided with efficient means for cutting off the power in an emergency; such means shall be provided at loading and unloading points and, where necessary, at a sufficient number of other convenient positions.

37. (3) Where a conveyor passes over any place where persons are employed adequate guards or screens shall be provided to prevent any such person from being struck by any falling material or article.

Stability of lifting appliances.

38. (1) Appropriate measures shall be taken to prevent the foot of a derrick being accidentally lifted out of its socket or support.

38. (2) Every mobile crane shall be adequately counterbalanced in order to reduce to a minimum the risk of overloading.

38. (3) No mobile crane shall be used on a soft or uneven surface or on a slope in circumstances in which the stability of the appliance is likely to be affected unless adequate precautions are taken to ensure its stability.

Cranes and winches: prevention of accidental descent of load.

39. (1) Every crane or winch shall be so constructed, or shall be provided with such means, as will reduce to a minimum the risk of the accidental descent of a load while being raised or lowered. In particular the lever controlling the reversing gear shall be provided with a suitable spring or other locking arrangement, unless the construction of the crane or winch is such as to render the provision of such device unnecessary.

39. (2) Every crane or winch shall be provided with an efficient brake, or brakes, or other safety device, which will prevent the fall of the load when suspended., and by which the load can be effectively controlled whilst being lowered.

Access to and fencing of crane platforms.

40. The drivers' platforms on every crane or tip driven by mechanical power shall be securely fenced and provided with safe means of access.

In particular, where access is by a ladder –

- (a) the sides of the ladder shall extend to a reasonable distance

beyond the platform or some other suitable handhold shall be provided:

- (b) the landing place on the platform shall be maintained free from obstruction;
- (c) in cases where the ladder is vertical and exceeds thirty feet in height, a resting place properly fenced shall be provided approximately midway between the platform and the foot of the ladder;
- (d) every ladder exceeding 20 feet in height shall be fitted with guard hoops of adequate strength spaced at intervals at not more than 4 feet.

Steam cranes and winches.

41. Adequate measures shall be taken to prevent exhaust steam from, and so far as practicable live steam to, any crane or winch obscuring any part of the decks, gangways, stages, wharf or quay where any person is employed in the processes.

Precautions with respect to the use of chains and ropes.

42. (1) Chains shall not be shortened by tying knots in them;
42. (2) Suitable packing shall be provided to prevent wire ropes, fibre ropes and the links of chains from coming into contact with sharp edges of loads of hard material.

Pallets and cargo trays.

43. Every pallet and cargo tray or similar appliances used in raising or lowering goods shall be of good construction, sound material, adequate strength and free from patent defect; shall be suitable for the purpose for which it is used and shall be properly maintained.

PART V

Precautions when Loading, Unloading or Fuelling

Placing goods on a wharf or quay.

44. Where goods are placed on a wharf or quay –
- (a) a clear passage leading to the means of access to the ship required by regulation 19 shall be maintained on the wharf or quay; and
 - (b) if any space is left along the edge of the wharf or quay, it shall be at least three feet wide and clear of all obstructions other than fixed structures, plant and appliances in regular use.

Use of desk-stage and hand trucks.

45. (1) No deck-stage or cargo stage shall be used in the processes unless it is soundly constructed and adequately supported, and, where necessary, securely fastened.
45. (2) No truck shall be used for carrying cargo between ship and shore on a stage so steep as to be unsafe.
45. (3) Any stage which is slippery, shall be made safe by the use of sand or otherwise.

Fencing or covering of hatches.

46. (1) If any hatch of a hold accessible to any person employed and exceeding five feet depth, measured from the level of the deck in which the hatch is situated to the bottom of the hold, is not in use for the passage of goods or other material or for trimming, and the coamings are less than two feet six inches in height such hatch shall either be fenced to a height of three feet or be securely covered:

Provided that this requirement shall not apply –

- (a) to ships not exceeding 200 tons net registered tonnage which have only one hatchway;
 - (b) to any ship during mealtimes or other short interruptions of work during the period of employment.
46. (2) Hatch coverings shall not be used in the construction of deck or cargo stages, or for any other purpose which may expose them to damage.
46. (3) Hatch coverings shall be replaced on the hatches in the positions indicated by the markings made thereon in pursuance of regulation 23.
46. (4) Where a section of bulwark or deck railing has necessarily to be removed for the purpose of loading or unloading, the section of the bulwark or deck railing shall be replaced and properly secured as soon as practicable.

Securing of hatch beams.

47. (1) The beam of any hatch in use for the processes shall, if not removed, be adequately secured to prevent its displacement or the displacement of any hatch coverings supported by it.

No hatch beam or hatch cover shall be removed or replaced while any person is in the hold beneath the square of that hatch.

47. (2) Hatch beams and hatch coverings shall, when they are removed from a hatch, be so stacked or secured as not to cause danger to persons

passing along the deck, working in the hold, or overside; in particular, if the construction of the ship so allows, a clear working space at least three feet wide shall be maintained between hatch coverings and hatch beams which have been so removed and the side of the hatch coaming.

47. (3) Roller or hinged hatch covers when stowed in the vertical position shall be adequately secured by lashings or other effective means.

Work at intermediate decks.

48. No cargo shall be loaded or unloaded by a fall or sling at any intermediate deck unless either the hatch at that deck is securely covered or a secure landing platform of a width not less than that of one section of hatch coverings has been placed across it:

Provided that this regulation shall not apply to any process of unloading the whole of which will be completed within a period of half an hour.

Work on skeleton decks.

49. When work is proceeding on any skeleton deck, adequate staging shall be provided unless the space beneath the deck is filled with cargo to within a distance of two feet of such deck.

Stacking of cargo.

50. Where stacking, unstacking, stowing or unstowing of cargo or handling in connection therewith cannot be safely carried out unaided, reasonable measures to guard against accident shall be taken by shoring or otherwise.

Means of escape from holds, etc.

51. Precautions shall be taken to facilitate the escape of persons Means of employed or Working in a hold or on between decks dealing with bulk cargo.

Restriction on use of hooks.

52. When the working space in a hold is confined to the square of the hatch, hooks shall not be made fast in the bands or fastenings of bales of cotton, jute, sisal, gunny bags or other similar goods; nor shall can-hooks be used for raising or lowering a barrel or drum when owing to the construction or condition of the barrel or drum or the hooks, their use is likely to be unsafe.

Nothing in this regulation shall apply to breaking out or making up slings.

Use of signallers.

53. When cargo is being loaded or unloaded by a fall at a hatchway, a signaller shall be employed, and where more than one fall is being worked at a hatchway, a separate signaller shall be employed to attend to each fall:

Provided that this regulation shall not apply in cases where a barge or lighter or other similar vessel is being loaded or unloaded if the driver of the crane or winch working the fall has a clear and unrestricted view of those parts of the hold where work is being carried on.

Overloading of machinery and use of union purchase rig.

54. (1) No lifting machinery, chains or other lifting appliance shall be loaded beyond the safe working load, except that a crane may be loaded beyond the safe working load in exceptional cases to such extent and subject to such conditions as may be approved by the engineer in charge or other competent person, if on each occasion –

(a) the written permission of the owner or his responsible agent has been obtained; and

(b) a record of the overload is kept:

Provided also that, where the load upon a single sheave pulley block is attached to the pulley block instead of to the chain or rope passing around the sheave, the load on the pulley block shall be deemed for the purpose of this regulation to be half of the actual load.

54. (2) No load shall be left suspended from a crane, winch, or other machine unless there is a responsible person actually in charge of the machine while the load is so left.

54. (3) Where a union purchase rig is used for the purpose of hoisting or lowering –

(a) the load shall not exceed one-half of the safe working load of the derrick having the lower lifting capacity; and

(b) there shall be used, in addition to the outer guy of each of the two derricks so coupled and as nearly parallel to such outer guy as possible, a wire rope preventer guy which shall be of adequate strength and securely attached to the head of the derrick and to a suitable deck fastening.

Drivers of cranes or winches or signallers.

55. No person under 18 years of age and no person who is not sufficiently competent and reliable shall be employed as driver of a crane or winch, whether driven by mechanical power or otherwise, or to give signals to a driver or to attend to cargo falls on winch-ends or winch-bodies.

Ventilation.

56. In every hold or compartment in which cargo is being worked

effective and suitable provision shall be made for securing and maintaining by the circulation of fresh air the adequate ventilation of the hold or compartment.

Precautions where dangerous fumes are liable to be present.

57. (1) No employed person shall enter or remain or be required to enter or remain in any hold or compartment being a hold or compartment in which there is reason to apprehend the presence of dangerous fumes to such extent, or that the proportion of oxygen in the air is so low, as to involve risk of persons being overcome thereby. Unless –

- (a) he is wearing suitable breathing apparatus and a belt with a rope securely attached thereto and a person keeping watch outside and capable of pulling him out is holding the free end of the rope; or
- (b) a responsible person has certified the space as being for a specified period, safe for entering without breathing apparatus, and the period so specified has not expired; but no employed person shall enter or remain in the space without breathing apparatus unless he has been warned when the period so specified will expire,

57. (2) There shall be provided and kept readily available a sufficient supply of breathing apparatus of a suitable type, of belts and ropes and of suitable reviving apparatus and oxygen, and the apparatus, belts and ropes shall be maintained and thoroughly examined at least once a month by a competent person.

57. (3) A sufficient number of the persons employed shall be trained and practised in the use of the apparatus mentioned in this regulation and in the method of restoring respiration.

Protection against dust; protection against ionising radiation.

58. (1) Where the processes give rise to any substantial quantity of dust of any kind, or to dust of such a character or to such extent as to be likely to be injurious to the persons employed, all reasonably practicable measures shall be taken to protect the persons employed against the inhalation of such dust, by the provision and use of suitable respirators or otherwise.

58. (2) In connection with the handling, transporting or storage of any radioactive substance, adequate precautions shall be taken to safeguard persons employed from such exposure to ionizing radiations as may be injurious to their health.

Suitable provisions shall be made, where necessary, for the storage of radioactive substances and where any source of ionizing radiation is liable to release a radioactive gas, its place of storage shall be efficiently ventilated to the open air by mechanical means for not less than two minutes before that place is

opened.

A radioactive source shall be removed from its place of storage only by or under the supervision of an authorized person.

Internal combustion engines.

59. No internal combustion engine shall be used in any hold or compartment in use for the processes unless specific provision is made for conducting the exhaust gases from the engine into the open air or the space is adequately ventilated so as to prevent danger to health from such exhaust gases. If adequate ventilation is not ensured by natural ventilation or the ventilation equipment of the ship, suitable additional mechanical ventilation shall be provided.

Provision of protective clothing.

60. Suitable protective clothing and appliances, including where necessary suitable gloves, footwear, goggles and head coverings, shall be provided and maintained for the use of persons employed –

- (a) when engaged in handling any injurious or offensive substances; and
- (b) when working in a refrigerated space.

Transport to or from a ship by water.

61. (1) When any person employed has to proceed to or from a ship by water for the purpose of carrying on the processes, proper measures shall be taken for his safe transport. Vessels used for this purpose shall be in the charge of a competent person, shall not be overcrowded or overloaded and shall be properly equipped for safe navigation and maintained in good condition.

61. (2) Suitable and adequate life saving appliances shall be provided and properly placed and maintained.

61. (3) The number of persons, including the crew that the vessel is authorized to carry shall be clearly shown aboard that vessel.

61. (4) The foregoing provisions shall be without prejudice to any bye-laws governing the conveyance of passengers by boat, whether mechanically propelled or not, that have been made by any harbour or dock authority.

PART VI
Duties as to Use and Maintenance of Safety Appliances

Prohibition of removal or interferences with safety appliances.

62. No person shall, unless duly authorized or in case of necessity, remove or interfere with any fencing, gangway, gear, ladder, hatch covering, life-saving means or appliances, lights, marks, stages, or other things whatsoever required by these Regulations to be provided.

If removed, such things shall be restored at the end of the period during which their removal was necessary by the persons last engaged in the work that necessitated such removal.

Prohibition of removal of fencing.

63. The fencing required by regulation 6 shall not be removed, except to the extent and for the period reasonably necessary for carrying on the work of the dock or ship, or for repairing fencing. If removed it shall be restored forthwith at the end of that period by the person engaged in the work that necessitated its removal.

Provision and use of safe access.

64. Without prejudice to the other provisions of these Regulations there shall be provided safe access to every place at which any person has at any time to work which access shall be sufficient having regard to the number of persons employed and shall, so far as is reasonably practicable, be kept clear of substances likely to make foothold or handhold insecure and of any obstruction.

Every person employed shall use the means of access provided in accordance with these Regulations and no person shall authorize or order another to use means of access other than those provided in accordance with these Regulations.

Prohibition as to going on beams.

65. No person shall go upon the fore and aft beams or thwartship beams for the purpose of adjusting the gear, for lifting them on and off or for any other purpose in connection with the processes, nor shall any person authorize or order another to do so.

Prohibition as to riding on conveyers.

66. No person employed shall ride upon any conveyor nor shall any person authorize or order another to do so.

PART VII Additional Duties

Duty of master or officer in charge of a ship with respect to holds, etc. which have been fumigated.

67. The master, or officer in charge of a ship shall not allow any hold or

compartment to be taken into use for the purpose of the processes for the first time subsequent to such hold or compartment having been fumigated, unless a certificate, signed by a qualified person and stating that such hold or compartment is free from dangerous fumes and is safe to enter, has been obtained and is kept available for inspection.

Duty of employers of persons employed with respect to use of machinery.

68. No employer of persons in the processes shall allow machinery or gear to be used by such persons if he knows or has reason to believe that such machinery or gear does not comply with Part IV.

Duty of employers of persons employed with respect to means of access and lighting.

69. If the persons whose duty it is to comply with regulations 19, 20 and 27 fail to do so, then it shall also be the duty of the employers of the persons for whose use the means of access and the lights are required, to comply with the said regulations within the shortest time reasonably practicable after such failure.

Prescribed register.

70. The prescribed register shall, on the application of any Factory Inspector be produced by the person in charge thereof; if it relates to the lifting machinery and other gear of a ship and is kept on the ship, it shall be produced together with the certificate of the ship's register, by the person for the time being in charge of the ship.

Printed copy of the Regulations to be posted.

71. The person having the general management and control of any copy of its Regulations dock, wharf or quay shall keep a printed copy of these Regulations exhibited in such a position as to be conveniently read by the persons employed on or about the dock, wharf or quay.

FIRST SCHEDULE

(Regulation 10)

PART I **Contents of First-Aid Boxes or Cases**

Working places at which the number of persons working at any one time does not exceed fifty.

- (i) A copy of the leaflet giving advice on first-aid treatment issued by the Minister.
- (ii) A sufficient number (not less than six) of small sterilized unmedicated dressings for injured fingers.
- (iii) A sufficient number (not less than three) of medium-sized sterilized unmedicated dressings for injured hands or feet.
- (iv) A sufficient number (not less than three) of large sterilized unmedicated dressings for other injured parts.
- (v) A sufficient number (not less than twelve) of adhesive wound dressings of a suitable type and of assorted sizes.
- (vi) A sufficient number (not less than two) of triangular bandages of unbleached calico, the longest side of which measures not less than fifty-one inches and each of the other sides not less than thirty-six inches.
- (vii) A sufficient supply of adhesive plaster.
- (viii) A sufficient supply of absorbent sterilized cotton-wool in half-ounce packets.
- (ix) A sufficient supply of suitable eye ointment in a container of a suitable type and size.
- (x) A sufficient number (not less than two) of sterilized eye-pads in separate sealed packets.
- (xi) A rubber bandage or pressure bandage.
- (xii) Safety pins.
- (xiii) A bottle of suitable antiseptic solution.
- (xiv) A supply of suitable splints.

PART II **Contents of First-Aid Boxes or Cases**

Working places in which the number of persons working at any one time exceeds fifty.

- (i) A copy of the leaflet giving advice on first-aid treatment issued by the Minister.
- (ii) A sufficient number (not less than twenty-four) of small sterilized unmedicated dressings for injured fingers. -
- (iii) A sufficient number (not less than twelve) of medium-sized sterilized unmedicated dressings for injured hands or feet.

- (iv) A sufficient number (not less than twelve) of large sterilized unmedicated dressings for other injured parts.
- (v) A sufficient number (not less than thirty-six) of adhesive wound dressings of a suitable type and of assorted sizes.
- (vi) A sufficient number (not less than eight) of triangular bandages of unbleached calico, the longest side of which measures not less than fifty-one inches and each of the other sides not less than thirty-six inches.
- (vii) A sufficient supply of adhesive plaster.
- (viii) A sufficient supply of absorbent sterilized cotton-wool in half-ounce packets.
- (ix) A sufficient supply of suitable eye ointment in a container of suitable type and size.
- (x) A sufficient number (not less than eight) of sterilized eye-pads in separate sealed packets.
- (xi) A rubber bandage or pressure bandage.
- (xii) Safety pins,
- (xiii) A bottle of suitable antiseptic solution.
- (xiv) A supply of suitable splints.

SECOND SCHEDULE

(Regulations 28, 29, 30)

Manner of Test and Examination before Taking Lifting Machinery and Gear into Use

1. Every winch with the whole of the gear accessory thereto (including derricks, goose necks, eye-plates, eye-bolts or other attachments) shall be tested with a proof load which shall exceed the safe working load as follows -

<u>Safe Working Load</u>	<u>Proof Load</u>
Under 20 tons	25 per cent in excess
20—50 tons	5 tons in excess
Over 50 tons	10 per cent in excess

The proof load shall be applied either (i) by hoisting movable weights or (ii) by means of a spring or hydraulic balance or similar appliance, with the derrick at an angle to the horizontal which shall be stated in the certificate of the test. In the former case, after the movable weights have been hoisted, the derrick shall be swung as far as possible in both directions.

In the latter case, the proof load shall be applied with the derrick swung as far as practicable first in one direction and then in the other.

2. Every crane and other hoisting machine with its accessory gear shall be tested with a proof load which shall exceed the safe working load as follows: -

<u>Safe Working Load</u>	<u>Proof Load</u>
Under 20 tons	25 per cent in excess
20—50 tons	5 tons in excess
Over 50 tons	10 per cent in excess

The said proof load shall be hoisted and swung as far as possible in both directions.

In the case of a jib-crane, if the jib has a variable radius, it shall be tested with a proof load as defined above at the maximum and minimum radii of the jib. In the case of hydraulic cranes or hoists, where, owing to the limitation of pressure, it is impossible to hoist a load 25 per cent in excess of the safe working load, it shall be sufficient to hoist the greatest possible load.

3. Every article of loose gear (whether it is accessory to a machine or not) shall be tested with a proof load at least equal to that shown against the article in the following table: -

<u>Article of Gear</u>	<u>Proof Load</u>
Chain Ring Hook Shackle Swivel	Twice the safe working load.
Pulley Blocks; Single Sheave Block	Four times the safe working load.
Multiple Sheave Block with safe load up to and including 20 tons	Twice the safe working load
Multiple Sheave Block with safe working load over 20 tons up to and including 40 tons	20 tons in excess of the safe working load.
Multiple Sheave Block with safe working load over 40 tons	One and a half times the safe working load.

Provided that where the Chief Factory Inspector is of the opinion that owing to the size, design, construction, material, or use of any such loose gear or class of such gear any of the above requirements are not necessary for the protection of persons employed, he may by certificate in writing (which he may at his discretion revoke) exempt such gear or class of gear from such requirement; subject to such conditions as may be stated in the certificate.

4. After being tested as aforesaid, all machines with the whole of the gear accessory thereto and all loose gear shall be examined, the sheaves and the pins of the pulley blocks being removed for the purpose, to see that no part is injured or permanently deformed by the test.

5. In the case of wire ropes, a sample shall be tested to destruction and the safe working load shall not exceed one-fifth of the breaking load of the sample tested.

THIRD SCHEDULE

(Regulation 29)

Chains and Lifting Gear Exempted under regulation 29(2) (as to Heat Treatment)

- (1) Chains made of malleable cast iron;
- (2) Plate link chains;
- (3) Chains, rings, hooks, shackles and swivels made of steel;
- (4) Pitched chains;
- (5) Rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines;
- (6) Hooks and swivels having screw-threaded parts or ball bearings or other case-hardened parts;
- (7) Bordeaux connections:

subject to the conditions that such gear shall be thoroughly examined by a competent person once at least in every twelve months, and certificates in the prescribed particulars with regard to such examinations shall be obtained and entered in or attached to the prescribed register before the gear to which the certificate refers is subsequently taken into use in connection with the processes.

For the purpose of this exemption thorough examination means a visual examination, supplemented if necessary by other means, 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, parts of the gear must be dismantled.

FOURTH SCHEDULE

(Regulation 32)

Register and Forms

The register shall be in the form of the register printed and published by the Government Printer entitled "Register of Machinery, chains, etc, and Wire Ropes" and bearing the reference "D.R.I."

The certificate of every test, examination or annealing shall be in the form of, and, contain the particulars specified in, forms printed and published by the Government Printer, being forms bearing the reference "D.R." followed by the numbers respectively set out below in relation thereto, that is to say -

- | | | |
|-----|---|--------|
| (a) | for the test and examination of winches, derricks and their accessory gear, before being taken into use | DR2 |
| (b) | for the test and examination of cranes or hoists, and their accessory gear, before being taken into use ... - -. | DR.3 |
| (c) | for the - test and examination of chains, rings, hooks, shackles and swivels before being taken into use | DR.4 |
| (d) | for the test and examination of pulley blocks before being taken into use | D.R5 |
| (e) | for the test and examination of wire rope before being taken into use .., .. - - - . - . - | DR6 |
| (/) | for the annealing of chains, rings, hooks, shackles and swivels which require such treatment - . - .. . - - - - - | D.RS |
| (g) | for the annual thorough examination of gear exempted from annealing | D.R.8. |