1960 No. 1612

The First-aid (Standard of Training) Order, 1960

Made - - - - *5th September*, 1960
Coming into Operation *1st July*, 1961

The Minister of Labour by virtue of the powers conferred on him by section 19 of the Factories Act, 1959(a), section 116 of the Factories Act, 1937(b), and of all other powers enabling him in that behalf, hereby makes the following Order:—

1. This Order may be cited as the First-aid (Standard of Training) Order, 1960, and shall come into operation on the first day of July, 1961.

2.—(1) The Interpretation Act, 1889(c), shall apply to the interpretation of this Order as it applies to the interpretation of an Act of Parliament.

(2) In this Order—

"approved" means approved for the time being by certificate of the chief inspector;

"the principal Act" means the Factories Act, 1937; and

"training organisation" means the St. John Ambulance Association of the Order of St. John, the St. Andrew's Ambulance Association, the British Red Cross Society, or any other body or society approved for the purposes of this Order.

(3) References in this Order to any enactment shall be construed as references to that enactment as amended by or under any other enactment.

3. For the purposes of subsection (3) of section 45 of the principal Act a person shall not at any time be deemed to be trained in first-aid treatment unless—

(*a*) he is a registered nurse or enrolled assistant nurse within the meaning of the Nurses Act, 1957(d), or the Nurses (Scotland) Act, 1951(e); or

(*b*) he is the holder of a certificate in first-aid issued within the immediately preceding period of three years by, or is otherwise recognised as being qualified in first-aid treatment by, a training organisation:

Provided that until the expiration of the thirty-first day of December, 1962, a person shall be deemed to be so trained if at any time during the period of ten years immediately preceding the date of the making of this Order he was the holder of a certificate in first-aid treatment issued by a training organisation.

4. In factories where the persons in charge of the first-aid boxes or cupboards are required under subsection (3) of section 45 of the principal Act to be persons trained in first-aid treatment the following particulars

(a) 7 & 8 Eliz. 2. c. 67. (b) 1 Edw. 8 & 1 Geo. 6. c. 67. (c) 52 & 53 Vict. c. 63.
(d) 5 & 6 Eliz. 2. c. 15. (e) 14 & 15 Geo. 6. c. 55.

shall be entered in or attached to the general register as respects every person in charge of a first-aid box or cupboard, namely—

(*a*) that person's name ;

(*b*) the nature and date of his qualification as a person trained in first-aid treatment ; and

(*c*) the date on which evidence of his being so trained was inspected by the occupier.

Signed by order of the Minister of Labour this 5th day of September, 1960.

L. N. Helsby,
Secretary,
Ministry of Labour.

EXPLANATORY NOTE

(*This Note is not part of the Order, but is intended to indicate its general purport.*)

This Order prescribes the conditions that have to be satisfied before persons can be deemed to be trained in first-aid treatment for the purposes of subsection (3) of section 45 of the Factories Act, 1937 ; and, in the case of certain factories, requires particulars relating to persons so trained to be entered in or attached to the general register.

1960 No. 1932

The Shipbuilding and Ship-repairing Regulations, 1960

Made - - - -	20*th October*, 1960
Laid before Parliament	27*th October*, 1960
Coming into Operation	31*st March*, 1961

ARRANGEMENT OF REGULATIONS

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SCHEDULES

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SECOND SCHEDULE—Manner of test and examination before taking any chain, wire rope, lifting appliance or lifting gear into use (Regulations 34 (1), 36 (1) and 40).

THIRD SCHEDULE—Equipment of ambulance rooms (Regulation 79 (3)).

REGULATIONS

The Minister of Labour by virtue of the powers conferred on him by sections 46 and 60 of the Factories Act, 1937(a), section 8 of the Factories Act, 1948(b), and of all other powers enabling him in that behalf, hereby makes the following special Regulations:—

PART I

INTERPRETATION AND GENERAL

Citation, commencement and revocation

1.—(1) These Regulations may be cited as the Shipbuilding and Ship-repairing Regulations, 1960, and, save as provided in Regulations 8, 9 (2), 24 and 25 of these Regulations, shall come into operation on the 31st day of March, 1961.

(2) The Shipbuilding Regulations, 1931(c), are hereby revoked.

(a) 1 Edw. 8 & 1 Geo. 6. c. 67. (b) 11 & 12 Geo. 6. c. 55.
(c) S.R. & O. 1931/133 (Rev. VII, p. 444: 1931, p. 431).

Application of Regulations

2.—(1) Subject to paragraph (2) of this Regulation, these Regulations shall apply—

(*a*) as respects work carried out in any of the operations in a shipyard in the case of a ship or vessel whether or not the shipyard forms part of a harbour or wet dock ;

(*b*) as respects work carried out in any of the operations in a harbour or wet dock in the case of a ship (but not in the case of a vessel other than a ship) not being work done—

(i) by the master or crew of a ship, or

(ii) on board a ship during a trial run, or

(iii) for the purpose of raising or removing a ship which is sunk or stranded, or

(iv) on a ship which is not under command, for the purpose of bringing it under command.

(2) (*a*) Nothing in Parts II to IX of these Regulations, except Regulations 6, 31 to 67, 73 to 78 and 80 shall apply as respects the operations in a shipyard in which the operations are not carried on upon vessels which both exceed one hundred feet in length measured overall and have an overall depth exceeding nine feet six inches ;

(*b*) Nothing in Parts II to IX of these Regulations, except Regulations 6, 31 to 67 and 73 to 78 shall apply as respects the carrying out of the operations, in a harbour or wet dock, upon ships which either do not exceed one hundred feet in length measured overall or have an overall depth not exceeding nine feet six inches ;

(*c*) Regulations 7, 12 to 24 and 26 to 30 of these Regulations shall not apply as respects the carrying out of the operations, in a public dry dock, upon vessels which either do not exceed one hundred feet in length measured overall or have an overall depth not exceeding nine feet six inches.

(3) The Chief Inspector may (subject to such conditions as may be specified therein) by certificate in writing (which he may at his discretion revoke at any time) exempt from all or any of the requirements of these Regulations—

(*a*) any shipyard or any harbour or wet dock or any class or description of shipyards, harbours or wet docks ;

(*b*) any class or description of machinery, plant, equipment or appliances ;

(*c*) any class or description of ships or vessels ; or

(*d*) any particular work or any class or description of work,

if he is satisfied that the requirements in respect of which the exemption is granted are not necessary for the protection of persons employed or not reasonably practicable. Where such exemption is granted a legible copy of the certificate, showing the conditions, if any, subject to which it has been granted, shall be kept posted in a position where it may be conveniently read by the persons employed.

(4) Save as expressly provided in Regulations 32, 52, 53, 67 and 68 of these Regulations, the provisions of these Regulations shall be in addition to and not in substitution for or in diminution of other requirements imposed by or under the principal Act.

Interpretation

3.—(1) The Interpretation Act, 1889(a), shall apply to the interpretation of these Regulations as it applies to the interpretation of an Act of Parliament, and as if these Regulations and the Regulations hereby revoked were Acts of Parliament.

(2) In these Regulations, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them, respectively, that is to say:—

"Abel closed test" means a test carried out with the apparatus specified and in the manner described in the Second Schedule to the Petroleum (Consolidation) Act, 1928(b);

"approved" means approved for the time being by certificate of the Chief Inspector;

"asbestos" means any naturally occurring fibrous silicate and any admixture containing any such silicate;

"available for inspection" means available for inspection by any person using or proposing to use the machinery or plant and by any inspector appointed under the principal Act;

"certificate of entry" means a certificate which—

(*a*) is given by a person who is a competent analyst and who is competent to give such certificates; and

(*b*) certifies that he has in an adequate and suitable manner tested the atmosphere in the oil-tank or oil-tanks specified in the certificate and found that having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere being or becoming dangerous, entry to the oil-tank or oil-tanks without wearing breathing apparatus may in his opinion be permitted;

"lead paint" means any paint, paste, spray, stopping, filling, or other material used in painting which when treated in the manner described in the First Schedule to these Regulations yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five per cent. of the dry weight of the portion taken for analysis;

"lifting appliance" means a crab, winch, pulley block or gin wheel used for raising or lowering and a crane, derrick, sheer-legs, teagle, transporter or runway;

"lifting gear" means a chain sling, rope sling, plate clamp, ring, link, hook, shackle, swivel or eye-bolt;

"naked light certificate" means a certificate which—

(*a*) is given by a person who is a competent analyst and who is competent to give such certificates; and

(*b*) certifies that he has in an adequate and suitable manner tested for the presence of inflammable vapour the oil-tank, compartment, space or other part of the vessel specified in the certificate and found it to be free therefrom and that having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere becoming inflammable, the use of naked lights, fires, lamps or heated rivets may in his opinion be permitted in the oil-tank, compartment, space or other part of the vessel specified in the certificate;

"oil" means any liquid which has a flashpoint below two hundred and seventy degrees Fahrenheit (Abel closed test or Pensky-Martens closed

(a) 52 & 53 Vict. c. 63. (b) 18 & 19 Geo. 5. c. 32.

test, whichever is appropriate) and also includes lubricating oil, liquid methane, liquid butane and liquid propane;

"oil-tank" means any tank or compartment in which oil is, or has been, carried as cargo or for use as lubricating oil, as engine fuel or boiler fuel or as fuel for aircraft on board;

"the operations" means, in relation to a ship or vessel, its construction, reconstruction, repairing, refitting, painting and finishing, the scaling, scurfing or cleaning of its boilers (including combustion chambers or smoke boxes) and the cleaning of its bilges or oil-fuel tanks or any of its tanks last used for carrying oil. For the purpose of this definition the expression "oil" means oil of any description whether or not oil within the meaning of the foregoing definition of that expression;

"overall depth" means the vertical distance between the uppermost deck at the side of the vessel and the bottom of the keel, measured at the middle of the overall length;

"Pensky-Martens closed test" means a test carried out with the apparatus specified and in the manner described in British Standard 2839: 1957, as published by the British Standards Institution on 14th March, 1957, including any approved revision thereof;

"person employed" means a person employed in any of the operations;

"the principal Act" means the Factories Act, 1937;

"public dry dock" means a dry dock which is available for hire;

"safe working load" means the relevant safe working load specified in the latest certificate of test obtained for the purposes of Regulations 34 or 36;

"ship", "vessel" and "harbour" have the same meanings as in the Merchant Shipping Act, 1894(a), except that neither the expression "ship" nor the expression "vessel" shall include a caisson, dock gate or pontoon;

"shipyard" means any yard or dry dock (including the precincts thereof) in which ships or vessels are constructed, reconstructed, repaired, refitted or finished;

"stage" means any temporary platform on or from which persons employed perform work in connection with the operations, but does not include a boatswain's chair;

"staging" includes any stage, and any upright, thwart, thwart pin, wedge, distance piece, bolt or other appliance or material, not being part of the structure of the vessel, which is used in connection with the support of any stage, and any guard-rails connected with a stage;

"structure" in Regulations 33, 36, 37 and 38 includes a vessel;

"tanker" means a vessel constructed or adapted for carrying a cargo of oil in bulk.

(3) References in these Regulations to any enactment shall be construed as references to that enactment as amended by or under any other enactment.

Obligations under Regulations

4.—(1) It shall be the duty of every employer who is undertaking any of the operations to comply with such of the provisions of the following Regulations as relate to any work, act or operation performed by him, that is to say—

(*a*) in so far as they affect any person employed by him—

(i) Regulations 6, 8 (2), 11 (1), 13, 14 (1), (2), (3) and (5), 15, 17 (1), (2), (3), (4) and (6), 18, 19 (1), 20 to 24, 25 (2), 28 (1), 48 to 51, 56 (2), 60 (1) and (2), 70 (1) and (4), 73 to 77, 80 and 81;

(a) 57 & 58 Vict. c. 60.

(ii) Regulations 11 (2) and 16, except in so far as the person having the general management and control of a public dry dock is responsible under paragraph (5) of this Regulation;

(iii) Regulation 69 (1), except in so far as the person having the general management and control of a public dry dock is responsible under paragraph (5) of this Regulation or the person having the general management and control of a dock, wharf or quay is responsible under paragraph (6) of this Regulation;

(iv) Regulation 26, except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation and except in so far as the stevedore or other person carrying on any of the processes of loading, unloading or coaling the ship or vessel is responsible by virtue of the Docks Regulations, 1934(a); and

(v) Regulation 70 (2) and (3), except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation.

(*b*) in so far as they affect any person whether or not a person employed by him—

(i) Regulations 27, 29 (1) and (2), 30 (1), 53, 54 (1), 63 to 66, 71, 72 and 78; and

(ii) Regulations 59 and 62, except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation.

(2) It shall be the duty of the owner of any machinery, plant, equipment or appliance to which any of the provisions of Regulations 33 to 39, 67 and 68 applies to comply with those provisions; and in the case of any such machinery, plant, equipment or appliance carried on board a ship not registered in the United Kingdom it shall also be the duty of the master or officer in charge of the ship to comply with those provisions. It shall be the duty of every employer not to use any machinery, plant, equipment or appliance which does not comply with those provisions.

(3) (*a*) It shall be the duty of every person who installs or places in position any machinery, plant, equipment or appliance to which any of the provisions of Regulations 42, 55 (1) and (2), 56 (1) (*a*) and 57 applies to install or place in position such machinery, plant, equipment or appliance in a manner which complies with those provisions;

(*b*) It shall be the duty of every person who works or uses any machinery, plant, equipment or appliance to which any of the provisions of Regulations 40 to 47, 55 (1) and (2), 56, 57 (1), (2), (3) and (4), 58 and 69 (4) and (5) applies to work or use such machinery, plant, equipment or appliance in a manner which complies with those provisions.

(4) In the case of a shipyard other than a public dry dock, it shall be the duty of the person having the general management and control of the shipyard to comply with the provisions of Regulations 7 and 8, Regulation 9 (2) in so far as it relates to hand-holds provided by him, Regulations 17 (5), 25 (1) and 79 and (except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation) Regulations 9 (1), 10, 12, 59 and 62.

(a) S.R. & O. 1934/279 (Rev. VII, p. 282: 1934 I, p. 572).

(5) In the case of a public dry dock—

(*a*) it shall be the duty of the person having the general management and control of the dock to comply as respects gangways, platforms and stairways provided by him with the provisions of Regulations 7, 9 (1) and 12, other than the provisions relating to use of such gangways, platforms and stairways, and to comply with the provisions of Regulation 8 (1), Regulation 9 (2) in so far as it relates to hand-holds provided by him, Regulation 11 (2) in so far as it relates to the sound construction of scows or floating platforms provided by him, Regulation 16 in so far as it relates to the soundness of any material or appliance provided by him for the construction of staging, Regulations 17 (5) and 25 (1), Regulation 69 (1) as respects lighting of approaches to the edge of the dock, and Regulation 79 (1) and (2); and

(*b*) it shall be the duty of every employer who is undertaking any of the operations to comply with such of the provisions of the following Regulations as relate to any work, act or operation performed by him, in so far as those provisions affect any person employed by him, that is to say, Regulations 7, 9 and 12 (except, in the case of each of these Regulations, in so far as the person having the general management and control of the dock is responsible under sub-paragraph (*a*) of this paragraph and except, in the case of Regulations 9 and 12, in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation), and Regulation 10.

(6) In the case of a ship lying in or at a dock, wharf or quay but not in a shipyard, it shall be the duty of the person having the general management and control of the dock, wharf or quay to comply with Regulation 69 (1) as respects the lighting of approaches to the edge of the dock, wharf or quay.

(7) It shall be the duty of the shipowner and of the master or officer in charge of a ship or vessel—

(*a*) to comply with such of the provisions of Regulations 9 (1), 10 and 12 as relate to any means of access provided by him, Regulation 59 in so far as it relates to any work, act or operation performed by him, and Regulation 62 in so far as it relates to a naked light certificate or a certificate of entry obtained by him; and

(*b*) where the control of the ship or vessel apart from the operations remains with the shipowner or master or officer in charge—

(i) to provide the protection specified in Regulation 26 in so far as concerns those hatches or openings which are not required to be used for the purposes of the operations (but if such protection be removed by or at the request of an employer who is undertaking any of the operations, that employer shall be responsible for its replacement as soon as practicable) and

(ii) to comply with the provisions of Regulation 69 (2) and Regulation 70 (2) and (3); and

(*c*) not to remove any fencing provided in compliance with Regulation 26 at openings used or created in the course of the operations, save as permitted by that Regulation:

Provided that where a stevedore or other person carrying on any of the processes of loading, unloading or coaling the ship or vessel, is responsible under the Docks Regulations, 1934, for the protection of a hatch for the

time being, that stevedore or other person shall be solely responsible for maintaining in position, as far as practicable, any protection provided in compliance with Regulation 26.

(8) It shall be the duty of every person employed to comply with such of the provisions of Regulations 14 (4), 19 (2), 28 (2), 29 (3), 30 (2), 46 (2), 48 (2), 54 (2), 55 (3), 56 (2), 57 (4) (*b*), 59 (3), 60 (3), 69 (6), 70 (4), 72 and 76 (2) as expressly impose a duty on him. It shall further be the duty of every person employed if he discovers any defect in any machinery, plant, equipment or appliance, to report such defect without unreasonable delay to his employer or foreman or to a person appointed by the employer under Regulation 81.

(9) For the purposes of the provisions in this Regulation which impose upon an employer a duty to comply with the requirements of certain specified Regulations in so far as they affect any person employed by him, the requirements of those Regulations, other than Regulations 48 to 51, 59, 60, 65 and 70, shall be deemed not to affect any person employed if and so long as his presence in any place is not in the course of performing any work on behalf of his employer or is not expressly or impliedly authorised or permitted by his employer.

Publication of Regulations

5.—(1) Every employer who employs persons in the operations shall ensure that a printed copy of these Regulations or of the prescribed abstract of these Regulations is kept posted in such characters and in such positions as to be conveniently read by the persons employed.

(2) Every such employer as aforesaid shall give a printed copy of these Regulations to any person employed by him and affected thereby on his application.

Part II

Means of Access and Staging

Safe access in general

6. Without prejudice to the other provisions of these Regulations there shall, so far as is reasonably practicable, be provided and maintained safe means of access to every place at which any person has at any time to work in connection with the operations, which means of 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 hand-hold insecure and of any obstruction.

General access to vessels in a shipyard

7. All main gangways giving general access to a vessel in a shipyard, whether from the ground or from a wharf or quay, and all cross gangways leading from such a main gangway on to the vessel, shall—

(*a*) be sufficiently wide having regard to the number of persons employed on or at the vessel; and

(*b*) be securely protected on each side to a height of at least two feet nine inches by strongly constructed upper and lower hand-rails and by a secure toe-board projecting at least six inches above the floor; and

(*c*) be of good construction, sound material and adequate strength; and

(*d*) be stable and, wherever practicable, of permanent construction; and

(*e*) be kept in position as long as required.

Access to dry dock

8.—(1) Every flight of steps giving access from ground level either to an altar or to the bottom of a dry dock shall be provided throughout on each side or in the middle with a substantial hand-rail. In the case of an open side, secure fencing to a height of at least two feet nine inches shall be provided by means of upper and lower rails, taut ropes or chains, or by other equally safe means. For the purposes of this paragraph a flight of steps which is divided into two by a chute for materials, with no space between either side of the chute and the steps, shall be deemed to be one flight of steps.

(2) Such hand-rails and fencing as aforesaid shall be kept in position save when and to the extent to which their absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for the movement of materials or vessels or for traffic or working, or for repair, but hand-rails or fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(3) This Regulation shall come into operation at the expiration of twelve months after the making of these Regulations.

Access to vessels at wharf or quay or in dry dock

9.—(1) If a ship is lying at a wharf or quay, or is in a dry dock for the purpose of undergoing any of the operations other than its construction or reconstruction, there shall be provided means of access for the use of persons employed at such times as they have to pass to, or from, the ship or to the wharf, quay or dock side, as follows—

(*a*) where reasonably practicable one or more ship's accommodation ladders or one or more soundly constructed gangways or similar constructions or a combination of any such ladders, gangways or constructions, being ladders, gangways and constructions not less than twenty-two inches wide, properly secured, and fenced throughout on each side to a clear height of two feet nine inches by means of upper and lower rails, taut ropes or chains or by other equally safe means, except that in the case of a ship's accommodation ladder, such fencing may be on one side only if the other side is properly protected by the ship's side ;

(*b*) in other cases one or more ladders of sound material and adequate length which shall be properly secured to prevent them from slipping.

(2) Where at any dry dock there is a gangway giving access from an altar of the dock to a vessel which is in the dock for the purpose of undergoing any of the operations, and the edge of the altar is unfenced, adequate hand-holds shall be available for any length of the altar which persons employed commonly use when passing between the gangway and the nearest flight of steps which gives access to ground level. This paragraph shall come into operation at the expiration of twelve months after the making of these Regulations.

Access between vessels

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

(2) Where the means of access provided consists of, or includes, a rope ladder, such means of access shall not be deemed to be safe unless in the case of the vessel with the higher free-board—

(*a*) the top step of the ladder is not more than twelve inches below the gunwale or top of the bulwark where the ladder gives immediate access to the vessel ; and

(*b*) at least one adequate and secure hand-hold is available at the position of boarding the vessel ; and

(*c*) a suitable gangway or stairway is provided leading from the top of the bulwark on to the deck, the gangway or stairway being so placed as to be as nearly as practicable opposite to the rope ladder.

Vessels used for access or as a working place

11.—(1) Where any person employed has to proceed to or from a ship by water, proper measures shall be taken to provide for his safe transport.

(2) Scows and floating platforms used for the purpose of the operations shall be of sound construction and properly maintained and shall not be overcrowded.

Access to and from bulwarks

12. Where there is a gangway leading on to a bulwark of a vessel, there shall be provided—

(*a*) wherever practicable, a platform at the inboard end of the gangway with safe means of access therefrom to the deck ; or

(*b*) where such a platform is not practicable, a second gangway or stairway leading from the bulwark on to the deck which shall either be attached to the end of the first-mentioned gangway or be placed contiguous to it, in which case means of access, securely protected by fencing, shall be provided from the one to the other.

Further provisions as to access

13.—(1) Where outside staging is erected in a shipyard, there shall be provided sufficient ladders giving direct access to the stages having regard to the extent of the staging and to the work to be done.

(2) Where a vessel is under construction or reconstruction and persons employed are liable to go forward or aft or athwartship across or along uncovered deck-beams, or across or along floors, sufficient planks shall be provided on those deck-beams or on those floors for the purpose of access to or from places of work, and sufficient and suitable portable ladders shall be provided so as to give access either from the ground or outer bottom plating to the top of the floor.

(3) Without prejudice to any other provision in these Regulations requiring a greater width, no footway or passageway constructed of planks shall be less than seventeen inches wide.

Ladders

14.—(1) Subject to paragraphs (2) and (3) of this Regulation, every ladder which affords a means of access, communication or support to a person or persons employed shall—

(*a*) be soundly constructed and properly maintained ; and

(*b*) be of adequate strength for the purpose for which it is used ; and

(*c*) be securely fixed either—

(i) as near its upper resting place as possible, or

(ii) where this is impracticable, at its base, or where such fixing is impracticable a person shall be stationed at the base of the ladder when in use to prevent it from slipping; and

(*d*) unless there is other adequate hand-hold, extend to a height of at least two feet six inches above the place of landing or the highest rung to be reached by the feet of any person working on the ladder, as the case may be, or, if this is impracticable, to the greatest practicable height.

(2) Requirements (*c*) and (*d*) of the preceding paragraph of this Regulation shall not apply to fixed ladders of a ship or to rope ladders. Effective measures by means of roping off or other similar means shall be taken to prevent the use of fixed ladders of a ship which do not comply with requirements (*a*) and (*b*) of that paragraph.

(3) Requirement (*c*) of paragraph (1) of this Regulation shall not apply in the case of a small portable ladder carried from place to place in the course of his work by a person employed.

(4) Any person employed who removes any ladder and sets it up in a new position shall, as regards that ladder, comply with requirement (*c*) of paragraph (1) of this Regulation.

(5) Rope ladders shall provide adequate foothold and, so far as is reasonably practicable, suitable provision shall be made for preventing such ladders from twisting.

Lashing of ladders

15.—(1) A fibre rope, or a rope made with strands consisting of wire cores covered with fibre, shall not be used to secure a ladder used for the purpose of the operations.

(2) A wire rope shall not be used to secure any such ladder unless its ends are ferruled, but this provision shall not apply in the case of an end which is so situated or protected that a person using the ladder is not liable to come into contact with it so as to suffer injury.

Material for staging

16.—(1) A sufficient supply of sound and substantial material and appliances shall be available in a convenient place or places for the construction of staging.

(2) All planks and other materials and appliances intended to be used or re-used for staging shall be carefully examined before being taken into use or re-use in any staging. Every examination required by this paragraph shall be carried out by a person competent for the purpose.

Staging, dry dock altars and shoring sills

17.—(1) All staging and every part thereof shall be of good construction, of suitable and sound material and of adequate strength for the purpose for which it is used and shall be properly maintained, and every upright and thwart shall be kept so fixed, secured or placed in position as to prevent, so far as is reasonably practicable, accidental displacement.

(2) All planks forming stages shall be securely fastened to prevent them from slipping unless they extend eighteen inches or more beyond the inside edge of the thwart or support on which they rest.

(3) All staging suspended on the inside of a vessel, all staging supported by brackets, all staging on the outside of a vessel at the fore and after ends and, where there is a gap in the staging caused by the inside uprights, any

plank in the way of such gap, shall be erected and adjusted by staging gangs specially, though not necessarily exclusively, employed for the purpose.

(4) All staging used in connection with the operations shall be inspected before use, and thereafter at regular and frequent intervals, by a competent person.

(5) All dry dock altars and shoring sills on or from which persons perform work in connection with the operations shall be of sound construction and properly maintained.

(6) All parts of stages, all parts of footways or passageways constructed of planks, and all parts of dry dock altars or shoring sills, being parts on or from which persons perform work in connection with the operations, shall so far as is reasonably practicable, be kept clear of all substances likely to make foothold or hand-hold insecure.

Upright used for hoisting block

18.—(1) If any upright forming part of staging is used as a fixing for a pulley block for hoisting material—

(*a*) it shall be properly housed in the ground or shall otherwise be adequately secured so as to prevent it from rising; and

(*b*) it shall be suitably protected against damage by the action of the chain or wire or other means of securing the pulley block to the upright.

(2) No upright forming part of staging shall be used as an anchorage for a lead pulley block, unless the upright is not likely to be displaced by such use.

Support of stages on planks

19.—(1) Planks supported on the rungs of ladders shall not be used to support stages.

(2) It shall be the duty of the persons employed to comply with the foregoing paragraph of this Regulation.

Suspended stages

20.—(1) Stages suspended by ropes or chains shall be secured as far as possible so as to prevent them from swinging.

(2) A fibre rope, or a rope made of strands consisting of wire cores covered with fibre, shall not be used for suspending a stage except that fibre ropes may be used in the case of a stage of which the suspension ropes are reeved through blocks.

(3) Chains, ropes, blocks and other gear used for the suspension of stages shall be of sound material, adequate strength and suitable quality, and in good condition.

(4) Appropriate steps shall be taken to prevent ropes or chains used for supporting a stage from coming into contact with sharp edges of any part of a vessel.

Boatswains' chairs

21.—(1) Boatswains' chairs and chains, ropes or other gear used for their suspension shall be of sound material, adequate strength and suitable quality and the chains, ropes or other gear shall be securely attached.

(2) Suitable measures shall be taken to prevent where possible the spinning of a boatswain's chair, to prevent the tipping of a boatswain's chair and to prevent any occupant falling therefrom.

Rising stages

22. All planks forming a rising stage at the bow end of a vessel shall be securely fastened to prevent them from slipping.

Width of stages

23. Without prejudice to the other provisions of these Regulations, all stages shall be of sufficient width as is reasonable in all the circumstances of the case to secure the safety of the persons working thereon.

Stages from which a person is liable to fall more than six feet six inches or into water

24.—(1) This Regulation applies to stages from which a person is liable to fall a distance of more than six feet six inches or into water in which there is a risk of drowning.

(2) Every stage to which this Regulation applies—

(*a*) shall so far as is reasonably practicable be closely boarded, planked or plated;

(*b*) shall be so constructed or placed that a person is not liable to fall as aforesaid through a gap in the staging not being a gap necessary and no larger than necessary having regard to the nature of the work being carried on;

(*c*) shall be at least seventeen inches wide.

(3) Every side of a stage to which this Regulation applies shall—

(*a*) if it is not a side immediately adjacent to any part of a vessel, be fenced (subject to the provisions of paragraphs (4) to (7) of this Regulation) with a guard rail or guard rails to a height of at least three feet above the stage, which rail or rails shall be so placed as to prevent so far as practicable the fall of persons from the stage or from any raised standing place on the stage; or

(*b*) if it is a side immediately adjacent to any part of a vessel, be placed as near as practicable to that part having regard to the nature of the work being carried on and to the nature of the structure of the vessel.

(4) In the case of stages which are suspended by ropes or chains, and which are used solely for painting, the fencing required by sub-paragraph (*a*) of the preceding paragraph may be provided by means of a taut guard rope or taut guard ropes.

(5) No side of a stage or, as the case may be, no part of the side of a stage need be fenced in pursuance of paragraph (3) (*a*) of this Regulation in cases where, and so long as, the nature of the work being carried on makes the fencing of that side or, as the case may be, that part impracticable.

(6) Guard rails provided in pursuance of paragraph (3) (*a*) of this Regulation may be removed for the time and to the extent necessary for the access of persons or for the movement of materials; but guard rails removed for either of these purposes shall be replaced as soon as practicable.

(7) Where it is not reasonably practicable to comply with the provisions of paragraph (3) (*a*) of this Regulation, the stage shall in cases where the limitations of space make this possible be at least twenty-five inches wide and, in other cases, as wide as those limitations permit.

(8) This Regulation shall come into operation at the expiration of twelve months after the making of these Regulations.

PART III

FURTHER PRECAUTIONS AGAINST FALLS OF PERSONS, MATERIALS AND ARTICLES

Fencing of dry docks

25.—(1) Fencing shall be provided at or near the edges of a dry dock at ground level, including edges above flights of steps and chutes for materials. The height of such fencing shall at no point be less than three feet or, in the case of fencing which was placed in such position before the making of these Regulations, two feet six inches.

(2) Such fencing as aforesaid shall be kept in position save when and to the extent to which its absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for the movement of materials or vessels or for traffic or working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(3) This Regulation shall come into operation at the expiration of twenty-four months after the making of these Regulations.

Protection of openings

26.—(1) Every side or edge of an opening in a deck or tank top of a vessel, being a side or edge which may be a source of danger to persons employed, shall, except where and while the opening is securely covered or where the side or edge is protected to a height of not less than two feet six inches by a coaming or other part of the vessel, be provided with fencing to a height of not less than three feet above the side or edge, and such fencing shall be kept in position save when and to the extent to which its absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for the movement of materials, or for traffic or working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(2) Paragraph (1) of this Regulation shall not apply—

(*a*) to that part of an opening in a deck or tank top which is at the head of a stairway or ladder-way intended to be used while the operations are being carried on; or

(*b*) to parts of a deck or tank top which are intended to be plated, except such parts where the plating has necessarily to be delayed so that the opening may be used for the purposes of the operations.

Fall of articles from stages

27. Where persons employed are at work outside a vessel on a stage adjacent to part of the structure of the vessel and other persons employed are at work directly beneath that stage, the planks of the stage shall be in such a position that no article liable to cause injury to the persons employed can fall between the planks, and the inside plank of the stage shall be placed as near as practicable to the structure of the vessel having regard to the nature of the work being carried on.

Boxes for rivets, etc.

28.—(1) Boxes or other suitable receptacles for rivets, nuts, bolts and welding rods shall be provided for the use of the persons employed.

(2) It shall be the duty of the persons employed to use, so far as practicable, the boxes or other suitable receptacles so provided.

Throwing down materials and articles

29.—(1) Subject to the provisions of paragraph (2) of this Regulation, parts of staging, tools and other articles and materials shall not be thrown down from a height where they are liable to cause injury to persons employed, but shall be properly lowered.

(2) When the work to be done necessarily involves the throwing down from a height of articles or materials, conspicuous notices shall be posted to warn persons from working or passing underneath the place from which articles or materials may fall, or the work shall be done under the direct supervision of a competent person in authority.

(3) No person employed shall throw down any articles or materials from a height except in accordance with the requirements of this Regulation.

Loose articles or materials

30.—(1) So far as practicable, steps shall be taken to minimise the risk arising from loose articles or materials being left lying about in any place from which they may fall on persons working or passing underneath.

(2) It shall be the duty of the persons employed to comply with the foregoing paragraph of this Regulation.

PART IV

RAISING AND LOWERING, ETC.

Application of Part IV

31. The provisions of this Part of these Regulations shall apply in the case of any chain, rope, lifting gear or lifting appliance used in raising or lowering, and the provisions of Regulation 33 shall apply in the case of any plant or gear used for anchoring or fixing a lifting appliance.

Operation of Part IV

32. In the case of a shipyard this Part of these Regulations shall, as respects the operations, be in substitution for the following provisions of the principal Act, that is to say, section 23 (which relates to chains, ropes and lifting tackle) and subsections (1), (2), (4), (5), (6) and (8) of section 24 (which relates to cranes and other lifting machines).

Construction of lifting appliances

33. Every lifting appliance, including all parts and working gear thereof, whether fixed or movable, and all plant or gear used for anchoring or fixing such an appliance, shall be of good construction, sound material, adequate strength and free from patent defect and shall be properly maintained :

Provided that plant or gear permanently attached to a structure may be used for anchoring or fixing any lifting appliance if that plant or gear is first thoroughly examined and appears to satisfy the requirements of this Regulation.

Tests, examinations and marking of lifting appliances

34.—(1) Subject to the provisions of paragraphs (4) and (5) of this Regulation, no lifting appliance shall be taken into use for the first time in the operations or after it has undergone any substantial alteration or repair, unless it has been tested and thoroughly examined by a competent person in the manner described in the Second Schedule to these Regulations. A certificate of such test and examination, in the prescribed form and containing

the prescribed particulars, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load or loads of the appliance, shall have been obtained and shall be available for inspection.

(2) Subject as aforesaid, every lifting appliance shall be thoroughly examined by a competent person at least once in every period of twelve months and a report of the results of every such examination, containing the prescribed particulars and signed by the person making or responsible for the carrying out of the examination, shall be kept in an approved manner and shall be available for inspection. In the case of lifting appliances in a shipyard, the person by whom the report is signed shall within twenty-eight days of the completion of the examination send to the inspector for the district a copy of the report in every case where the examination shows that the lifting appliance cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

(3) Subject as aforesaid, every lifting appliance shall have plainly marked upon it the safe working load. Every crane of variable operating radius (including a crane with a derricking jib) shall—

(*a*) have plainly marked upon it the safe working load at various radii of the jib 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*) be fitted with an accurate indicator, clearly visible to the driver, showing the radius of the jib or crab at any time and the safe working load corresponding to that radius.

(4) The foregoing provisions of this Regulation shall not apply to sheerlegs temporarily erected for the purpose of the operations.

(5) This Regulation shall not apply as respects—

(*a*) any lifting appliance to which the Docks Regulations, 1934, apply and which satisfies the requirements of those Regulations ; or

(*b*) any operation carried out on a ship not registered in the United Kingdom by means of any of the ship's engine room cranes where such cranes are used with the express authorisation and under the supervision of a competent person.

Construction of chains, ropes and lifting gear

35. Chains, ropes and lifting gear shall be of good construction, sound material, adequate strength and free from patent defect.

Testing and annealing of chains, etc.

36.—(1) No chain, rope or lifting gear shall be taken into use for the first time in the operations, or after it has undergone any substantial alteration or repair, unless it has been tested and thoroughly examined by a competent person in the manner described in the Second Schedule to these Regulations. A certificate of test and examination, in the prescribed form and containing the prescribed particulars, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load of the chain, rope or gear, shall have been obtained and shall be available for inspection:

Provided :

(*a*) that this paragraph shall not apply to a fibre rope or fibre rope sling ; and

(*b*) that a wire rope sling need not be tested and examined in accordance with this paragraph if the rope of which the sling is constructed has

been so tested and examined and all joins in the sling are by splices which satisfy the requirements of Regulation 39.

(2) A chain, ring, link, hook, shackle, swivel, eye-bolt or plate clamp being a chain, ring, link, hook, shackle, swivel, eye-bolt or plate clamp which has been lengthened, altered or repaired shall not be used unless, since such lengthening, alteration or repair, it has been tested and thoroughly examined by a competent person and a certificate of such test and examination, in the prescribed form and containing the prescribed particulars, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load, has been obtained and is available for inspection.

(3) This paragraph applies only to chains and lifting gear made of wrought iron. Chains and lifting gear to which this paragraph applies shall be annealed at least once in every fourteen months or, in the case of chains, slings, rings, links, hooks, shackles, or swivels being chains, slings, rings, links, hooks, shackles or swivels of half-inch bar or smaller material, at least once in every six months, so, however, that chains and lifting gear not in regular use need be annealed only when necessary; and the prescribed particulars of the annealing shall be kept in an approved manner and shall be available for inspection.

(4) Nothing in this Regulation shall apply to chains, ropes or lifting gear—

(*a*) to which the Docks Regulations, 1934 apply and which satisfy the requirements of those Regulations; or

(*b*) which are permanently attached to a structure.

Periodic examination of chains, ropes, etc.

37.—(1) Chains and lifting gear other than rope slings shall be thoroughly examined by a competent person at least once in every period of six months and reports of the results of such examinations, containing the prescribed particulars and signed by the person making or responsible for the carrying out of the examination, shall be kept in an approved manner and shall be available for inspection.

(2) Ropes and rope slings shall have been thoroughly examined by a competent person within the immediately preceding period of three months, or, in the case of a wire rope or wire rope sling in which such an examination has disclosed that a wire of the rope has broken, one month, and reports of the results of such examinations, containing the prescribed particulars and signed by the person making or responsible for the carrying out of the examination, shall be kept in an approved manner and shall be available for inspection.

(3) Nothing in this Regulation shall apply to chains, ropes or lifting gear—

(*a*) to which the Docks Regulations, 1934 apply and which satisfy the requirements of those Regulations; or

(*b*) which are permanently attached to a structure.

Indication of safe working loads

38.—(1) A table showing the safe working load of every chain, rope and article of lifting gear in use, and, in the case of a multiple sling, the safe working loads at different angles of the legs, shall be posted in a permanent position in the store in which the chains, ropes and articles of lifting gear are kept; so, however, that this Regulation shall not apply to any article of lifting gear if the safe working load thereof, or, in the case of a multiple sling, the safe working loads at different angles of the legs, is or are plainly marked upon it.

(2) Nothing in this Regulation shall apply to chains, ropes or lifting gear—

(*a*) to which the Docks Regulations, 1934 apply and which satisfy the requirements of those Regulations; or

(*b*) which are permanently attached to a structure.

Splices in wire ropes

39. 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. All tucks shall be against the lay of the rope:

Provided that this Regulation shall not operate to prevent the use of another form of splice which can be shown to be as efficient as the form of splice specified in this Regulation.

Load not to exceed safe working load

40. No lifting appliance or chain or rope or lifting gear shall be loaded beyond its safe working load except—

(*a*) for the purpose of making a test of the appliance, chain, rope or gear, and then only to such extent as is specified in the Second Schedule to these Regulations, or

(*b*) in the case of a crane, in exceptional circumstances 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—

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

(ii) a record of the overload is kept in the prescribed form.

Secureness of loads

41.—(1) Loads shall be securely suspended or supported whilst being raised or lowered, and all reasonable precautions shall be taken to prevent danger from slipping or displacement.

(2) Where by reason of the nature or position of the operation a load is liable, whilst being moved by a lifting appliance or lifting gear, to come into contact with any object so that the object may become displaced, special measures shall be adopted to prevent the danger so far as reasonably practicable.

Support of lifting appliances and lifting gear

42. Every lifting appliance and all lifting gear shall be adequately and suitably supported or suspended having regard to the purpose for which it is used.

Wire ropes with broken wires

43. No wire rope shall be used if in any length of ten diameters the total number of visible broken wires exceeds five per cent. of the total number of wires, or if the rope shows signs of excessive wear or corrosion or other serious defect.

Knotted chains, etc.

44.—(1) No chain or wire rope shall be used when there is a knot tied in any part thereof.

(2) No chain which is shortened or joined to another chain by means of bolts and nuts shall be used:

Provided that this does not exclude the use of a chain bolted or joined to another chain by an approved and properly constructed attachment.

Precautions against damage to chains and ropes

45. Appropriate steps shall be taken to prevent, so far as practicable, the use of chains or ropes for raising or lowering in circumstances in which they are in or liable to come into contact with sharp edges of plant, materials or loads, or with sharp edges of any part of the vessel on which work is being carried out.

Loads on lifting appliances

46.—(1) No load shall be left suspended from a lifting appliance other than a self-sustaining, manually operated lifting appliance unless there is a competent person in charge of the appliance while the load is so left.

(2) It shall be the duty of the persons employed to comply with the foregoing paragraph of this Regulation.

Heavy loads

47. Where there is reason to believe that a load being lifted or lowered on a lifting appliance weighs more than twenty tons its weight shall be ascertained by means of an accurate weighing machine or by the estimation of a person competent for the purpose, and shall be clearly marked on the load :

Provided that this Regulation shall not apply to any load lifted or lowered by a crane which has either a fixed or a derricking jib and which is fitted with an approved type of indicator in good working order which—

(*a*) indicates clearly to the driver or person operating the crane when the load being carried approaches the safe working load of the crane for the radius of the jib at which the load is carried ; and

(*b*) gives an efficient sound signal when the load moved is in excess of the safe working load of the crane at that radius.

PART V

PRECAUTIONS AGAINST ASPHYXIATION, INJURIOUS FUMES OR EXPLOSIONS

Ventilation of confined spaces

48.—(1) All reasonably practicable steps shall be taken to secure and maintain the adequate ventilation of any confined space in which persons are employed.

(2) Compressed oxygen shall not be used to ventilate any confined space in a vessel and no person employed shall use compressed oxygen for this purpose.

Precautions against inflammable gas or vapour

49. Where in any confined space in any part of a vessel inflammable solvents are used in the application or removal of paint or there is carried on any other process liable to produce inflammable gas or vapour, effective and suitable provision shall be made by adequate ventilation or by other means to prevent the formation of an inflammable atmosphere in the confined space.

Precautions against shortage of oxygen

50. No person shall enter or remain in any confined space in a vessel, being a confined space in which there is reason to apprehend that the

proportion of oxygen in the air is so low as to involve risk of persons being overcome, unless either—

(*a*) the space has been and remains adequately ventilated and a responsible person has tested it and certified that it is safe for entry without breathing apparatus, or

(*b*) he is wearing a breathing apparatus of a type approved for the purpose of this Regulation.

Precautions against dangerous fumes

51.—(1) No person shall enter or remain in any confined space in any part of a vessel, being a confined space in which there is reason to apprehend the presence of any dangerous fumes to such extent as to involve risk of persons being overcome thereby, unless he is wearing a breathing apparatus of a type approved for the purpose of this Regulation, or a responsible person has certified the space as being, for a specified period, safe for entry without breathing apparatus, and the period so specified has not expired; but no person shall enter or remain in the space without breathing apparatus unless he has been warned when the period so specified will expire.

(2) A space shall not be certified under paragraph (1) of this Regulation unless—

(*a*) effective steps have been taken to prevent any ingress of dangerous fumes, and

(*b*) any sludge or other deposit liable to give off dangerous fumes has been removed and the space contains no other material liable to give off dangerous fumes, and

(*c*) the space has been adequately ventilated and tested for dangerous fumes and has a supply of air adequate for respiration;

but no account shall be taken for the purposes of sub-paragraph (*b*) of this paragraph of this Regulation of any deposit or other material liable to give off dangerous fumes in insignificant quantities only.

(3) Where any person is employed in any confined space to which paragraph (1) of this Regulation applies, there shall be provided and kept readily available—

(*a*) not less than two sets of breathing apparatus of a type approved for the purpose of this Regulation on board the vessel; and

(*b*) not less than two additional sets of such apparatus off the vessel; and

(*c*) a lamp or torch of a safety type approved for the purpose of this Regulation with each set of breathing apparatus; and

(*d*) not less than two belts and ropes suitable for the purpose of rescue.

The apparatus, belts, ropes, lamps and torches shall be maintained and shall be thoroughly examined, at least once a month or at such other intervals as may be prescribed, by a competent person; and a report on every such examination, signed by the person making the examination and containing the prescribed particulars, shall be kept available for inspection.

(4) A sufficient number of the persons employed shall be trained and practised in the use of the apparatus mentioned in the preceding paragraph of this Regulation and in a method of restoring respiration.

Application of Regulations 50 *and* 51

52. In the case of a shipyard, the provisions of Regulations 50 and 51 shall, as respects the operations carried out in confined spaces formed by the

structure of any ship or vessel, or of part of any ship or vessel, under construction or repair, be in substitution for the provisions of section 27 of the principal Act (which relates to precautions in places where dangerous fumes are liable to be present).

Removal of dust or fumes

53.—(1) Where in connection with any process carried on on board, in or on the outside of a vessel or part of a vessel there is given off any dust or fume or other impurity of such a character and to such extent as to be likely to be injurious to the persons employed, all practicable measures shall be taken to protect the persons employed against inhalation of the dust or fume or other impurity, and in particular, where practicable, exhaust appliances shall be provided and maintained, as near as possible to the point of origin of the dust or fume or other impurity, to protect such persons against such inhalation.

(2) In the case of a shipyard the provisions of this Regulation shall, as respects the operations carried on on board, in or on the outside of a vessel or part of a vessel, be in substitution for the provisions of section 47 of the principal Act (which relates to the removal of dust or fumes).

Rivet fires

54.—(1) Rivet fires shall not be taken into or used in or remain in any confined space on board or in a vessel unless there is adequate ventilation to prevent the accumulation of fumes.

(2) No person employed shall move a rivet fire into any confined space on board or in a vessel unless he has been authorised by his employer to move the fire into that space.

Placing of gas cylinders and acetylene generators

55.—(1) No cylinder which contains or has contained oxygen or any inflammable gas or vapour under pressure, and no acetylene generating plant, shall be installed or placed within fifteen feet of any substantial source of heat (including any boiler or furnace when alight) other than the burner or blow-pipe operated from the cylinder or plant.

(2) No such cylinder and no such plant shall be taken below the weather deck in the case of a vessel undergoing repair, or below the topmost completed deck in the case of a vessel under construction, unless it is installed or placed in a part of the vessel which is adequately ventilated to prevent any dangerous concentration of gas or fumes.

(3) It shall be the duty of the persons employed to comply with the foregoing provisions of this Regulation.

Further provision as to acetylene generators

56.—(1) The following provisions shall be observed as respects any acetylene generating plant—

(*a*) no such plant shall be installed or placed in any confined space unless effective and suitable provision is made for securing and maintaining the adequate ventilation of that space so as to prevent, so far as practicable, any dangerous accumulation of gas ;

(*b*) any person attending or operating any such plant shall have been fully instructed in its working and a copy of the maker's instructions for that type of plant shall be constantly available for his use ;

(*c*) the charging and cleaning of such plant shall so far as practicable be done during daylight ;

(*d*) partly spent calcium carbide shall not be re-charged into an acetylene generator.

(2) No person (whether or not a person employed) shall smoke or strike a light or take a naked light or a lamp in or into any acetylene generator house or shed or in or into dangerous proximity to any acetylene generating plant in the open air or on board a vessel :

Provided that this paragraph shall not apply as respects a generator in the open air or on board a vessel which, since it was last charged, has been thoroughly cleansed and freed from any calcium carbide and acetylene gas.

(3) A prominent notice prohibiting smoking, naked lights and lamps shall be exhibited on or near every acetylene generating plant whilst it is charged or is being charged or is being cleaned.

Construction of plant for cutting, welding or heating metal

57.—(1) Pipes or hoses for the supply of oxygen or any inflammable gas or vapour to any apparatus for cutting, welding or heating metal shall be of good construction and sound material and be properly maintained.

(2) Such pipes or hoses shall be securely attached to the apparatus and other connections by means of suitable clips or other equally effective appliances.

(3) Efficient reducing and regulating valves for reducing the pressure of the gases shall be provided and maintained in connection with all cylinders containing oxygen or any inflammable gas or vapour under pressure while the gases or vapours from such cylinders are being used in any process of cutting, welding or heating metal.

(4) Where acetylene gas is used for cutting, welding or heating metal—

(*a*) a properly constructed and efficient back-pressure valve and flame arrester shall be provided and maintained in the acetylene supply pipe between each burner or blow-pipe and the acetylene generator, cylinder or container from which it is supplied, and shall be placed as near as practicable to the burner or blow-pipe, except that these requirements shall not apply where an acetylene cylinder serves only one burner or blow-pipe ; and

(*b*) any hydraulic valve provided in pursuance of the preceding sub-paragraph shall be inspected on each day by every person who uses the burner or blow-pipe on that day and it shall be the duty of every person employed who uses the burner or blow-pipe to inspect the hydraulic valve accordingly.

(5) The operating valves of burners or blow-pipes to which oxygen or any inflammable gas or vapour is supplied for the purpose of cutting, welding or heating metal shall be so constructed, or the operating mechanism shall be so protected, that the valves cannot be opened accidentally.

Precautions after use of apparatus for cutting, welding or heating metal

58.—(1) In the case of apparatus on board a vessel and used for cutting, welding or heating metal with the aid of oxygen or any inflammable gas or vapour supplied under pressure, the precautions specified in the following paragraphs of this Regulation shall be taken when such use ceases for the day or for a substantial period and the apparatus is to be left on board, but need not be taken when such use is discontinued merely during short interruptions of work. The requirements in paragraphs (3) and (4) of this Regulation shall not apply during a meal interval.

(2) Supply valves of cylinders, generators and gas mains shall be securely closed.

(3) Movable pipes or hoses used for conveying oxygen or inflammable gas or vapour shall, in the case of a vessel undergoing construction, be brought to the topmost completed deck or, in the case of a vessel undergoing repair, to a weather deck or in either case to some other place of safety which is adequately ventilated to prevent any dangerous concentration of gas or fumes :

Provided that where, owing to the nature of the work, it is impracticable to comply with the foregoing requirements of this paragraph, the pipes or hoses shall be disconnected from cylinders, generators or gas mains, as the case may be.

(4) When cylinders or acetylene generating plant have been taken below deck as permitted by paragraph (2) of Regulation 55, such cylinders or acetylene generating plant shall be brought to a weather deck or, in the case of a vessel undergoing construction, to the topmost completed deck.

Naked lights on oil-carrying vessels

59.—(1) Subject to the provisions of paragraph (2) of this Regulation and to the provisions of Regulation 66, and without prejudice to the provisions of Regulations 64 and 65, no naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of this Regulation) and no heated rivet—

(*a*) shall be permitted to be applied to, or to be in, any part of a tanker unless, since oil was last carried in that tanker, a naked light certificate has been obtained and is in force in respect of those parts of the tanker for which, in the opinion of a competent analyst, a naked light certificate is necessary :

Provided that a naked light, fire, lamp or heated rivet of a kind specified in writing by a competent analyst may be applied to, or be in, any part of the tanker so specified ;

(*b*) shall be permitted—

(i) to be in any oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than seventy-three degrees Fahrenheit (Abel closed test) or was liquid methane, liquid propane or liquid butane, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil-tank and of any oil-tank, compartment or space adjacent thereto ;

(ii) to be applied to the outer surface of any oil-tank on board or in a vessel in which oil-tank the oil last carried was such oil as aforesaid, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil-tank ;

(iii) to be applied to the outer surface of, or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel in which oil-tank the oil last carried was such oil as aforesaid, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that compartment or space :

Provided that where in any such case referred to in paragraph (i), (ii), or (iii) of this sub-paragraph a competent analyst has certified that daily naked light certificates are unnecessary or are necessary only to a specified extent, such a daily certificate need not be obtained or, as the case may be, need only be obtained to the specified extent ;

(*c*) shall be permitted to be applied to the outer surface of, or to be in, any oil-tank on board or in a vessel unless, since oil was last carried in that oil-tank, a naked light certificate has been obtained and is in force in respect of that oil-tank;

(*d*) shall be permitted to be applied to the outer surface of, or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel unless, since oil was last carried as cargo in that oil-tank, a naked light certificate has been obtained and is in force in respect of that compartment or space.

(2) Notwithstanding anything in paragraph (1) of this Regulation, heated rivets may be permitted in any place without a naked light certificate being in force in respect of that place if expressly so authorised by a competent analyst who certifies that after adequate and suitable testing he is satisfied having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere becoming inflammable, that the place is sufficiently free from inflammable vapour; but such heated rivets shall, where practicable, be passed through tubes.

(3) No person (whether or not a person employed) shall introduce, have or apply a naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of this Regulation) or any heated rivet into, in or to any place where they are prohibited by this Regulation.

(4) In this Regulation the expression "competent analyst" means an analyst who is competent to give a naked light certificate.

Entering oil-tanks

60.—(1) No person (other than an analyst entering with a view to issuing a certificate of entry) shall, unless he is wearing a breathing apparatus of a type approved for the purpose of this Regulation, enter or remain in an oil-tank on board or in a vessel unless, since the oil-tank last contained oil, a certificate of entry has been obtained and is in force in respect of the tank.

(2) Without prejudice to paragraph (1) of this Regulation, no person (other than an analyst entering as aforesaid) shall be allowed or required to enter or remain in an oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than seventy-three degrees Fahrenheit (Abel closed test) unless, since the oil-tank last contained oil, an analyst has certified that the atmosphere is sufficiently free from inflammable mixture.

(3) It shall be the duty of the persons employed to comply with the foregoing provisions of this Regulation.

(4) The provisions of this Regulation are without prejudice to the requirements of Regulations 50 and 51.

Duration of certificates

61. Any naked light certificate or certificate of entry may be issued subject to a condition that it shall not remain in force after a time specified in the certificate.

Posting of certificates

62. Every employer or shipowner for whom a naked light certificate or a certificate of entry is obtained shall ensure that the certificate or a duplicate thereof is posted as soon as may be and remains posted in a position where it may be conveniently read by all persons concerned.

Cleaning of oil-tanks

63.—(1) Subject to the provisions of Regulation 66, before a test for inflammable vapour is carried out with a view to the issue of a naked light certificate for the purposes of Regulation 59 in respect of an oil-tank on board or in a vessel, that oil-tank shall, since oil was last introduced into the tank, be cleaned and ventilated in accordance with paragraph (2) of this Regulation.

(2) The said cleaning and ventilation shall be carried out by the following methods:—

(*a*) the oil-tank shall be treated in such manner and for such period as will ensure the vaporisation of all volatile oil;

(*b*) all residual oil and any sludge or other deposit in the oil-tank shall be removed therefrom;

(*c*) after the oil-tank has been so cleaned—

(i) all covers of manholes and other openings therein shall be removed and it shall be thoroughly ventilated by mechanical or other efficient means with a view to the removal of all oil vapour; and then

(ii) the interior surfaces, if any deposit remains thereon, shall be washed or scraped down.

Invalidation of certificates

64.—(1) If during the course of work in, or to the outer surface of, any part of a tanker or aircraft carrier, any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in that part of the tanker or aircraft carrier, that work shall be suspended and thereafter any certificate of entry previously issued in respect of any oil-tank in that part and any naked light certificate previously issued in respect of that part shall be no longer in force.

(2) If (in the case of a vessel other than a tanker or aircraft carrier) during the course of work in any oil-tank or in any compartment or space adjacent thereto, any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in the oil-tank or in any compartment or space adjacent thereto, work in the oil-tank and in the compartments and spaces adjacent thereto shall be suspended and thereafter any certificate of entry previously issued in respect of the oil-tank and any naked light certificate previously issued in respect of the oil-tank or any compartment or space adjacent thereto shall be no longer in force.

Provisions as to work in other compartments or spaces

65.—(1) Without prejudice to the other provisions of these Regulations, if the presence of oil in such quantity and in such position as to be likely to give rise to fire or explosion is detected in any part of a vessel, being a part to which this Regulation applies and in which repairs of the following kind are to be or are being undertaken, that is to say, repairs involving the use of a naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of Regulation 59) or of a heated rivet, such repairs shall not be started or continued until a naked light certificate has been issued or, as the case may be, reissued in respect of that part of the vessel.

(2) This Regulation shall apply to bilges, shaft tunnels, pump rooms, lamp rooms, and to compartments and spaces other than those to which paragraph (1) (*d*) of Regulation 59 applies.

Exceptions from Regulations 59 and 63

66.—(1) The provisions of paragraphs (1) (*c*) and (1) (*d*) of Regulation 59 as to naked light certificates and the provisions of Regulation 63 as to the cleaning and ventilation of oil-tanks, shall not apply in the case of minor repairs to be carried out—

(*a*) to the outer surface of an oil-tank on board or in a vessel; or

(*b*) in or to the outer surface of any compartment or space adjacent to any such oil-tank,

in cases where the only oil last carried was oil having a flash point of one hundred and fifty degrees Fahrenheit or above (Pensky-Martens closed test):

Provided that adequate areas of the interior and exterior surfaces of the oil-tank or, as the case may be, of the compartment or space adjacent thereto, in the immediate neighbourhood of the part to be repaired shall be freed from oil or sludge; so, however, that as respects repairs to be carried out to the outer surface of an oil-tank below the level of any oil in that tank only the exterior surface of that oil-tank need be so freed.

In every case to which this paragraph applies appropriate special precautions shall be taken for preventing and extinguishing fire.

(2) The provisions of paragraphs (1) (*a*) and (1) (*b*) (iii) of Regulation 59 as to naked light certificates shall not apply in the case of minor repairs involving the application of a naked light to the outer surface only of the hull of a tanker in which the only oil last carried as cargo was liquid methane, liquid propane or liquid butane, being liquid methane, liquid propane or liquid butane at atmospheric pressure, provided that a naked light certificate has previously been obtained on the same day and is in force in respect of the space between the hull and any oil-tank on board, and the space is adequately and continuously ventilated by mechanical means so as to ensure that an inflammable concentration of gas or vapour cannot be formed in it during the period for which the naked light certificate is in force.

(3) The provisions of paragraph (1) (*a*) of Regulation 59 shall not apply to any part of a tanker where naked lights were allowed when the vessel was in service afloat:

Provided that the said paragraph (1) (*a*) shall apply whilst any oil-tank in the tanker is open except an oil-tank in respect of which a naked light certificate is in force.

(4) The provisions of paragraph (1) (*a*) of Regulation 59 shall not apply in the case of tankers in which the only oil last carried was oil used for the purpose of a basin trial or a trial trip.

Part VI

Miscellaneous Safety Provisions

Fencing of Machinery

67.—(1) All motors, gear-wheels, chain and friction gearing and shafting, being motors, gear-wheels, chain and friction gearing and shafting on a vessel which are used for the purpose of the operations shall (unless it can be shown that by their position and construction they are equally safe to every person employed as they would be if securely fenced) be securely fenced so far as is practicable but without infringing any requirements imposed by or under the Merchant Shipping Acts, 1894 to 1958, in respect of life-saving appliances.

(2) Every dangerous part of any machinery used for the purpose of the operations to which the preceding paragraph of this Regulation does not apply, being machinery in a place, or part of a vessel, to which Part II of the principal Act does not apply, shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed as it would be if securely fenced.

(3) Nothing in this Regulation shall require any part of the machinery on a vessel which is used for the purpose of the operations to be fenced during an examination of that part or during any lubrication, adjustment or repair shown by such examination to be immediately necessary, being an examination, lubrication, adjustment or repair which is carried out by a competent person who has attained the age of eighteen, and which it is necessary to carry out while the part of the machinery is in motion.

(4) In the case of a shipyard, the provisions of paragraph (1) of this Regulation shall, as respects the dangerous parts of any machinery to which that paragraph applies, be in substitution for the provisions of subsection (1) of section 14 of the principal Act (which relates to the fencing of dangerous parts of machinery).

Air Receivers

68.—(1) The provisions of section 31 of the principal Act (which relates to air receivers) shall apply to air receivers used for the purpose of the operations (other than fixed air receivers permanently installed in a ship).

(2) In the case of a shipyard, the provisions of this Regulation shall be in substitution for the provisions of section 31 of the principal Act.

Lighting

69.—(1) All parts of a vessel and all other places where the operations are being carried on, and all approaches to such parts and to places to which a person employed may be required to proceed in the course of his employment, shall be sufficiently and suitably lighted; so, however, that due regard shall be had to the safety of the vessel and cargo and of the navigation of other vessels and to any local statutory requirements as to the lighting of the harbour or dock.

(2) Where in a harbour or wet dock the control of a ship apart from the operations remains with the shipowner the ship's permanent lighting shall be maintained in operation by him to the extent that it may be required for the purpose of lighting—

(*a*) the ship; and

(*b*) the means of access to the ship where that access is provided by the shipowner:

Provided that if the shipowner has given written notice to every contractor undertaking any of the operations for which the ship's permanent lighting is required that for a specified period (for reasons connected with the management or working of the ship or the use, repair or maintenance of its equipment) the permanent lighting will not be maintained in operation by him or will be maintained in operation by him only to a specified extent, the foregoing provisions of this paragraph shall for that period not apply or, as the case may be, shall for that period apply only to the extent that the permanent lighting is maintained in operation.

In this paragraph—

"contractor" means a person who has contracted with the shipowner or his agent to carry out any of the operations; and

"shipowner" means the shipowner or master or officer in charge.

(3) No person shall be held not to have complied with the foregoing provisions of this Regulation by reason only of a failure of the electricity supply, provided that in the case of such failure alternative means of lighting, which shall be sufficient and suitable in the circumstances, shall be provided as soon as practicable.

(4) Portable lamps (including hand lamps carried by persons employed) used for the purposes of the operations shall be maintained in an efficient state, in efficient working order and in good repair, and in the case of lamps in which liquid fuel is used the lamp shall have a properly fitting screw lid or stopper and be so constructed as to prevent, so far as practicable, the development of leaks.

(5) Petroleum spirit or naphtha shall not be used in lamps used for lighting and only paraffin or another liquid having a flash point over one hundred degrees Fahrenheit (Abel closed test or Pensky-Martens closed test, whichever is appropriate) shall be so used.

(6) No person (whether or not a person employed) shall, unless duly authorised or in case of necessity, interfere with or remove any means of lighting provided in pursuance of this Regulation.

Work in boilers, etc.

70.—(1) No work shall be permitted in any boiler, boiler-furnace or boiler-flue until it has been sufficiently cooled to make work safe for the persons employed.

(2) Before any person employed enters any steam boiler which is one of a range of two or more steam boilers—

(*a*) all inlets through which steam or hot water might otherwise enter the boiler from any other part of the range shall be disconnected from that part, or

(*b*) all valves or taps controlling such entry shall be closed and securely locked.

(3) While persons employed remain in any steam boiler to which paragraph (2) of this Regulation applies all such inlets as are referred to in that paragraph shall remain disconnected or all such valves or taps as are therein referred to shall remain closed and securely locked.

(4) No person employed shall be allowed or required to enter or remain in, and no person shall enter or remain in, any steam boiler to which paragraph (2) of this Regulation applies unless the provisions of that paragraph are being complied with.

Hatch beams

71. The hatch beams of any hatch in use for the operations shall, if not removed, be adequately secured to prevent their displacement.

Jumped-up bolts

72. Bolts which have been jumped-up and re-screwed shall not be used for securing plates on the sides of vessels, and no person employed shall use such bolts for this purpose.

PART VII

PROTECTIVE WEAR

Hand Protection

73. Adequate protection for the hands shall be available for all persons employed when using cutting or welding apparatus to which oxygen or any inflammable gas or vapour is supplied under pressure or when engaged in machine caulking or machine riveting or in transporting or stacking plates or in handling plates at machines.

Protection in connection with cutting or welding

74.—(1) Suitable goggles fitted with tinted eye-pieces shall be provided and maintained for all persons employed when using cutting or welding apparatus to which oxygen or any inflammable gas or vapour is supplied under pressure.

(2) There shall be provided and maintained for the use of all persons employed when engaged in the process of electric welding—

(*a*) suitable helmets or suitable head-shields or suitable hand-shields to protect the eyes and face from hot metal and from rays likely to be injurious, and

(*b*) suitable gauntlets to protect the hands and forearms from hot metal and from rays likely to be injurious.

(3) When electric welding is in progress at any place and persons other than those engaged in that process are employed in a position where the rays are likely to be injurious to their eyes, screens shall, where practicable, be provided at that place for the protection of those persons. Where it is not practicable to provide effective protection of those persons by screening, suitable goggles shall be provided for their use.

Eye protection for other processes

75. Suitable goggles or effective screens shall be provided to protect the eyes of all persons employed in any of the following processes :—

(*a*) the cutting out or cutting off of cold rivets or bolts from boilers or other plant or from ships ;

(*b*) the chipping, scaling or scurfing of boilers or ships' plates ;

(*c*) drilling by means of portable machine tools ;

(*d*) dry grinding of metals.

Protection against dust

76.—(1) Breathing apparatus of a type approved for the purpose of this Regulation shall be provided and maintained for the use of every person employed in any of the following kinds of work :—

(*a*) the application of asbestos by means of a spray ;

(*b*) the breaking down for removal of asbestos lagging ;

(*c*) the cleaning of sacks or other containers which have contained asbestos ;

(*d*) the cutting of material containing asbestos by means of portable power driven saws ;

(*e*) the scaling, scurfing or cleaning of boilers, combustion chambers or smoke boxes, where his work exposes him to dust of such a character and to such an extent as to be likely to be injurious or offensive to persons employed in such work.

(2) It shall be the duty of the persons employed in any of the kinds of work specified in this Regulation to use the breathing apparatus provided for their use in pursuance of this Regulation.

PART VIII

MISCELLANEOUS HEALTH AND WELFARE PROVISIONS

Prohibition of employment of young persons in certain processes

77. No young person shall be employed in—

(*a*) the application of asbestos by means of a spray ; or

(*b*) the breaking down for removal of asbestos lagging ; or

(*c*) the cleaning of sacks or other containers which have contained asbestos ; or

(*d*) the cutting of material containing asbestos by means of portable power driven saws ; or

(*e*) the scaling, scurfing or cleaning of boilers, combustion chambers or smoke boxes, where his work exposes him to dust of such a character and to such an extent as to be likely to be injurious or offensive to persons employed in such work.

Lead paint

78. Lead paint shall not be applied in the form of a spray in the interior painting of any part of a ship or vessel.

Stretchers, ambulances and ambulance rooms, etc.

79.—(1) In every shipyard there shall be provided and kept readily available—

(*a*) a sufficient number of suitably constructed sling stretchers or other similar appliances for raising injured persons ; and

(*b*) a sufficient number of carrying or wheel stretchers ; and

(*c*) a sufficient supply of suitable reviving apparatus and oxygen,

and the stretchers, appliances and apparatus so provided shall be properly maintained.

(2) In every shipyard there shall always be readily available during working hours a responsible person or responsible persons whose duty it is to summon an ambulance or other means of transport if needed in cases of accident or illness. Legible copies of a notice indicating that person or, as the case may be, those persons shall be affixed in prominent positions in every shipyard.

(3) In every shipyard other than a public dry dock—

(*a*) in which the number of persons employed normally exceeds five hundred ; or

(*b*) in which the number of persons employed normally exceeds one hundred and which is more than ten miles from a hospital,

there shall be provided and maintained in good order and in clean condition a properly constructed ambulance room containing at least the equipment specified in the Third Schedule to these Regulations. The room shall be used only for the purpose of treatment and rest and shall be in the charge of a suitably qualified person who shall always be readily available during working hours, and a record shall be kept of all cases of accident or sickness treated at the room.

PART IX

TRAINING AND SUPERVISION

Young persons

80.—(1) No young person shall, until he has been employed in a shipyard or shipyards for at least six months, be employed in connection with the operations in a shipyard on a stage from which, or in any part of a ship where, he is liable to fall a distance of more than six feet six inches, or into water in which there is a risk of drowning.

(2) Any young person under the age of sixteen shall, when employed in the operations in a shipyard, be placed under the charge of an experienced workman.

Safety supervision

81.—(1) In the case of every shipyard other than a public dry dock, being a shipyard where the number of persons employed regularly or from time to time exceeds five hundred, a person experienced in the work of such yards shall be appointed and employed exclusively to exercise general supervision of the observance of these Regulations and to promote the safe conduct of the work generally.

(2) This Regulation shall not be construed as preventing two or more employers from jointly appointing the same person or persons to perform some or all of the aforesaid duties for those employers.

Dated this 20th day of October, 1960.

John Hare,
Minister of Labour.

FIRST SCHEDULE

Regulation 3 (2)

MANNER IN WHICH, FOR THE PURPOSE OF THE DEFINITION OF "LEAD PAINT", MATERIAL IS TO BE TREATED WITH A VIEW TO ASCERTAINING THE PERCENTAGE OF COMPOUND OF LEAD PRESENT

The material is to be treated with suitable solvents to remove the oil, varnish and other media, and the residue to be dried at one hundred degrees Centigrade and thoroughly mixed. A weighed quantity of this extracted, dried and mixed material is to be continuously shaken for one hour, at the common temperature, with one thousand times its weight of an aqueous solution of hydrochloric acid containing 0·25 per cent. by weight of hydrogen chloride. This solution is thereafter to be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate is then to be precipitated as lead sulphide and weighed as lead sulphate.

SECOND SCHEDULE

Regulations 34 (1), 36 (1) and 40

MANNER OF TEST AND EXAMINATION BEFORE TAKING ANY CHAIN, WIRE ROPE, LIFTING APPLIANCE OR LIFTING GEAR INTO USE

(*a*) Every winch, and every derrick with the whole of the gear accessory thereto, shall be tested with a proof load which shall not be less than the following—

Safe working load	*Proof load*	
Under 20 tons	25 per cent.	in excess of the safe working load
20-50 tons	5 tons	
over 50 tons	10 per cent.	

In the case of a derrick with its accessory gear the proof load shall be applied as follows:—(i) where reasonably practicable by hoisting movable weights; or (ii) in other cases by maintaining the load by means of an accurate spring or hydraulic balance or similar device for a period of not less than five minutes. Where movable test weights are used the derrick shall be swung, with the load suspended, as far as possible in both directions. Where a spring or hydraulic balance or similar device is employed it shall be sufficient if the proof load is applied with the derrick swung as far as practicable first in one direction and then in the other. In each case the derrick shall be tested at the smallest angle to the horizontal at which it will operate and this angle shall be stated in the certificate of the test.

(*b*) Every crane, crab, sheer-legs, teagle, transporter or runway, with its accessory gear, shall be tested with a proof load which shall not be less than the following—

Safe working load	*Proof load*	
Under 20 tons	25 per cent.	in excess of the safe working load
20-50 tons	5 tons	
over 50 tons	10 per cent.	

In the case of a crane having a variable radius it shall be tested with a proof load applied at the maximum and minimum working radii. At each such radius the crane shall be swung as far as possible in both directions with the corresponding proof load suspended. In the case of hydraulic cranes 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.

(*c*) Every article of lifting gear (whether it is accessory to any lifting appliance or not) and every pulley block other than a pulley block specially constructed for use with a crane to which it is permanently attached, and every chain shall be tested with a proof load at least equal to that shown against it in the following table:—

Article of gear	*Safe working load*	*Proof load*
Chain sling		
Rope sling		
Plate clamp		
Ring		
Link		Twice the safe working load
Hook (other than a ramshorn hook)		
Shackle		
Swivel		
Eye-bolt		
Ramshorn hook	Under 50 tons ...	Twice the safe working load
	50 tons to 100 tons	Safe working loads plus 50 tons
	Over 100 tons ...	One and a half times the safe working load
Pulley blocks		
Single sheave block ...		Four times the safe working load
Multiple sheave block with safe working 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
Chains (other than calibrated load chains)		Twice the safe working load
Calibrated load chains		One and a half times the safe working load

(*d*) After being tested as aforesaid, every lifting appliance with the whole of the gear accessory thereto, every article of lifting gear and every chain shall be examined, and the sheaves and the pins of the pulley blocks shall be removed for the purpose of the examination, to see that no part is injured or permanently deformed by the test.

(*e*) In the case of wire ropes, a sample shall be tested to destruction.

THIRD SCHEDULE

Regulation 79 (3)

EQUIPMENT OF AMBULANCE ROOMS

(1) A glazed sink with hot and cold water available during working hours.
(2) A table with smooth top.
(3) Means for sterilising instruments.
(4) A supply of suitable dressings, bandages and splints.
(5) A couch.
(6) A stretcher.
(7) Blankets and hot-water bottles.
(8) A foot bath.

EXPLANATORY NOTE

(This Note is not part of the Regulations, but is intended to indicate their general purport.)

These Regulations revoke the Shipbuilding Regulations, 1931, which were designed for the safety, health and welfare of persons employed in the construction and repair of ships in shipbuilding yards. The present Regulations, which are wider in scope, are designed for the safety, health and welfare of persons employed in the construction and repair of ships and vessels in a yard or dry dock and in the construction and repair of ships (but not of vessels other than ships) in a harbour or wet dock.