STATUTORY INSTRUMENTS

1980 No. 543

MERCHANT SHIPPING

SAFETY

The Merchant Shipping (Pilot Ladders and Hoists) Regulations 1980

Made - - - -	17*th April* 1980
Laid before Parliament	2*nd May* 1980
Coming into Operation	25*th May* 1980

The Secretary of State, after consultation with the persons referred to in section 22(2) of the Merchant Shipping Act 1979**(a)**, in exercise of the powers conferred on him by subsections (1), (3) (*a*), (*d*), (*e*), (*g*) and (*o*), (4) (*a*) (*b*) and (*c*), (6) (*a*) and (*b*) of section 21 and section 22(1)(*a*) and (*c*) of that Act and of all other powers enabling him in that behalf, hereby makes the following Regulations:—

Citation, interpretation and revocation

1. These Regulations may be cited as the Merchant Shipping (Pilot Ladders and Hoists) Regulations 1980 and shall come into operation on 25th May 1980.

2.—(1) In these Regulations:

"existing ship" means a ship the keel of which was laid or which was at a similar stage of construction before 25th May 1980;

"Merchant Shipping Notice" means a Notice described as such, issued by the Department of Trade, and published by Her Majesty's Stationery Office;

"Safety Convention ship" means a ship registered in a country to which the Safety of Life at Sea Convention of 1948 or of 1960 or of 1974 applies;

"United Kingdom ship" has the same meaning as in section 21(2) of the Merchant Shipping Act 1979.

(2) The Merchant Shipping (Pilot Ladders) Rules 1965**(b)** are hereby revoked to the extent that they apply to United Kingdom ships, and to other Safety Convention ships while they are within the United Kingdom or the territorial waters thereof.

Application and classification of ships

3. These Regulations apply in relation to:—

(*a*) sea-going United Kingdom ships; and

(*b*) other sea-going Safety Convention ships while they are within the United Kingdom or the territorial waters thereof:

Provided that these Regulations shall not apply to a ship by reason of her being within a port in the United Kingdom or within the territorial waters thereof if she would not have been in any such port or waters but for stress of weather

(a) 1979 c. 39. **(b)** S.I. 1965/1046, as amended by S.I. 1972/531.

or any other circumstance that neither the master nor the owner nor the charterer (if any) of the ship could have prevented.

4. For the purpose of these Regulations the ships to which these Regulations apply shall be arranged in the same classes in which ships are arranged for the purposes of the Merchant Shipping (Life-Saving Appliances) Regulations 1980**(a)** and any reference in these Regulations to a ship of any class shall be construed accordingly.

Provision of pilot ladder, associated accommodation ladder and mechanical pilot hoist

5.—(1) Every ship of Classes I, II, II(A), VII, VII(T), VII(A), VIII, VIII(A), and VIII(A)(T), and every ship of Class X where the distance in normal operating conditions, from the water to the point of access to the vessel exceeds 2.5 metres, shall be provided by the owner with a pilot ladder which shall comply with the requirements of regulation 6 of these Regulations.

(2) Ships of Classes III to VI(A) inclusive and of IX, IX(A), IX(A)(T), XI, and XII, shall not be required to be provided with a pilot ladder unless they are engaged on voyages during the course of which a pilot is likely to be employed.

(3) (i) In every ship to which paragraph (1) of this regulation applies, where the distance from the sea level to the point of access to the ship is more than 9 metres, access from the pilot ladder to, or egress from, the ship shall be by means of an accommodation ladder sited on each side of the ship, unless a single accommodation ladder is capable of being transferred, or other equally safe and convenient means is provided.

(ii) Where an accommodation ladder is provided for this purpose it shall be so sited that, when used in conjunction with a pilot ladder for embarking or disembarking officials and other persons, the lower end of the accommodation ladder rests firmly against the side of the ship as near to the mid-length of the ship as is practicable and leading aft. Precautions shall be taken to bowse-in such accommodation ladder falls against the roll of the vessel.

(iii) Whenever an accommodation ladder is used in conjunction with a pilot ladder the pilot ladder shall be rigged immediately adjacent to the lower platform of the accommodation ladder so that the pilot ladder's upper end extends at least 2 metres above the accommodation ladder's lower platform.

(4) All mechanical pilot hoists (hereinafter referred to as "hoists") if fitted, shall comply with regulations 7 and 8 of these Regulations:

Provided that, in the case of existing ships, any hoists which are fitted and were manufactured before 20th November 1973, may be carried, if they have been modified in accordance with paragraph 3 of Merchant Shipping Notice No. M898 (Pilot Ladders and Mechanical Pilot Hoists).

Pilot ladders

6.—(1) The master shall ensure that each pilot ladder shall be efficient for the purpose of enabling officials and other persons to embark and disembark safely, and shall be clean and in good order. Such ladder shall be used only by officials and other persons while a ship is arriving at or leaving a port, and for the embarkation and disembarkation of pilots.

(a) S.I. 1980/538.

(2) Every such pilot ladder shall be so positioned and secured:

(*a*) that it is clear of any possible discharges from the ship;

(*b*) that it is clear of the finer lines and as far as practicable at the mid-length of the ship taking into consideration paragraph 8 of Merchant Shipping Notice No. M898;

(*c*) that each step rests firmly against the ship's side and, if belting is fitted in way of this position, such belting shall be cut back sufficiently to comply with this requirement: provided that this requirement need not be complied with in respect of existing ships until 24th May 1982;

(*d*) that the person using it can gain safe and convenient access to the ship after climbing not less than 1.5 metres and not more than 9 metres.

(3) A single length of pilot ladder shall be used capable of reaching the water from the point of access to the ship and due allowance shall be made for all conditions of loading and trim of the ship.

(4) The steps of the pilot ladder shall:

(*a*) be made of ash, oak, elm, or teak or other hardwood or other material of equivalent strength, stiffness and durability. The four lowest steps may be of rubber or other material of equivalent strength, stiffness and durability;

(*b*) be made in one piece, and in the case of wooden steps, free of knots;

(*c*) have an efficient non-slip surface;

(*d*) be not less than 480 millimetres long, 115 millimetres wide and 25 millimetres in depth, excluding any non-slip device or grooving;

(*e*) be equally spaced not less than 300 millimetres nor more than 380 millimetres apart; and

(*f*) be secured in such a manner that each will remain horizontal;

Provided that:—

(i) no pilot ladder shall have more than two replacement steps which are secured in position by a method different from that used in the original construction of the ladder, and any steps so secured shall be replaced as soon as reasonably practicable by steps secured in position by the method used in the original construction of the pilot ladder; and

(ii) when any replacement step is secured to the side ropes of the pilot ladder by means of grooves in the sides of the step, such grooves shall be in the longer sides of the step.

(5) The side ropes of the pilot ladder shall consist of two manila ropes not less than 18 millimetres in diameter on each side. Each rope shall be left uncovered by any other material, and shall be continuous with no joins below the top step.

(6) (i) Two man-ropes of not less than 20 millimetres in diameter properly secured to the ship shall be provided; and

(ii) a safety line and harness shall be kept at hand ready for use if required; and

(iii) a lifebuoy equipped with a self-igniting light shall be kept at hand ready for use; and

(iv) a heaving line shall be kept at hand ready for use if required.

(7) Spreaders, between 1.8 and 2 metres long, made of ash, oak, elm or teak or other hardwood or other material of equivalent strength, stiffness,

and durability, made in one piece, and in the case of wooden spreaders, free of knots, shall be provided at such intervals as will prevent the ladder from twisting. The lowest spreader shall be on the fifth step from the bottom of the ladder, and the interval between any spreader and the next shall not exceed nine steps.

(8) (*a*) Means shall be provided to ensure safe and convenient passage for any person embarking on or disembarking from the ship between the head of the pilot ladder, or of any accommodation ladder or other appliance provided pursuant to regulation 5(3) of these Regulations, and the ship's deck.

(*b*) Where such passage is by means of a gateway in the rails or bulwark, adequate handholds shall be provided.

(*c*) Where such passage is by means of a bulwark ladder, such ladder shall be securely attached to the bulwark rail or landing platform. Two hand-hold stanchions shall be fitted at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.70 metre nor more than 0.80 metre apart. Each stanchion shall be rigidly secured to the ship's structure at or near its base and also at a higher point, shall be not less than 40 millimetres in diameter and shall extend not less than 1.20 metres above the top of the bulwarks. Stanchions or handrails shall not be attached to the bulwark ladder.

(9) Lighting shall be provided such that both the pilot ladder overside and also the position where any person embarks on the ship shall be adequately lit.

(10) Means shall be provided to enable the pilot ladder to be used, in accordance with the requirements of this regulation, on either side of the ship.

(11) The master shall ensure that the rigging of pilot ladders and the embarkation and disembarkation of persons thereby shall be supervised by a responsible officer of the ship.

Hoists

7.—(1) The owner shall ensure that a hoist, if provided, and its ancillary equipment, shall be of a type approved by the Secretary of State. It shall be of such design and construction as to ensure that any person can be embarked and disembarked in a safe manner, including a safe access from the hoist to the deck and from the deck to the hoist. The hoist shall be used solely for the embarkation and disembarkation of pilots, and of officials and other persons while a ship is arriving at or leaving a port.

(2) The working load shall be the sum of the weight of the hoist ladder and falls in the fully lowered condition and the maximum number of persons which the hoist is designed to carry, the weight of each person being taken as 150 kg.

(3) Every hoist shall be of such construction that, when operating under the working load determined in accordance with paragraph (2) above, each component shall have an adequate factor of safety having regard to the material used, the method of construction and the nature of its duty.

(4) In selecting the materials of construction, regard shall be paid to the conditions under which the hoist will be required to operate.

(5) The hoist shall be so located that it is clear of the finer lines and so far as practicable, at the mid-length of the ship taking into consideration paragraph 8 of Merchant Shipping Notice No. M898.

(6) From a standing position at the control point it shall be possible for the operator to have the hoist under observation continuously between its highest and lowest working positions.

(7) The owner and master shall ensure that in respect of the hoist there is on board a copy of the manufacturer's maintenance manual, approved by the Secretary of State, which contains a maintenance log book. The hoist shall be kept in good order and maintained in accordance with the maintenance manual.

(8) A record of maintenance and repairs of the hoist shall be entered in the maintenance log book by the officer responsible for its maintenance.

(9) The maximum complement a hoist is permitted to carry shall be clearly and permanently marked on the hoist.

Construction of hoist

8.—(1) The hoist shall consist of the following main parts:

(*a*) a mechanically powered winch;

(*b*) two separate falls;

(*c*) a ladder consisting of two parts:

(i) a rigid upper part for the transportation of any person upwards or downwards;

(ii) a flexible lower part, consisting of a short length of pilot ladder, which enables any person to climb from the pilot launch or tender to the rigid upper part of the ladder and *vice versa.*

Hoists of other equally efficient construction may, in accordance with regulation 9 of these Regulations, be allowed by the Secretary of State to be carried.

(2) *Mechanically powered winch*

(*a*) The source of power for the winches shall be electrical, hydraulic or pneumatic. In the case of a pneumatic system, an exclusive air supply shall be provided with adequate arrangements to control its quality. In the case of ships engaged in the carriage of flammable cargoes, the source of power shall not be such as to cause a hazard to the ship. All systems shall be capable of efficient operation under the conditions of vibration, humidity and range of temperature likely to be experienced in the ship in which they are installed.

(*b*) The winch shall include a brake or other equally effective arrangement (such as a properly constructed worm drive) which is capable of supporting the working load in the event of power failure. The brake or other arrangement shall be capable of supporting the working load when the hand gear is in use.

(*c*) Efficient hand gear shall be provided to lower the person carried in the event of power failure.

(*d*) Any crank handle provided for manual operation shall, when engaged, be so arranged that the power supply is automatically cut off.

(*e*) Hoists shall be fitted with automatic safety devices in order to cut off the power supply when the ladder comes against any stop so as to avoid overstressing the falls or any other part of the hoist: provided that in the case of hoists operated by pneumatic power, the safety cut-out device may be omitted if the maximum torque available from the air motor cannot result in overstressing of the falls or other parts of the hoist.

(*f*) All hoist controls shall incorporate an emergency stop to cut off the power supply and an emergency stop switch within easy reach of the person carried by means of which he may cut off the power.

(*g*) The winch controls shall be clearly and durably marked to indicate "Hoist", "Stop" and "Lower". The manner in which these controls operate shall correspond to the manner in which the hoist operates and shall automatically return to the "Stop" position when released.

(*h*) Efficient arrangements shall be provided to ensure that the falls wind evenly on to the winch-drums.

(*i*) The hoist shall be secured attached to the structure of the ship. Attachment shall not be solely by means of the ship's side rails. Proper and strong attachment points shall be provided for hoists of the portable type on each side of the ship.

(*j*) The winch shall be capable of hoisting or lowering the safe working load (determined in accordance with regulation 7(2) of these Regulations) at a speed of between 15 and 30 metres per minute.

(*k*) There shall be safe means of access between the ladder at its upper limit and the deck and *vice versa;* such access shall be gained directly by a platform securely guarded by handrails.

(*l*) Any electrical appliance associated with the ladder section of the hoist shall not be operated at a voltage exceeding 25 volts.

(3) *Falls*

(*a*) The falls shall be made of flexible steel wire rope of adequate strength and resistant to corrosion in a salt-laden atmosphere.

(*b*) The falls shall be securely attached to winch-drums and the ladder. These attachments shall be capable of withstanding a proof load of not less than 2.2. times the load on such attachments. The falls shall be maintained at a sufficient relative distance from one another, so as to reduce the possibility of the ladder becoming twisted.

(*c*) The falls shall be of sufficient length to allow for all conditions of freeboard likely to be encountered in service and to retain at least three turns on the winch-drums with the hoist in its lowest position.

(4) *Ladder section*

(*a*) The rigid part shall be not less than 2.50 metres in length and be equipped in such a way that the person carried can maintain a safe position whilst being hoisted or lowered. Such part shall be provided with:

(i) a sufficient number of steps complying with sub-paragraph (*c*) of this regulation to provide a safe and easy access to and from the platform referred to in paragraph (2)(*k*) of this regulation;

(ii) safe handholds capable of being used under all conditions including extremes of temperature, together with non-skid steps;

(iii) a spreader at the lower end of not less than 1.80 metres. The ends of the spreader shall be provided with rollers which shall roll freely on the ship's side during the whole operation of embarking or disembarking;

(iv) an effective guard ring, suitably padded, so positioned as to provide physical support for the person carried without hampering movement;

(v) adequate means for communication between the person carried and the operator and/or the responsible officer who supervises the embarkation or disembarkation of the person carried;

(vi) an emergency stop switch within easy reach of the person carried by means of which he may cut off the power.

(*b*) Below the rigid part mentioned in sub-paragraph (*a*) above, a section of flexible ladder comprising eight steps shall be provided, constructed in accordance with the following requirements:

The steps of the flexible ladder section shall:

(i) be made of ash, oak, elm or teak or other hardwood or other material of equivalent strength, stiffness and durability. The four lowest steps may be of rubber or other material of equivalent strength, stiffness and durability;

(ii) be made in one piece, and in the case of wooden steps, free of knots;

(iii) have an efficient non-slip surface;

(iv) be not less than 480 millimetres long, 115 millimetres wide, and 25 millimetres in depth, excluding any non-slip device or grooving;

(v) be equally spaced not less than 300 millimetres nor more than 380 millimetres apart; and

(vi) be secured in such a manner that each will remain horizontal;

Provided that:—

(aa) No flexible ladder section shall have more than two replacement steps which are secured in position by a method different from that used in the original construction of the flexible ladder section and any steps so secured shall be replaced as soon as reasonably practicable by steps secured in position by the method used in the original construction of the flexible ladder. When any replacement step is secured to the side ropes of the ladder by means of grooves in the sides of the step, such grooves shall be in the longer sides of the step; and

(bb) the side ropes of the flexible ladder section shall consist of two manila ropes not less than 18 millimetres in diameter on each side. Each rope shall be left uncovered by any other material and shall be continuous with no joins below the top step.

(*c*) The steps of the flexible ladder section and those of the rigid ladder section shall be in the same vertical line, of the same width, spaced vertically equidistant and placed as close as practicable to the ship's side. The handholds of both parts of the ladder section shall be aligned as closely as possible.

(*d*) If belting is fitted in way of the hoist position, such belting shall be cut back sufficiently to allow the hoist to be placed as close as practicable to the ship's side: provided that this requirement need not be complied with in respect of existing ships until 24 May 1982.

(5) *Operation of the hoist*

(*a*) The master shall ensure that rigging and testing of the hoist pursuant to paragraph (6) below and the embarkation and disembarkation of any person shall be supervised by a responsible officer of the ship. Any person engaged in rigging and operating the hoist shall be instructed in the rigging and operating procedures to be adopted and the equipment shall be tested prior to the embarkation or disembarkation of any person.

(*b*) Lighting shall be provided so that the hoist overside, its controls and the position where the person carried embarks on the ship is adequately lit. The equipment specified in regulation 6 (6)(ii), (iii), and (iv) of these Regulations shall be kept at hand ready for use if required.

(*c*) A pilot ladder complying with the provisions of regulation 6 of these Regulations shall be rigged adjacent to the hoist and available for immediate use so that access to it is available from the hoist during any point of its travel. The pilot ladder shall be capable of reaching the sea level from its own point of access to the ship.

(*d*) The position on the ship's side where the hoist will be lowered shall be indicated.

(*e*) An adequately protected stowage position shall be provided for the hoist. In very cold weather the master shall ensure that the hoist is rigged in adequate time having regard to the danger of ice formation.

(6) *Testing*

(*a*) Every new hoist shall be subjected to an overload test of 2.2 times the working load. During this test the load shall be lowered a distance of not less than 5 metres and the brake applied to stop the hoist drum.

(*b*) An operating test of 10 per cent overload shall be carried out after installation on board the ship.

(*c*) Subsequent examinations of the hoists under working conditions shall be made at each survey for the renewal of the vessel's safety equipment certificate.

(*d*) In addition to the testing required in sub-paragraphs (6) (*a*), (*b*) and (*c*) of this regulation, regular test rigging and inspection, including a load test to at least 150 kg shall be carried out by the ship's personnel at intervals of not more than six months, and a record to that effect maintained by the master, in the ship's official log book.

Equivalents

9. Where these Regulations require that a particular fitting, material, appliance or apparatus or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Secretary of State may approve any other fitting, material, appliance or apparatus, or type thereof to be fitted or carried, or any other provision to be made in that ship if he is satisfied after trial thereof or otherwise that such other fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by these Regulations.

Penalties

10.—(1) A master of a ship who contravenes any provision of regulations 6(1) or (11), 7(7) or 8(5)(*a*), (*e*) or (6)(*d*) shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or, on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

(2) An owner of a ship who contravenes regulations 5(1) or (2), (3) or (4), or 7(1) or (7) shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or, on conviction on indictment, to imprisonment for a term not exceeding two years and a fine.

(3) An officer who fails to supervise as instructed by the master and required by regulations 6(11) or 8(5)(*a*) shall be guilty of an offence and liable on summary conviction to a fine not exceeding £500 or on conviction on indictment to imprisonment for a term not exceeding one year and a fine.

(4) An officer responsible for the maintenance of the hoist who fails to keep a record as required by regulation 7(8) shall be guilty of an offence and liable on summary conviction to a fine not exceeding £500.

Power to detain

11. If a ship to which these Regulations apply, carries a pilot ladder or hoist which does not conform to the specified requirements of these Regulations, the ship shall be liable to be detained and section 692 of the Merchant Shipping Act 1894(a) (which relates to the detention of a ship) shall have effect in relation to the ship, subject to the modification that for the words "this Act" wherever they appear, there were substituted "the Merchant Shipping Acts 1894 to 1979 or any Regulations made thereunder."

Norman Tebbit,
Parliamentary Under-Secretary of State,
Department of Trade.

17th April 1980.

(a) 1894 c. 60.

EXPLANATORY NOTE

(This Note is not part of the Regulations.)

These regulations revoke the Merchant Shipping (Pilot Ladders) Rules 1965, as amended, to the extent that they apply to United Kingdom ships, and to ships registered in a country to which a Safety of Life at Sea Convention applies while they are within the United Kingdom or the territorial waters thereof. The 1965 Rules will continue to apply to ships of non-Convention countries while they are within United Kingdom ports. These Regulations re-enact the provisions of those Rules in respect of pilot ladders with the minor modifications necessary to give effect to the International Convention for the Safety of Life at Sea 1974 (Cmnd. 7874). The Regulations do not require pilot hoists to be provided in ships but introduce requirements for them if they are provided.

The Regulations apply to specified classes of sea-going United Kingdom ships and to Safety Convention ships while they are within the United Kingdom or the territorial waters thereof (regulation 3). The Regulations require the owner of every such ship to provide a pilot ladder which conforms to the specified requirements, and require the master of every such ship to ensure that each pilot ladder is efficient, kept in good condition and properly positioned and secured and, where necessary, that an accommodation ladder is available (regulation 6). Where a mechanical hoist is provided, the owner must ensure that it is of a type approved by the Secretary of State and conforms to the specified construction requirements. The master also has to ensure that there is a copy of the maintenance manual on board and the officer responsible for the maintenance of the hoist is required to maintain a record of the maintenance and repairs (regulation 7).

The Merchant Shipping Notice is obtainable from the Department of Trade Marine Library, Sunley House, 90 High Holborn, London W.C.1. and from any Department of Trade mercantile marine office or marine survey office.