ANNEX 5

RESOLUTION MSC.576(110)
(adopted on 26 June 2025)

PERFORMANCE STANDARDS FOR PILOT TRANSFER ARRANGEMENTS

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.886(21) on *Procedure for the adoption of, and amendments to, performance standards and technical specifications*, by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto, shall be performed by the Maritime Safety Committee, on behalf of the Organization,

RECALLING FURTHER resolution A.1045(27) on *Pilot transfer arrangements*, which was amended by resolution A.1108(29),

NOTING resolution MSC.572(110) by which it adopted amendments to regulation V/23 of the International Convention for the Safety of Life at Sea, 1974 ("the Convention") to make the performance standards on pilot transfer arrangements mandatory under the Convention,

RECOGNIZING that the responsibility for safe practices for the transfer of pilots and other personnel rests with each person involved in the activity including the shipowner, operator, master and crew, pilotage provider, pilot and pilot boat crew, as well as the person being transferred,

HAVING CONSIDERED, at its 110th session, the recommendation made by the Sub-Committee on Navigation, Communications and Search and Rescue at its eleventh session,

1 ADOPTS the *Performance standards for pilot transfer arrangements*, set out in the annex to the present resolution;

2 INVITES Contracting Governments to the Convention to note that the *Performance standards for pilot transfer arrangements* will take effect on 1 January 2028 upon entry into force of the amendments to regulation V/23 of the Convention adopted by resolution MSC.572(110);

3 NOTES that, under the provisions of regulation V/23 of the Convention, amendments to the *Performance standards for pilot transfer arrangements* shall be adopted, brought into force and take effect in accordance with the provisions of article VIII of the Convention concerning the amendment procedure applicable to the annex to the Convention other than chapter I;

4 REQUESTS the Secretary-General to transmit certified copies of this resolution and the text of the *Performance standards for pilot transfer arrangements* contained in the annex to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and the annex to all Members of the Organization which are not Contracting Governments to the Convention;

6 INVITES Governments to encourage the development of novel technologies aimed at improving the safety of pilot transfer arrangements and to keep the Organization advised of any positive results;

7 URGES all parties concerned to observe both the spirit and intent of these performance standards, to ensure safety is not compromised;

8 INVITES the Assembly to revoke resolutions A.1045(27) and A.1108(29) as of 1 April 2030, and endorse the action taken by the Maritime Safety Committee.

ANNEX

PERFORMANCE STANDARDS FOR PILOT TRANSFER ARRANGEMENTS

INTRODUCTION

1 Purpose

These performance standards provide for requirements for the design, manufacture, construction, rigging, installation of pilot ladder winch reels, operational readiness, onboard inspection and maintenance, familiarization and approval in relation to pilot transfer arrangements required under regulation V/23 of the 1974 SOLAS Convention, adopted by resolution MSC.572(110).

2 Definitions

For the purpose of these performance standards, the following definitions apply:

.1 *Pilot transfer arrangements* refers to all equipment and arrangements used solely for the embarkation and disembarkation of pilots and other personnel, including pilot ladders, accommodation ladders, embarkation platforms, manropes, pilot ladder winch reels, securing arrangements and other associated equipment.

.2 *Point of access* means the location at which pilots or other personnel transfer between a pilot ladder or accommodation ladder and the deck or side opening of a ship.

.3 *Manropes* means ropes hung on either side of a pilot ladder for assistance in ascending and descending.

.4 *Trapdoor* means an aperture with a cover located in a platform allowing the pilot ladder and manropes to pass through without obstruction or distortion and used by pilots or other personnel to transfer between the pilot ladder and the accommodation ladder.

.5 *Securing a pilot ladder at intermediate length* means securing a pilot ladder at a point other than the thimble ends.

3 General

3.1 Pilot transfer arrangements shall be designed, installed, inspected, maintained and rigged to enable pilots and other personnel to embark and disembark safely in all seagoing conditions of draught and trim.

3.2 The height of climb on a pilot ladder shall not be less than 1.5 m and not more than 9 m from the surface of the water to the point of access in all seagoing conditions of draught and trim. Whenever the height of climb on a pilot ladder from the surface of the water to the point of access exceeds 9 m, the ship shall be provided with and rig an accommodation ladder in conjunction with the pilot ladder (i.e. a combination arrangement).

3.3 Where the height of climb is less than 1.5 m from the surface of the water and a pilot ladder is not used as part of a pilot transfer arrangement, this does not exempt any vessel or personnel involved in the transfer from ensuring that the transfer is completed safely, is adequately risk assessed and any equipment other than a pilot ladder is used in accordance with these performance standards.

3.4 Pilot transfer arrangements shall be provided to enable pilots and other personnel to embark and disembark safely on either side of the ship. Necessary equipment shall be carried on each side unless the equipment is capable of being transferred for use on either side.

3.5 Pilot ladders and manropes used for the transfer of pilots and other personnel shall be clearly identified with permanent marking so as to enable identification of each appliance for the purposes of survey, inspection and record-keeping.

3.6 Reference in these performance standards to an accommodation ladder[1] includes a sloping ladder used as part of the pilot transfer arrangements.

3.7 The onboard inspection and rigging of the pilot transfer arrangements and the embarkation and disembarkation of pilots and other personnel shall be supervised by a designated responsible officer. During the transfer of pilots or other personnel, the responsible officer shall have means of communication with the navigation bridge and shall arrange for the escort of the pilot by a safe route to and from the navigation bridge and other personnel to an appropriate safe location.

PART A – DESIGN, MANUFACTURE AND CONSTRUCTION

4 Pilot ladders

4.1 The steps of the pilot ladders shall comply with the following requirements:

.1 if made of hardwood, they shall be made in one piece, free of any knots. Wood shall not be treated or coated with paint, varnish or other coatings;

.2 if made of material other than hardwood, they shall be made from resilient plastic or rubber of equivalent strength, stiffness and durability;

.3 they shall have an efficient non-slip surface;

.4 they shall be long enough to accommodate a distance between the inner surface of the side ropes of not less than 400 mm, and shall be not less than 115 mm in width and 25 mm in thickness, excluding any non-slip device or grooving;

.5 they shall be equally spaced not less than 310 mm and not more than 350 mm apart measured from the top of each step or spreader step;

.6 they shall be secured in such a manner that each will remain horizontal; and

.7 the four lowest steps shall be of rubber of sufficient strength and stiffness or other equivalent material.

[1] Refer to SOLAS regulation II-1/3-9 on Means of embarkation on and disembarkation from ships.

4.2 Pilot ladders with more than five steps shall have spreader steps complying with paragraph 4.1 and each spreader step shall be not less than 1.8 m in length. The lowest spreader step shall be the fifth step from the bottom of the ladder and additional spreader steps shall be provided at such intervals as will prevent the pilot ladder from twisting, conforming to standards acceptable to the Organization.[2]

4.3 Permanent measuring marking shall be provided at a regular interval of every three steps, approximately every 1 m, throughout the length of the pilot ladder consistent with ladder design, use and maintenance in order to facilitate the rigging of the ladder to the required height.

4.4 Pilot ladders shall be permanently marked by the manufacturer with at least the following information on the underside of the uppermost step and the lowermost spreader step:

.1 the name of the manufacturer;

.2 an equipment serial number or other means of unique identification which the manufacturer shall be able to validate;

.3 date of manufacture; and

.4 name and details of the approving authority.

4.5 Pilot ladders shall be of a single length capable of reaching the surface of the water from the point of access or, where a combination arrangement is used, from the platform of the combination arrangement, in all seagoing conditions of draught and trim and the specific condition of an adverse list of 15° in the lightest seagoing condition.

4.6 The side ropes on each side of the pilot ladder shall consist of a double length of uncovered rope not less than 20 mm and not more than 22 mm in diameter. The double length shall be made from a continuous length of rope with no joints having a breaking strength of at least 24 kN. The midpoint of the double length shall be located on a thimble. The ends of each of the side ropes shall be properly finished.[3]

4.7 Each of the side ropes shall be mildew-resistant manila rope[4] or other material of equivalent strength, durability, elongation characteristics and grip which has been protected against actinic degradation.

4.8 Each of the side ropes shall be secured together both above and below each step with an arrangement properly designed for this purpose. Where a seizing method[5] with step fixtures, such as chocks or wedges, is used, it shall hold each step horizontal in all planes at all times. Where a mechanical clamping device is used to secure each of the side ropes together, it shall grip each of the side ropes in the pair independently and with the same grip force. Any surface of a mechanical clamping device that pilots or other personnel may handle shall be suitable to be grasped by bare hands. The use of cable ties, u-clamps or worm driven clips as a means of securing steps is prohibited.

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2 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – Part 1: Design and specification*.

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4 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 1181:2004 Fibre ropes – Manila and sisal – 3-, 4- and 8-strand ropes.

5 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – Part 1: Design and specification*.

5 Combination arrangements

5.1 The length of the accommodation ladder shall be sufficient to ensure that its angle of slope does not exceed 45°. In ships with large draught ranges, several pilot ladder hanging positions shall be provided, resulting in lesser angles of slope. The accommodation ladder shall be at least 600 mm in width. The accommodation ladder hoisting and lowering mechanism shall include protection that ensures the mechanism cannot be inadvertently operated during the transfer of pilots and other personnel.

5.2 Intermediate platforms, if fitted, shall be self-levelling. Treads and steps of the accommodation ladder shall be so designed that an adequate and safe anti-skid foothold is provided at the operative angles.

5.3 The accommodation ladder and platform shall be equipped on both sides with stanchions and rigid handrails, but if hand ropes are used, they shall be tight and properly secured. The vertical space between the handrail or hand rope and the stringers of the ladder shall be securely fenced.

5.4 Accommodation ladders, together with any suspension arrangements or attachments fitted and intended for use in accordance with these performance standards, shall meet the requirements for the means of embarkation on and disembarkation from ships as required by regulation II-1/3-9.

5.5 In the case of a combination arrangement using an accommodation ladder with a trapdoor in the lower platform, the lower platform shall:

.1 have an aperture with dimensions not less than 750 mm x 750 mm which is open to the ship's hull on the inboard side and which is designed to ensure that the horizontal distance between the pilot ladder and adjacent edges of the aperture is between 0.1 and 0.2 m;

.2 be designed and constructed to:

.1 allow the pilot ladder and manropes to pass through the aperture without obstruction or distortion;

.2 ensure the pilot ladder lies flat against the ship's side;

.3 ensure that structural members shall not interfere with or lay against the pilot ladders; and

.4 ensure the highest step of the pilot ladder is at least 2 m above the lower platform and remain compliant with part B;

.3 not be provided with fixtures other than the frame referred to in paragraph 5.5.7, which allows a pilot ladder to be suspended from the lower platform of the accommodation ladder;

.4 have a trapdoor which opens upwards and which is secured flat on the embarkation platform or against a stanchion either at the aft end or outboard side of the platform, and in any case not obstructing the access to the ship;

.5 be provided with sufficient round handholds with a diameter of no less than 28 mm and not more than 32 mm to allow safe mounting or dismounting of the pilot ladder. The structure of the platform itself shall not be relied upon to provide handholds;

.6 be provided with sufficient handholds with a height of not less than 1.2 m above the platform; and

.7 where a structural frame is used to comply with paragraph 5.5.2, the following shall apply:

.1 the accommodation ladder platform, frame, pilot ladder connection points, accommodation ladder winch, running gear, pad eyes of manropes and locking arrangements shall be designed to withstand vertical forces of at least 48 kN;

.2 the highest step of the pilot ladder is at least 2 m above the platform and is secured to pad eyes on the inboard side of the frame so that it rests firmly against the side of the ship; and

.3 manropes are secured directly to additional pad eyes 2 m above the platform on the inboard side of the frame.

5.6 On all ships to which section 5 applies, a two-tone visual mark, the upper half being white and the lower half being red, not less than 4 m in height and 0.5 m in width shall be provided in the midship half-length of the ship in the vicinity of the pilot boarding position to indicate to the user whether or not a combination arrangement is to be rigged. The dividing line between the upper and the lower halves of the pilot line shall be 9 m below the point of access.

6 Securing arrangements

6.1 All strong points, shackles and securing ropes provided or used in accordance with part A or part B shall have a breaking strength of not less than 48 kN. Securing ropes shall be tagged or otherwise permanently marked in the same way as provided in paragraph 11.3 and those used to aid in rigging the pilot ladder, shall be at least 3 m in length. The securing arrangements shall be positioned not less than 915 mm, or, if not possible, the maximum distance permitted by the width of the deck, from the edge of the deck, except for the case of a combination arrangement using an accommodation ladder. Strong points and shackles shall have breaking strength or equivalent safe working load limits clearly and permanently marked. Documentation of the conformance of the strong points, shackles and securing ropes shall be maintained on board and available for inspection purposes.

6.2 Permanent or removable means of bowsing a pilot ladder or embarkation platform to the ship's hull shall not be used to support the weight of the boarding arrangement or pilot and shall not be used for any other purpose than to secure the arrangement against the ship's side. Removable means of bowsing a pilot ladder or embarkation platform to the ship's side shall be able to be applied and removed by a single person and shall have a holding force of not less than 4 kN when used for the purpose of securing the lower platform of an accommodation ladder or 3 kN when used for securing the pilot ladder or manropes.[6]

[6] Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-3:2022 *Ships and marine technology – Pilot ladders, part 3: Attachment and associated equipment*.

6.3 There shall be a means of securing a pilot ladder at intermediate lengths which shall be capable of securing the pilot ladder to strong points described in paragraph 6.1 by gripping each set of side ropes of the pilot ladder. The means of securing, shall have a breaking strength of not less than 48 kN and be designed to prevent any slippage of the side ropes under the conditions of the ladder and step attachment strength test and unrolling tests described in a standard acceptable to the Organization.[7] When type approving means of securing a pilot ladder at intermediate lengths in accordance with Part F, these tests shall be modified to reflect the attachment of the pilot ladder using a means of securing the pilot ladder other than using its own attachments.

7 Ships' side openings, doors and platforms

7.1 Ships' side doors used for the transfer of pilots or other personnel shall not open outwards unless located below the freeboard deck.[8] The side opening shall enable a safe, convenient and unobstructed passage large enough for the transfer of pilots and other personnel, with a minimum clearance of 2,200 mm in height and 915 mm in width.

7.2 Ships' side openings without a boarding platform shall be provided with strong points which are on the lowest deck of the opening and inboard of the ship's side opening. Strong points shall also be provided on the deck head and inboard of the ship's side opening if it is intended to rig manropes in the manner provided for in paragraph 15.1.1.3.

7.3 In any event, boarding platforms deployed from ships' side openings and outboard of the ship shall not be provided where the distance from the platform to the surface of the water in all seagoing conditions of draught and trim associated with the normal operation of the ship is less than 5 m. Platforms shall be mechanically attached to the ship and be marked with safe working load limits. Certification of successful testing shall be maintained on board and available for inspection.

7.4 The boarding platform shall extend outboard from the ship's side for a minimum distance of 750 mm, with a longitudinal length of a minimum of 750 mm. The platform shall be securely guarded by handrails.

8 Access to ship's deck

Means shall be provided to ensure safe, convenient and unobstructed passage for pilots and other personnel embarking on, or disembarking from, the ship between the head of the pilot ladder, or of any accommodation ladder, and the ship's deck; such access shall be gained directly by a clean and unobstructed platform securely guarded by handrails. Where such passage is by means of:

.1 a gateway in the rails or bulwark, adequate handholds with a diameter of not less than 32 mm and not more than 36 mm shall be provided at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each handhold shall be rigidly secured and locked to the ship's structure at or near its base and also to the ship at a higher point, and shall extend not less than 1.2 m above the deck to which it is fitted. Stanchions or handrails of the gateway shall not be attached to the bulwark ladder to prevent the bulwark ladder from overturning and shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes;

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7 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – part 1: Design and specification*.

8 Refer to regulation 21 of annex I of the International Convention on Load Lines.

.2 a bulwark ladder, it shall be securely attached to the ship to prevent overturning. Two separate handhold stanchions with a diameter of not less than 32 mm and not more than 36 mm shall be fitted at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each stanchion shall be rigidly secured and locked to the ship at or near its base and also at a higher point and shall extend not less than 1.2 m above the top of the bulwarks. Stanchions or handrails of the gateway shall not be attached to the bulwark ladder to prevent the bulwark from overturning and shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes; or

.3 a shipside opening or door, adequate handholds with a diameter of not less than 32 mm and not more than 36 mm shall be provided at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each handhold shall be rigidly secured and locked to the ship's structure at or near its base and also to the ship at a higher point to prevent dislodgement and shall extend not less than 1.2 m above the entry threshold. Stanchions or handrails shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes.

9 Protection from chafing

Equipment and arrangements shall be designed and installed so that it is not possible for a pilot ladder side rope or manrope to make contact with any part of the ship's hull or associated fixtures and fittings which could have the potential to cause sharp bends, chafing, abrasion, pinching or otherwise degrade their performance. Where contact is unavoidable, contact points shall be rounded to minimize chafing. The means of rounding could be a permanent fixture, such as a rounded pipe. Where it is not possible to round contact points owing to ship design, removable chafing pads or other temporary arrangements may be used. They shall be considered acceptable to the Administration, provided these arrangements do not prevent pre-use inspections, are removed after use and stowed in accordance with section 23.

10 Safe approach of the pilot boat

Where rubbing bands or other constructional features prevent the safe approach of a pilot boat, these shall be cut back to provide at least 6 m of unobstructed ship's side. Specialized offshore ships less than 90 m or other similar ships less than 90 m for which a 6 m gap in the rubbing bands would not be practicable, as determined by the Administration, may be exempted. In this case, other appropriate measures shall be taken to ensure that pilots and other personnel are able to embark and disembark safely.

11 Associated equipment

Manropes shall be:

.1 not less than 28 mm and not more than 32 mm in diameter and shall be mildew-resistant manila rope,[9] or other material of equivalent strength, durability, elongation characteristics and grip;

.2 of a single length free from splices and knots; and

.3 tagged or otherwise permanently marked by the manufacturer with at least the following information:

.1 the name of the manufacturer;

.2 an equipment serial number or other means of unique identification which the manufacturer shall be able to validate;

.3 date of manufacture; and

.4 name and details of the approving authority.

PART B – RIGGING

12 Pilot ladder

In all ships, when it is intended to embark and disembark pilots or other personnel by means of the pilot ladder, the pilot ladder shall be secured to the dedicated strong points meeting the requirements of paragraph 6.1 and positioned so that:

.1 it is clear of any possible discharge from the ships and at all times hangs vertically, free and without obstruction;

.2 it is within the parallel body length of the ship and within the midship half-length of the ship;

.3 each step rests firmly against the ship's side and is horizontal in all planes throughout the entire vertical length of the ladder;

.4 when used in conjunction with ships' side openings, the ladder is secured in accordance with section 14;

.5 when a retrieval line is considered necessary to ensure the safe rigging of a pilot ladder, the line is secured to the forward end, at or above the lowest spreader step and leads forward. The retrieval line shall not hinder the pilot or other personnel nor obstruct the safe approach of the pilot boat; and

.6 the lowest step of the pilot ladder, by using the means specified in paragraph 6.3, is at the height above the surface of the water requested by the pilot or other personnel being transferred.

[9] Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 1181:2004 Fibre ropes – Manila and sisal – 3-, 4- and 8-strand ropes.

13 Combination arrangements

13.1 The combination arrangement shall be so positioned and secured that:

.1 the pilot ladder complies with the requirements in section 12;

.2 the accommodation ladder leads aft and is clear of any discharges;

.3 the lower platform of the accommodation ladder is secured to the ship's side by means of permanent fixtures or removable fixtures within the parallel body length of the ship and within the midship half-length;

.4 the lower platform is in a horizontal position when in use and is a minimum of 5 m above the surface of the water in all seagoing conditions of draught and trim;

.5 the pilot ladder and manropes are secured to the ship's side at a point of nominally 1.5 m above the lower platform of the accommodation ladder except as outlined in paragraph 5.5.7;

.6 the pilot ladder and manropes are not secured to the lower platform of the accommodation ladder at any time; and

.7 the pilot ladder is rigged immediately adjacent to the lower platform of the accommodation ladder and the highest step of the pilot ladder is at least 2 m above the lower platform. The horizontal distance between the pilot ladder and the lower platform shall be between 0.1 and 0.2 m.

13.2 In the case of a combination arrangement using an accommodation ladder with a trapdoor in the lower platform, the lower platform shall be positioned and rigged in accordance with the requirements of paragraphs 5.5 and 13.1.

14 Ships' side openings

14.1 Pilot ladders rigged from ships' side openings without a boarding platform shall not extend above the lowest deck of the opening and shall not be rigged from any other position, including the freeboard deck.

14.2 Pilot ladders used in conjunction with ships' side openings with a boarding platform complying with paragraph 7.3 shall be rigged aft of such platforms and may be rigged from the freeboard deck provided that the ladder and manropes are secured above the platform in accordance with paragraphs 13.1.5 and 13.1.7.

15 Associated equipment

15.1 The following associated equipment shall be available and ready for immediate use at the point of access whilst the pilot or other personnel are being transferred:

.1 two manropes complying with the requirements stipulated within section 11 which shall:

.1 be free from contamination and knots; however, knots used to tie or secure manropes to strong points are acceptable;

.2 when required by pilots or other personnel embarking or disembarking, be rigged and secured in accordance with relevant requirements of these performance standards; and

.3 when rigged, be fixed at the rope end to dedicated strong points on the deck and pass through the ring or eye fitted at the top of the stanchions at the point of access to the deck. When the pilot ladder is rigged from a ship side opening, manropes may be rigged from the deck head, provided that the manropes pass through the ring or the eye at the top of the stanchions at the point of access;

.2 a lifebuoy equipped with a self-igniting light; and

.3 a heaving line free from contamination and having a length which can reach the waterline in any seagoing condition of draught or trim.

15.2 When required by section 8 of these performance standards, stanchions and bulwark ladders shall be provided.

PART C – INSTALLATION OF PILOT LADDER WINCH REELS

16 Stowage of pilot ladders on winch reels

If a pilot ladder is to be stowed on a winch drum, the drum diameter shall be not less than 0.16 m and the drum shall be provided with sunken securing points.

17 Point of access

17.1 When a pilot ladder winch reel is provided, it shall be situated at a position which will ensure pilots and other personnel embarking on, or disembarking from, the ship between the pilot ladder and the point of access to the ship, have safe, convenient and unobstructed access to or egress from the ship.

17.2 The point of access position and adjacent area shall be kept clear of obstructions, including the pilot ladder winch reel, for distances as follows:

.1 915 mm in width measured longitudinally;

.2 915 mm in depth, measured from the ship's side plating inwards; and

.3 2,200 mm in height, measured vertically from the access deck.

18 Physical positioning of pilot ladder winch reels

18.1 Pilot ladder winch reels which are fitted on a ship's upper deck for the purpose of providing a pilot ladder which services a ship's side opening below the upper deck or, alternatively, an accommodation ladder when a combination arrangement is provided shall:

.1 be situated at a location on the upper deck from which the pilot ladder is able to be suspended vertically, in a straight line, to a point adjacent to the ship's side opening access point or the lower platform of the accommodation ladder;

.2 be situated at a location which provides a safe, convenient and unobstructed passage for pilots or other personnel embarking on, or disembarking from, the ship between the pilot ladder and the place of access on the ship; and

.3 enable compliance with the relevant requirements of part A and part B.

18.2 Pilot ladder winch reels fitted inside a ship's side opening shall:

.1 be situated at a position which provides a safe, convenient and unobstructed passage for pilots or other personnel embarking on, or disembarking from, the ship between the pilot ladder and the place of access on the ship;

.2 be situated at a position which provides an unobstructed clear area with a minimum length of 915 mm and minimum width of 915 mm and minimum vertical height of 2,200 mm; and

.3 if situated at a position which necessitates a section of the pilot ladder to be partially secured in a horizontal position on the deck so as to provide a clear access as described above, then allowance shall be made so that this section of the pilot ladder may be covered with a rigid platform for a minimum distance of 915 mm measured horizontally from the ship's side inwards.

19 Handrails and handgrips

Handrails and handgrips shall be provided in accordance with section 8 to assist the pilot and other personnel to safely transfer between the pilot ladder and the ship, except as noted in paragraph 7.4 for arrangements with platforms extending outboard. The horizontal distance between the handrails and/or the handgrips shall be not less than 0.7 m or more than 0.8 m apart.

20 Securing of the pilot ladder

Where the pilot ladder is stowed on a pilot ladder winch reel which is located either within the ship's side opening or on the upper deck:

.1 the pilot ladder winch reel shall not be relied upon to support the pilot ladder when the pilot ladder is in use;

.2 the pilot ladder shall be secured to strong points, independent of the pilot ladder winch reel; and

.3 the pilot ladder shall be secured at deck level inside the ship's side opening or, when located on the ship's upper deck, at a distance of not less than 915 mm measured horizontally from the ship's side inwards.

21 Mechanical securing of pilot ladder winch reel

21.1 All pilot ladder winch reels shall have means of preventing the winch reel from being accidentally operated as a result of mechanical failure or human error.

21.2 Pilot ladder winch reels may be manually operated or, alternatively, powered by either electrical, hydraulic or pneumatic means.

21.3 Manually operated pilot ladder winch reels shall be provided with a brake or other suitable arrangements to control the lowering of the pilot ladder and to lock the winch reel in position once the pilot ladder is lowered into position.

21.4 Electrical, hydraulic or pneumatically driven pilot ladder winch reels shall be fitted with safety devices which are capable of cutting off the power supply to the winch reel and thus locking the winch reel in position.

21.5 Powered winch reels shall have clearly marked control levers or handles which may be locked in a neutral position.

21.6 A mechanical device or locking pin shall also be utilized to lock powered winch reels.

PART D – OPERATIONAL READINESS, ONBOARD INSPECTION AND MAINTENANCE

22 Periodic maintenance and inspections shall be carried out to ensure the pilot transfer arrangements are in good condition, free from contamination and ready for use. Regardless of the date of installation, maintenance and inspection of accommodation ladders used in the combination arrangement shall be carried out in accordance with SOLAS regulation II-1/3-9.3.

23 Pilot ladders, manropes and all associated equipment, when not in use, shall be stowed to prevent degradation caused by moisture, icing and sunlight, chemicals and greases and similar contaminants, and in accordance with the manufacturer's instructions.

24 Instructions for care, maintenance, inspection and stowage shall be supplied with each pilot ladder, manropes and all associated equipment. These instructions shall include:

.1 pre- and post-use inspection instructions;

.2 detailed periodic inspection procedures, including those for side ropes;

.3 instructions for inspecting and repairing rope seizings or securing devices, along with a list of permitted onboard repairs;

.4 care and stowage instructions, including warnings about chemical exposure, sunlight impact and other potential causes of ladder degradation;

.5 factors affecting pilot ladder life, including stowage arrangements;

.6 acceptable method(s) of securing ladder to strong points;

.7 pictorial examples and detailed written description of damage or conditions warranting withdrawing the ladder from service; and

.8 care and maintenance specifics for natural fibre rope ladders.

25 Pilot transfer arrangements shall be subject to:

.1 inspection before and after each use by a responsible officer on board; and

.2 a detailed inspection every three months by a responsible officer on board.

26 In order to determine the suitability for ongoing use of the pilot transfer arrangements, inspections shall include the following:

.1 the pilot ladder including spares;

.2 the accommodation ladder used in a combination arrangement;

.3 winch reels;

.4 securing arrangements;

.5 conditions of point of access;

.6 relevant equipment, in particular stanchions and stanchion sockets welded onto the deck; and

.7 stowage arrangements.

27 A maintenance plan shall be developed and shall be available for inspection. The maintenance plan shall be easily understood, illustrated as appropriate wherever possible, and shall include the following:

.1 a checklist for use when carrying out the inspections required by section 25;

.2 maintenance, repair and stowage instructions, in accordance with manufacturer's instructions;

.3 schedule of periodic inspection and maintenance;

.4 list of sources of spare parts or replacements;

.5 log for records of inspections and maintenance; and

.6 record of when the pilot ladder or manropes were brought into service and their anticipated date of withdrawal from service in accordance with section 30 of these performance standards.

28 Repair or replacement of pilot ladder steps or spreader steps shall be prohibited.

29 At least one spare compliant pilot ladder and one spare set of compliant manropes shall be carried on board the ship.

30 Pilot ladders and manropes, including their spares, shall be removed from service, either at any time not complying with these performance standards, or within 36 months after the date of manufacture or within 30 months after the date of being placed into service, whichever comes first, and shall not be used for the embarkation and disembarkation of pilots or other personnel.

PART E – FAMILIARIZATION

31 Onboard personnel involved in the inspection, maintenance, rigging or operation of any equipment for pilot transfer arrangements shall receive familiarization to perform their assigned duties. This shall form part of the onboard familiarization of the crew.

32 On ships to which SOLAS chapter IX applies, the company, as defined in SOLAS regulation IX/1.2, ensures that onboard personnel involved in the operation of inspection, maintenance, rigging or operation of any equipment for pilot transfer arrangements are familiarized with the onboard pilot transfer arrangements for safe operation in accordance with STCW regulation I/14.

33 On ships to which SOLAS chapter IX does not apply, familiarization on board shall include, but not be limited to:

.1 operation and use of the equipment and arrangements for the transfer of pilots and other personnel provided on board the ship;

.2 the characteristics of pilot transfer arrangements which shall not be used for the transfer of pilots or other personnel;

.3 carrying out inspections and maintenance of the pilot transfer arrangements, including spare ladders on board;

.4 replacement procedures of pilot ladders and manropes; and

.5 when applicable, measures and additional equipment or operational considerations to be made to ensure the integrity of the pilot ladder in special conditions, i.e. freezing or windy condition or rough weather especially when there is moderate swell.

PART F – APPROVAL

34 Pilot transfer arrangements installed in accordance with SOLAS regulation V/23.3 shall be approved by the Administration in accordance with these performance standards before being put into service for the first time and after repair, alteration or modification to the arrangements provided for in sections 5 to 8 and section 10 of part A, or part C, of these performance standards.

35 Pilot transfer arrangements installed in accordance with SOLAS regulations V/23.4 and 23.5 shall be approved by the Administration in accordance with these performance standards after alteration or modification, if any, or repair, to the arrangements provided for in sections 5 to 8 and section 10 of part A, or part C, of these performance standards.

36 A pilot ladder, including the means of securing the pilot ladder at intermediate lengths, and manropes shall be type-approved by the Administration in accordance with these performance standards.

37 A manufacturer quality control system shall be required and shall be audited by a competent authority to ensure continuous compliance with the type approval conditions. Alternatively, the Administration may use final product verification procedures where compliance with the type approval certificate is verified by a competent authority before the product is installed on board ships.

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