

CHAPTER 17

PILOT LADDERS AND HOISTS

17.1 General

The Merchant Shipping (Pilot Ladders and Hoists) Regulations 1999 and Merchant Shipping Notice No. M.1716 contain the requirements for pilot ladders and hoists. The provision of pilot ladders is a statutory requirement for the issue of Passenger and Safety Certificates, Class II(A) Passenger Certificates and Safety Equipment Certificates. When dealing with ships which are not required to hold one of these certificates but nevertheless come within the scope of the Regulations, surveyors should not issue a Record of Inspection (Form MSF 1102) until the requirements of the Regulations are met.

17.1.1 Submissions

A formal application for consideration of each new design of pilot ladder should be submitted to MCA for acceptance. This submission should include fully detailed plans and specifications for construction.

17.2 New ships

The arrangements for the embarkation and disembarkation of pilots should be considered at the design stage, particularly where unusual hull forms or the provision of belting is proposed, to ensure full compliance with the Regulations.

17.3 Pilot ladder arrangements

17.3.1 In view of the serious risk to life involved if pilot ladders fail in service, surveyors should be satisfied that the materials and workmanship are of satisfactory quality and that the ladders and other arrangements are in all respects fit for the service intended. The ladders must be free from oil, grease or other substance which may affect the property of grip of steps or side ropes.

17.3.2 A high proportion of accidents to pilots occur at the top of the pilot ladder due to poorly designed access arrangements or inadequately rigged equipment. Means should be provided to ensure safe, convenient and unobstructed passage for any person embarking on or disembarking from the ship between the head of the pilot ladder, or any accommodation ladder or pilot hoist. The position of the point of access should have sufficient headroom from deck cargoes such as containers to remove the risk of persons using the pilot ladder arrangement from suffering head injury.

17.3.3 Adequate arrangements for securing the pilot ladder should be provided. No objection should be raised to a pilot ladder security arrangement conforming to the Shipbuilding Industry Standard No. S1S 6. Adequate handholds should be provided at gateways in rails and bulwarks.

17.3.4 Where a pilot has to pass over rails or bulwarks a bulwark ladder fitted with adequate means of securing to the ship's structure must be provided to enable the pilot to pass safely from the head of the ladder to the deck of the ship. A bulwark ladder should comply with the specifications set out in the Shipbuilding Industry Standard No. S1S 7, or be of an equivalent standard.

17.3.5 Stanchions, when fitted, should be secured to the ship in such a manner that they cannot be unshipped inadvertently. The stanchions should provide a rigid handhold at the point of access and should not be attached to the bulwark ladder due to the risk of it overturning if it is not adequately secured to the ship (see Shipbuilding Industry Standard No. S1S 7). Bulwark ladder handrails should not be used in place of stanchions.

17.3.6 A check list to assist surveyors in the examination of pilot ladder arrangements is at Appendix M.

17.4 The pilot ladder

17.4.1 Specifications

The Statutory Instrument referred to in paragraph 17.1 lays down a specification for pilot ladders, however, no objection should be raised to a pilot ladder conforming to ISO 799-1980, BS MA 92 provided that it meets the regulation requirements in all respects.

17.4.2 Steps and spreaders

17.4.2.1 Steps and spreaders must be made from knot-free ash, oak, elm, teak or other hardwood of similar characteristics or of a material of at least equivalent strength, stiffness and durability which has been approved by the MCA.

17.4.2.2 Steps should be drilled with holes of adequate size to take the side ropes, and secured in position using good quality seizing material, or other equally effective arrangement. Where triangular inserts or winnets are used to maintain the step surface in the horizontal position, they should be secure and adequate for the intended purpose. Winnets should be placed above and below each step. The size of winnets should not preclude using the side ropes between the steps as hand holds.

17.4.2.3 Spreaders should be secured to, or be combined with, steps so as not to preclude using the side ropes between the steps as hand holds.

17.4.3 Sideropes and manropes

17.4.3.1 Sideropes and manropes must be made of good quality manila or other material of equivalent strength, durability and grip which has been protected against actinic degradation. The acceptance of polypropylene rope in place of manila is conditional on:

- (i) The rope being approved in accordance with the relevant BS EN standard (Appendix O) for use in Life Saving Appliances.
- (ii) Identifying tape being incorporated.
- (iii) The rope having a grip compatible to manila.
- (iv) The seizings being of a compatible material which has good resistance to abrasion and ultra violet light (Natural fibres such as tarred marline are generally found to be unsuitable).

17.4.3.2 The sideropes are required to be continuous with no joins below the top step and the bottom step to ensure that persons using them as hand holds are not faced with changes in diameter from splices, shackles etc. The method of securing the two ropes on each side below the bottom step should be adequate e.g. double seizings, stopper knots or splices.

17.5 **Associated equipment**

Surveyors should ensure that the equipment specified in Regulation 7(6) is satisfactory and available at the point of access. The safety harness required by Regulation 7(6)(ii) should be a type C or type D as specified in BS EN 354, 355, 358 and 361 to 365:1993.

17.6 **Belting**

17.6.1 Belting should be cut back in the way of the pilot ladder to ensure that the pilot ladder rests firmly against the ship's side throughout its length.

17.6.2 Tapered fendering should be fitted underneath the belting immediately forward and abaft the cut out in the belting to prevent the gunwale of a pilot boat becoming trapped under the belting.

17.7 **Alternative arrangements**

Arrangements or methods of construction which do not meet the requirements of the Regulations should not be accepted without the agreement of the MCA.

17.8 Large ships

17.8.1 In cases where the height from the water to the point of access to the ship, in lightest seagoing condition with no list and in normal trim, exceeds 9 m the accommodation ladder, or other equally safe means employed for the safe access from the pilot ladder to the ship, should be rigged in the position in which it is intended to be used. The surveyor should be satisfied that the arrangement is safe, convenient and practicable.

17.8.2 The accommodation ladder should comply with the specifications set out in standard ISO 5488 or be of an equivalent standard.

17.8.3 The accommodation ladder must lead aft and the lower platform must remain horizontal throughout its operational range.

17.8.4 The lower platform should be fitted with stanchions and handrails on the inboard and outboard sides to facilitate safe transfer to and from the pilot ladder

17.9 Lighting

17.9.1 Fixed or portable lights may be used to illuminate the ladder overside. To avoid dazzling the pilot boat crew, lights should shine from abaft the pilot ladder. The deck area in the vicinity of the pilot ladder or hoist should also be adequately lit. Spot lighting from the wings of the bridge or other suitable position may be accepted provided that tests are carried out to the satisfaction of the surveyor during the hours of darkness.

17.9.2 In the case of tankers and gas carriers the type of lamp fitting used should be certified as being safe for use in explosive atmospheres in accordance with regulations for electric equipment for such ships.

17.10 Pilot hoists

17.10.1 General

Pilot hoists may be accepted by the MCA for use on any British ship registered in the United Kingdom subject to the satisfactory completion of the tests specified in Chapter 12 of Volume 2 - Testing of Life-Saving Appliances, provided that a pilot ladder, which complies with Regulation 7, is also available for immediate use in the normal way in the event of a failure of the source of power during embarkation or disembarkation, or if the pilot prefers to use the pilot ladder instead of the hoist.

17.10.2 Conditions of acceptance

17.10.2.1 For acceptance of pilot hoists the makers should submit to the MCA fully detailed and dimensioned drawings together with a set of strength calculations.

17.10.2.2 The design of the pilot hoists should comply with Merchant Shipping Notice No. M.1716. Electrically operated hoists are not acceptable for use in the hazardous areas of ships which carry oil or other cargoes which constitute a fire or explosion risk.

17.10.2.3 The pilot hoist shall be so designed that failure of one fall wire, or end fixing, will not leave the ladder section unsupported.

17.10.2.4 Provision of a pilot hoist does not relieve the owner or master of the statutory duty to provide embarkation and disembarkation arrangements complying with the requirements of the Regulations.