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Ships and marine technology — Pilot ladders —

Part 2: Maintenance, use, survey, and inspection

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Maritime safety*.

A list of all parts in the 799 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document supplements the IMO requirements for pilot ladders, since IMO instruments do not include specific requirements for manufacturers to supply guidance on maintenance, storage and use of pilot ladders. The inclusion of this guidance was considered necessary in order to ensure that pilot ladders are kept in a condition consistent with the requirements of IMO instruments and ISO 799-1.

Ships and marine technology — Pilot ladders —

Part 2:
Maintenance, use, survey, and inspection

1 Scope

This document provides requirements and recommendations for the maintenance, use, storage, and inspection of pilot ladders.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9554:2019, *Fibre ropes — General specifications*

ISO/IEC Guide 37, *Instructions for use of products by consumers*

ISO 799-1:2019, *Ships and marine technology — Pilot ladders — Part 1: Design and specification*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
user
ship's master, officers and crew who operate a ship on a day-to-day basis

3.2
deck officer
deck crew certificated in accordance with the STCW Convention

3.3
senior deck officer
deck crew certificated in accordance with the STCW Convention and performing the duties of chief officer or master

3.4
spreader step
step no less than 1,8 m long to prevent the pilot ladder from twisting

4 Inspection of ladders

The vessel's planned maintenance procedures shall include requirements for the inspection and maintenance of pilot ladders that comply with this document.

The ladders shall be inspected before and after each use by a deck officer. Additionally, a senior deck officer shall inspect the ladders at three-month intervals. Ladders shall also be inspected annually by a classification society surveyor or authorized representative of the vessel's flag State.

5 Care and maintenance instructions

The manufacturer of a pilot ladder shall supply care and maintenance instructions to users. These instructions shall be produced in accordance with ISO/IEC Guide 37.

The following are the minimum instructions required.

a) Instructions for inspecting the ladder before and after use. A sample checklist for such inspections is contained in Annex A.

b) Instructions on detailed periodic inspection and a list of people authorised to conduct this inspection. The minimum time between these inspections and the qualification of persons carrying out these inspections shall be in accordance with the sample checklist for such inspections. Examples are contained in Annex A. A Classification Society can use its alternative checklist in lieu of Annex A.

c) Specific instructions on inspecting the side ropes; i.e. how to inspect manila or other types of rope used, and factors to be taken into account when determining suitability for ongoing use. These instructions shall be in accordance ISO 9554:2019, Annex C.

d) Specific instructions on inspecting and repairing rope seizings or securing devices.

e) List of repairs that can be conducted by users without the need for recertification.

f) Care and storage instructions with specific warning on the proximity to chemicals, effect of sunlight or other possible causes of degradation of the ladder, e.g. potential effect of different cargo types on ladders longevity, effect of being stored wet. These instructions shall take into account ISO 9554:2010, Annex A.

g) Factors that would shorten the life of the pilot ladder, e.g. passing over sharp coamings or small diameter bends, different methods used to secure the ladder to the deck, such as shackles around side ropes.

h) Acceptable and unacceptable method(s) of securing the ladder to strong points, e.g. the use of iron deck tongues is an unacceptable method of securing pilot ladders to the deck.

i) Pictorial examples of damage or conditions under which the ladder shall be withdrawn from service. A detailed written description shall be included with these examples.

j) Expected service life of the pilot ladder, which may be less than 30 months, particularly on ladders where side ropes cannot be inspected due to the use of mechanically applied metal clamps.

k) Inspections shall be carried out at the intervals stated in Annex A.

l) Care and maintenance of rope pilot ladders shall be in accordance with this clause and should follow the recommendations of Annex B.

6 Maintenance

6.1 Damaged steps shall be replaced with replacement steps meeting the requirements of ISO 799-1:2019, Clause 4 and subclause 5.18. The replacement steps shall be of the type supplied or specified by the ladder manufacturer. A ladder shall not include more than two replacement steps. These steps shall not be next to each other.

6.1.1 Replacement steps shall be fitted by the manufacturer or the manufacturer's approved repair facility, a facility approved by the flag State or a Classification Society. Records shall be maintained of replacement steps in accordance with Clause 7.

6.2 If a ladder requires a third replacement step, it shall be rebuilt and recertified by the manufacturer or the manufacturer's approved repair facility.

6.3 A ladder constructed with spun thermoset polyester side ropes, with polypropylene core of contrasting colour with the inner core showing at any place throughout the length of the ladder, is no longer serviceable and the ladder shall be removed from service or scrapped.

6.4 Where a manufacturer allows replacement steps to be fitted, the manufacturer shall supply:

— two replacement steps;

— one replacement spreader step;

— step fixtures to allow repair to be carried out;

— instructions for fitting replacement steps and spreader step.

6.5 Where a manufacturer allows small repairs such as replacements of rope seizings or replacements of step fixtures, the manufacturer shall supply the seizing material and spare step fixtures.

6.6 Each ladder shall be subjected to the ladder and step attachment strength test in ISO 799-1:2019, Table 2, at intervals of not more than 30 months. The ladder shall be stamped or tagged under the lowest spreader step and the top step with the date of the test and the identification of the person or company performing the test. The person or company performing the test shall also provide a test certificate to the master indicating the details of the test, including the date and the identification of the person or company performing the test. Each ladder which fails the test shall be rebuilt according to ISO 799-1:2019, 10.3, or scrapped.

7 Records

The ship's master shall maintain records relating to the pilot ladders. These records shall be available for inspection on request of the port state control officer, class surveyor, flag state, port authority, or marine pilot.

These records shall include:

a) the pilot ladder serial number or identity number;

b) a certificate of compliance from the manufacturer;

c) the date of receipt onboard;

d) the dates when the pilot ladder was put into service and withdrawn from service;

e) the date of detailed inspections and the person performing the inspections;

f) any findings;

g) the repairs carried out;

h) records of any steps replaced;

i) records as required by 9.3.

8 Storage

Pilot ladders shall be kept clean and properly stowed in accordance with the manufacturer's care and maintenance instructions. Pilot ladders shall not be permanently rigged, they shall be derigged after each use and stowed in accordance with this document.

9 Use

9.1 The safety of a person suspended over the ship's side on a pilot ladder is dependent on the material state of the ladder and on personnel maintaining a firm hold on that structure. Accordingly, the use of a pilot ladder by a pilot or other persons should be treated as a safety critical activity.

Pilot ladders should only be used for embarkation and disembarkation of personnel and should never be used for any other purpose such as draught readings or any maintenance work.

9.2 Personnel performing inspections on pilot ladders should take a "safety first" approach to determine the suitability for ongoing use. If there is any doubt the pilot ladder shall not be used. Pilot ladders not complying with all parts of this document shall not be used.

9.3 The rigging and derigging of pilot ladders is considered a safety critical activity. Operators shall perform risk assessment. This risk assessment shall include, but not be limited to, the rigging and derigging process. Records of risk assessment shall be maintained in accordance with the requirements of the vessel's safety management system.

9.4 The use of pilot ladders to embark and disembark ships is considered a safety critical activity. Organizations employing personnel who board and disembark vessels by pilot ladders shall perform a risk assessment for such operations.

9.5 Personnel responsible for rigging and inspecting pilot ladders shall receive periodic training in the inspection requirements, regulations and standards associated with pilot ladders and their use.

Where other arrangements or equipment are essential for use in conjunction with a pilot ladder, those arrangements or equipment shall be included in such training. This requirement may be fulfilled by the use of an onboard computer-based training module.

9.6 For the IMO required boarding arrangements for pilots, see Reference [3].