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## **Ships and marine technology — Embarkation ladders**

*Navires et technologie marine — Échelles d'embarcation*



Reference number  
ISO 5489:2008(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 5489 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Lifesaving and fire protection*.

This third edition cancels and replaces the second edition (ISO 5489:1986) of which it constitutes a complete revision in order to take into account new designs and manufacturing methods for embarkation ladders which have entered the market since 1986.

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## Introduction

This International Standard is intended to supplement existing International Maritime Organization (IMO) requirements for embarkation ladders. Since IMO instruments do not include specific requirements for prototype testing of embarkation ladders for approval, those tests included in this International Standard are in excess of the existing IMO requirements. The inclusion of these tests was considered necessary in order to provide a means of ensuring conformance of embarkation ladders with the performance requirements prescribed in IMO instruments and in this International Standard.

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# Ships and marine technology — Embarkation ladders

## 1 Scope

This International Standard specifies requirements for a ship's embarkation ladder that is provided to enable safe embarkation of waterborne survival craft along a vertical portion of the ship's hull. It is applicable to merchant ships required to carry embarkation ladders under Chapter III of the 1974 International Convention for the Safety of Life at Sea (SOLAS), as amended. National maritime safety administrations are urged to accept ladders complying with this International Standard on their ships, as complying fully with the requirements of SOLAS.

## 2 Normative references

The following referenced documents are indispensable for the application 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 209-1:1989, *Wrought aluminium and aluminium alloys — Chemical composition and forms of products — Part 1: Chemical composition*

ISO 877:1994, *Plastics — Methods of exposure to direct weathering, to weathering using glass-filtered daylight, and to intensified weathering by daylight using Fresnel mirrors*

ISO 1461:1999, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods*

## 3 Materials

### 3.1 Wooden parts

Each wooden part shall be made of a hardwood (e.g. ash, oak, elm, beech, teak or apitong) free from knots.

### 3.2 Side ropes

**3.2.1** Each side rope shall be mildew-resistant manila rope or a spun thermoset polyester rope with a polypropylene core of a colour that contrasts with the spun polyester. Each side rope shall have a breaking strength of at least 24 kN, and a nominal diameter of 18 mm (57 mm circumference).

**3.2.2** Alternative side ropes of synthetic material may be used if they:

- a) meet the breaking strength and size requirements of 3.2.1;
- b) are at least as resistant to elongation under load as the standard ropes described in 3.2.1;
- c) have an exterior surface suitable for grasping with bare hands, similar to manila or spun polyester;
- d) are of a thermosetting polymer, resistant to deterioration from ultraviolet light;
- e) provide a visual indication of excessive wear, similar to the spun polyester/polypropylene construction described in 3.2.1.