International Standard 5489

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Shipbuilding — Embarkation ladders

Construction navale — Échelles d'embarcation

Second edition — 1986-10-01

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Descriptors : shipbuilding, embarkation devices, ladders, specifications, dimensions, designation, marking.

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5489 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures.*

This second edition cancels and replaces the first edition (ISO 5489-1979), of which it constitutes a minor revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Printed in Switzerland

Shipbuilding — Embarkation ladders

1 Scope and field of application

This International Standard specifies requirements for an embarkation ladder which is provided for passengers and crew to gain access to a survival craft in an emergency.

2 References

ISO 799, *Shipbuilding — Pilot ladders.*

ISO 1181, *Three- or four-strand manila and sisal ropes.*

3 Dimensions

The dimensions of the assembled embarkation ladder and of the components shall be in accordance with figures 1 and 2.

4 Materials

4.1 The materials of components shall be in accordance with the table. Metal parts shall not be used in the embarkation ladder construction, except for item 4 of the table.

4.2 Steps shall be made from one piece of hardwood (ash, oak, elm, beech or teak) free from knots, or from other materials having equivalent relative density, strength, durability and buoyancy. The lowest four steps may be made of rubber of sufficient strength and stiffness, or of other suitable material of equivalent characteristics. Steps shall have an efficient non-slip surface.

4.3 The seizing for side ropes shall consist of two- or three-ply marline of minimum breaking strength 800 N, or other suitable material of equivalent strength.

Table — Components and materials

Item	Component	Material	Specification
1	Step	Hardwood	See 4.2
2	Side ropes	Manila	ISO 1181, Quality 1
3	Side rope seizing	Marline	See 4.3
4	Fibre rope thimble	Steel, galvanized	Nominal size 20

5 Construction

5.1 The embarkation ladder shall be assembled in accordance with figure 1 to have an equal step spacing of 310 ± 5 mm.

5.2 Steps shall be constructed from one piece to the dimensions given in figure 2. Their non-slip upper surfaces shall be provided by either

a) longitudinal grooving, or

b) the application of an approved non-slip coating.

5.3 Side ropes shall have a diameter of 20 mm (circumference 64 mm) and shall be seized together as closely as possible above and below each step by a figure-of-eight racking seizing. The side ropes below the bottom step shall have a double racking seizing as shown in figure 1. A racking seizing shall be applied below the fibre rope thimbles.

5.4 All rope ends shall be whipped for a distance of 25 mm with waxed sailmaker's twine or equivalent material.

6 Designation

Embarkation ladders conforming to this International Standard shall be designated by the following indications, in the order given :

— number of this International Standard;

— a capital "S" followed by the number of steps.

Example :

The designation for an embarkation ladder consisting of 14 steps is :

Embarkation ladder ISO 5489-S14

NOTE — The length of an embarkation ladder determined by the designation shall include an allowance for a 15° adverse list.

Spare or additional components shall be designated by reference to the relevant International Standard.

Example :

The designation for a spare step is :

Step ISO 799

since the steps in ladders to ISO 5489 are identical to those defined in table 1 of ISO 799.

NOTE — However, this should not be confused with ladder identification which is specified in clause 7 of this International Standard.

7 Marking

Embarkation ladders conforming to this International Standard shall be permanently marked under the two top steps by the number of this International Standard : ISO 5489.

Dimensions in millimetres

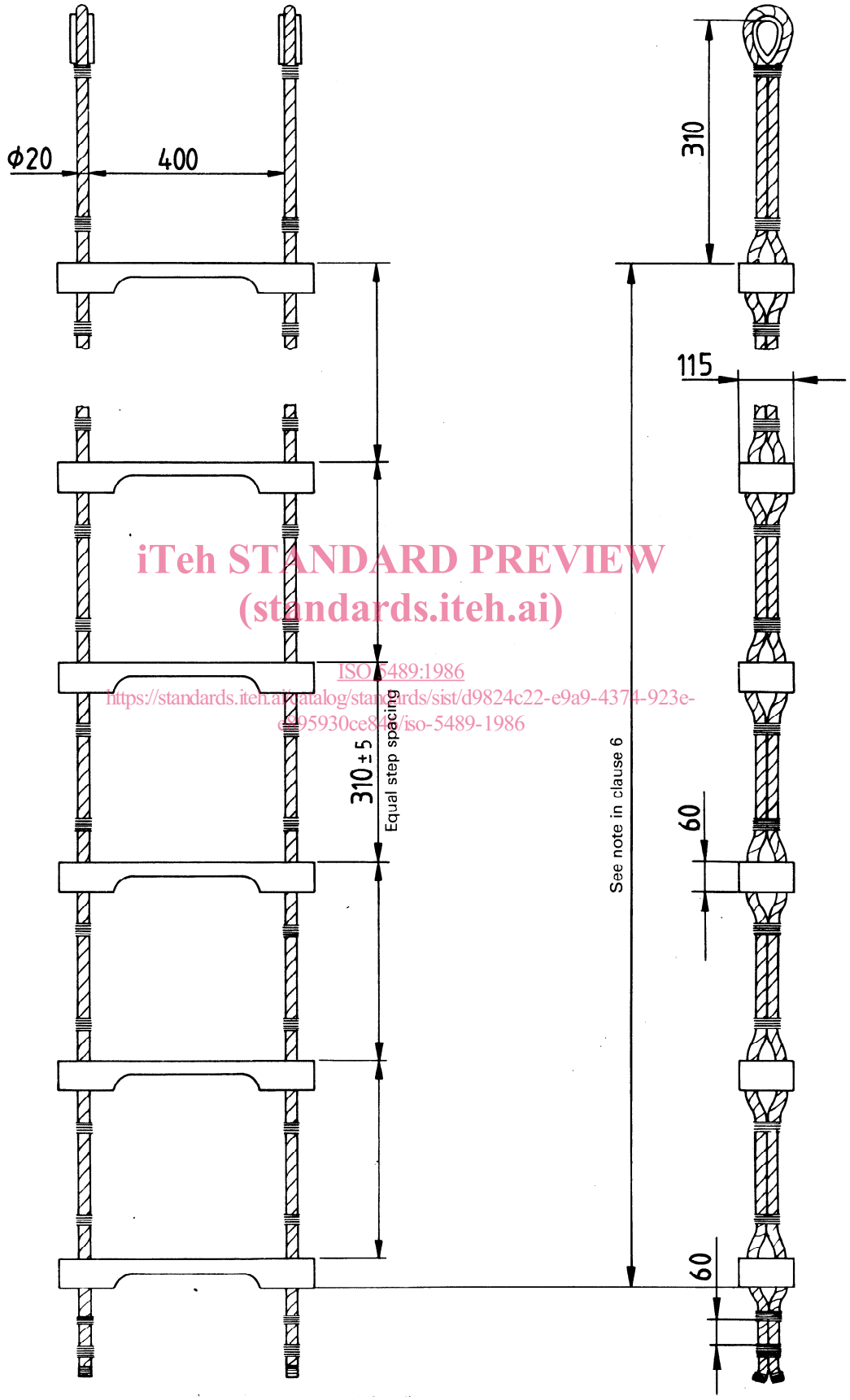
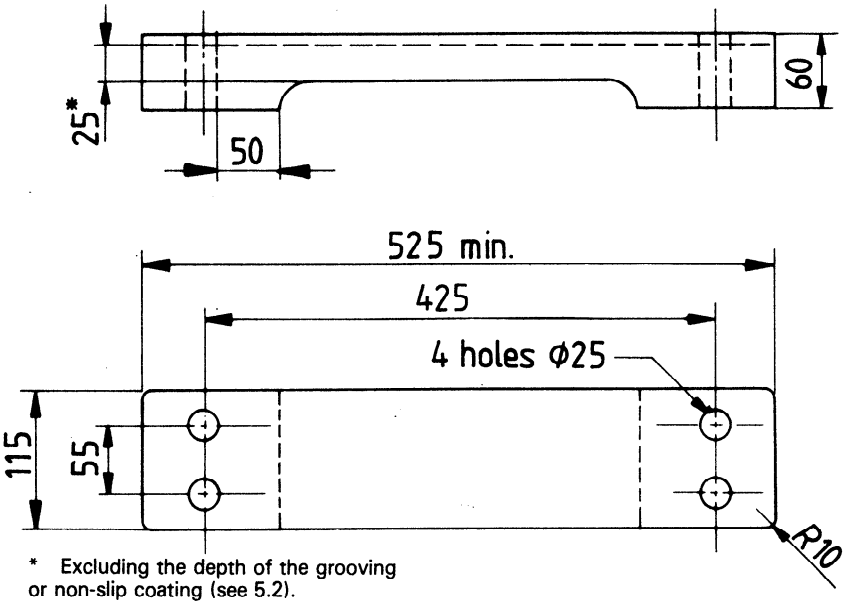


Figure 1 — Assembled embarkation ladder

Dimensions in millimetres



* Excluding the depth of the grooving or non-slip coating (see 5.2).

Figure 2 — Step

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