
INTERNATIONAL STANDARD



4001

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Shipbuilding — Inland navigation — Raft-type life-saving apparatus

Construction navale — Navigation intérieure — Appareils de sauvetage type flotteur

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

International Standard ISO 4001 was developed by Technical Committee ISO/TC 8, *Shipbuilding*, and was circulated to the member bodies in February 1976.

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It has been approved by the member bodies of the following countries :

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The member bodies of the following countries expressed disapproval of the document on technical grounds :

India
Netherlands

Shipbuilding — Inland navigation — Raft-type life-saving apparatus

0 INTRODUCTION

The adoption of the operational and technical requirements for raft-type life-saving apparatus (see the figure) specified in this International Standard will promote the determination of the basis of their optimum design on the one hand and the establishment of a single viewpoint in respect of providing ships with this kind of life-saving appliance on the other hand.

1 SCOPE AND FIELD OF APPLICATION

1.1 This International Standard specifies the purpose, materials and main technical requirements for rigid (non-inflatable) raft-type life-saving apparatus, which may be supplied to inland ships.

1.2 The raft-type life-saving apparatus for the inland ships subject to the provisions of the International Convention for the Safety of Life at Sea, 1960¹⁾, should comply with the corresponding requirements of the Convention.

2 REFERENCE

ISO/R 408, *Safety colours*.

3 DEFINITION

raft-type life-saving apparatus : A buoyant apparatus²⁾ (other than lifeboats, liferafts, lifebuoys and lifejackets) designed to support a specified number of persons who are in the water and of such construction that it retains its shape and properties during the whole of its service life.

4 CLASSIFICATION

The groups into which the apparatus are divided depending on the number of persons supported as well as the materials from which they may be manufactured and the means which ensure their buoyancy are indicated in the table.

TABLE — Classification of life-saving apparatus

Designation	Number of persons	Material	Filler for buoyancy compartments
6-person apparatus	6	Light alloy, plastics or tarpaulin	Air or non-absorbing porous plastic
10-person apparatus	10		
14-person apparatus	14		
20-person apparatus	20		

5 OPERATIONAL AND TECHNICAL REQUIREMENTS

5.1 The apparatus shall be of such construction that it retains its shape and properties under various weather conditions while staying on deck as well as in the water at an ambient air temperature ranging from -30°C to $+65^{\circ}\text{C}$.

5.2 The apparatus shall be of such strength that it can be dropped into the water from a 10 m height without being damaged.

5.3 The capacity of the air compartments or the volume of the materials of equivalent buoyancy within every apparatus shall provide :

- balance on the water under all possible loading conditions;
- support for the specified number of persons on condition that not less than $0,0145\text{ m}^3$ of spare buoyancy of the air compartments or the equivalent volume of the filler is available for each person;
- buoyancy when supporting all the persons at an allocation of 0,3 m of the perimeter per person.

1) To be replaced by the Regulations of the International Convention for the Safety of Life at sea, 1974, when they are brought into force.

2) Hereinafter called simply "apparatus".

5.4 The materials of which the apparatus casing may be manufactured shall be resistant to oil and oil products.

5.5 The total mass of an apparatus designed for manual dropping shall not exceed 150 kg.

5.6 Each apparatus shall be fitted with a line securely becketed round the outside, and a device for mooring and towing.

5.7 The apparatus shall be effective and stable when floating either side up and under all possible loading conditions.

5.8 The surface of the apparatus shall be painted safety yellow in accordance with ISO/R 408.

5.9 The details of construction and equipment unspecified by this International Standard shall meet the national requirements.

6 TESTING

6.1 The sequence and the methods of acceptance tests for measurements, mass, strength and water-absorption are determined by the national requirements.

6.2 During the stability tests, the apparatus floating in fresh water shall be stable under the action of steel weights of mass 7 kg each suspended on ropes along the long side of the apparatus every 0,3 m. In this condition the upper surface of the loaded side of the apparatus shall not be submerged.

6.3 During the buoyancy test, of a duration of 24 h in fresh water, the apparatus shall be loaded with steel weights of mass 14,5 kg each suspended on ropes from the becketts around the apparatus every 0,3 m. The number of weights shall be equal to the specified number of persons.

In this condition the upper surface of the apparatus shall not be submerged.

7 MARKING

7.1 The marking of the life-saving apparatus shall be an inscription engraved on a corrosion-resistant metal plate, indicating :

- the name of the manufacturer;
- the date of production;
- the mass of the apparatus;
- the conventional designation.

7.2 The following inscriptions shall be marked in black by indelible means on the surface of the middle portion of the apparatus :

- "life-saving apparatus";
- the number of persons (for example, "10 persons");
- the name of the ship, if required by the purchaser;

The size of the print for the inscriptions shall be chosen by the ship-owner depending on the size of the apparatus.

8 DESIGNATION

The designation of the raft-type life-saving apparatus contains an indication of the purpose of the apparatus (life-saving), an indication of the material of which it is made, the number of persons supported and a reference to this International Standard.

The material of the apparatus shall have the following designation :

- light alloy : A
- plastics : P
- tarpaulin : T

Example : LAP 14-ISO 4001 which means :

"Life-saving apparatus, plastics, for 14 persons, according to ISO 4001".

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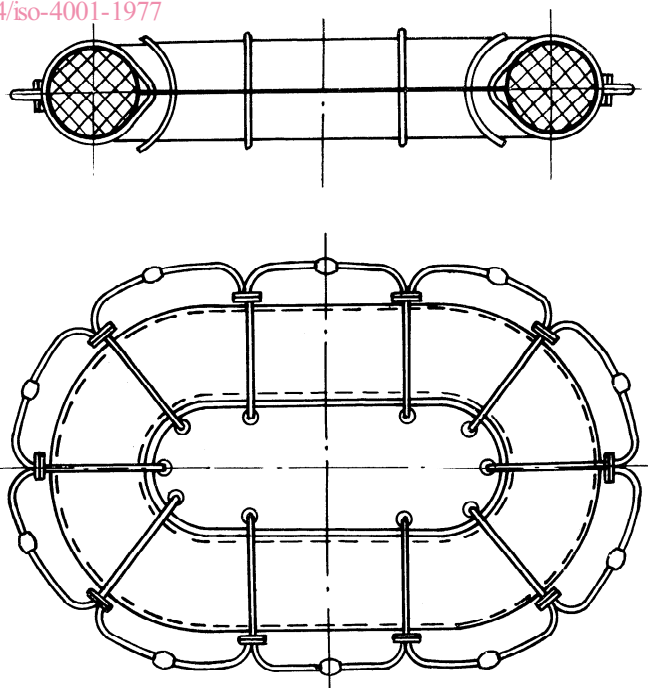


FIGURE — Raft-type life-saving apparatus