भारतीय मानक प्रारूप जहाज़ पर उपयोग के लिए अंतर्राष्ट्रीय शोरे कनेक्शन - विशिष्टि (आई एस 12266 का प्रथम पुनरीक्षण)

Draft Indian Standard

INTERNATIONAL SHORE CONNECTIONS FOR USE ON BOARD SHIP - SPECIFICATION

(First Revision of IS 12266)

ICS 47.020.30; 13.220.10; 23.040.60

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Last date for receipt of comments is 15 04 2024

Marine Engineering and Safety Aids Sectional Committee TED 19

FOREWORD

This draft Indian Standard (First Revision) will be adopted by the Bureau of Indian Standards after the draft finalized by the Marine Engineering and Safety Aids Sectional Committee is approved by the Transport Engineering Division Council.

This standard was first published in 1987. This first revision is being undertaken to update the standard and to incorporate latest technological advancement/development that has taken place in various field. The salient features of this first revision are.

- a) The standard has been drafted as per latest drafting guidelines.
- b) Reference of revised Indian Standard has been given.

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The international shore connection is a universal hose connection that is to be provided on all ships as per the IMO SOLAS requirement. The purpose of the International Shore Coupling is to keep a standby hose attachment to get a connection from shore or from other ships for shipboard firefighting, in case there is a total failure of pumps onboard. While using International Shore Connection, the seawater is supplied at a pre-decided pressure and is connected to the ship's fire main. This international shore connection flange is generally kept at a convenient and accessible location (Bridge or in Fire locker) of a ship so that in case of an emergency it is readily available and used.

The Composition of the Committee responsible for formulation of this standard is given at Annex A (To be added later)

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard specifies material, shape and dimensions and performance tests for international shore connections to be used on board ship for firefighting purposes.

2 REFERENCES

The following Indian Standard is necessary adjuncts to this standard. At the time of publication, the editionindicated was valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
IS 291 : 1989	Naval brass rods and sections for machining purposes - Specification (<i>Third Revision</i>)
IS 292 : 1983	Specification for leaded brass ingots and casting (Second Revision)
IS 304 : 1981	Specification for high tensile brass ingots and castings (Second Revision)
IS 318 : 1981	Specification for leaded tin bronze ingots and castings (Second Revision)

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IS No.	Title
IS 617 : 1994	Cast aluminum and its alloys - Ingots and castings for general engineering purposes - Specification (<i>Third Revision</i>)
IS 1264 : 1997	Brass gravity die castings - Specification (Fourth Revision)
IS 1868 : 1996	Anodic coatings on aluminum and its alloys - Specification (Third Revision)
IS 2500 (Part 1):2000	Sampling inspection procedures: Part 1: Attribute sampling plans indexed by acceptable quality limit (AQL) for lot-by-lot inspection (<i>Third Revision</i>)

3 MATERIAL

- **3.1 Castings and Forgings** Castings and forgings for international shore connections shall comply with any one of the materials given in **3.1.1** and **3.1.2**.
- **3.1.1** Copper alloys used for castings or forgings shall conform to the requirements given below against each.

Manufacturing process	Grade
Sand Castings	Grade LTB2 of IS 318 or Grade HTB1 of IS 304
Die Castings	Grade LCB2 of 292
Hot forgings	Grade 1 of IS 291
Gravity die casting	IS 1264

- **3.1.2 Aluminum Alloys** Aluminum alloys used for castings shall conform to designation 4225 or 4450 of IS 617. The condition of both the alloys shall be T6.
- **3.2 Gaskets** Any material suitable for 1.05 MPa service

NOTE — 1 MPa \sim 10 kgf/cm².

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4 SHAPE AND DIMENSIONS

The shape and dimensions of international shore connection shall be as shown in Fig. 1.

5 GENERAL REQUIREMENTS

- **5.1** The flange shall have a flat face on one side and a permanently attached coupling on the other side which will fit on to the ship's hydrants and hose.
- **5.2** The connection shall be kept aboard the ship together with a gasket and four 16 mm bolts of 50 mm length and eight washers of galvanized finish.
- **5.3** The working pressure of international shore connection and the gasket shall be 1.05 MPa.

6 WORKMANSHIP AND FINISH

6.1 Castings shall be sound and free from pits, blow holes, scales, cracks and other imperfections and shall not be repaired or filled so as to hide the casting defects. No filling or similar after treatment of castings shall be carried out. Parts not machined shall be finished clean as cast. The machined surfaces shall be polished. All burrs and sharp edges shall be removed. Waterways, particularly the bores, shall have a smooth finish. The exterior of all components shall be sufficiently rounded and smooth to avoid injury during handling.

When so ordered, exposed aluminum surfaces shall be anodized. The anodized finish shall be of not less than Grade AC15 of IS 1868.

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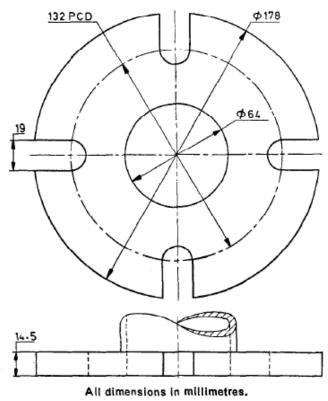


FIG. 1 SHAPE AND DIMENSIONS OF INTERNATIONAL SHORE CONNECTIONS

7 HYDRAULIC TEST

Each international share connection shall be subjected to a hydraulic test pressure of 2.10 MPa for a period of two minutes for the purpose of locating porosity in the castings. The test shall be applied after all machining operations have been completed. The international shore connection when so tested, shall not show any sign of leakage or permanent deformation.

8 MARKING

- **8.1** Each connection shall be clearly and permanently marked with the following information.
 - a) Manufacturer's name or trade-mark, and
 - b) Year of manufacture.

8.2 Standard Marking

The International Shore Connection may also be marked with the Standard Mark.

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8.2.1 The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

9 SAMPLING

Unless otherwise agreed upon between a supplier and purchaser, the inspection sampling shall be as per IS 2500 (Part 1).