*भारतीय मानक* **IS 3942 : 2024**

***Indian Standard***

# पोतीय गहराई मापन छड़ें — विशिष्टि

*( पहला पुनरीक्षण )*

# Marine Sounding Rods — Specification

*( First Revision )*

ICS 47.020.30; 47.020.99



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**December 2024** **Price Group 4**

Shipbuilding Sectional Committee, TED 17

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Shipbuilding Sectional Committee is approved by the Transport Engineering Division Council.

This standard was first published in 1966. This revision is being undertaken to update the standard and to incorporate the latest technological advancement/development that has taken place in various fields. 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; and
c) Clauses related to marking, BIS certification and sampling plan have been added/updated.

Sounding rods with proper markings are one of the means employed on board ships for soundingtanks. The sounding rods, when required, are connected to a suitable rope and lowered into the sounding pipe. In the forward and after end of the ship, sounding pipes may have to be fitted atan incline or with smooth curves of large radii. As it is difficult to lower straight rods into such sounding pipes, sounding rods with flexible joints are used.

The composition of the Committee responsible for formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is compiled with, the final value, observed or calculated, expressing the result of a test or analysis, shall be roundedoff 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.

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*Indian Standard*

# MARINE SOUNDING RODS — SPECIFICATION

*( First Revision )*

## 1 SCOPE

This standard specifies the requirements for flexible and straight marine sounding rods.

## 2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication the editions indicated were 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 edition of these standards:

| *IS No.* | *Title* |
|---|---|
| IS 410 : 1977 | Specification for cold rolled brass sheet, strip and foil (*third revision*) |
| IS 2062 : 2011 | Hot rolled medium and high tensile structural steel — Specification (*seventh revision*) |
| IS 2500 (Part 1) : 2000/ISO 2859-1 : 1999 | Sampling procedure for inspection by attributes: Part 1 Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (*third revision*) |
| IS 6912 : 2005 | Copper and copper alloys forging stock and forging — Specification (*second revision*) |
| IS 7811 : 2019 | Phosphor bronze rods and bars (*second revision*) |

## 3 MATERIAL

The material of the sounding rods shall conform to any of the following Indian Standards:

a) IS 410;
b) IS 2062;
c) IS 6912; and
d) IS 7811.

## 4 DIMENSIONS AND GRADUATIONS

**4.1** The shape and dimensions of flexible and straight marine sounding rods shall be asshown in, Fig. 1 and Fig. 2 respectively.

**4.2** Flexible sounding rods made of brass or bronze shall be 12 mm square in section. Straight sounding rods made of brass or bronze shall be 14 mm × 6.3 mm in section.

**4.3** Flexible sounding rods made of steel shall be 12 mm square in section. Straight sounding rods made of steel shall be 15 mm × 6 mm in section.

**4.4** The length of the graduated part shall be 1 250 mm for straight as well as flexible rods.

**4.5** The sounding rods shall be graduated as shown in Fig. 1 and Fig. 2.

**4.6** The graduation marks shall be clear, of uniform depth and thickness and perpendicular to the edges. These marks shall be filled in black. The thickness of the lines shall be 0.4 mm. The lines shall be of sufficient depth to maintain legibility and indelibility.

**4.7** The size of the numbers punched on the sounding rod shall be 5 mm.

## 5 ACCURACY

**5.1** The actua1 length between any 10 consecutive graduation marks shall not differ by more than 0.02 mm, when compared against a standard certified scale.

**5.2** The actual length of the total graduated part shall not differ by more than 2 mm, when compared against a standard certified scale.

## 6 PRESERVATIVE TREATMENT

The scales shall be smeared with a coating of mineral jelly or any other suitable preservative and wrapped in greaseproof paper.

## 7 MARKING

**7.1** The abbreviation 'cm' shall be marked at the end of the graduations.

**7.2** Each sounding rod shall be legibly and indelibly marked with the maker's initials and his recognized trade-mark.

### 7.3 BIS Certification Marking

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## 8 SAMPLING

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

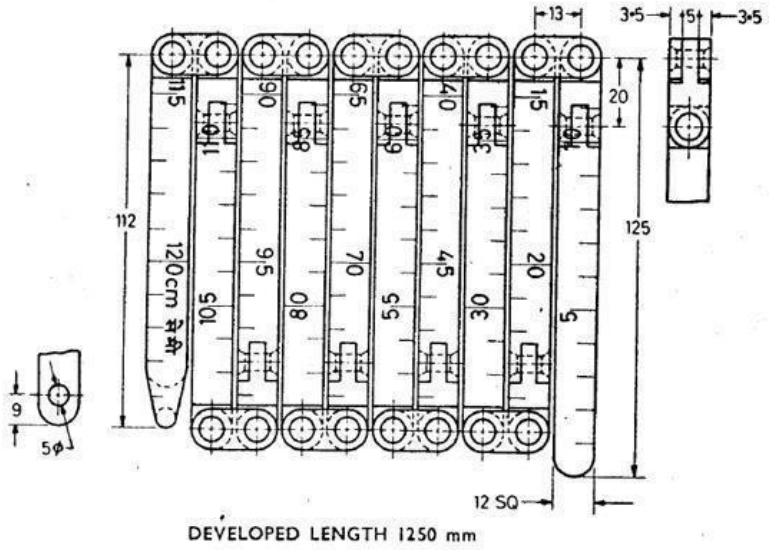
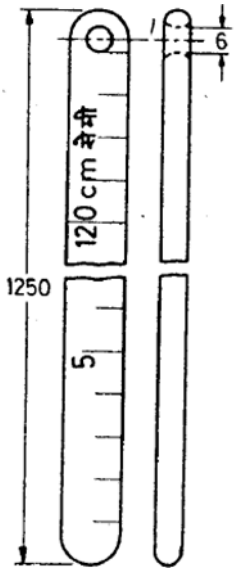



FIG. 1 DIMENSIONS FOR FLEXIBLE SOUNDING RODS




All dimensions in millimetres.

FIG. 2 DIMENSIONS FOR STRAIGHT SOUNDING RODS

## ANNEX A

(*Foreword*)

## COMMITTEE COMPOSITION

Shipbuilding Sectional Committee, TED 17

| *Organization* | *Representative(s)* |
|---|---|
| Indian Register of Shipping, Mumbai | SHRI C. R. VENUGOPAL **(*Chairperson*)** |
| Academy of Maritime Education and Training (AMET), Chennai | COL G. THIRUVASAGAM<br>SHRI MUDUNNURI SURYA PRAKASA RAJU (*Alternate*) |
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| In Personal Capacity [*A-1201, Raheja Sherwood, Near HUB Mail W. Exp. Highway, Goregaon (East), Mumbai – 400063*] | SHRI S. M. RAI |
| BIS Directorate General, New Delhi | SHRI DEEPAK AGGARWAL, SCIENTIST 'F'/ SENIOR DIRECTOR AND HEAD (TRANSPORT ENGINEERING) [REPRESENTING DIRECTOR GENERAL (*Ex-officio*)] |

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SHRI MOHAMMAD TAUSIF
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BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 2016 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.



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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: TED 17 (22497).

## Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
|---|---|---|
| | | |
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