**TED 17 (22497) F**

***भारतीय मानक***

***Indian Standard***

**IS 3942: XXXX**

**पोतीय गहराई मापन रॉड — विशिष्टि**

( *प्रथम पुनरीक्षण* )

**Marine Sounding Rods — Specification**

*( First Revision )*

 ICS 47.020.30; 47.020.99

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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 **November 2024 Price Group**

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:

1. The standard has been drafted as per latest drafting guidelines;
2. Reference of revised Indian Standard has been given; and
3. 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 sounding tanks. 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 at an 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 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.

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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:

1. IS 410;
2. IS 2062;
3. IS 6912; and
4. IS 7811.

**4 DIMENSIONS AND GRADUATIONS**

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

mm

 mm

Fig.



Fig. 1 Dimensions for Flexible Sounding Rods



All dimensions in millimetres.

Fig. 2 Dimensions for Straight Sounding Rods

**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*,2016and 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 be as per IS 2500 (Part 1).

**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. ThiruvasagamShri Mudunnuri Surya Prakasa Raju (*Alternate*) |
| American Bureau of Shipping, Mumbai  |  | Shri A. N. DasShri Arnab Ghosh (*Alternate*) |
| Bureau Veritas, Mumbai |  | Shri Rajan S. Vardhan |
| Cochin Shipyard Ltd, Cochin |  | Shri Harikrishnan S.Shri Deepu Surendran (*Alternate*) |
| Cochin University of Science and Technology, Kerala |  | Dr K. SivaprasadDr A. Mathiazhagan (*Alternate*) |
| Cyber Marine Knowledge Systems Pvt Ltd, Mumbai  |  | Shri Kumar AjagekarShri Praveen R. Rai (*Alternate*) |
| Directorate General of Quality Assurance, New Delhi |  | Shri Moninder Pal Singh AzrotShri S. M. Bhosale (*Alternate*) |
| Directorate General of Shipping, Mumbai |  | Shri Suresh KumarShri Aji Vasudevan (*Alternate*) |
| Directorate of Marine Engineering, Marine Engineering Naval Headquarters, New Delhi |  | Capt C. S. Baburaj |
| Directorate of Naval Architecture, Naval Head Quarters, New Delhi |  | Capt Sujit BaxiShri Pankaj Grover (*Alternate*) |
| Directorate of Naval Design, Naval Headquarters, New Delhi  |  | Cmde Vineet TiwariCdr A. P. Singh (*Alternate*) |
| DNVGL AS, Mumbai |  | Shri Uday Chaitanya GanivadaShri Jagadeesh Pisini (*Alternate*) |
| Engineers India Limited, New Delhi |  | Shri K. N. Choudhary |
| Garden Reach Shipbuilders and Engineers Ltd, Kolkata |  | Capt JagmohanShri Sajal Sengupta (*Alternate*) |
| Goa Shipyard Ltd, Goa |  | Shri Santosh Kumar SinghShri Fabian Savio Rodrigues (*Alternate*) |
| Govardhan Das P. A., Kolkata |  | Shri J. R. Aggarwal Shri Sanjay Raj Aggarwal (*Alternate*) |
| Hindustan Shipyard Ltd, Visakhapatnam |  | Shri Y. ShivramakrishnanShri Mellamu Ashok Kumar (*Alternate*) |
| Indian Chain Pvt Ltd, Kolkata |  | Shri Pradip ChitlangiaShri Rohan Chitlangia (*Alternate*) |
| Indian Institute of Technology, Chennai |  | Shri P. KrishnankuttyShri R. Vijaya Kumar (*Alternate*) |
| Indian Institute of Technology, Kharagpur |  | Shri Prasad Kumar Bhaskaran |
| Indian Maritime University IMU, Visakhapatnam |  | Shri Sheeja JanardhananShri Avinash Godey (*Alternate*) |
| Indian National Ship-owners Association, Mumbai |  | Shri Mayank AwasthiShri Sunil Kumar (*Alternate*) |
| Indian Register of Shipping, Mumbai |  | Shri N. GirishShri S. Renganathan (*Alternate*)Shri Mellamu Ashok Kumar (*Alternate*) |
| Institute of Marine Engineers India, Mumbai |  | Shri Rajeev NayyerShri Bhupesh Tater (*Alternate*) |
| L & T Shipbuilding Limited, Chennai |  | Capt Kjh ChristieCdr Kamal Kanagat (*Alternate*) |
| Lloyd's Register Asia, Mumbai |  | Shri C. Sreenivasa RaoShri C. R. Dash (*Alternate*) |
| Mazagon Dock Ltd, Mumbai |  | Shri Biju GeorgeShri Vinit Wagh (*Alternate*) |
| Nippon Kaiji Kyokai, Mumbai |  | Shri Ajay KumarShri Ashish Balwantrai Matta (*Alternate*) |
| Oil & Natural Gas Corporation Ltd, Mumbai |  | Shri G. V. V. Pawan Kumar |
| Seatech Integrated Technology Pvt Ltd, Ghaziabad |  | Shri Kandha MantryShrimati Malika Khatri (*Alternate*) |
| Shipyard Association of India, New Delhi |  | Shri Sanjeev Walia |
| Shoft Shipyard Private Limited, Thane |  | Shri Sahayraj  |
| Tata Consultancy Services Limited, Mumbai |  | Shri Abhik Chaudhuri |
| The Great Eastern Shipping Co Ltd, Mumbai |  | Shri Anjan Kumar Sahu |
| The Shipping Corporation of India Ltd, Mumbai |  | Shri Vikram DingleyShri N. K. Tripathi (*Alternate*) |
| Titagarh Wagons Limited, Kolkata |  | Shri Vineet Shrivastava |
| Vedam Design & Technical Consultancy Pvt Ltd, Mumbai |  | Shri Akshay JainShri Rakesh Roy (*Alternate*) |
| 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*)]  |
| *Member Secretary*Shri Mohammad TausifScientist ‘D’/Joint Director(Transport Engineering), BIS |