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**IS 8820 (Part 1): XXXX**

**भारतीय मानक**

**टोइंग हुक**

**भाग 1: कर्षण बल परिमाण**

( ***प्रथम पुंनरीक्षण*** )

*Indian Standard*

**TOWING HOOKS**

**PART 1: SCALE OF TRACTIVE EFFORTS**

( *First Revision* )

ICS 47.060

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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**May2024 Price Group**

Inland Harbour Crafts and Fishing Vessels Sectional Committee, TED 18

FOREWORD

This Indian Standard (Part 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Inland Harbour Crafts and Fishing Vessels Sectional Committee had been approved by the Transport Engineering Division Council.

This standard was first published in 1978. This revision was undertaken to update the standard by incorporating towing hooks with higher towing capacity. The salient features of this first revision are:

1. The standard has been drafted as per latest drafting guidelines; and

b) Table 1 has been updated by incorporating towing hooks with higher towing capacity.

The nominal tractive efforts of towing hooks creates the basis for standardization of towing hooks and towing arrangement details. The other part of this standard is as follows:

Part 2 General requirements

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 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.

*Indian Standard*

TOWING HOOKS

**PART 1 SCALE OF TRACTIVE EFFORTS**

*( First Revision )*

**1 SCOPE**

This standard (Part 1) specifies the scale of tractive efforts applicable to towing hooks used on tugs of all types and purposes.

**2 REFERENCES**

Standard contains no cross referenced Indian Standard.

**3** **TERMINOLOGY**

For the purpose of this standard, the following definition shall apply:

**3.1 Nominal Tractive Effort** — Traction developed by a harbour tug while mooring or by a line tug when towing at the speed of 5 knots (9 km/h).

**4 SCALE OF TRACTIVE EFFORTS**

**4.1** The values of tractive effort shall be as given in Table 1.

**Table 1 Nominal Tractive Effort**

(*Foreword and* *Clause* 4.1)

|  |  |  |
| --- | --- | --- |
| **Sl No.** | **kN** | **Tonne** |
|  |  |  |
|  | 6.3 | 0.63 |
|  | 10 | 1.0 |
|  | 16 | 1.6 |
|  | 25 | 2.5 |
|  | 40 | 4.0 |
|  | 63 | 6.3 |
|  | 100 | 10.0 |
|  | 160 | 16.0 |
|  | 220 | 22.0 |
|  | 320 | 32.0 |
|  | 400 | 40.0 |
|  | 450 | 45.0 |
|  | 500 | 50.0 |
|  | 550 | 55.0 |
|  | 600 | 60.0 |
|  | 650 | 65.0 |
|  | 700 | 70.0 |
|  | 800 | 80.0 |
|  | 1 000 | 100.0 |

**ANNEX A**

(*Foreword*)

**COMMITTEE COMPOSITION**

Inland Harbour Craft and Fishing Vessels Sectional Committee, TED 18

| *Organization* |  | *Representative(s)* |
| --- | --- | --- |
| [Indian Register of Shipping, Mumbai](javascript:;) |  | Shri H. V. Ramesh **(*Chairperson*)** |
| American Bureau of Shipping, Mumbai |  | Shri A. N. Das  Shri Arnab Ghash (*Alternate*) |
| Ashok Leyland Ltd, Mumbai |  | Shri C. G. Belsare  Shri Sumit Vyas (*Alternate*) |
| Central Institute of Fisheries Nautical and Engineering Training, Kochi |  | Shri Sunil B. Rangari |
| Chowgule and Co Pvt Ltd, Loutolim |  | Shri P. Chakrabarty  Shri Khrisler Mascarenhas (*Alternate*) |
| [Cochin University of Science and Technology, Department of Ship Technology, Cochin](javascript:;) |  | Shri (Dr) K. Sivaprasad  Shri Anishkumar M. N. (*Alternate*) |
| Cyriac Elias Voluntary Association (CEVA), Kochi |  | Fr Varghese Kokkadan  Dr Antony Gregory (*Alternate*) |
| Delhi Earth Station Space Applications Centre, Department of Space, New Delhi |  | Ms Shahana K. |
| [Directorate General of Quality Assurance, New Delhi](javascript:;) |  | Shri Moninder Pal Singh  Shri S. M. Bhosale (*Alternate*) |
| [Directorate General of Shipping, Mumbai](javascript:;) |  | Shri J. Senthil Kumar  Shri Gopikrishna C. (*Alternate*) |
| [Directorate of Naval Architecture, Naval Headquarters, New Delhi](javascript:;) |  | Shri Sujit Baxi  Shri Pankaj Grover (*Alternate*) |
| Directorate of Naval Design, Naval Headquarters, New Delhi |  | Shri K. S. N. Kumar |
| [Dredging Corporation of India Limited, Vizag](javascript:;) |  | Prof G. Y. V. Victor  Capt S. Divakar (*Alternate*) |
| [Fine Finish Organics Private Limited, Mumbai](javascript:;) |  | Shri G. S. Prabhu  Ms Karishma Prabhu (*Alternate*) |
| [Fishery Survey of India, Mumbai](javascript:;) |  | Shri Shailendra Kumar Jaiswal |
| [Goa Glass Fibre Limited, Goa](javascript:;) |  | Shri Nitin Pandurang Sonam  Shri Emani Venkata Rama Krishna (*Alternate* I)  Shri Saji Sahadevan E. (*Alternate* II) |
| [Goa Shipyard Limited, Goa](javascript:;) |  | Shri Santosh Kumar Singh  Shri Dominic Cardoso (*Alternate*) |
| ICAR - Central Institute of Fisheries Technology,  Kochi |  | Dr Leela Edwin  Shri M. V. Baiju (*Alternate*) |
| [Indian Diesel Engine Manufacturers Association,  New Delhi](javascript:;) |  | Shri Arvind Ranganathan  Shri Karthik Sarma (*Alternate*) |
| [Indian Institute of Technology Kharagpur, Kharagpur](javascript:;) |  | Shri Vishwanath Nagarajan  Prof O. P. Sha (*Alternate*) |
| [Indian Institute of Technology Madras, Chennai](javascript:;) |  | Shri Rajiv Sharma  Prof S. K. Bhattacharya (*Alternate)* |
| [Indian Maritime University, Vizag](javascript:;) |  | Shri Sheeja Janardhanan  Shri G. V. V. Pavan Kumar (*Alternate)* |
| [Indian Register of Shipping, Mumbai](javascript:;) |  | Shri S. Renganathan |
| Inland Waterways Authority of Indian, Noida |  | Shri S. V. K. Reddy |
| [Institute of Marine Engineers India, Mumbai](javascript:;) |  | Shri Sivaram Narayana Swami  Shri Anand Mohan Mani (*Alternate*) |
| Kerala Shipping and Inland Navigation Corporation Ltd, Kochi |  | Shri K. K. Abdul Gaffoor  Shri K. R. Anoop Kumar |
| Kolkata Port Trust, Kolkata |  | Capt A. K. Bagchi |
| Lloyd’s Register Asia, Mumbai |  | Shri C. R. Dash  Shri Srikanth Saripaka (*Alternate*) |
| Mazagon Dock Ltd, Mumbai |  | Shri Biju George  Shri Manoj R. Pai (*Alternate*) |
| [Ministry of Ports, Shipping and Waterways, New Delhi](javascript:;) |  | Shri Anil Pruthi  Shri Ramji Singh (*Alternate*) |
| Raksha Polycoats Pvt Ltd, Pune |  | Shri Abhijit Sarkar  Shri Abhijit Andurkar (*Alternate*) |
| Saertex India Pvt Ltd, Pune |  | Ms Deepa S.  Shri Milind Pande (*Alternate*) |
| [Shipyards Association of India, New Delhi](javascript:;) |  | Shri P. R. Govil |
| [Shoft Shipyard Private Limited, Thane](javascript:;) |  | Shri Binod Kumar Sah  Shri P. Ganesh Kumar (*Alternate*) |
| Timblo Drydocks Pvt Ltd, Margao |  | Cdr Subhash Mutreja  Cdr Raju Ganapathy (*Alternate*) |
| [Titagarh Wagons Limited, Kolkata](javascript:;) |  | Shri Vineet Shrivastava |
| Vedam Design and Technical Consultancy Pvt Ltd, Mumbai |  | Shri Paritosh Barui |
| In Personal Capacity, Chhattisgarh |  | Shri S. M. Rai |
| BIS Directorate General |  | Shri P. V. Srikanth, Scientist ‘D’/ Joint Director and Head (Transport Engineering) [Representing Director General (*Ex-officio*)] |
| *Member Secretary*  Shri Sharad Kumar  Scientist D/Joint Director  (Transport Engineering), BIS | | |