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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 4446-1984

Replacing GB/T 4446-1995

**Shipbuilding and marine structures - Mooring winches
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 4446-1995 "Mooring winch". Compared with GB/T 4446-1995, except for structural adjustments and editorial changes, in addition, the main technical changes are as follows.

- Deleted the drum load, support load, stall load, recovery load, release load, nominal speed, no-load speed and creeping speed Terms and definitions (see 3.1 to 3.8 of the 1995 edition);
- Added the terms and definitions of right winch, left winch, central winch, single drum winch and multi-drum winch (see 3.1 to 3.5);
- Deleted the content of "Product Classification" (see Chapter 4 of the 1995 edition);
- Increased material stress requirements (see 4.2);
- Changed the strength requirements (see 4.3, 5.4 of the 1995 edition);
- Added instructions for winches for oil tankers (see 4.3, 4.5, 6.2 and 6.3);
- Changed the requirements for control devices (see 4.4, 5.3.4 of the 1995 edition);
- Changed the load requirements for hydraulic or steam driven winch brakes (see 4.5.1, 5.3.2 of the 1995 edition);
- Changed the reel design requirements (see 4.6, 5.3.1 of the 1995 edition);
- Changed the requirements for cable drums (see 4.7.2, 5.3.6 of the 1995 edition);
- Added drive device requirements (see 4.8);
- Changed the performance requirements for drum loads (see 5.1, 5.2.1 of the 1995 edition);
- Added two specifications of drum load 63kN and 100kN, and added the nominal

specification series (see Table 2);

--- Increased speed requirements (see 5.5);

--- Deleted the automatic retraction and extension speed requirements (see 5.2.5 of the 1995 edition);

--- Deleted the setting requirements for automatic control torque (see 5.2.6 of the 1995 edition);

--- Deleted the requirements for fiber rope traction devices (see 5.3.8 of the 1995 edition);

--- Changed the test requirements (see Chapter 6, Chapter 6 of the 1995 edition);

--- Deleted the inspection rules, packaging, transportation and storage (see Chapter 7 and Chapter 8 of the 1995 edition);

--- Changed the marking system (see Chapter 7, Chapter 8 of the 1995 edition).

This document is equivalent to ISO 3730:2012 "Mooring winches for shipbuilding and offshore structures".

1 Scope

This document specifies the design and operation, performance specifications, test acceptance and this type of mooring winch has the function of operating, holding and storing mooring lines on a single drum.

This type of winch can also be used for cable winding, see Table 1.

Table 1 Mooring winch functions

Action Items

Non-automatic mooring winch Automatic mooring winch Mooring on a reel Storage rope wound on the drum the brake keeps the tension on the drum.

The cable can be wound on a drum or a cable drum Tension maintained by automatic device - wound on a reel

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

ISO 2408:2017 Steel wire rope requirements Note. GB/T 20118-2017 General technical

conditions for steel wire ropes (ISO 2408:2017, NEQ) Note. GB/T 3893-2008 Terminology and symbols for deck machinery in shipbuilding and offshore structures (ISO/FDIS3828.2007, IDT) Note. GB/T 3766-2015 General rules and safety requirements for hydraulic transmission systems and their components (ISO 4413:2010, MOD) ISO 6482 Shipbuilding-Deckmachinery-Warpingendpro-files) Note. GB/T 42690-2023 Shipbuilding deck machinery cable drum shape (ISO 6482:2017, IDT) ISO 7825 Shipbuilding-Deck machinery-General requirements Note. GB/T 42050-2022 General requirements for shipbuilding deck machinery (ISO 7825:2017, IDT)