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

GB/T 27889-2023

**Ships and marine technology - Terms, abbreviations, graphical
symbols and concepts on navigation**

船舶和海上技术 导航术语、缩略语、图形符号和概念

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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 27889-2011 "Terms, Abbreviations, Graphical Symbols and Concepts for Ships and Maritime Technical Navigation", and Compared with GB/T 27889-2011, except for structural adjustment and editorial changes, the main technical changes are as follows:

- a) Delete the normative references (see 3:1 and Chapter 15 of the:2011 edition);
- b) Added Chapter 3 "Terms and Definitions" (see Chapter 3);
- c) Delete the second explanation statement in 6:1 (see 5:1 of the:2011 edition);
- d) According to IMO Resolution MSC:192(79), the contents of "Definitions and Remarks" in 6:1 and Chapter 7 were modified (see 6:1:1~6:1:15 and 7:1~7:5, 5:1:1~5:1:15 and 6:1~6:5 of the:2011 edition);
- e) Add the definitions of 6:1:1 "heading", 6:1:2 "heading" and 6:1:4 "steering heading" in 6:1 (see 6:1:1, 6:1:2, 6:1:4,:2011 version 5:1);
- f) According to the IMO resolution MSC:192(79), the "definitions and remarks" in 7:1~7:5 have been updated (see 7:1~7:5);

g) Deleted Chapter 15 "Radar Navigation" and Chapter 16 "Roland C" (see Chapter 15 and Chapter 16 of the:2011 edition): This document is equivalent to ISO 19018:2020 "Terms, Abbreviations, Graphical Symbols and Concepts for Ships and Maritime Technical Navigation": Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed and managed by the National Marine Vessel Standardization Technical Committee (SAC/TC12): This document is drafted by: China Shipbuilding Industry Comprehensive Technical and Economic Research Institute, China Merchants Marine Equipment Research Institute Co., Ltd., Shanghai Shipbuilding Institute of Transportation Sciences Ltd: The main drafters of this document: Zhao Chenning, Wang Cong, Yu Zhiliang, Wu Sichuan, Wang Yan, Chen Huiling, Liu Wei, Ma Qiang, Cheng Nan, Wu Zhongdai, Han Bing, Yao Qiang: This document was first published in:2011, and this is the first revision: Ship and maritime technical navigation terms, abbreviations, Graphical symbols and concepts

1 Scope

GB/T 27889-2023 is the Chinese vocabulary of marine navigation, with its abbreviations, graphical symbols and concepts. Navigation is the field where an imprecise term becomes a grounding: course, heading and track are three different things that differ by the leeway and the current, true, magnetic and compass directions differ by amounts that must be applied in the right order and sign, and the symbols on an electronic chart display have to mean the same to a crew of any nationality. The standard defines the units peculiar to marine navigation, the reference directions, course, heading, track and speed, orientation, the corrections, wind and current effects, geodetic coordinates, positions, lines and graphical symbols, waypoint navigation, time, celestial navigation, depth and tidal height, geomagnetism and GNSS. It replaces GB/T 27889-2011 and took effect on 1 December 2023.

This document defines terms, abbreviations and graphic symbols for maritime navigation by ships: The symbols required to be used in mathematical formulas are noted:

2 Normative references

This document has no normative references:

3 Terms and Definitions

The following terms and definitions apply to this document: The terms, definitions and symbols used in navigation are given in Chapter 4~Chapter 16: Abbreviations should not be used in mathematical formulas: 3:1 navigation The process of locating and planning, recording and controlling the movement of a vessel or other vehicle from one location to another:

4 Dedicated units for maritime navigation

See Table 1 for special units for maritime navigation: Table

1 Special units for maritime navigation Numbering Unit Names International Units Symbol Definitions, Conversion Factors and Remarks 4:

1 Distance units 4:1:1 nautical mile nauticalmile N M On the chart: Ma 4:1:2
cable, cablelength cbl 1NM=1852m Nautical miles are not part of the International Units (SI units): Its definition was in the 1st session in 1929 Adopted at the International Hydrological Conference: One-tenth of 1NM: Chains are not SI units 4:

2 Velocity and rate units 4:2:1 knots, knots k n 1kn=1NM/h=0.514444m/s Velocity is a vector, while velocity is just a scalar with a value: Sections are not SI units 4: