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

GB/T 11877-2010

Replacing GB/T 11877-1999

Marine autopilot with gyro compass

船用陀螺罗经组合操舵仪

(English Translation)

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Foreword

This standard replaces GB/T 11877-1999 "Technical conditions for marine gyro compasses combined steering gear".

This standard compared with GB/T 11877-1999, the main changes are as follows.

- standard name by the "marine gyro compass combination of technical conditions" to "marine gyro compass combination steering instrument";
- modify and add terms and definitions (Chapter 3);
- modified composition requirements [4.1b), 4.1e)];
- modified functional requirements (4.3.2);
- increase the external information output requirements (4.3.7);
- Removes the performance requirements of the rudder angle repeater scale accuracy and heading indicator scale accuracy requirements;
- modified the alarm, steering range, water resistance, tilt and swing requirements (4.3.8,4.4.1,4.6.3,4.6.4,4.6.6);
- remove the requirements of the mold and the relevant test terms;
- modified safety, distance, water test, tilt and swing test, safety distance test (4.8,4.10,5.11.3,5.11.4, 5.11.6, 5.15);
- increased oil temperature, filter blockage, compass alarm test (5.2.5,5.2.6);
- modified markings and identification, packaging, transportation and storage (Chapter 7, Chapter 8).

This standard is proposed by China Shipbuilding Industry Corporation.

This standard is under the jurisdiction of SAC/TC12/SC5, National Maritime Equipment Subcommittee.

The drafting of this standard. Jiujiang in the ship instrument limited liability company.

1 Scope

This standard specifies the requirements, test methods and inspection rules for marine gyro compasses (hereinafter referred to as "combined steering gear").

This standard applies to the design, manufacture and acceptance of the combined steering gear.

2 Normative reference documents

The terms of the following documents are hereby incorporated by reference into this standard. Whichever is the date of the reference file, which is followed by all (Excluding corrigenda) or revisions do not apply to this standard, however, encourage the parties to reach an agreement under this standard Whether you can use the latest version of these files. For undated references, the latest edition applies to this standard.

GB 4208 enclosure protection class (IP code) (GB 4208-2008, IEC 60529.:2001, IDT) GB/T 4300-2007 Marine and marine technology Marine gyro compass (ISO 8728.:1997, IDT) General specification for packaging of electromechanical products GB/T 13384 Ship and offshore technology - Locations of magnetic compass on board IEC 60945.:2002 Maritime navigation and radiocommunication equipment and systems General requirements Test methods and required test results IEC 61162-1 Maritime navigation and radiocommunication equipment and systems - Digital interface - Part 1. Single transmitter and multi - receiver

3 Terms and definitions

The following terms and definitions apply to this standard.

A combination of gyrocompass and steering gear, through the gyro compass to obtain the course signal control steering gear, can make the ship automatically the direction of the bow control system.

Bow to heading

Through the horizontal plane between the vertical plane of the true meridian and the vertical plane passing through the bow thruster of the ship. It is made from the true north (000 °) Rotate 360 ° clockwise to measure.

Automatic steering

So that the ship automatically stabilizes in a given course of navigation on the way of navigation.

Follow the steering

So that the steering gear according to the given rudder angle command steering mode.

Simple steering on-offsteering So that the steering gear according to a given steering mode.

Tracking error tracingerror the difference between the given rudder angle and the actual rudder angle at steady state is the measure of the accuracy of the follower index.