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

GB/T 37303.6-2019

**Ships and marine technology -- Manoeuvring of ships -- Part 6:
Model test specials**

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Foreword

GB/T 37303 "Ship and Marine Technology Ship Maneuverability" is divided into six parts.

--- Part 1. Basic concepts, quantities and test conditions;

--- Part 2. Swing and yaw correction;

--- Part 3. Heading stability and steering;

--- Part 4. Shipment, acceleration and traverse;

--- Part 5. Submarine special requirements;

--- Part 6. Special requirements for model tests.

This part is the sixth part of GB/T 37303.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to ISO 13643-6.2017 "Ship and Marine Technology Ship Maneuverability Part 6. Model Test

Test special requirements.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

--- GB/T 37303.1-2019 Ships and marine technology - Ship handling - Part 1. Basic concepts, quantities and test conditions

(ISO 13643-1..2017, IDT).

This part is proposed and managed by the National Marine Ship Standardization Technical Committee (SAC/TC12).

This section drafted by. China Shipbuilding Industry Comprehensive Technology and Economic Research Institute, Shanghai Waigaoqiao Shipbuilding Co., Ltd., China Shipbuilding Heavy Industry

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1 Scope

This part of GB/T 37303 specifies the symbols and terminology of the special requirements for model tests, and provides surface ships and submarines for planes.

Ship model tests such as motion, circular motion, inclined tow or flow field systems to determine hydrodynamic and torque guidelines, as well as symbols, terminology and guide. This section is used in conjunction with ISO 13643-1.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 13643-1 Ships and marine technology - Ship handling - Part 1. Basic concepts, quantities and test conditions (Ships and marine technology - Manoeuvring of ships - Part 1. General concepts, quantities and test conditions)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Plane motion test

Hydrodynamic and hydrodynamic moments are determined by maneuverability tests to include lateral velocity, lateral acceleration, and relative to the z-axis, respectively

Expressed as a function of angular velocity and angular acceleration of the y-axis.

3.2

Circular motion test circular motion test

The hydrodynamic and hydrodynamic moments are determined by maneuverability tests, which are mainly related to the angular velocity of the surface ship relative to the z-axis.

Expressed by the system, for submarines, it is mainly expressed in angular velocity relative to the z-axis or y-axis.

3.3

Oblique towing or flow field test obliquetowingorflowtest

Maneuverability tests in towed tanks, circulating tanks or wind tunnels, determination of forces and moments and drift angles and handling by maneuverability tests

A functional relationship between angles, for a submarine, determines the relationship between force and moment as a function of angle of attack and horizontal rudder angle.

3.4

Wind tunnel test windtunneltest

Through experiments, the relationship between the aerodynamics and torque of the ship's water part and the relative wind speed is determined.

Note. The wind tunnel can also be used to test the underwater part of the hull.

3.5

Manipulator manoeuvringdevice

Rudder, full swing propeller, horizontal rudder, straight wing propeller or other equivalent system for maneuvering ships.