

ICS 47.020.70

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

GB/T 37303.3-2019

**Ships and marine technology -- Manoeuvring of ships -- Part 3:
Yaw stability and steering**

Issued on: March 25, 2019

Implemented on: October 1, 2019

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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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 third 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 13643-3:2017 "Ship and Marine Technology Ship Maneuverability Part 3. Heading Stability

Qualitative and Steering.

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

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1 Scope

This part of GB/T 37303 gives the symbols for the heading stability and steering verification test of surface ships, submarines and models.

Language and guide. This section is used in conjunction with GB/T 37303.1.

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.

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

(ISO 13643-1..2017, IDT)

Ships and marine technology - Ship handling - Part 5. Particular requirements for submarines (ISO 13643-5.

2017, IDT)

ISO 80000-1 quantities and units Part 1. General (Quantitiesandunits-Part 1. General)

ISO 80000-3 Quantity and units Part 3. Space and time (Quantitiesandunits-Part 3. Spaceandtime)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Sail test asterntest

A test used to determine the ability of a ship to maintain its heading when sailing backwards.

3.2

Inverted zigzag test asternzig-zagtest

The Z-shaped test is used to evaluate the efficiency of the manipulator to determine the ability of the ship to maintain its heading capability when sailing backwards.

3.3

Reverse navigation test directasterntest

A test to determine the ability of the ship to maintain its heading capability by manipulating the device and pushing it sideways (if any).

3.4

Positive spiral test directspiraltest

A test using a constant manipulator setting to determine the heading stability and swivel capability of the ship.

3.5

Manipulator manoeuvringdevice

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

3.6

Rudder test pul-outtest

It is used to quickly confirm the ship's test with heading stability related to water speed.