

ICS 47.020.20
CCS U 47



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

GB/T 45901-2025

**Ships and marine technology - Full-scale test method for
propeller cavitation observation and hull pressure
measurement**

船舶与海上技术 螺旋桨空化观测和船体压力测量的全尺寸试验方法
(English Translation)

Issued on: June 30, 2025

Implemented on: January 1, 2026

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

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions

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 is equivalent to ISO 22098:2021 "Ships and marine technology - Full-scale test instruments for propeller cavitation observation and hull pressure measurement". Test Methods".

1 Scope

This document specifies a full-scale test method for propeller cavitation observation and hull pressure measurement. The purpose of the test is to study the propeller cavitation Characteristics and their impact on hull vibration.

The test method includes test instruments and equipment, structural requirements to ensure structural safety, test and measurement procedures, and report documentation.

This document is applicable to ships in the following stages.

- Before or during sea trials, before the delivery stage (for ships under construction);
- After the delivery phase.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Measured ship speed

The ship's speed (3.4) is calculated from the distance between the starting position and the ending position and the running time within the speed measurement cycle.

3.2 Observation window

Transparent window for observing and investigating cavitation phenomena in ship propellers.

3.3 Propeller plane

A plane perpendicular to the axis and containing the propeller reference line and the reference line of the root section point.

3.4 Ship speed

The speed achieved by a vessel under specified conditions.

3.5 Sidescuttle

Circular or oval openings with an area not exceeding 0.16m².

Note: A circular or oval opening with an area exceeding 0.16 m² is a "window". For specific definitions, see IACSU ILL 62 or IMO Resolution MSC 143 (77).

3.6 Sea chest

A device installed in the hull below the waterline for taking in or out water.