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

GB/T 43122-2023

**Ships and marine technology - Performance test procedures for
LNG fuel gas supply systems (FGSS) for ships**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is equivalent to ISO 22548.2021 "Performance Test Requirements for LNG Gas Supply Systems (FGSS) for Ships and Offshore Technology".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the pressure, flow rate, temperature, etc. of the ship's liquefied natural gas (LNG) or boil-off gas (BOG) gas supply system (FGSS)

Methods for evaluating parameters and system stability.

This document is applicable to the evaluation of the performance of LNG fuel gas supply systems (FGSS) under the following circumstances. (1) Before delivery or installation on board

After installation; (2) Ensure that during ship gas testing or sea testing, the gas system characteristics meet the needs of all gas consuming devices.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

IGC Code (International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk), International Maritime Organization [International Code for

IGF Code (International Code of Safety for Ships Using Gas or Other Low Flash Point Fuels), International Maritime Organization [International Code of

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

LNGFGSS

A system that supplies gas from the fuel tank to the gas consuming device under the temperature, pressure and flow conditions required by the gas consuming device. Not included

Including the fuel tank, the pump in the fuel tank, the tank emergency shut-off (ESD) valve and the gas main valve used to control the gas supply.

3.2

maximum pressuremaximum pressure

The maximum operating pressure tested during the test (MPa).

3.3

minimum pressureminimum pressure

The minimum operating pressure tested during the test (MPa).

3.4

pressure pulsation

Pressure change during the test (MPa), the difference between the maximum pressure (3.2) and the minimum pressure (3.3).

3.5

flow flow rate

Arithmetic mean mass flow rate of the test fluid during the test (kg/h).