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

GB/T 43123-2023

**Ships and marine technology - Performance test procedures for
high-pressure pumps in 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 22547:2021 "Ship and Offshore Technology LNG Gas Supply System (FGSS) High Pressure Pump Performance Testing"

Require".

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 test equipment and test procedures for the performance of medium and high pressure pumps in ship's liquefied natural gas (LNG) gas supply system (FGSS)

and additional testing.

This document is applicable to the evaluation of the mechanical characteristics of positive displacement pumps (hereinafter referred to as "pumps") and their auxiliary 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.

ISO.1996-1 Description, measurement and assessment of acoustic environmental noise - Part 1. Basic quantities and assessment procedures (Acoustics-De-ment procedures)

ISO 10816-6 Mechanical vibration Evaluating machine vibration by measuring non-rotating parts Part 6. Rated power greater than 100

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

high pressure

The maximum working pressure is greater than 1.0 MPa.

3.2

A system that supplies lubricating oil to the pump crankcase.

3.3

seal gas seal gas

Gas used to separate the pump piston from the drive components and prevent freezing.

3.4

Test temperature test temperature

The temperature of the fluid during the test is specified by the customer.