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

GB/T 45485-2025

**Ships and marine technology - Design and test requirements
for small steel hatches using electrical trace heating**

船舶和海上技术 电伴热钢质小舱口盖设计和试验要求

(English Translation)

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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 24319:2022 "Design and test requirements for electrically heated steel small hatch covers in ships and offshore technology".

1 Scope

This document specifies the design, materials, manufacturing quality, and testing of marine electric heated steel small hatch covers in low temperature environments (below -10°C). and marking requirements.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

ISO 8501-1 Surface preparation of steel substrates before application of paint - Visual assessment of surface cleanliness - Part 1: Uncoated steel substrates of previous coatings)

Note: GB/T 8923.1-2011 Surface preparation of steel before coating - Visual assessment of surface cleanliness - Part 1: Uncoated steel surfaces and Rust level and treatment level of steel surface after complete removal of the original coating (ISO 8501-1:2007, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Heated small steel hatch cover

A small steel hatch cover installed on a ship sailing in a low temperature environment (3.4) and capable of being opened normally by heating an electric heating tape (3.3).

3.2 Heating device traceheater

A device designed to generate heat based on the principle of resistance, usually consisting of one or more metal conductors or conductive materials and with appropriate Electrical insulation and protection.

NOTE: It can be in the form of electric heating cables (3.3), heating plates or heating pads. [Source: GB/T 5959.10-2015, 3.115]

3.3 Traceheatercable

A round or flat cable consisting of one or more separate or continuous electrically insulated heating elements.

Note: This cable can adjust its heating output power according to the ambient temperature. [Source: GB/T 5959.10-2015, 3.116]