



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

GB/T 41517-2022

**Ships and marine technology - Ventilation of cargo spaces
where vehicles with internal combustion engines are driven -
Calculation of theoretical total airflow required**

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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 of Standardization Documents" drafted.

This document is equivalent to ISO 9785.2002 "General requirements for ventilation airflow in cargo spaces of ships and marine technical vehicles with internal combustion engines.

Theoretical Calculation of Quantities.

This document adds a chapter "Normative References".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the theoretical calculation method for the ventilation of ships' cargo spaces where vehicles with internal combustion engines can operate, in order to dilute the polluted air to

within the allowable occupational exposure limits.

Appendix A specifies the average pollutant emissions from internal combustion engine vehicles running in the cargo hold of ships.

Appendix B provides guidelines for the implementation of good ventilation in the cargo hold of ships capable of driving internal combustion engine vehicles.

Users of this document are reminded that in addition to the requirements of this document, other statutory requirements, regulations and

regulations, etc. Users may also refer to the International Maritime Organization (IMO)

Maritime Safety Committee (MSC) Circular 729 (MSCCirc.729) "Ro-Ro Cargo Tank Ventilation System Design Guidelines and Operational Recommendations"1).

1) MSCCirc.729 has been replaced by MSC.1/Circ.1515.

2 Normative references

There are no normative references in this document.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

cargo hold cargospace

A cargo space for drivable vehicles on a ship.

3.2

The highest average concentration (time-weighted average or TWA) in the air of a substance that is hazardous to workers' health during a specified period.

Note. The occupational exposure limit refers to the long-term exposure limit or the short-term exposure limit determined by the relevant management department.

3.3

workingarea

The area where staff work.

4.1 Cargo volume

The volume of cargo, frames, webs, uprights, pipes, etc. shall not be deducted when calculating the total volume of the cargo hold. If the cargo compartment is padded or insulated, the total volume

It should be counted from the inner surface of the gasket or insulation.