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

GB/T 42687-2023

**Ships and marine technology - Marine cranes - Noise limits and
measuring method**

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Standardization Administration**

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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 21131:2019 "Noise Requirements and Measurement Methods for Marine Cranes Used in Ships and Marine Technology":

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the noise level limits, noise measurement methods and hearing protection requirements for marine cranes, including oil cylinder luffing hydraulic lifting

Machines, wire rope luffing hydraulic cranes and wire rope luffing electric cranes:

This document is applicable to the evaluation of the noise level of marine cranes and the protection requirements for operators:

2 Normative references

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

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document:

ISO 3746 Acoustic sound pressure method for the determination of sound power level and sound energy level of noise sources using a simple method of enveloping the measuring

surface above the reflecting surface

Note: GB/T 3768-2017 Acoustic sound pressure method to measure the sound power level and sound energy level of noise sources adopts the simple method of enveloping the measuring surface above the reflecting surface

(ISO 3746:2010, IDT)

Note: GB/T 3893-2008 Shipbuilding and Offshore Structures Deck Machinery Terms and Symbols (ISO /FDIS3828:2007, IDT)

ISO 4306-1 Crane Terminology Part 1: General terms (Cranes-Vocabulary-Part 1: General)

Note: GB/T 6974.1-2008 Crane Terminology Part 1: General Terms (ISO 4306-1:2007, IDT)

IEC 61672-1 Electroacoustic sound level meters Part 1: Specifications
(Electroacoustics-Soundlevelmeters-Part 1:

Specifications)

Note: GB/T 3785.1-2010 Electroacoustic Sound Level Meter Part 1: Specifications (IEC 61672-1:2002, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO 3828 and ISO 4306-1 and the following apply to this document:

3:1

operating console

The place where the operator operates the crane:

3:2

engine room

Located inside the crane structure, where the power unit (3:5) and drive mechanism (3:6) are installed:

3:3

structureexterior

The exterior of the crane tower and jib structure: