# INTERNATIONAL STANDARD

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# Ships and marine technology — Marine cranes — Noise limits and measuring method

Navires et technologie maritime — Grues marines — Limites de bruit et méthodes de mesure



Reference number ISO 21131:2019(E)



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# Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <u>www.iso.org/members.html</u>.

# Ships and marine technology — Marine cranes — Noise limits and measuring method

IMPORTANT — The colours represented in the electronic file of this document can be neither viewed on screen nor printed as true representations. For the purposes of colour matching, see ISO 3864-4 which provides colorimetric and photometric properties together with, as a guideline, references from colour order systems.

# 1 Scope

This document specifies noise limits, noise measurement methods and hearing protection for marine cranes, including electro-hydraulic cylinder luffing cranes, electro-hydraulic wire rope luffing cranes and electric wire rope luffing cranes.

This document is applicable to the noise assessment of marine cranes and for the protection of their operators.

# 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3746, Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane

ISO 3828, Shipbuilding and marine structures — Deck machinery — Vocabulary and symbols

ISO 4306-1, Cranes — Vocabulary — Part 1: General

IEC 61672-1, Electroacoustics — Sound level meters — Part 1: Specifications

## 3 Terms and definitions

For the purposes of this document, the terms and definition given in ISO 4306-1 and ISO 3828 and following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>
- IEC Electropedia: available at <u>http://www.electropedia.org/</u>

### 3.1

### operating console

location at which the crane's operator activates the motions of the crane

### 3.2

### engine room

location inside the crane's structure that contains the drives, *power units* (3.5) and *drive mechanisms* (3.6)

## 3.3

### structure exterior

exterior of the crane tower body and boom structure