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**Ships and marine technology —  
Marine cranes — Structural  
requirements**

*Navires et technologie maritime — Grues maritimes — Exigences  
structurelles*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*.

# Ships and marine technology — Marine cranes — Structural requirements

## 1 Scope

This document specifies the structural requirements for marine cranes of metal construction.

This document is applicable to the following types of marine cranes:

- deck cranes mounted on ships for handling cargo or containers in harbour or sheltered water conditions;
- floating cranes or grab cranes mounted on ships, barges or pontoons for operating in harbour conditions;
- engine room cranes and provision cranes, etc. mounted on ships (including floating docks) for handling equipment and stores in harbour conditions.

NOTE Marine cranes in other types can refer to this document.

This document is not applicable to the following:

- minimum ambient operating temperatures below  $-20\text{ }^{\circ}\text{C}$ ;
- maximum ambient operating temperatures above  $+45\text{ }^{\circ}\text{C}$ ;
- loads from accidents or collisions;
- lifting operations below sea level;
- transport, assembly, dismantling and decommissioning of cranes;
- lifting accessories, i.e. any item between the crane and the load;
- lifting operations involving more than one crane;
- hand powered cranes;
- emergency rescue operations;
- shore-side cargo handling cranes;
- portable cranes on board;
- lifting appliances for lifeboats, liferafts accommodation ladders and pilot ladders;
- launching appliances for survival craft and rescue boats;
- gangways, accommodation and pilot ladders and their handling appliances.

## 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 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*