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# Ships and marine technology — Ship's mooring and towing fittings — Cruciform bollards

*Navires et technologie maritime — Corps-morts et ferrures de remorquage de navires — Croisillons*

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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).

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For an explanation of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

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

This second edition cancels and replaces the first edition (ISO 13797:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the definition of SWL (3.1) has been reworded;

— a construction requirement has been added in 7.2.

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 www.iso.org/members.html.


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# Ships and marine technology — Ship's mooring and towing fittings — Cruciform bollards

## 1 Scope

This document specifies the types, nominal sizes, dimensions and materials, as well as construction, manufacturing and marking requirements, for cruciform bollards suitable for installation on sea-going vessels to meet normal mooring and towing requirements.

## 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.

IMO Circular MSC/Circ.1175, *Guidance on shipboard towing and mooring equipment*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

**3.1**
**safe working load**
**SWL**
safe load limit (maximum permissible load) of the fittings used for mooring and towing

## 4 Classification

### 4.1 Type

Depending on the manufacturing method, cruciform bollards shall be classified as belonging to one of the following two types:

a) Type A: manufactured by steel pipes;

b) Type B: manufactured by steel plates.

### 4.2 Nominal sizes

The nominal sizes, $D_n$, of cruciform bollards are denoted by reference to the outside diameter of the main post, in millimetres, in terms of the nearest number drawn from a basic series of preferred numbers.

The nominal sizes are: 150, 200, 250, 300, 350 and 400.

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