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## **Ships and marine technology — Shark jaws and towing pins**

*Navires et technologie maritime — Broches d'entraînement et  
stoppeurs "shark jaws"*

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

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 [www.iso.org/members.html](http://www.iso.org/members.html).

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# Ships and marine technology — Shark jaws and towing pins

## 1 Scope

This document specifies requirements for the design, operation, performance and acceptance tests of marine shark jaws and towing pins having electric, hydraulic, diesel or steam drive.

It is applicable to the design, manufacture and acceptance of marine shark jaws and towing pins.

## 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 3828, *Shipbuilding and marine structures — Deck machinery — Vocabulary and symbols*

ISO 7365, *Shipbuilding and marine structures — Deck machinery — Towing winches for deep sea use*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3828 and the following 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 shark jaw**

equipment for temporarily securing the inboard end of a towline

Note 1 to entry: A left-hand shark jaw is a shark jaw placed on the left-hand side of the central axis of the *towing pins* (3.2) when looking at the bow from the stern of a ship.

Note 2 to entry: A right-hand shark jaw is a shark jaw placed on the right-hand side of the central axis of the *towing pins* (3.2) when looking at the bow from the stern of a ship.

Note 3 to entry: A central shark jaw is a shark jaw placed on the central axis of the *towing pins* (3.2) when looking at the bow from the stern of a ship.

### 3.2 towing pin

equipment for leading and restraining a towline to the intended path

### 3.3 support box

device fixing and supporting the *shark jaw* (3.1) and *towing pins* (3.2)

### 3.4 working height

maximum height from a towline to the board, when *shark jaws* (3.1) or *towing pins* (3.2) operate normally

### 3.5

#### **emergency release**

release and withdrawal actions of a *shark jaw* (3.1) and *towing pins* (3.2) depending on standby power under loss of driving power or in emergency

### 3.6

#### **fork shark jaw**

*shark jaw* (3.1) with clamp forks on top, which have clamping devices inside that can seize the lock chains or steel wire rope clips, and with a cylindrical under part enabling a vertical slice movement within the *support box* (3.3)

Note 1 to entry: The clamping device on the clamp fork of a fork shark jaw can be replaced to adapt to different types of steel wire ropes or lock chains for fixture.

### 3.7

#### **triplex shark jaw**

*shark jaw* (3.1) with two independently reversible and retractable claws that fix the steel wire ropes or lock chains between them when operating and fall down to be levelled with the deck when not in use

Note 1 to entry: The lifting pin between the two claws can lift the drooping steel wire ropes or lock chains up to the top of the claws, to facilitate dismounting of the shackles.

### 3.8

#### **Safe working load**

##### **SWL**

total allowable working load considered safe of *shark jaw* (3.1) or *towing pins* (3.2), under design working conditions

## 4 Types

### 4.1 Types of shark jaws

Shark jaws can be classified as fork shark jaws and triplex shark jaws, by means of structural form.

### 4.2 Structural form of shark jaws and towing pins

Code representing shark jaws and towing pins is related to the relative position of the shark jaw type and the position between shark jaw and towing pins.

NOTE Structural form codes are given in brackets next to the subheadings in [Figure 1](#).