

---

---

**Ships and marine technology — Sea-  
going vessels — Windlasses and  
anchor capstans**

*Navires et technologie maritime — Navires de haute mer —  
Guindeaux et guindeaux-cabestans*



This document is a preview generated by EKO



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b>	<b>iv</b>
<b>1 Scope</b>	<b>1</b>
<b>2 Normative references</b>	<b>1</b>
<b>3 Terms and definitions</b>	<b>1</b>
<b>4 Design and construction</b>	<b>3</b>
4.1 Chain cable	3
4.2 Cable-lifter	3
4.3 Warping ends	3
4.4 Mooring winch	4
4.5 Strength requirements	4
4.6 Braking system	4
4.6.1 Control braking system	4
4.6.2 Cable-lifter brake	4
4.7 Emergency stop	5
4.8 Protection	5
4.9 Speed control	5
4.10 Direction of motion of operating devices	5
4.11 Drive equipment	5
4.12 Remote control devices	6
<b>5 Requirements</b>	<b>6</b>
<b>6 Acceptance tests</b>	<b>7</b>
<b>7 Designation</b>	<b>8</b>
<b>8 Marking</b>	<b>8</b>
<b>Annex A (informative) Additional information from the purchaser</b>	<b>11</b>
<b>Bibliography</b>	<b>12</b>

## 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)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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*, in collaboration with Technical Committee ISO/TC 4, *Rolling bearings*.

This fourth edition cancels and replaces the third edition (ISO 4568:2006), which has been technically revised.

The main changes compared to the previous edition are:

- the definitions of working load (3.1), nominal size (3.2) and overload pull (3.3) have been revised;
- the definition of nominal recovery speed (former 3.5 in the previous edition) has been deleted;
- new definitions for windlass (3.5), double cable-lifter windlass with connection shaft (3.10) and control braking system (3.11) have been added;
- requirements have been added on: the mooring winch, in 4.4 and 5.4; the design of the cable lifter, in 4.6.2.2; and the electric motor, in 4.11.2 and 4.11.3;
- the strength requirements have been updated in 4.5;
- test methods have been added in 6.3 to 6.9.

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).

# Ships and marine technology — Sea-going vessels — Windlasses and anchor capstans

## 1 Scope

This document specifies requirements for the design, construction, safety, performance and acceptance testing of windlasses and anchor capstans.

This document is applicable to windlasses and anchor capstans of sea-going vessels, which have an electric, hydraulic, pneumatic or external drive, of the following types:

- symmetrical double cable-lifter windlasses (type 1);
- single cable-lifter windlasses (type 2);
- single cable-lifter windlass units (types 3 and 4);
- anchor capstans (type 5);
- double cable-lifter windlasses with connecting shaft (type 6).

For combined windlasses/mooring winches, ISO 3730 is applicable in addition to this document.

NOTE Attention is drawn to the requirements of relevant Classification Societies or the government of the state whose flag the ship is entitled to fly.

## 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 1704, *Ships and marine technology — Stud-link anchor chains*

ISO 3730, *Shipbuilding and marine structures — Mooring winches*

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

ISO 4413, *Hydraulic fluid power — General rules and safety requirements for systems and their components*

ISO 6482, *Shipbuilding — Deck machinery — Warping end profiles*

ISO 7825, *Shipbuilding — Deck machinery — General requirements*

IEC 60092 (all parts), *Electrical installations in ships*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

## 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 terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org>