

VÄIKELAEVAD. KAUGJUHTIMISEGA ROOLISEADMED

Small craft - Remote mechanical steering systems (ISO 8848:2020)

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ICS 47.080

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EUROPEAN STANDARD

**EN ISO 8848**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 15652:2017, EN ISO 8848:2017,  
EN ISO 9775:2017

English Version

## Small craft - Remote mechanical steering systems (ISO 8848:2020)

Petits navires - Appareils à gouverner commandés à  
distance (ISO 8848:2020)

Kleine Wasserfahrzeuge - Steueranlagen (ISO  
8848:2020)

This European Standard was approved by CEN on 30 July 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

This document (EN ISO 8848:2021) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with CCMC.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 15652:2017, EN ISO 8848:2017 and EN ISO 9775:2017.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 8848:2020 has been approved by CEN as EN ISO 8848:2021 without any modification.

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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)).

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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 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition of ISO 8848, together with ISO 23411:2020, cancels and replaces ISO 8848:1990, ISO 9775:1990 and ISO 15652:2003, which have been technically revised.

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

- ISO 8848:1990, ISO 9775:1990 and ISO 15652:2003 have been consolidated into this document;
- added "mechanical" in the title;
- updated definitions;
- updated requirements to meet current industry practices;
- added [7.7](#) regarding control lever to steering wheel clearance;
- steering wheel requirements and tests have been removed.

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).

# Small craft — Remote mechanical steering systems

## 1 Scope

This document specifies design, construction, installation and test requirements for remote mechanical cable steering systems and the output ram interface point to rudders, jet drives, outboard and sterndrive engines for small craft.

It is applicable to three distinct classes of steering systems for use on various types of craft:

- standard duty steering systems, for small craft with single and twin installations of outboard engines with a total over 15 kW power, and with rudders, sterndrives, and water-jet drives;
- light duty steering systems, for small craft with a single outboard engine of 15 kW to 40 kW power;
- mini-jet steering systems, excluding personal watercraft.

**NOTE** Standard and light duty steering systems are mechanically interchangeable. A standard duty steering system can be used on a craft designed for a light duty system. However, a light duty steering system cannot be used on a craft that requires a standard duty steering system. Mini-jet steering systems are mechanically differentiated from the previously mentioned systems and can only be used on mini-jet craft as defined in this document.

This document does not address emergency means for steering the craft.

## 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 10240:2019, *Small craft — Owner's manual*

ISO 12217-1:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m*

ISO 12217-2:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 3: Boats of hull length less than 6 m*

## 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

#### **craft-mounted steering system**

assembly including all components necessary to transmit remote manual effort to the end of the *output ram* (3.20) and a means to secure an output ram guide tube to the craft