



BSI Standards Publication

**Small craft - Steering gear - Cable and pulley systems (ISO 8847:2004)**

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## National foreword

This British Standard is the UK implementation of EN ISO 8847:2017. It is identical to ISO 8847:2004. It supersedes BS EN ISO 8847:2004, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GME/33, Small craft.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

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EUROPEAN STANDARD

**EN ISO 8847**

NORME EUROPÉENNE

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August 2017

ICS 47.080

Supersedes EN ISO 8847:2004

English Version

**Small craft - Steering gear - Cable and pulley systems (ISO 8847:2004)**

Petits navires - Appareils à gouverner - Systèmes à drosses et réas (ISO 8847:2004)

Kleine Wasserfahrzeuge - Steuerungssystem - Kabel- und Seilzugsteuerung (ISO 8847:2004)

This European Standard was approved by CEN on 10 July 2017.

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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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## European foreword

The text of ISO 8847:2004 has been prepared by Technical Committee ISO/TC 188 “Small craft” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 8847:2017.

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 February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 8847:2004.

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 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 8847:2004 has been approved by CEN as EN ISO 8847:2017 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the Essential Requirements of EU Directive 2013/53/EU

This European standard has been prepared under a mandate given to CEN by the European Commission to provide one means of conforming to Essential Requirements of the New Approach Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one member state, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**Table ZA.1: Correspondence between this European Standard and Directive 2013/53/EU**

Clauses/sub-clauses of this standard	Corresponding annexes/paragraphs of Directive 2013/53/EU	Comments
All Clauses	Annex I, Clause 5.4.1 -  Steering system, general but excluding propulsion control systems	The correspondence between this European Standard and Directive 2013/53/EU is in respect of cable and pulley steering systems on sailing craft from the wheel to, and including, the steering arm only. Rudder shafts and rudder blades are excluded.  This scope of this standard is restricted to sailing craft only.  This Standard does not address an emergency means of steering.  This standard does not include propulsion control systems within its scope.
8; 9	Annex 1.A.2.5 - Owner's Manual	Include the maximum wheel diameter in the Owner's Manual.
All Clauses	Annex II, Components of watercraft, paragraph (3) -  Steering wheels, steering mechanisms and cable assemblies.	This Standard applies to the components of cable and pulley steering systems for sailing craft from the wheel to, and including, the steering arm only.  Rudder shafts and rudder blades are excluded.



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 8847 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 8847:1987), which has been technically revised.



# Small craft — Steering gear — Cable and pulley systems

## 1 Scope

This International Standard specifies the minimum level of requirements for operation, construction and installation of cable and pulley steering systems on sailing craft of hull length up to 24 m, with or without an auxiliary engine.

This International Standard sets requirements for the design and construction of all components of a steering system from the wheel to, and including, the steering arm. It applies only to cable and pulley steering systems, whether for pedestal or bulkhead types.

The design and specifications for the rudder shaft and rudder blade are within the province of the naval architect and are assumed to be appropriate to the size and speed of the boat.

## 2 Normative references

The following referenced documents are indispensable for the application 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 2408:2004, *Steel wire ropes for general purposes — Minimum requirements*

## 3 Terms and definitions

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

### 3.1

#### **cable**

a flexible mechanical means of transmitting tension forces from one location to another

NOTE This cable could be metallic or non-metallic.

### 3.2

#### **cable and pulley steering system**

system in which rotation of the steering-wheel positions the rudder blade by mechanical means including cable, pulleys and a steering arm quadrant fastened to the rudder shaft

### 3.3

#### **steering arm**

component fixed to the rudder shaft, with at least one groove for the cable, concentric to the shaft centre

NOTE The steering arm may be a wheel quadrant [see Figure 1 a)], a quadrant [see Figure 1 b)] or a tiller quadrant [see Figure 1 c)]