INTERNATIONAL STANDARD

ISO 8847

Third edition
2021-06

Small craft — Steering gear — Cable over pulley systems

Petits navires — Appareils à gouverner — Systèmes à câble sur poulie

This document is a preview generated by EVS



Reference number
ISO 8847:2021(E)

© ISO 2021

This document is a preview generated by EVS



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
Website: www.iso.org

Published in Switzerland

 © ISO 2021 – All rights reserved

Contents

Page

Foreword ..... **iv**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 General requirements **4**
5 Steering system requirements **5**
6 Installation **9**
7 Testing requirements **13**
8 Owner's manual **17**
9 Instruction manual **17**
Annex A (informative) **Steering wheel and helm shaft fit** **18**
Annex B (informative) **Recommended procedures for conducting cable over pulley strength tests as required in 7.2.2 for outboard engine applications — Tangential load test** **20**
Bibliography **23**

This document is a preview generated by EVS

© ISO 2021 – All rights reserved

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).

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).

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.

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 third edition cancels and replaces the second edition (ISO 8847:2004), which has been technically revised.

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

— update of the scope to clarify application on small craft with and without propulsion engine(s);

— addition to the scope of small craft with outboard engines up to and including 37 kW total power;

— update of the definitions;

— update of requirements to meet state of the art;

— addition of informative Annexes A and B.

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.

This document is a preview generated by EVS

 © ISO 2021 – All rights reserved

Small craft — Steering gear — Cable over pulley systems

This document is a preview generated by EVS

1 Scope

This document specifies the requirements for the design, installation and testing of cable over pulley steering systems on small craft with or without a propulsion engine(s), and on small craft with outboard engine(s) up to and including 37 kW total power.

It specifies the requirements for the design and testing of all components of a cable over pulley steering system, from the steering mechanism to the mechanical interface with the rudder shaft or the outboard engine. It applies to cable over pulley steering systems, whether for pedestal or bulkhead types.

This document does not address emergency means of 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 2408:2017, *Steel wire ropes — Requirements*

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
accessible
capable of being reached for operation, inspection or maintenance without removal of permanent structure of the craft

3.2
cable
flexible mechanical means of transmitting tension forces from one location to another

Note 1 to entry: This cable can be metallic or non-metallic.

3.3
cable drum
circular feature of the *steering mechanism* (3.10) over which the steering *cable* (3.2) is routed to provide the required cable travel

3.4
cable over pulley steering system
steering system in which rotation of the steering wheel transmits movement to either the steering arm quadrant fastened to the rudder shaft, or to the outboard engine steering arm, by mechanical means including flexible cable over pulleys mounted to the structure of the craft

© ISO 2021 – All rights reserved