
Small craft — Remote mechanical steering systems

Petits navires — Appareils à gouverner commandés à distance



This document is a preview generated by ELS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

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

Contents

	Page
Foreword.....	iv
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Constructional requirements.....	3
5 Outboard engine and inboard-sterndrive design requirements.....	6
6 Steering system requirements.....	8
6.1 Craft-mounted steering systems.....	8
6.2 Steering systems.....	8
6.3 Steering cables.....	8
6.4 Steering mechanisms.....	9
7 Installation.....	11
8 Test requirements.....	14
8.1 General.....	14
8.2 As-installed tests.....	14
8.3 Components test.....	15
8.3.1 Steering cable and output assembly tests.....	15
8.3.2 Steering mechanism assembly tests.....	16
9 Markings, owner's manual and installation manual.....	19
9.1 Markings.....	19
9.2 Owner's manual.....	19
9.3 Installation manual.....	19
Bibliography.....	20

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 8848:2020), of which it constitutes a minor revision. Changes have been made to align the document with other ISO/TC 188 standards and to avoid circularity of normative references.

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.

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 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 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/>

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* (3.16)