International Standard

ISO 15085

Small craft — Protection from falling overboard and means of reboarding

Petits navires — Prévention des chutes par-dessus bord et remontée à bord

Second edition
2024-07

Reference number
ISO 15085:2024(en)

© ISO 2024



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

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 ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 General requirements **4**
4.1 Prevention from falling overboard 4
4.2 Deck zones 4
4.3 Required safety devices 5
4.4 General requirements for deck zones 7
4.4.1 All deck zones 7
4.4.2 Deck zones Z1 and Z2 7
4.5 Requirements for operation and storage temperature of safety devices 8
4.5.1 Operation temperature 8
4.5.2 Storage temperature 8

5 Slip-resistant surfaces **8**
5.1 General 8
5.2 Requirements for trampolines and nets 8

6 Foot-stops **8**
6.1 General 8
6.2 Foot-stops requirements 8
6.3 Minimum foot-stops height and angle 9
6.4 Foot-stops made of angled surfaces 10
6.5 Maximum clearance between deck and foot-stop 10
6.6 Continuity on the deck zone level in vicinity of foot-stop 10
6.7 Gaps in the foot-stop rail 10

7 Handholds **10**
7.1 General 10
7.2 Location in vicinity of outer deck edge 10
7.3 Strength 11

8 Barriers to falling overboard **11**
8.1 General 11
8.2 Geometric requirements for barriers to falling overboard 11
8.2.1 Height of barriers to falling overboard 11
8.2.2 Openings in barriers to falling overboard 12
8.3 Additional requirements for sailing boats 13
8.3.1 Bow pulpits for sailing boats 13
8.3.2 Transom barriers to falling overboard for sailing boats 13
8.3.3 Forward cross beams of sailing catamarans 14
8.3.4 Central hull of sailing trimarans 14
8.4 Risk of falling overboard from elevated deck zones 14
8.5 Barrier to falling overboard design and strength requirements 16
8.5.1 General requirements 16
8.5.2 Requirements for guard-rails or low guard-rails 16
8.5.3 Requirements for guard-lines 16
8.5.4 Requirements for stanchions or guard-line supports 17

9 Hooking points **17**
9.1 General 17
9.2 Location 17
9.3 Location for habitable multihull craft susceptible to inversion 18
9.4 Size 18
9.5 Strength 18

© ISO 2024 – All rights reserved

10 Attachment points for jack-lines **18**
10.1 General 18
10.2 Fitting 18
10.3 Strength 18
11 Prevention of falling overboard from high-speed craft **19**
11.1 General 19
11.2 Additional requirements for handholds 19
11.3 Body support 20
11.4 Seat fixing strength 20
12 Toe straps for sailing dinghies **20**
13 Means of reboarding **20**
13.1 General requirements 20
13.2 Requirements for rigid ladder 21
13.3 Requirements for non-rigid ladder 23
13.4 Reboarding test 24
14 Owner's manual **24**
Annex A (normative) **Test of seats for high-speed craft** **25**
Bibliography **30**

© ISO 2024 – 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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 second edition cancels and replaces the first edition (ISO 15085:2003), which has been technically revised. It also incorporates the Amendments ISO 15085:2003/Amd 1:2009 and ISO 15085:2003/Amd 2:2017.

The main changes are as follows:

— simplification of the document's arrangement;

— creation of a new approach with requirements based on risk assessment principles of deck zones;

— definition of "normal operation" and a longer list of functions to ensure safety;

— replacement of requirements for guard-rail and guard-line systems with a single concept of "falling overboard barrier";

— improvement of requirements on high speed craft;

— requirements for toe straps for sailing dinghies;

— amendment of means of reboarding.

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.

© ISO 2024 – All rights reserved

Small craft — Protection from falling overboard and means of reboarding

1 Scope

This document specifies the design as well as the construction and strength requirements for safety devices and arrangements intended to minimize the risk of persons falling overboard, and requirements to facilitate reboarding from the water, unaided, on small craft.

This document is applicable to the risk of falling overboard and does not apply to falling within the limits of the deck zone.

This document includes the use of toe straps for hiking out on small sailing boats, but it does not apply to the use of trapezes or similar devices that are designed to allow crew to operate sailing boats with their bodies entirely outside the periphery of the craft.

This document does not apply to the following small craft types:

— canoes, kayaks;

— personal watercraft including powered surfboards.

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 8666:2020, *Small craft — Principal data*

ISO 12217-2:2022, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2022, *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
small craft
recreational boat, and other watercraft using similar equipment, of up to 24 m length of hull (L_H)

Note 1 to entry: The measurement methodology for the length of hull is defined in ISO 8666.

[SOURCE: ISO 8666:2020, 3.15, modified — Note 1 to entry added.]

© ISO 2024 – All rights reserved