

VÄIKELAEVAD. KINGSTONID JA LAEVAKERET LÄBIV
ARMATUUR

Small craft - Seacocks and through-hull fittings (ISO
9093:2020)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|---|--|
| See Eesti standard EVS-EN ISO 9093:2021 sisaldab Euroopa standardi EN ISO 9093:2021 ingliskeelset teksti. | This Estonian standard EVS-EN ISO 9093:2021 consists of the English text of the European standard EN ISO 9093:2021. |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.01.2021. | Date of Availability of the European standard is 27.01.2021. |
| Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest. | The standard is available from the Estonian Centre for Standardisation and Accreditation. |

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 47.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Small craft - Seacocks and through-hull fittings (ISO 9093:2020)

Petits navires - Vannes de coque et passe-coques (ISO 9093:2020)

Kleine Wasserfahrzeuge - Seeventile und Außenhautdurchführungen (ISO 9093:2020)

This European Standard was approved by CEN on 29 November 2020.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 17 March 2021.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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 9093:2021) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with Technical Committee CEN/TC 464 "Small Craft" the secretariat of which is held by SIS.

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 July 2021, and conflicting national standards shall be withdrawn at the latest by July 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 9093-1:2018 and EN ISO 9093-2:2018.

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 9093:2020 has been approved by CEN as EN ISO 9093:2021 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/542/C(2015) 8736 final to provide one voluntary means of conforming to essential requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, 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 corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2013/53/EU

| Essential Requirements of Directive 2013/53/EU | Clause(s)/sub-clause(s) of this EN | Remarks/Notes |
|--|------------------------------------|--|
| Annex I, Clause 2.5, Owner's manual | Clause 11 | In respect of information to be included in the Owner's Manual |
| Annex I, Clause 3.4, Openings in hull, deck and superstructure | Clause 3, 4, 5, 6, 7, 9 | This standard do not address windows, portlights, doors and hatch covers and point loads applied by the weight of persons on the deck. |

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

Contents

| | Page |
|--|-----------|
| Foreword | iv |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Material requirements | 2 |
| 4.1 General..... | 2 |
| 4.2 Material combinations..... | 2 |
| 4.3 Resistance to deterioration/corrosion tests..... | 2 |
| 4.4 Strength requirements..... | 3 |
| 4.5 Range of operating temperatures..... | 3 |
| 4.5.1 General operating requirements..... | 3 |
| 4.5.2 Storage temperature requirement..... | 3 |
| 4.5.3 High temperature operating test..... | 3 |
| 4.5.4 Low temperature operating test..... | 3 |
| 5 Through-hull fittings | 3 |
| 5.1 Thread identification..... | 3 |
| 5.2 General design requirements..... | 4 |
| 5.3 Detailed design requirements..... | 4 |
| 5.3.1 Stem..... | 4 |
| 5.3.2 Flange diameter..... | 5 |
| 5.3.3 Finish..... | 5 |
| 6 Seacocks — Design requirements | 5 |
| 6.1 General..... | 5 |
| 6.2 Thread length requirements..... | 5 |
| 7 Hose fittings | 6 |
| 7.1 Design requirements..... | 6 |
| 7.2 Hose connection..... | 6 |
| 8 Water scoops and outboard water strainers | 7 |
| 9 Installation | 7 |
| 9.1 Hull reinforcements..... | 7 |
| 9.2 Installation requirements..... | 7 |
| 10 Device installation information | 8 |
| 11 Owner's manual | 8 |
| Annex A (normative) Strength test | 9 |
| Annex B (normative) Corrosion resistance test | 10 |
| Annex C (normative) UV stabilisation test | 11 |
| Bibliography | 12 |

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 first edition of ISO 9093 cancels and replaces ISO 9093-1:1994 and ISO 9093-2:2002, which have been technically revised.

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

- the previous 2 parts have been combined into a single-part standard;
- the definition of corrosion resistance has changed;
- an installed strength test has been added ([Annex A](#));
- a test for corrosion resistance has been added ([Annex B](#));
- a test for UV stabilisation has been added ([Annex C](#)).

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.