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**Väikelaevad. Kerekonstruktsioon ja prussid
. Osa 4: Töökoda ja valmistamine**

Small craft - Hull construction and scantlings - Part
4: Workshop and manufacturing

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 12215-4:2003 sisaldab Euroopa standardi EN ISO 12215-4:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 12215-4:2003 consists of the English text of the European standard EN ISO 12215-4:2002.</p> <p>This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of ISO 12215 specifies workshop conditions, material storage and handling, and requirements for the manufacturing of the craft. it applies. to small craft with a(Lh) length according to ISO 8666 of up to 24 m</p>	<p>Scope: This part of ISO 12215 specifies workshop conditions, material storage and handling, and requirements for the manufacturing of the craft. it applies. to small craft with a(Lh) length according to ISO 8666 of up to 24 m</p>
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ICS 47.080

Võtmesõnad: human body, inventory control, materials, materials specification, production, requirements, ship hulls, shipbuilding, ships, small craft, specification (approval), specifications, stock control, structural systems, testing, trunk (anatomy), vessels, workshops

EUROPEAN STANDARD

EN ISO 12215-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2002

ICS 47.080

English version

**Small craft - Hull construction and scantlings - Part 4: Workshop
and manufacturing (ISO 12215-4:2002)**

Petits navires - Construction de coques et échantillons -
Partie 4: Ateliers de construction et fabrication (ISO 12215-
4:2002)

Kleine Wasserfahrzeuge - Rumpfbauweise und
Dimensionierung - Teil 4: Werkstatt und Fertigung (ISO
12215-4:2002)

This European Standard was approved by CEN on 1 May 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (ISO 12215-4:2002) has been prepared by Technical Committee ISO/TC 188 "Small craft" the secretariat of which is held by CMC.

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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

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 ZB, 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 12215-4:2002 has been approved by CEN as a European Standard without any modifications.

NOTE Normative references to International Standards are listed in annex ZA (normative).

Annex ZA
(normative)

**Normative references to international publications
with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 12215-1	2000	Small craft - Hull construction and scantlings - Part 1: Materials: Thermosetting resins, glass-fibre reinforcement, reference laminate	EN ISO 12215-1	2000
ISO 12215-3	2002	Small craft - Hull construction and scantlings - Part 3: Materials: Steel, aluminium alloys, wood, other materials	EN ISO 12215-3	2002

Annex ZB
(informative)

**Clauses of this European Standard addressing essential requirements
or other provisions of EU Directives**

This European Standard 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 94/25/EC.

WARNING: Other requirements and other EU Directive may be applicable to the product(s) falling within the scope of this standard.

The following clauses of this standard, as detailed in Table ZB.1, are likely to support requirements of Directive 94/25/EC.

Compliance with the clauses of this standard provides one means of conforming with the specific essential requirements of the Directive concerned and associated EFTA regulations.

Table ZB.1 - Correspondence between this European Standard and EU Directives

Clauses/sub-clauses of this European Standard	Corresponding annexes/ paragraphs of Directive 94/25/EC	Comments
All Clauses	Annex 1, 3.1	The standard provides requirements for workshop and manufacturing.

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**Small craft — Hull construction
and scantlings —**

**Part 4:
Workshop and manufacturing**

*Petits navires — Construction de coques et échantillons —
Partie 4: Ateliers de construction et fabrication*



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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 3.

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 part of ISO 12215 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12215-4 was prepared by Technical Committee ISO/TC 188, *Small craft*.

ISO 12215 consists of the following parts, under the general title *Small craft — Hull construction and scantlings*:

- *Part 1: Materials: Thermosetting resins, glass-fibre reinforcement, reference laminate*
- *Part 2: Materials: Core materials for sandwich construction, embedded materials*
- *Part 3: Materials: Steel, aluminium alloys, wood, other materials*
- *Part 4: Workshop and manufacturing*
- *Part 5: Design pressures, design stresses, scantling determination*
- *Part 6: Structural arrangements and details*

Small craft — Hull construction and scantlings —

Part 4: Workshop and manufacturing

1 Scope

This part of ISO 12215 specifies workshop conditions, material storage and handling, and requirements for the manufacturing of the craft. It applies to small craft with a (L_H) length according to ISO 8666 of up to 24 m.

This part of ISO 12215 does not cover health and safety requirements.

NOTE The underlying reason for preparing this part of ISO 12215 is that workshop conditions have a significant influence on the mechanical short- and long-term properties of recreational craft and that the scantling determination according to ISO 12215-5 is based on conditions that are appropriate for the material used as well as the manufacturing process applied.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12215. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12215 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 8666:—¹⁾, *Small craft — Principal data*

ISO 12215-1:2000, *Small craft — Hull construction and scantlings — Part 1: Materials: Thermosetting resins, glass-fibre reinforcement, reference laminate*

ISO 12215-3:2002, *Small craft — Hull construction and scantlings — Part 3: Materials: Steel, aluminium alloys, wood, other materials*

3 Fibre-reinforced plastics (FRP) boat production

3.1 Workshop conditions

3.1.1 General

The buildings used for production and storage shall be of suitable construction, and equipped to provide the environment specified by the material manufacturer or supplier.

¹⁾ To be published.