

**Siseveeteedel liiklevad laevad. Roolikamber.  
Ergonoomia- ja ohutusnõuded**

Inland navigation vessels - Wheelhouse - Ergonomic  
and safety requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1864:2008 sisaldab Euroopa standardi EN 1864:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 24.04.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 05.03.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1864:2008 consists of the English text of the European standard EN 1864:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 24.04.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 05.03.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

## Inland navigation vessels - Wheelhouse - Ergonomic and safety requirements

Bateaux de navigation intérieure - Timonerie - Exigences relatives à l'ergonomie et à la sécurité

Fahrzeuge der Binnenschifffahrt - Steuerhaus - Ergonomische und sicherheitstechnische Anforderungen

This European Standard was approved by CEN on 5 January 2008.

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## Foreword

This document (EN 1864:2008) has been prepared by Technical Committee CEN/TC 15 “Inland navigation vessels”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by August 2008, and conflicting national standards shall be withdrawn at the latest by August 2008.

**This document supersedes EN 1864:1997.**

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

This European Standard specifies requirements for new wheelhouses to be erected.

As one-man control positions are possible using modern technology, a control position that can be operated by a single person (one-man control position or one-man control position with radar assistance) is being standardized.

In addition to safe equipment meeting the latest technological demands, numerous ergonomic aspects are taken into account.

Technical equipment taking into account ergonomic aspects means: adapting the machine to man and to his possibilities and not vice versa.

The one-man control position is a workplace that enables operational, navigational and monitoring functions to be carried out simultaneously over a lengthy period. The control position is equipped in such a way that the operational, navigational and monitoring functions can be carried out by one person with the most important equipment given fault-free operation. If the requirements of this standard are met, it is assumed that one person is capable of carrying out these functions safely without any physical or mental strain for a lengthy period, even in severe weather and traffic conditions

In all motor functions (e.g. operating levers, pushbuttons, telephone) and sensory functions (e.g. optical, watching the fairway and the instruments and acoustic: signals, radio communications) but also any paperwork (logbook, formalities) and on the PC, the helmsman is kept as stress-free as possible.

Technical possibilities and economic conditions will increasingly necessitate shift operations and a change of personnel on the individual vessels and from vessel to vessel. Whereas a helmsman previously used to stand at the same control position for years, perhaps even all his life, and would thus become very familiar with it and adapted himself to it, he can now reckon increasingly with having to operate a different ship at some point in time.

However, standardization within the meaning of this standard does not mean that all equipment should look the same. This is impossible because of the different ship types and route conditions. In addition, developments are continuous and new possibilities occasionally arise unexpectedly even with the result that too rigid a requirement for a certain control position device would inhibit development. Therefore, standardization should be carried out according to the following factors:

- Directive 2006/87/EC of the European Parliament and of the Council of 12 December 2006 laying down technical requirements for inland waterway vessels;
- arrangement of the most important display equipment in the wheelhouse in a similar layout and in similar positions;
- similar arrangement of the most important operating elements in the wheelhouse in accordance with frequency of use or importance of the function and in similar positions;
- ergonomic factors taken into account in the design and location of the equipment.

If these aspects are taken into account, this will inevitably result in additional cost saving for the industry on account of better possibilities for mass production, interchangeability and replaceability of the equipment.

## 1 Scope

This European Standard specifies safety and ergonomic requirements for wheelhouses on inland navigation vessels.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

EN 3 (all Parts), *Portable fire extinguishers*

EN 711, *Inland navigation vessels — Railings for decks — Requirements, types*

EN 790, *Inland navigation vessels — Stairs with inclination angles of 45° to 60° — Requirements, types*

EN 894-1, *Safety of machinery — Ergonomic requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

EN 894-3, *Safety of machinery — Ergonomic requirements for the design of displays and control actuators — Part 3: Control actuators*

EN 1335-1, *Office furniture — Office work chair — Part 1: Dimensions — Determination of dimensions*

EN 12529, *Castors and wheels — Castors for furniture — Castors for swivel chairs — Requirements*

EN 13056, *Inland navigation vessels — Stairs with inclination angles of 30° to < 45° — Requirements, types*

EN 13281, *Inland navigation vessels — Safety requirements for walkways and working places*

EN 14144, *Lifebuoys — Requirements, tests*

EN 14145,  *HOLDERS for lifebuoys*

EN 60335-1, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2001, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 13406-2, *Ergonomic requirements for work with visual displays based on flat panels — Part 2: Ergonomic requirements for flat panel displays (ISO 13406-2:2001)*

ISO 6954, *Mechanical vibration — Guidelines for the measurement, reporting and evaluation of vibration with regard to habitability on passenger and merchant ships*

IEC 60092-504, *Electrical installations in ships — Part 504: Special features — Control and instrumentation*

IMO A.800 (19), *Revised guidelines for approval of sprinkler systems equivalent to that referred to in SOLAS regulation II 2/12.<sup>1)</sup>*

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1) Available from: IMO Secretariat, Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom or German specialist bookshops and publications-sales@imo.org.