# Platvormi kõrguse ühtlustid

Dock levellers

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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| Käesolev Eesti standard EVS-EN 1398:1999 sisaldab Euroopa standardi EN 1398:1997+AC:1998 ingliskeelset teksti. | This Estonian standard EVS-EN 1398:1999 consists of the English text of the European standard EN 1398:1997+AC:1998. |
| Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. | This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. |
| Standard on kättesaadav Eesti standardiorganisatsioonist. | The standard is available from Estonian standardisation organisation. |

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| **Käsitlusala:**<br>See standard kehtib platvormi kõrguse ühtlusti arvutuste, konstrueerimise, valmistamise, ohutusseadmete, paigaldamise, kasutamise, hooldamise ja katsetamise kohta, välja arvatud merendus- ja lennundusvaldkonnas kasutatavad platvormi kõrguse ühtlustid, tõsteplatvormid ning veokile paigaldatud päraluuktõstukid. | **Scope:** |

**ICS** 53.080

**Võtmesõnad:** arvutus, kaubaalused, konstruktsioon, kontrollimine, laadimine, masinate ohutus, mõõtmed, määratlused, ohud, ohutusmeetmed, teave, testid, utiliseerimine, õnnetuste vältimine

# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

EN 1398

August 1997

ICS 53.080

Descriptors: Dock levellers.



**English version**

## Dock levellers

Rampes ajustables

Ladebrücken

This European Standard was approved by CEN on 1997-07-16.

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 Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**



Ref. No. EN 1398 : 1997 E

## Contents

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 98 "Lifting platforms", 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 February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 0 Introduction

This European Standard is a type C-standard as defined in EN 292.

The extent to which hazards are covered is indicated in the scope of this standard. In addition, machinery shall comply as appropriate with EN 292 for hazards which are not covered by this standard.

Where for clarity, an example of a safety measure is given in the text, this shall not be considered as the only possible solution. Any other solution leading to the same risk reduction is permissible if an equivalent level of safety is achieved.

## 1 Scope

**1.1** This standard is applicable to the calculation, design, construction, safety devices, installation, use, maintenance, and testing of dock levellers

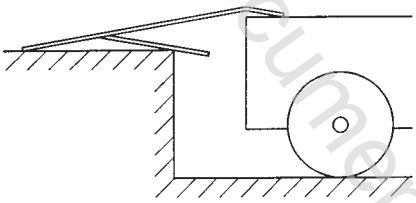
with the exception of

a) dock levellers for marine and aircraft applications,
b) lifting tables,
c) vehicle mounted tail lifts.

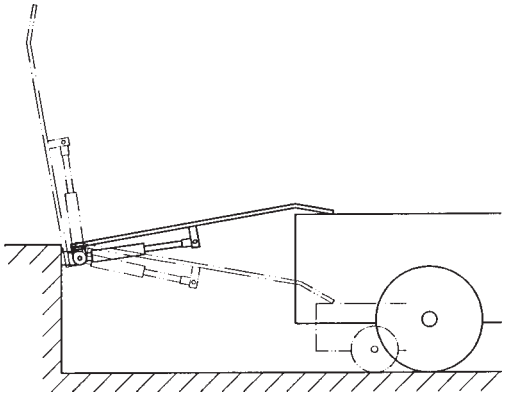
NOTE 1: Requirements for lifting tables are laid down in prEN 1570.

NOTE 2: Requirements for vehicle mounted tail lifts are laid down in prEN 1756-1.

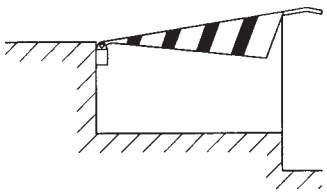
**1.2** This standard includes dock levellers which are used by persons and/or manual or power driven transport equipment (e.g. forklift trucks) as traffic paths between goods vehicles, both road vehicles and rail waggons, and parts of buildings such as loading docks. This standard does not deal with bridging devices where the load is a complete vehicle, such as a self propelled vehicle or towed trailer. Illustrations of various types of dock levellers are shown in figure 1.



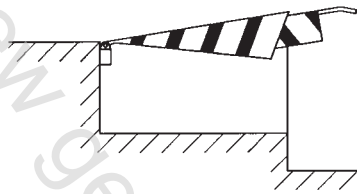
a) Bridge plate
(dock plate)
manually operated, mobile



b) manually or power operated dock leveller, fixed at the dock edge



c) manually operated dock leveller, installed in a pit, hinged lip



d) power operated dock leveller, installed in a pit, telescopic or hinged lip

Figure 1: Types of dock levellers

**1.3** This standard contains requirements in order to protect persons and objects against accidents and damage during use and operation of dock levellers.

**1.4** Persons to be protected are

a) operators,
b) maintaining and inspecting personnel,
c) persons near the dock leveller.

**1.5** Objects to be protected are

a) goods on dock levellers,
b) transport equipment on dock levellers.

**1.6** The significant hazards of dock levellers are listed in clause 4.
These hazards have been identified by risk assessment according to EN 292-2 and require actions to avoid the hazard, or to reduce the risk, which are covered in clauses 5 and 6.

**1.7** The safety requirements are based on the assumption that the dock levellers are regularly maintained by competent persons to the instructions of the manufacturer and that the operating persons have been instructed in the use of the dock levellers.

## 2 Normative References

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 standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

| | |
|---|---|
| EN 292-1: 1991 | Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology |
| EN 292-2: 1991 + A1: 1995 | Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications |
| EN 294: 1992 | Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs |
| EN 349: 1993 | Safety of machinery - Minimum distances to avoid crushing of parts of the human body |
| EN 418: 1992 | Safety of machinery - Emergency stop equipment; Functional aspects |
| prEN 954-1:1996 | Safety of machinery - Safety related parts of control systems -Part 1: General principles for design |
| EN 982: 1996 | Safety requirements for fluid power systems and components - Hydraulics |
| EN 983: 1996 | Safety requirements for fluid power systems and components - Pneumatics |
| EN 60 204-1:1992 | Safety of machinery - Electrical equipment of machines - Part 1: General requirements |
| EN 60 529: 1991 | Degrees of protection provided by enclosures - Protection of electrical equipment against contact, foreign bodies and water |

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|---|---|
| EN 60947-4-1: 1991 | Low-voltage switchgear and controlgear - Part 4-1: Electro-mechanical contactors and motor-starters |

**CENELEC**

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| HD 419.2S1 | Low-voltage switchgear and controlgear - Semiconductor contactors |
| HD 384.4.41S1 | Electrical installations of buildings - Part 4: Protection for safety - Chapter 41: Protection against electrical shock |
| HD 384.4.47S2 | Electrical installations of buildings - Part 4: Protection for safety - Chapter 47: Application of protective measures for safety |

## 3 Definitions

For the purposes of this standard the following definitions apply.

**3.1** **Dock leveller:** A static or mobile device to bridge the space between a loading dock or similar loading areas and the loading surface of a vehicle which may be at different levels.

Dock levellers may be built as
- manually operated, mobile dock leveller, called bridge plate or dock board, see figure 1a),
- power operated dock leveller built in to a loading dock or fixed at the edge of a dock, see figure 1b) and d),
- manually operated dock leveller built in to a loading dock or fixed to the edge of a dock, see figure 1b and c),

A dock leveller is not designed to lift or lower loads.

NOTE 1: Dock levellers are provided for loading and unloading operations.

NOTE 2: The lifting or lowering mechanism is only provided to make alterations in the position of the unloaded dock leveller.

**3.2** **Dock board / Bridge plate:** A dock leveller, consisting of a manually operated plate, suspended or loose.

**3.3** **Latched dock leveller:** Dock leveller which is held in a certain position by a positively engaged locking device.

**3.4** **Bridge deck:** The part of the dock leveller in the form of a plate which is used as traffic path for persons and/or transport equipment, but excluding the lip (see figure 2).