

## **Tõsteplatvormid. Mastil liikuvad tööplatvormid**

Lifting platforms - Mast climbing work platforms

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1495:1999 sisaldab Euroopa standardi EN 1495:1997 + AC:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1495:1999 consists of the English text of the European standard EN 1495:1997 + AC:1997.</p> <p>This document is endorsed on 23.11.1999 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><b>Käsitlusala:</b></p> <p>See standard esitab spetsiifilised ohutusnõuded, mis kehtivad ajutiselt paigaldatud, käsitsi või ajamiga käitatavate mastil liikuvate tööplatvormide (MCWP - Mast Climbing Work Platforms) kohta, mis on konstrueeritud sellel töö tegemiseks ühe või mitme isiku poolt. Vertikaalselt liikuvaid osi (tööplatvorme) kasutatakse ka nende samade isikute, nende töövahendite ja materjalide toimetamiseks ühteainsasse platvormile tõusmise punkti või sellest punktist eemale. Need kitsendused eristavad mastil liikuvat tööplatvormi tavalisest ehitustõstukist. Standardit võib kohaldada ka statsionaarselt paigaldatud mastil liikuvate tööplatvormide suhtes.</p>	<p><b>Scope:</b></p>
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ICS 53.020.99

**Võtmesõnad:** andmeplaadid, arvutus, jõud, katsed, konstruktsiooniosad, koormused, mehaaniline tugevus, nimekirjad, ohud, ohutusnõuded, platvormid, stabiilsus, utiliseerimine, õnnetuste vältimine

ICS 53.020.99

Descriptors: Lifting platforms, work platforms.

**English version**

**Lifting platforms**

**Mast climbing work platforms**

Matériels de mise à niveau – Plates-  
formes de travail se déplaçant le  
long de mât(s)

Hebebühnen – Mastgeführte  
Kletterbühnen

This European Standard was approved by CEN on 1997-04-21.

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.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

**CEN**

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

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## 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 March 1998, and conflicting national standards shall be withdrawn at the latest by March 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.

It is a type C- standard related to safety for Mast Climbing Work Platforms.

This is the first edition of this European 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 standard is one of a series of standards produced by CEN/TC 98 as part of the CEN/CENELEC programme of work to produce machinery safety standards. EN 414 (Safety of machinery-Rules for the drafting and presentation of safety standards) has been used as a guide in the preparation of this standard.

This standard has been prepared to be a harmonized standard to provide one means of conforming with the essential safety requirements of the Machinery Directive.

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

## 1 Scope

**1.1** This standard specifies the special safety requirements for Mast Climbing Work Platforms (MCWP) which are temporarily installed and are manually or power operated and which are designed to be used by one or more persons from which to carry out work. The vertical moving components (work platform) are also used to move those same persons and their equipment and materials to and from a single boarding point. These restrictions differentiate MCWPs from Builder's hoists.

The standard can also be used for permanently installed MCWP.

**1.2** This standard is applicable to work platforms elevated by rack and pinion and guided by and moving along their supporting masts, where the masts may or may not require lateral restraint from separate supporting structures.

**1.3** This standard is applicable to any combination of the following alternatives:

- one or more masts
- mast tied or untied
- mast of fixed or variable length
- masts vertical or inclined between 0° and 30° to the vertical
- masts which are standing or hanging
- movable or static base (chassis, or base frame)
- manually or power operated elevation
- towed or self powered ground travel on site, excluding road traffic regulation requirements
- driven using electric, pneumatic or hydraulic motors

**1.4** This standard identifies the hazards arising during the various phases in the life of such equipment and describes methods for the elimination or reduction of these hazards and for the use of safe working practices.

**1.5** This standard does not specify the requirements for dealing with the hazards involved in the manoeuvring, erection or dismantling, fixing or removing of any materials or equipment which are not part of the Mast Climbing Work Platform (MCWP). Neither does it deal with the handling of specific hazardous materials.

**1.6** This standard does not specify the requirements for delivering persons and materials to fixed landing levels. Such equipment is referred to as lifts or hoists and are dealt with by other standards.

**1.7** This standard does not include Mobile Elevating Work Platforms (MEWPs) according to prEN 280 , Suspended access equipment according to prEN 1808 or Lifting tables according to prEN 1494.

## **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 European 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	Safety of machinery - Basic concepts, general principles for design Part 2: Technical principles and specifications
EN 292-2:1991 A1: 1995	Safety of machinery - Basic concepts, General principles for design Part 2: Technical principles and specifications (Amendment 1:1995)
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 gaps to avoid crushing of parts of the human body
EN 418:1992	Safety of machinery. - Emergency stop equipment, functional aspects - Principles for design
EN 614-1:1995	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles
EN 953:1997	Safety of machinery - General requirements for the design and construction of guards (fixed, movable)



EN 954-1:1996	Safety of machinery - Safety related parts of control systems - Part 1: General principles for design.
EN 982:1996	Safety of machinery - safety requirements for fluid power systems and components - Hydraulics
EN 60065: 1993	Safety requirements for mains operated electronic and related apparatus for household and similar general use
EN 60204-1:1992	Safety of machinery - Electrical equipment of machines - Part 1: General requirements.
EN 60529:1992	Degrees of protection provided by enclosures (IP-code).
EN 60947-5-1:1991	Low-voltage switchgear and controlgear - Part 5: Control circuit devices and switching elements. Section 1 - Electromechanical control circuit devices and switching elements
ISO 4301-1:1986	Cranes and lifting appliances - Classification - Part 1:General
ISO 4302:1989	Cranes - Wind load assessment
ISO 6336-1	Calculation of load capacity of spur and helical gears - Part 1: Basic principles, introduction and general influence factors
ISO 6336-2	Calculation of the load capacity of spur and helical gears - Part 2: Calculation of surface durability (pitting)
ISO 6336-3	Calculation of the load capacity of spur and helical gears - Part 3: Calculation of tooth strength
ISO 6336-5	Calculation of the load capacity of spur and helical gears - Part 5: Strength and quality of materials
ISO 8686-1:1989	Cranes - Design principles for loads and load combinations - Part1:General

### 3 Definitions

For the purposes of this standard the following definitions apply:

NOTE: The terms which are used in this standard, with reference to the definitions below, are indicated in figures 1 and 2.

**3.1 rated load:** The loads for which the MCWP has been designed for in normal operation as stated in the load diagram.

**3.2 load diagram:** A notice displayed on the work platform showing the permitted number of persons and the weight and distribution of materials for the particular configuration.