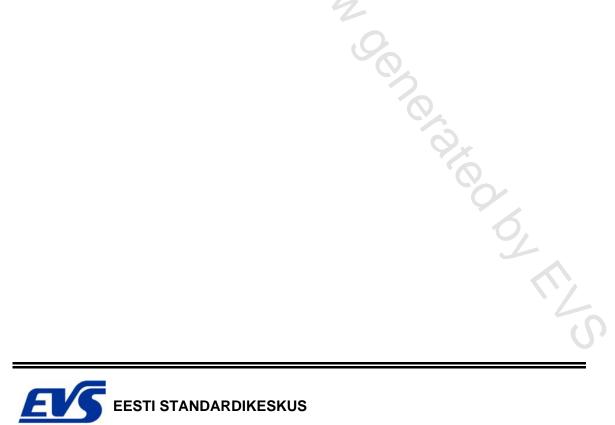
500 CUMPA

Mullatöömasinad. Ohutus. Osa 6: Kalluritele esitatavad nõuded

Earth-moving machinery - Safety - Part 6: Requirements for dumpers



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

474-1:2006, but adds or replaces the

requirements for application for dumpers.

Käesolev Eesti standard EVS-EN 474- 6:2007 sisaldab Euroopa standardi EN 474-6:2006 ingliskeelset teksti.	This Estonian standard EVS-EN 474- 6:2007 consists of the English text of the European standard EN 474-6:2006.
Käesolev dokument on jõustatud 29.01.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 29.01.2007 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.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Käsitlusala:	Scope:
This part of EN 474 deals with all	This part of EN 474 deals with all
significant hazards, hazardous situations	significant hazards, hazardous situations
and events relevant to wheel and crawler	and events relevant to wheel and crawler
dumpers as defined in EN ISO	dumpers as defined in EN ISO
6165:2006, including compact dumpers, and compact dumpers with standing	6165:2006, including compact dumpers, and compact dumpers with standing
operator when they are used as intended	operator when they are used as intended
and under conditions of misuse which are	and under conditions of misuse which are
reasonably foreseeable by the	reasonably foreseeable by the
manufacturer (see Clause 4). The	manufacturer (see Clause 4). The
requirements of this part are	requirements of this part are
complementary to common requirements	complementary to common requirements
complementary to common requirements formulated in EN 474-1:2006. This part does not repeat the requirements from EN	

ICS 53.100

Võtmesõnad:

474-1:2006, but adds or replaces the requirements for application for dumpers.

## **EUROPEAN STANDARD** NORME EUROPÉENNE **EUROPÄISCHE NORM**

## EN 474-6

November 2006

ICS 53,100

Supersedes EN 474-6:1996

**English Version** 

#### Earth-moving machinery - Safety - Part 6: Requirements for dumpers

Engins de terrassement - Sécurité - Partie 6: Prescriptions applicables aux tombereaux

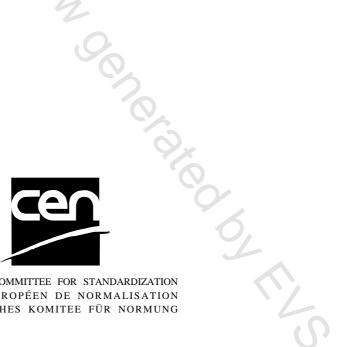
Erdbaumaschinen - Sicherheit - Teil 6: Anforderungen für Muldenfahrzeuge

This European Standard was approved by CEN on 17 April 2006.

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.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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 United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

#### Page

Foreword	3
Introduction	
1 Scope	
2 Normative references	5
3 Terms and definitions	5
4 List of additional significant hazards	6
5 Requirements and/or measures	
6 Information for use	10
Annex A (normative) List of additional significant hazards – Dumpers	11
Annex B (informative) Illustrations	12
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC	14
Bibliography	15
Figures	
Figure 4 Deflection limiting volume (DLV) front view	0

#### Figures

Figure 1 — Deflection-limiting volume (DLV), front view		8
Figure B.1 — Rigid frame dumper		2
Figure B.2 — Articulated frame dumper		2
Figure B.3 — Crawler dumper		2
Figure B.4 — Wheel compact dumper		3
Figure B.5 — Crawler compact dumper		3
Figure B.6 — Compact dumper with self-loading equipmer	ıt 1	3

#### Tables

Figure B.6 — Compact dumper with self-loading equipment	
	Ó.
Tables	
Table A.1 — List of additional significant hazards	11
	0
	0.

### Foreword

This document (EN 474-6:2006) has been prepared by Technical Committee CEN/TC 151 "Construction equipment and building material machines — Safety", 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 May 2007, and conflicting national standards shall be withdrawn at the latest by November 2008.

This European Standard supersedes EN 474-6:1996.

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.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

For bibliographic references, see EN 474-1:2006.

EN 474 "Earth-moving machinery — Safety" comprises the following parts:

- Part 1: General requirements
- Part 2: Requirements for tractor-dozers
- Part 3: Requirements for loaders
- Part 4: Requirements for backhoe-loaders
- Part 5: Requirements for hydraulic excavators
- Part 6: Requirements for dumpers
- Part 7: Requirements for scrapers
- Part 8: Requirements for graders
- Part 9: Requirements for pipelayers
- Part 10: Requirements for trenchers
- Part 11: Requirements for earth and landfill compactors
- Part 12: Requirements for cable excavators

This European Standard is intended for use in combination with Part 1 of the series.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

Jeneraleo

### Introduction

This part of EN 474 is a type C standard as stated in EN ISO 12100-1:2003.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

la take, accordi. When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

#### 1 Scope

This part of EN 474 deals with all significant hazards, hazardous situations and events relevant to wheel and crawler dumpers as defined in EN ISO 6165:2006, including compact dumpers, and compact dumpers with standing operator when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4). The requirements of this part are complementary to common requirements formulated in EN 474-1:2006.

This part does not repeat the requirements from EN 474-1:2006, but adds or replaces the requirements for application for dumpers.

This part specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards, hazardous situations and events during commissioning, operation and maintenance of dumpers.

Pedestrian controlled dumpers are excluded from the scope of this European Standard.

This European Standard is not applicable to dumpers, manufactured before the date of publication of this European Standard by CEN.

#### 2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 474-1:2006, Earth-moving machinery — Safety — Part 1: General requirements

EN 13510:2000, Earth-moving machinery — Roll-over protective structures — Laboratory tests and performance requirements (ISO 3471:1994, including Amendment 1:1997 modified)

EN ISO 3449:2005, Earth-moving machinery - Falling-object protective structures - Laboratory tests and performance requirements (ISO 3449:2005)

EN ISO 3164:1999, Earth-moving machinery — Laboratory evaluations of protective structures — Specifications for deflecting-limiting volume (ISO 3164:1995)

EN ISO 7096:2000, Earth-moving machinery — Laboratory evaluation of operator seat vibration (ISO 7096:2000)

EN ISO 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)

ISO 10268:1993, Earth-moving machinery — Retarders for dumpers and tractor-scrapers — Performance tests

ISO 10570:2004, Earth-moving machinery — Articulated frame lock — Performance requirements

ISO 13333:1994, Earth-moving machinery — Dumper body support and operator's cab tilt support devices

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 474-1:2006, EN ISO 12100-1:2003 and the following apply.

NOTE 1 Terminology for dumpers is specified in ISO 7132:2003 and is illustrated in Annex B of this European Standard.