

STN	Stroje na zemné práce Bezpečnosť Časť 11: Požiadavky na zhutňovače zeminy a skládok odpadu	STN EN 474-11 27 5340
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Earth-moving machinery - Safety - Part 11: Requirements for earth- and landfill compactors

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/22

Obsahuje: EN 474-11:2022

Oznámením tejto normy sa od 31.03.2024 ruší
STN EN 474-11+A1 (27 5340) z apríla 2009

EUROPEAN STANDARD

EN 474-11

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2022

ICS 53.100

Supersedes EN 474-11:2006+A1:2008

English Version

Earth-moving machinery - Safety - Part 11: Requirements for earth- and landfill compactors

Engins de terrassement - Sécurité - Partie 11 :
Prescriptions applicables aux compacteurs de remblais
et de déchets

Erdbaumaschinen - Sicherheit - Teil 11: Anforderungen
für Erd- und Müllverdichter

This European Standard was approved by CEN on 14 February 2022.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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EN 474-11:2022 (E)

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European foreword

This document (EN 474-11:2022) 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by March 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 474-11:2006+A1:2008.

This document has been prepared under a standardization request 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 document.

For bibliographic references, see EN 474-1:2022.

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
- Part 13: Requirements for rollers

This document is intended for use in combination with part 1 of the series.

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The main differences between this document and EN 474-11:2006+A1:2008 are as follows:

- a) scope has been aligned to distinct rammer compactor dealt with by ISO/TC 195 from machinery dealt with by this document (modified);
- b) safety-related functions of control systems (excluded);
- c) normative references (Clause 2) (updated);
- d) terms and definitions (Clause 3) (updated);
- e) all earth- and landfill-compactors shall be fitted with a cab (added);
- f) requirement for cab-protection (4.2.2.2) (modified);
- g) requirement for Deodorising filter (4.2.2.3) (modified);
- h) requirement for the Primary Access Opening (Cab Door protection) (modified);
- i) operator's seat input spectral class shall be EM3 for earth- and landfill compactors (4.3) (added);
- j) requirements for braking systems (4.5 and Annex B) (modified);
- k) lifting operations requirements for earth- and landfill compactors (4.7) (excluded);
- l) Fenders requirement for earth- and landfill compactors (4.8) (excluded);
- m) verification methods table (Clause 5) (added);
- n) requirement for Information for use (Clause 6) (modified);
- o) list of significant hazards (Annex A) (updated);
- p) Annex ZA (updated).

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document is a type-C standard as stated in EN ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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

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

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1 Scope

This document, together with EN 474-1:2022, deals with all significant hazards for earth-moving machinery, earth- and landfill compactors when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer associated with the whole life time of the machine (see Annex A).

The requirements of this part are complementary to the common requirements formulated in EN 474-1:2022. This document does not repeat the requirements of EN 474-1:2022, but supplements or modifies the requirements for application for earth moving machinery – earth- and landfill compactors.

Rammer compactors and vibratory plates are excluded from this document.

This document does not provide requirements for main electrical circuits and drives of machinery when the primary source of energy is an external electrical supply.

The following significant and relevant hazards are not covered in this document:

- Laser;
- Lightning.

This document does not provide performance requirements for safety related functions of control system(s). This document is not applicable to earth- and landfill compactors manufactured before the date of publication of this document by CEN.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 474-1:2022, *Earth-moving machinery — Safety — Part 1: General requirements*

EN ISO 3450:2011, *Earth-moving machinery — Wheeled or high-speed rubber-tracked machines — Performance requirements and test procedures for brake systems (ISO 3450:2011)*

EN ISO 5010:2019, *Earth-moving machinery — Wheeled machines — Steering requirements (ISO 5010:2019)*

EN ISO 7096:2020, *Earth-moving machinery — Laboratory evaluation of operator seat vibration (ISO 7096:2020)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

ISO 7546:1983, *Earth-moving machinery — Loader and front loading excavator buckets — Volumetric ratings*

ISO 14397-1:2007, *Earth-moving machinery — Loaders and backhoe loaders — Part 1: Calculation of rated operating capacity and test method for verifying calculated tipping load*

ISO 14397-1:2007/Amd 1:2019, *Earth-moving machinery — Loaders and backhoe loaders — Part 1: Calculation of rated operating capacity and test method for verifying calculated tipping load – Amendment 1*

ISO 13539:1998, *Earth-moving machinery — Trenchers — Definitions and commercial specifications*

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