

Earth-moving machinery — Safety —

Part 10: Requirements for trenchers

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British Standard

ICS 53.100

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National foreword

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- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 13, and a back cover.

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English version

Earth-moving machinery — Safety — Part 10: Requirements for trenchers

Engins de terrassement — Sécurité —
Partie 10: Exigences applicables aux trancheuses

Erdbaumaschinen — Sicherheit —
Teil 10: Anforderungen für Grabenfräsen

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CEN

European Committee for Standardization
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Foreword

This European Standard 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of an identical text or by endorsement, at the latest by September 1998, and conflicting national standards shall be withdrawn at the latest by September 1998.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.

The annex A is normative and contains a list of additional hazards and annex B is informative and contains illustrations.

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 rope excavators.*

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.

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0 Introduction

This European Standard is a Type C-standard as stated in EN 292.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this standard.

1 Scope

This European Standard specifies additional requirements and/or exceptions from EN 474-1:1994 *Earth-moving machinery — Safety — Part 1: General requirements*.

This European Standard applies to wheel and crawler trenchers as defined in ISO 6165:1997 and gives additional requirements for attachments (see ISO 6016:1982) and for derived machinery.

This European Standard deals with all significant hazards pertinent to trenchers when they are used as intended and under the conditions foreseen by the manufacturer (see annex A of this European Standard and annex C of EN 474-1:1994). This European Standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards.

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 specification*.

EN 474-1:1994, *Earth-moving machinery — Part 1: General safety requirements*.

ENV 1070:1993, *Safety of machinery — Terminology*.

EN 60068-2-27:1993, *Basic environmental testing procedures — Part 2: Tests — Test Ea and guidance: Shock*.

EN 60204-1:1992, *Safety of machinery — Electrical equipment — Part 1: General requirements*.

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code)*.

ISO 2867:1994, *Earth-moving machinery — Access system*.

ISO 3411:1995, *Earth-moving machinery — Human physical dimensions of operators and minimum operator space envelope*.

ISO 3457:1986, *Earth-moving machinery — Guards and shields — Definitions*.

ISO 3471:1994, *Earth-moving machinery — Roll-over protective structures — Laboratory tests and performance requirements*.

ISO 4250-2:1991, *Narrow and wide base off-road tyres and rims — Part 2: Loads and inflation pressures*.

ISO/DIS 4250-3:1993, *Earth-mover tyres and rims — Part 3: Rims*.

ISO 5006-1:1991, *Earth-moving machinery — Operator's field of view — Part 1: Test method*.

ISO 5353:1995, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*.

ISO 6014:1986, *Earth-moving machinery — Determination of ground speed*.

ISO 6016:1982, *Earth-moving machinery — Methods of measuring the masses of whole machines, their equipment and components*.

ISO 6165:1997, *Earth-moving machinery — Basic types — Vocabulary*.

ISO/DIS 6393:1995, *Acoustics — Measurement of exterior noise emitted by earth-moving machinery — Stationary test condition*.

ISO/DIS 6394:1995, *Acoustics — Measurement of exterior noise emitted by earth-moving machinery — Operator's position — Stationary test condition*.

ISO 6405-1:1991, *Earth-moving machinery — Symbols for operator controls and other displays — Part 1: Common symbols*.

ISO 6405-2:1993, *Earth-moving machinery — Symbols for operator controls and other displays — Part 2: Symbols for machines, equipment and accessories*.

ISO 6682:1986, *Earth-moving machinery — Zones of comfort and reach for controls*.

ISO 9244:1995, *Earth-moving machinery — General principles for safety signs and hazard pictorials*.

ISO/DIS 9249:1995, *Earth-moving machinery — Engine test code — Net power*.

ISO 10263-2:1994, *Earth-moving machinery — Operator enclosure environment — Part 2: Air filter test*.

ISO 10263-4:1994, *Earth-moving machinery — Operator enclosure environment — Part 4: Operator enclosure ventilation, heating and/or air-conditioning test method*.

ISO 10968:1995, *Earth-moving machinery — Operator's controls*.

ISO 12509:1995, *Earth-moving machinery — Lighting, signalling and marking lights and reflex-reflector devices*.

ISO/DIS 13766:1996, *Earth-moving machinery — Electro-magnetic compatibility*.