

BS EN 61029-2-10:2010+A11:2013

Incorporating corrigendum November 2013



BSI Standards Publication

Safety of transportable motor-operated electric tools

Part 2-10: Particular requirements for
cutting-off grinders

bsi.

...making excellence a habit.
AVA **Documents**
Document Sharing Hub

National foreword

This British Standard is the UK implementation of EN 61029-2-10:2010+A11:2013. It was derived from IEC 61029-2-10:1998. It supersedes BS EN 61029-2-10:2010, which will be withdrawn on 22 July 2016.

Where a common modification has been introduced by CENELEC amendment, the tags carry the number of the amendment. For example, the common modifications introduced by CENELEC amendment A11 are indicated by  .

The CENELEC common modifications have been implemented at the appropriate places in the text and are indicated by tags (e.g.  .

The UK participation in its preparation was entrusted to Technical Committee CPL/116, Safety of motor-operated electric tools.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013.
Published by BSI Standards Limited 2013

ISBN 978 0 580 84835 3

ICS 25.080.60; 25.140.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2010.

Amendments/corrigenda issued since publication

Date	Text affected
31 October 2013	Implementation of CENELEC amendment A11:2013
30 November 2013	Date of withdrawal corrected in national foreword

**Safety of transportable motor-operated electric tools -
Part 2-10: Particular requirements for cutting-off grinders**
(IEC 61029-2-10:1998, modified)

Sécurité des machines-outils électriques
semi-fixes -
Partie 2-10: Règles particulières pour
les tourets à couper
(CEI 61029-2-10:1998, modifiée)

Sicherheit transportabler
Elektrowerkzeuge -
Teil 2-10: Besondere Anforderungen
für Trennschleifmaschinen
(IEC 61029-2-10:1998, modifiziert)

This European Standard was approved by CENELEC on 2009-12-01. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of the International Standard IEC 61029-2-10:1998, prepared by SC 61F (transformed into IEC TC 116, Safety of hand-held motor-operated electric tools), together with the common modifications prepared by the Technical Committee CENELEC TC 116, former TC 61F, Safety of hand-held motor-operated electric tools, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61029-2-10 on 2009-12-01.

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

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2010-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-12-01

This European Standard is divided into two parts:

- Part 1 General requirements that are common to most transportable electric motor operated tools (for the purpose of this European Standard referred to simply as tools) which could come within the scope of this European Standard;
- Part 2 Requirements for particular types of tool which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2006/42/EC. See Annex ZZ.

Compliance with the relevant clauses of Part 1 together with this Part 2 provides one means of conforming with the specified essential health and safety requirements of the Directive.

The standard follows the overall requirements of EN ISO 12100-1 and EN ISO 12100-2.

For noise and vibration this standard covers the requirements for their measurement, the provision of information arising from these measurements and the provision of information about the personal protective equipment required. Specific requirements for the reduction of the risk arising from noise and vibration through the design of the tool are not given as this reflects the current state of the art.

As with any standard, technical progress will be kept under review so that any development can be taken into account.

Warning: Other requirements arising from other EC Directives can be applicable to the products falling within the scope of this standard.

This Part 2-10 is to be used in conjunction with EN 61029-1:2009. This Part 2-10 supplements or modifies the corresponding clauses of EN 61029-1, so as to convert it into the European Standard: "Safety requirements for transportable cutting-off grinders".

Where a particular subclause of Part 1 is not mentioned in this Part 2-10, that subclause applies as far as reasonable. Where this Part 2-10 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Clauses, subclauses, notes, tables and figures which are additional to those in Part 1 are numbered starting from 101.

Clauses, subclauses, notes, tables and figures which are additional to those in IEC 61029-2-10 are prefixed "Z".

NOTE In this European Standard the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Foreword to amendment A11

This document (EN 61029-2-10:2010/A11:2013) has been prepared by CLC/TC 116 "Safety of motor-operated electric tools".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2014-07-22
at national level by publication of an identical national
standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2016-07-22
this document have to be withdrawn

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

This amendment was developed to streamline Table Z102 and to bring EN 61029-2-10:2010 in line with current practice and machines in production.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

NOTE In this European Standard the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Annex ZZ (informative)

Coverage of Essential Requirements of Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex I of the EC Directive 2006/42/EC (Machinery Directive).

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

CONTENTS

Clause	Page
1 Scope	6
2 Definitions	6
3 General requirements	7
4 General notes on tests	7
5 Rating	7
6 Classification	7
7 Marking	7
8 Protection against electric shock	8
9 Starting	8
10 Input and current	8
11 Heating	9
12 Leakage current	9
13 Radio and television interference suppression	9
14 Protection against ingress of foreign bodies and moisture resistance	9
15 Insulation resistance and electric strength	9
16 Endurance	10
17 Abnormal operation	10
18 Stability and mechanical hazards	10
19 Mechanical strength	13
20 Construction	15
21 Internal wiring	15
22 Components	15
23 Supply connection and external flexible cables and cords	15
24 Terminals for external conductors	16
25 Provision for earthing	16
26 Screws and connections	16
27 Creepage distances, clearances and distance through insulation	16
28 Resistance to heat, fire and tracking	16
29 Resistance to rusting	16
30 Radiation	16
Figures	17
Annexes	24

SAFETY OF TRANSPORTABLE MOTOR-OPERATED ELECTRIC TOOLS –

Part 2: Particular requirements for cutting-off grinders

1 Scope

This clause of part 1 is applicable, except as follows:

1.1 Addition:

Ⓒ This European Standard applies to cutting-off grinders intended to cut metal by means of a rotating abrasive cutting-off wheel:

- with an abrasive cutting-off wheel diameter not exceeding 406 mm;
- with a peripheral speed not exceeding 80 m/s. Ⓒ

2 Definitions

This clause of part 1 is applicable, except as follows:

2.21 Replacement:

Ⓒ 2.21

normal load

normal load is the load to obtain rated input. The normal load is based on the rated voltage or on the upper limit of the rated voltage range

2.101

cutting-off grinder

tool having a rotating abrasive cutting-off wheel fitted on an arm suspended over a table. The table supports and positions the workpiece, which is fixed in a vice. The arm is pivoted on the support frame or attached directly to the table. See Figure Z101

2.102

spindle

spindle of the cutting-off grinder which supports and transmits the rotation to the abrasive cutting-off wheel

2.103

wheel guard

device which partially encloses the abrasive cutting-off wheel in order to protect the user against contact with the wheel in normal use and against ejection of fragments of the wheel in the protected area in case of a breakage of the wheel

2.104

rear guard

device behind the abrasive cutting-off wheel that prevents the ejection of sparks Ⓒ

2.105
workpiece vice
device intended to support and maintain the workpiece in position

Texts deleted

3 General requirements

This clause of part 1 is applicable.

4 General notes on tests

This clause of part 1 is applicable.

5 Rating

This clause of part 1 is applicable.

6 Classification

This clause of part 1 is applicable.

7 Marking

This clause of part 1 is applicable, except as follows:

7.1 Addition:

- the rated no-load speed in 1/min or min^{-1} ;
- the maximum diameter D of abrasive cutting-off wheel to be used;
- the direction of rotation of the abrasive cutting-off wheel shall be indicated on the tool by an arrow raised or sunk or by any other means no less visible and indelible;
- “Read the instructions” or the relevant symbol;
- “Wear safety glasses” or the relevant symbol;
- thread size of the spindle, if applicable;

7.6 Modification:

The symbol n_0 shall be used for rated no-load speed.

7.13 Addition:

The substance of the following information and/or warnings shall also be given: