

BRITISH STANDARD

Hand-held motor-operated electric tools — Safety —

Part 2-9: Particular requirements for tappers

BS EN
60745-2-9:2003

BS EN 60745-2-9:2003

National foreword

This British Standard is the official English language version of EN 60745-2-9:2003. It was derived by CENELEC from IEC 60745-2-9:2003. It supersedes BS EN 50144-2-9:1996 which will be withdrawn on 2006-02-01.

The CENELEC common modifications have been implemented at the appropriate places in the text and are indicated by tags e.g. $\text{\textcircled{E}}$ $\text{\textcircled{C}}$.

The UK participation in its preparation was entrusted by Technical Committee CPL/61, Safety of household and similar electrical appliances, to Subcommittee CPL/61/6, Portable motor operated tools, which has the responsibility to:

- 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.

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

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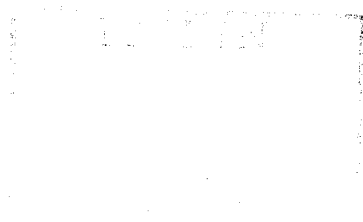
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English version

**Hand-held motor-operated electric tools -
Safety
Part 2-9: Particular requirements for tappers
(IEC 60745-2-9:2003, modified)**

Outils électroportatifs à moteur -
Sécurité
Partie 2-9: Règles particulières
pour les taraudeuses
(CEI 60745-2-9:2003, modifiée)

Handgeführte motorbetriebene
Elektrowerkzeuge -
Sicherheit
Teil 2-9: Besondere Anforderungen
für Gewindeschneider
(IEC 60745-2-9:2003, modifiziert)

This European Standard was approved by CENELEC on 2003-02-01. 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.

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Ref. No. EN 60745-2-9:2003 E

Foreword

The text of the International Standard IEC 60745-2-9:2003, prepared by SC 61F, Safety of hand-held motor-operated electric tools, of IEC/TC 61, Safety of household and similar electrical appliances, together with the common modifications prepared by the Technical Committee CENELEC TC 61F, Safety of hand-held and transportable motor-operated electric tools was submitted to the formal vote and was approved by CENELEC as EN 60745-2-9 on 2003-02-01.

This European Standard will supersede EN 50144-2-9:1996.

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) 2004-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-02-01

Other standards referred to in this European standard are listed in Clause 2. Clause 2 lists the valid edition of those documents at the time of issue of this EN.

This standard is divided into two parts:

Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;

Part 2: Requirements for particular types of tools 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 CEN and CENELEC by the European Commission and the European Free Trade Association and supports the essential health and safety requirements of the Machinery Directive.

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

CEN/TC 255 is producing standards for non-electric tappers (EN 792-3).

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

This standard follows the overall requirements of EN 292-1 and EN 292-2.

This Part 2-9 is to be used in conjunction with EN 60745-1:2003. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

Subclauses and figures which are additional to those in Part 1 are numbered starting from 101.

Subclauses, tables and figures which are additional to those in IEC 60745-2-9 are prefixed "Z".

NOTE In this standard, the following print types are used:

- requirements: in roman type,
- test specifications: in italic type;
- notes: in smaller roman type.

Endorsement notice

The text of the International Standard IEC 60745-2-9:2003 was approved by CENELEC as a European Standard with agreed common modifications.

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HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS –
SAFETY –

Part 2-9: Particular requirements for tappers

1 Scope

This clause of Part 1 is applicable except as follows:

1.1 Addition:

This standard applies to **tappers**.

2 Normative references

This clause of Part 1 is applicable.

3 Definitions

This clause of Part 1 is applicable except as follows:

3.101

tapper

tool intended for cutting internal screw threads

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable.

6 Environmental requirements

This clause of Part 1 is applicable except as follows:

6.1.2.4 Modification:

Tappers are suspended. The tap holder shall be horizontal.

6.1.2.5 Modification:

Tappers are tested at no-load.

6.2.2.4 Modification:

Tappers are tested under the conditions specified in 6.1.2.5. **Ⓔ**

7 Classification

This clause of Part 1 is applicable.

8 Marking and instructions

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

8.1 Addition:

In addition the tool shall have the following marking:

- maximum diameter, in millimetres, of thread which can be cut.

The diameter shall refer to a unified ISO thread to be cut into steel having a tensile strength of 390 N/mm² and a thickness of twice the thread diameter, unless otherwise indicated on the tool.

9 Protection against access to live parts

This clause of Part 1 is applicable.

10 Starting

This clause of Part 1 is applicable.

11 Input and current

This clause of Part 1 is applicable.

12 Heating

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

12.4 Replacement:

The tool is operated intermittently for 30 cycles or until temperatures stabilise, whichever is achieved first, each cycle comprising a period of continuous operation of 30 s and a rest period of 90 s with the tool switched off, the tool being loaded during the periods of operation by means of a brake adjusted so as to attain rated input or rated current. The temperature rises are measured at the end of the "on" period. At the manufacturer's option the tool may be operated continuously until thermal stabilisation.

13 Leakage current

This clause of Part 1 is applicable.

14 Moisture resistance

This clause of Part 1 is applicable.

15 Electric strength

This clause of Part 1 is applicable.

16 Overload protection of transformers and associated circuits

This clause of Part 1 is applicable.

17 Endurance

This clause of Part 1 is applicable.

18 Abnormal operation

This clause of Part 1 is applicable.

19 Mechanical hazards


This clause of Part 1 is applicable.

20 Mechanical strength

This clause of Part 1 is applicable.

21 Construction

This clause of Part 1 is applicable except as follows:

21.21 This clause of Part 1 is not applicable. 

22 Internal wiring

This clause of Part 1 is applicable.

23 Components

This clause of Part 1 is applicable.

24 Supply connection and external flexible cords

This clause of Part 1 is applicable.

25 Terminals for external conductors

This clause of Part 1 is applicable.

26 Provision for earthing

This clause of Part 1 is applicable.

27 Screws and connections

This clause of Part 1 is applicable.

28 Creepage distances, clearances and distances through insulation

This clause of Part 1 is applicable.

29 Resistance to heat, fire and tracking

This clause of Part 1 is applicable.

30 Resistance to rusting

This clause of Part 1 is applicable.

31 Radiation, toxicity and similar hazards

This clause of Part 1 is applicable.

Annexes

The annexes of Part 1 are applicable except as follows.

Annex K (normative)

Battery tools and battery packs

K.1.1 Addition:

All clauses of this Part 2 apply unless otherwise specified in this annex.

Annex L (normative)

Battery tools and battery packs provided with mains connection or non-isolated sources

L.1.1 Addition:

All clauses of this Part 2 apply unless otherwise specified in this annex.

Bibliography

The bibliography of Part 1 is applicable.

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