



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 50144-2-5:2000

ICS 25.080.60
25.140.20

**SAFETY OF HAND-HELD ELECTRIC MOTOR
OPERATED TOOLS
PART 2-5: PARTICULAR REQUIREMENTS
FOR CIRCULAR SAWS AND CIRCULAR
KNIVES**

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*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on
June 2, 2000*

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Údarás um Chaighdeán Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50144-2-5

November 1999

ICS 25.080.60; 25.140.20

Supersedes EN 50144-2-5:1996

English version

**Safety of hand-held electric motor operated tools
Part 2-5: Particular requirements for circular saws and circular knives**

Sécurité des outils électroportatifs
à moteur
Partie 2-5: Règles particulières pour
les scies circulaires et les couteaux
circulaires

Sicherheit handgeführter
motorbetriebener Elektrowerkzeuge
Teil 2-5: Besondere Anforderungen
an Kreissägen und Kreismesser

This European Standard was approved by CENELEC on 1998-08-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

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Foreword

This European Standard has been prepared by Technical Committee TC 61F, Hand-held and transportable electric motor operated tools. The text of the draft was submitted to the Unique Acceptance Procedure (UAP) in April 1994 and was approved by CENELEC as EN 50144-2-5 on 1995-03-06.

A draft for an amendment was submitted to UAP in April 1994 and was approved by CENELEC on 1995-03-06 for inclusion into the European Standard.

A further amendment was submitted to UAP in May 1996 and was approved by CENELEC as amendment A1 to EN 50144-2-5 on 1996-12-09.

Amendments to fulfill the essential requirements of the Machinery Directive were submitted to the formal vote in January 1998 and were approved by CENELEC on 1998-08-01 for inclusion, together with the earlier amendment, into a second edition of EN 50144-2-5.

This European Standard supersedes EN 50144-2-5:1996.

The following dates were fixed:

- latest date by which the EN has to be implemented
at a national level by publication of an identical
national standard or by endorsement (dop) 2000-06-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2001-12-01

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).

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 CEN/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.

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 developments can be taken into account.

CEN TC/255 is producing standards for non electrically driven circular saws (EN 792-12)

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.

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

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

- Requirements proper;
- *Test specifications;*
- Explanatory matter.

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1 Scope

This clause of Part 1 is applicable except as follows:

1.1 Addition:

This standard applies to all types of circular saws for cutting wood and similar materials and to circular knives.

These requirements do not cover circular saws and circular knives when mounted in a support for use as fixed tools.

This standard does not give requirements for the design of the tool for the reduction of the risk arising from noise and vibration.

2 Definitions

This clause of Part 1 is applicable except as follows:

2.2.18 Replacement:

2.2.18 normal load: For circular saws the load obtained when the circular saw is operated continuously with the saw blade in the vertical position, the load being such that the input in watts is equal to:

$0,25 \cdot s \cdot \sqrt{n_o}$ For saws with a.c. asynchronous induction motors.

$0,2 \cdot s \cdot \sqrt{n_o}$ For other saws designed for cutting depths exceeding 55 mm.

$0,13 \cdot s \cdot \sqrt{n_o}$ For other saws designed for cutting depths not exceeding 55 mm, and for multi-purpose tools which can be fitted with circular-saw accessories.

Where s is the maximum cutting depth, in millimetres, and n_o the no-load speed of the saw blade, in revolutions per minute, after the tool has been operating for a period of 15 min at no-load, at rated voltage or at the upper limit of the rated voltage range.

Additional definitions:

2.2.101 **circular saw with outer pendulum guard:** A tool the lower guard of which, for operation, swings around the upper fixed guard (see Figure 101).

2.2.102 **circular saw with inner pendulum guard:** A tool the lower guard of which, for operation, swings inside the upper fixed guard (see Figure 102).

2.2.103 **circular saw with tow-guard:** A tool the lower guard of which, for operation, slides along the upper fixed guard (see Figure 103).

2.2.104 **plunge type circular saw:** A tool having only a fixed upper guard into which the saw blade retracts when not in use (see Figure 104).

2.2.105 **guide plate:** Part constituting the plane of reference on the material to be cut.

2.2.106 **fixed guard:** Cover linked to the motor unit which prevents access to the part of the blade situated above the guide plate.

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