AS/NZS 7450.1:1999 IEC 60745-1:1997 (Incorporating Amendment No. 1)

Australian/New Zealand Standard[™]

Safety of hand-held motor-operated electric tools

Part 1: General requirements





AS/NZS 7450.1:1999

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Electrical Approvals Standards. It was approved on behalf of the Council of Standards Australia on 6 November 1998 and on behalf of the Council of Standards New Zealand on 31 January 1999. It was published on 5 April 1999.

The following interests are represented on Committee EL-002:

Association of Certification Bodies Association of New Zealand Electrical Appliance Distributors Australian Chamber of Commerce and Industry Australian Electrical and Electronic Manufacturers Association Consumer Electronics Suppliers Association, Australia Electrical regulatory authorities Electrical test laboratories Electricity Supply Association of Australia Institution of Engineers Australia Metal Trades Industry Association of Australia Ministry of Commerce (Energy Inspection), New Zealand New Zealand Manufacturers Federation

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ii

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002[,] Electrical Approvals Standards, to supersede AS/NZS 3160:1996, *Approval and test specification—Hand-held portable electric tools*, in part, two years from publication. However, AS/NZS 3160 will remain valid until all hand-held portable electric tools within the scope of AS/NZS 3160 are covered by particular Parts 2 to this Standard. During that period it is anticipated that regulatory authorities will approve hand-held motor-operated electric tools to either Standard.

A1

This Standard incorporates Amendment No. 1 (June, 2001). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide manufacturers and regulatory bodies with minimum safety requirements, designed to give user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to supply in Australia and New Zealand.

This Standard forms the first edition of AS/NZS 7450.1, Safety of hand-held motor-operated electric tools, Part 1: General requirements.

In January 1997, the IEC commenced numbering its Standards from 60000 by adding 60000 to the number of each existing Standard. This coordinates IEC numbering with ISO numbering. During the transition period an IEC Standard might be identified by its new number or its old number (for example, IEC 60050 or IEC 50).

This Standard is technically equivalent to and has been reproduced from IEC 60745-1:1997, *Safety of hand-held motor-operated electric tools*, Part 1: *General requirements*. This Standard, referred to as Part 1, is to be used in conjunction with the appropriate Part 2, which contains clauses that supplement or modify the corresponding clauses in Part 1, to provide the relevant requirements for each type of hand-held motor-operated electric tool.

A number of variations have been made in this Standard to the requirements of IEC 60745-1:1997. These variations are necessary to take into account the national requirements that apply in Australia and New Zealand. Variations to IEC 60745-1:1997 are indicated at the appropriate places throughout this Standard. Strikethrough (example) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand Standard, are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border. The variations are listed in Annex ZZ of this Standard for easy reference.

A reference to an International Standard identified in the Normative References Clause by strikethrough is replaced by a reference to the Australian or Australian/New Zealand Standard listed immediately thereafter and identified by shading.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60745-1:1997. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in Part 1 and the numbers 301 to 400 are used to number further clauses, subclauses, subclauses, notes, tables and figures in Part 2. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

iii

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A normative annex is an integral part of a Standard, whereas an informative annex is only for information and guidance.

In this Standard, the following print types are used:

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

If the functions of a tool are covered by more than one Part 2, the relevant Part 2 is applied to each function separately, so far as is reasonable. If applicable, the influence of one function on the other is taken into account.

It has been assumed in the drafting of this Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people.

A product, employing materials or having forms of construction differing from those detailed in the requirements of this Standard, may be examined and tested according to the intention of the requirements and, if found to be substantially equivalent, may be judged to comply with the Standard.

This Standard may be applied, so far as is reasonable, to hand-held motor-operated electric tools not mentioned in Part 2, and to tools designed on new principles.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'this International Standard' should read 'this Australian/New Zealand Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.
- (d) French text on figures should be ignored.



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