



UL 745-2-32

STANDARD FOR SAFETY

Particular Requirements for Magnetic Drill Presses

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UL Standard for Safety for Particular Requirements for Magnetic Drill Presses, UL 745-2-32

First Edition, Dated March 23, 1995

SUMMARY OF TOPICS

The revisions to UL 745-2-32 is being issued to remove the ANSI logo and approval from the title page. No other changes have been made.

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Approved by



Standards Council of Canada
Conseil canadien des normes

Commitment for Amendments

This Standard is issued jointly by Canadian Standards Association and Underwriters Laboratories Incorporated. Amendments to this Standard will be made only after processing according to the Standards writing procedures by both Canadian Standards Association and Underwriters Laboratories Incorporated.

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Preface

This is the common CSA and UL Standard for portable electric magnetic drill presses. It is the first edition of CSA Standard C22.2 No. 745-2-32 *Safety of portable electric tools Part 2: Particular requirements for magnetic drill presses* and UL 745-2-32 *Safety of portable electric tools Part 2: Particular requirements for magnetic drill presses*. It is written in SI (metric) units.

This Standard was prepared by Canadian Standards Association and Underwriters Laboratories Inc. and is based on IEC Publication 745-1 (1982) *Safety of hand-held motor-operated electric tools Part 1: General requirements*.

Where a particular clause of the general requirements Standard is not mentioned in this Standard, the clause applies as far as is reasonable. Where this edition states *addition, modification, or replacement*, the relevant requirement, test specification, or explanatory matter in the general requirements Standard should be adapted accordingly.

If the functions of a tool are covered by different particular Standards, the relevant particular requirements Standard 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.

This Standard was reviewed by the CSA Subcommittee on Portable Electric Tools of the Technical Committee on Consumer and Commercial Products under the jurisdiction of the Standards Steering Committee on the Canadian Electrical Code, Part II, and was formally approved by these Committees.

This Standard was processed and reviewed in accordance with the method of development, revision and implementation of UL Standards for safety.

This Standard has been approved by the Standards Council of Canada as a National Standard of Canada.

Note: *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*

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1 **Scope**

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

1.1 Replacement:

This standard applies to magnetic drill presses.

2 **Definitions**

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

2.2.23 Replacement:

Normal load denotes the load obtained when the magnetic drill press, placed in its intended operating position, is operated continuously, as recommended in the instruction manual to result in the highest load.

Additional definitions:

2.2.101 **Magnetic drill presses** denotes a tool specifically designed to make holes in ferrous materials.

It is designed to rotate, normally in a clockwise direction, at one or more speeds.

3 **General requirement**

This clause of Part 1 is applicable.

4 **General notes on tests**

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

4.9 Replacement:

For magnetic drill presses which have both a mechanical means of setting different ranges of speed and an electronic means of setting the speed within a given range, the mechanical device is adjusted to the lowest range possible, and the electronic device is adjusted to the highest setting within the given range.

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:**

– Warning – To reduce the risk of injury, always use safety chain. Mounting can release.

If this marking is located with the warning marking required by Part 1, the words "Warning – to reduce the risk of injury" need not be repeated.

8 **Protection against electric shock**

This clause of Part 1 is applicable.

9 **Starting**

This clause of Part 1 is applicable.

10 **Input and current**

This clause of Part 1 is applicable.

11 **Heating**

This clause of Part 1 is applicable.

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12 Leakage current

This clause of Part 1 is applicable.

13 Radio and television interference suppression

This clause of Part 1 is applicable.

14 Moisture resistance

This clause of Part 1 is applicable.

15 Insulation resistance and electric strength

This clause of Part 1 is applicable.

16 Endurance

This clause of Part 1 is applicable.

17 Abnormal operation

This clause of Part 1 is applicable.

18 Mechanical hazards

This clause of Part 1 is applicable.

18.1 Addition:

Chuck keys shall be so designed that they drop easily out of position when released; they shall not be fixed to the tool by means of a chain, string, or similar means.

Compliance is checked by inspection and by a manual test.

The key is inserted into the chuck, and without tightening, the drill is turned so that the key is facing down. The key must fall out.

This requirement does not exclude the provision of clips for holding the key in place when not in use; metal clips fixed to the flexible cable or cord are, however, not acceptable.

19 Mechanical strength

This clause of Part 1 is applicable.

20 Construction

This clause of Part 1 is applicable.

21 Internal wiring

This clause of Part 1 is applicable.

22 Components

This clause of Part 1 is applicable.

23 Supply connection and external flexible cables and cords

This clause of Part 1 is applicable.

24 Terminals for external conductors

This clause of Part 1 is applicable.

25 Provision for earthing

This clause of Part 1 is applicable.

26 Screws and connections

This clause of Part 1 is applicable.

27 Creepage distances, clearances and distances through insulation

This clause of Part 1 is applicable.

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28 Resistance to heat, fire and tracking

This clause of Part 1 is applicable.

29 Resistance to rusting

This clause of Part 1 is applicable.

30 Tests by manufacturers

This clause of Part 1 is applicable.

31 Instructions

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

Additional Specific Safety Rule:

31.3.101 **Always use safety chain. Mounting can release.**

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Appendix A – Thermal cut-outs and overload releases

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Appendix B – Electronic circuits

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Appendix C – Construction of safety isolating transformers

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Appendix D – Measurement of creepage distances and clearances

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Appendix E – Reference standards

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