



National Differences For

UL 60745-2-15

Hand-Held Motor-Operated Electric Tools - Safety - Part 2-15: Particular Requirements for Hedge Trimmers

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The revisions dated September 13, 2013 were issued to incorporate the following into the standard.

UL 60745-2-15 is an adoption of IEC 60745-2-15, Hand-Held Motor-Operated Electric Tools – Safety – Part 2-15 (Edition 2.1, issued June 2009). Please note that the national difference document incorporates all of the U.S. national differences for UL 60745-2-15 including the new national differences itemized below.

Additional requirements and modification to existing requirements for adjustable cutting device

This document provides a single listing of the National Differences included in the UL adoption of the corresponding IEC standard.

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Preface

This document provides a single listing of the technical National Differences included in the UL adoption of the corresponding IEC standard.

In its IEC-based standards, UL uses the notations indicated below to identify national difference type, and these types are additionally noted in this document. The standard may not use all types of these deviations.

D1 - These are deviations which are based on basic safety principles and requirements, elimination of which would compromise safety for U.S. consumers and users of products.

D2 - These are deviations based on safety practices. These are deviations for IEC requirements that may be acceptable, but adopting the IEC requirements would require considerable retesting or redesign on the manufacturer's part.

DC - These are deviations based on the component standards and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE - These are deviations based on editorial comments or corrections.

DR - These are deviations based on the national regulatory requirements.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

National Differences

2DV D1 Modification: Add the following to clause 2 of this Part 2:

CSA C22.1-09,
Canadian Electrical Code, Part I

NFPA 70-2008,
National Electrical Code

8.1DV D1 Addition: Add the following to Subclause 8.1 of this Part 2:

For all hedge trimmers:

“DANGER – KEEP HANDS AWAY FROM BLADE”

8.12.1DV D1 Addition: Add the following clause to 8.12.1 of the Part 1:

8.12.1.1ADV Additional safety instructions for hedge trimmers that comply with 19.101ADV.3.

Hedge trimmer safety warning:

- Use both hands when operating the hedge trimmer. Using one hand could cause loss of control and result in serious personal injury.

8.12.1.1DV DR Modification: Add the statement “Blades coast after turn off” after the third sentence of the first bullet point. Delete the second sentence, “When transporting or storing the hedge trimmer always fit the cutting device cover”, of the second bullet point. Add the following bullet point to this Part 2:

- **DANGER – Keep hands away from blade.** Contact with blade will result in serious personal injury.

NOTE: Paragraph shown below to demonstrate where additional statement is to be inserted.

Keep all parts of the body away from the cutter blade. Do not remove cut material or hold material to be cut when blades are moving. Make sure the switch is off when clearing jammed material. Blades coast after turn off. A moment of inattention while operating the hedge trimmer may result in serious personal injury.

8.12.2.DV DR Modification: Add the following to item b) of Clause 8.12.2 of this Part 2:

103A) Instructions for proper assembly of the handle and/or guard if the hedge trimmer is shipped without the handle or guard in place. In addition, the following warning statement shall be included in the instructions:

"WARNING – Only use with handle and guard properly assembled to hedge trimmer. The use of the hedge trimmer without the proper guard or handle provided may result in serious personal injury."

19.101DV D1 Modification: Delete the last two paragraphs before the compliance statement and add the following to this Part 2:

19.101ADV Adjustable handles

19.101ADV.1 Hedge trimmers with adjustable handle systems shall comply with the requirements of:

– 19.101ADV.2,

or

– 19.101ADV.3

19.101ADV.2 Handles shall be positively locked in position. If they are adjustable in different positions, it shall not be possible to lock them in a position which contravenes other provisions of this standard.

For handles that rotate axially from side to side and which are adjustable without the use of a tool, it shall not be possible to alter the handle position when the cutting device is operating. When altering the handle position the cutting device shall be inoperable.

Compliance is checked by inspection and measurement.

19.101ADV.3 Handles that are adjustable without a tool while the cutting device is operational shall comply with the requirements of 19.101ADV.3.1 – 19.101ADV.3.6.

19.101ADV.3.1 The handles shall not exceed a maximum side-to-side axial rotation of $\pm 90^\circ$ $\pm 5^\circ$ starting from the 0° centre position. See Figures 112DV and 113DV.

The handle shall have positive locking detents at 0° , see Figures 112DV and 113DV and at each end of the maximum adjustment of the handle. Additional intermediate positive locking detents between these points are acceptable. The handle shall automatically lock into each locking detent positions when adjusting the handle, unless the handle release control is pressed.

19.101ADV.3.2 The hedge trimmer rotating handles shall comply with the requirements of either A or B, as follows:

A) The free rotation of the blade shall be limited when the hedge trimmer is held by any handle.

Compliance is checked by inspection and the following test.

The axis of the blade is orientated at $\pm 45^\circ$ from the horizontal position, while the hedge trimmer is held in position by the handle. While the handle is held in any non-detent position, the portion of the hedge trimmer that holds the blade unrestrained, the blade, or any other respective grasping handle shall not rotate more than 5° . The test shall be repeated for each grasping handle.

B) The rotating handle of the hedge trimmer shall have intermediate locking detent(s) limiting rotation to a maximum of 60° measured from the 0° centre position in either direction. The detents may be intentionally overridden by a handle release control.

Compliance is checked by inspection and measurement.

19.101ADV.3.3 An adjustable handle shall be provided with a momentary handle release control to disengage the handle from a locked position. Operation of the handle release control shall be possible without impairing physical control of the hedge trimmer.

Compliance is checked by inspection.

19.101ADV.3.4 The handle release control shall meet the requirements of 19.101ADV.3.4.1 or 19.101ADV.3.4.2.

19.101ADV.3.4.1 The handle release control shall be located outside the grasping area, indicated in 8.12.2 b) 103).

Compliance is checked by inspection.

19.101ADV.3.4.2 The handle release control shall be designed so that it is not likely to be unintentionally pressed during intended left- or right-handed operation by meeting the requirements of 19.101ADV.3.4.2.1 or 19.101ADV.3.4.2.2 if the control is located within the grasping area.

19.101ADV.3.4.2.1 The handle release control shall require two separate and distinct motions to release the handle.

Compliance is checked by inspection.

19.101ADV.3.4.2.2 The handle release control shall be recessed such that it is not likely to be unintentionally pressed during use.

Compliance is checked by the following manual test.

The handle release control shall not be actuated by a straight-edged utensil when the utensil is made to pass back and forth across the device in any direction. The straight-edged utensil may be of any convenient length sufficient to bridge the surface of the handle release control and any surface adjacent to the handle release control.

19.101ADV.3.5 A handle release control mechanism shall have adequate strength.

Compliance is checked by inspection and the following test.

A torque of 6 Nm shall be applied to the handle release control mechanism for 1 min. While the handle is in the locking detent position, the torque to the handle shall be applied in line with the direction of its intended handle movement, and it shall be applied in each direction of movement, as applicable. The test shall be conducted with the handle positioned in each locking detent position.

During the test, the handle shall not disengage from the locking detent position(s), and the handle shall still be operational as a result of this test.