

ANSI/OPEI B175.3-2019

# American National Standard

*for Outdoor Power Equipment –  
Internal Combustion Engine–Powered  
Hand-Held Grass Trimmers  
and Brushcutters –  
Safety and Environmental Requirements*

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**ANSI/OPEI**  
**B175.3-2019**  
Revision of  
ANSI/OPEI B175.3-2013

American National Standard  
for Outdoor Power Equipment –  
Internal Combustion Engine–Powered  
Hand-Held Grass Trimmers  
and Brushcutters –  
Safety and Environmental Requirements

Sponsor

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## Contents

	Page
Foreword .....	iii
<b>1</b> Scope and Purpose .....	1
<b>2</b> Normative References .....	2
<b>3</b> Definitions .....	3
<b>4</b> Cutting Attachment Shield .....	6
<b>5</b> Clutches .....	7
<b>6</b> Engine Starting and Stopping Device .....	7
<b>7</b> Cutting Attachment .....	8
<b>8</b> Product Integrity .....	10
<b>9</b> Sound Levels .....	11
<b>10</b> Vibration .....	11
<b>11</b> Hot Surfaces .....	12
<b>12</b> Exhaust Gases .....	12
<b>13</b> Handle(s), Barrier(s), and Harness(es), Distances, and Balance .....	13
<b>14</b> Throttle Control / Throttle Control Latch .....	15
<b>15</b> Fuel Tanks and Oil Tanks .....	15
<b>16</b> Protection Against Parts of the Unit Under High Voltage .....	16
<b>17</b> Labeling Requirements .....	17
<b>18</b> Operator's Manual(s) Instructions .....	18
<b>Annexes</b>	
<b>A</b> Rationale .....	34
<b>B</b> Sound Test Procedures for Bystanders (9.2.2) .....	35
<b>C</b> Hot Surfaces (Clause 11) .....	40
<b>D</b> Procedures for the Evaluation of Environmental and Fuel Compatibility of Fuel Feed Lines (15.4) and Fuel Tanks (15.5) .....	42
<b>E</b> Structural Integrity of Fuel Tanks (15.7) .....	44
<b>F</b> Fuel Supply Line Strength and Accessibility (15.6) .....	45
<b>Figures</b>	
<b>1</b> Operating/Cutting Position .....	21
<b>2(a)</b> Brushcutter with Nomenclature .....	22
<b>2(b)</b> Trimmer with Nomenclature .....	23
<b>3</b> Brushcutter Shield Dimensions .....	24
<b>4</b> Grass Trimmer Shield Dimensions .....	25
<b>5</b> Barrier Configuration Examples and Distance to Cutting Attachment .....	26

	Page
<b>5(a)</b> Distance to Cutting Attachment for Brushcutter with Restrictive Harness...	27
<b>5(b)</b> Distance to Cutting Attachment for Brushcutter with Restrictive Harness...	28
<b>6</b> Impact Test.....	29
<b>7</b> Microphone Location - Bystander.....	30
<b>8</b> Cutting Shield Integrity Test .....	31
<b>9</b> Hot Surface Probe .....	32
<b>10</b> Test Probe for Fuel Line Accessibility Testing, Chamfered Side Used for Probing .....	32
<b>11</b> Throttle Control Lock-Out Performance Test.....	33

**Foreword** (This foreword is not part of American National Standard ANSI/OPEI B175.3-2019.)

This is the fourth revision of *American National Standard for Outdoor Power Equipment - Internal Combustion Engine-Powered Hand-Held Grass Trimmers and Brushcutters - Safety and Environmental Requirements*, ANSI/OPEI B175.3-2019. The first edition of this standard was developed under the auspices of the Portable Power Equipment Manufacturers Association (PPEMA). The following editions of this standard were developed under the auspices of the Outdoor Power Equipment Institute (OPEI).

A summary of the principal changes included in this revision is as follows:

- Clause 6.1, addition of engine starting device requirements;
- Clause 7.1, addition of cutting attachment retention requirements;
- Clause 7.2.3, addition of production against power driven parts;
- Clause 11, addition of hot surface requirements;
- Clause 14.1, addition of throttle engagement requirements;
- Clause 16, addition of protection against parts of the unit under high voltage;
- Annex C, addition of a new normative Annex C on Hot Surfaces and adjustment of designation letters in the titles of subsequent Annexes.

This standard contains five normative annexes, which are all considered part of this standard. Annex A is informative and not considered part of this standard.

Consensus for this standard was achieved by use of the Canvass Method.

Suggestions for improvements to this standard are welcome. They should be sent to the Outdoor Power Equipment Institute, 1605 King Street, Alexandria, VA 22314.

The following organizations recognized as having an interest in the standardization of safety requirements for grass trimmers and brushcutters were contacted prior to the approval of this standard. Inclusion in the list does not necessarily imply that the organization concurred with the submittal of the proposal to ANSI.

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American National Standard  
for Outdoor Power Equipment –

## Internal Combustion Engine–Powered Hand-Held Grass Trimmers and Brushcutters – Safety and Environmental Requirements

### 1. Scope and Purpose

#### 1.1. Scope

The requirements of this Standard apply to:

- a) Internal combustion engine–powered, hand-held, grass trimmers intended for use with flexible nonmetallic line, or other types of nonmetallic cutting attachments, and
- b) Internal combustion engine–powered, hand-held, brushcutters intended for use with cutting blades and other cutting attachments.

NOTE – If a grass trimmer is marketed by the manufacturer as convertible to a brushcutter, then the converted unit shall comply with requirements for brushcutters and vice-versa.

A convertible unit may be marketed as a grass trimmer or a brushcutter without including the devices required for conversion in the packaging, provided the operator manual clearly addresses the need to acquire and use the required conversion devices and the manufacturer makes such devices available as optional equipment. Trimmers and brushcutters with back mounted power units are not covered by this standard.

This standard is not applicable to units equipped with metallic cutting attachments consisting of more than one piece, e.g., pivoting chains or flail blades.

The requirements of this standard do not cover cutting attachments not approved for use by the equipment manufacturer. However, the applicable test procedures, related to cutting attachments, contained within this standard may be used by a component manufacturer of after-market cutting attachments to qualify their cutting attachments for use on grass trimmers or brushcutters manufactured by entities other than the component manufacturer. Should the manufacturer of after-market cutting attachments choose to comply with this standard, such manufacturer shall conduct the tests relating to the cutting attachments on the units they recommend them for and keep records related to the test results.

NOTE – English conversions are shown in brackets and are included for information only.

The effective implementation date of this standard shall be two (2) years after the publication date and shall apply to all products built after that date. Manufacturers may also comply with this standard any time after the publication date.

“ANSI/OPEI B175.3-2019” and “ANSI B175.3-2019” may be used interchangeably wherever referenced in this standard.

## 1.2. Purpose

The purpose of this standard is to establish safety and environmental requirements for internal combustion engine–powered, hand-held, grass trimmers and brushcutters.

## 2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.”

ANSI/ASTM E29 -08, *Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*

ANSI/ISEA Z87.1, *American National Standard for Occupational and Educational Personal Eye and Face Protection Devices*

ANSI/SAE J184-1998, *Qualifying a Sound Data Acquisition System (Surface Vehicle Recommended Practice)*

ANSI/UL 969-2018, *Marking and Labeling Systems*

IEC 61032 Ed. 2.0b b Cor.1:2003, *Protection of Persons and Equipment by Enclosures – Probes for Verification*

IEC 61672-1:2013, *Electroacoustics – Sound level meters – Part 1: Specifications*

IEC 61672-2:2017, *Electroacoustics – Sound level meters – Part 2: Pattern evaluation tests*

ISO 1431-1:2004, *Rubber, vulcanized or thermoplastic – Resistance to ozone cracking – Part 1: Static and dynamic strain testing*

ISO 7918:1995, *Forestry machinery – Portable brushcutters and grass trimmers – Cutting attachment guard strength*