

American National Standard

*for Outdoor Power Equipment –
Internal Combustion Engine-Powered
Hand-Held Pole-Mounted Pruners –
Safety and
Environmental Requirements*

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for Outdoor Power Equipment –

**Internal Combustion Engine-Powered
Hand-Held Pole-Mounted Pruners –
Safety and Environmental
Requirements**

Sponsor

Outdoor Power Equipment Institute

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Foreword (This foreword is not part of American National Standard ANSI/OPEI B175.7-2019.)

This is the first edition of *American National Standard for Outdoor Power Equipment - Internal Combustion Engine-Powered Hand-Held Mounted Pruners - Safety and Environmental Requirements*, ANSI/OPEI B175.7-2019. This standard was developed under the auspices of the Outdoor Power Equipment Institute (OPEI).

This standard contains four normative annexes, which are all considered part of this standard. Annex A is reserved.

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 hedge trimmers 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.

Ulf Diehl, Chairman

Consensus Body (Canvass) List:

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Power Tools Institute (Joe Harding)

Tree Care Industry Association (Peter Gerstenberger)

USDA Forest Service/San Dimas Technology &
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Husqvarna (Dag Garskog)

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MTD (Travis Acuna)

American National Standard
for Outdoor Power Equipment –

Internal Combustion Engine-Powered Hand-Held Pole Mounted Pruners – Safety and Environmental Requirements

1. Scope

This standard gives safety requirements and measures for their verification for the design and construction of portable, hand-held, pole-mounted pruners, including extendable and telescopic units, having an integral combustion engine as their power head and using a drive shaft to transmit power to a cutting attachment consisting of a saw chain, a reciprocating blade, or single-piece circular saw blade with a 205 mm (8.1 in) maximum outside diameter. Methods for the elimination or reduction of hazards arising from the use of these units and the type of information on safe working practices to be provided by the manufacturer are specified.

NOTE – Brushcutters with a circular saw blade are not included in the scope of this standard. Brushcutter requirements are outlined in ANSI/OPEI B175.3, “Internal Combustion Engine-Powered Hand-Held Grass Trimmers and Brushcutters – Safety and Environmental Requirements”.

This standard deals with significant hazards, hazardous situations or hazardous events with the exception of electric shock from contact with overhead electric lines (apart from warnings and advice for inclusion in the instructions), relevant to these units when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

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 the requirements of this standard any time after the publication date.

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 Z535.3-2011, *Criteria for safety symbols*

ANSI Z535.4-2011, *Product safety signs and labels*

ANSI/ASTM E29-08, *Practice for using significant digits in test data to determine conformance with specifications*

ANSI/SAE J184-1998, *Qualifying a sound data acquisition system (Surface vehicle recommended practice)*

IEC 60745-1:2006, *Hand-held motor-operated electric tools – Safety – Part 1: General requirements*

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

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

ISO 1431-1:2012, *Rubber, vulcanized or thermoplastic – Resistance to ozone cracking – Part 1: Static and dynamic strain testing*

ISO 3767-1:2016, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 1: Common symbols*

ISO 3767-5:2016, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 5: Symbols for manual portable forestry machines*

ISO 3864-2:2016, *Graphical symbols – Safety colours and safety signs – Part 2: Design principles for product safety labels*

ISO 3864-3:2012, *Graphical symbols – Safety colours and safety signs – Part 3: Design principles for graphical symbols for use in safety signs*

ISO 6531-2017, *Machinery for forestry – Portable chain saws – Vocabulary*

ISO 7112:2017, *Machinery for forestry – Portable brush-cutters and grass-trimmers – Vocabulary*

ISO 7113:1999, *Portable hand-held forestry machines – Cutting attachments for brush cutters – Single-piece metal blades*

ISO 11806-1:2011, *Agricultural and forestry machinery – Safety requirements and testing for portable, hand-held, powered brush-cutters and grass trimmers – Part 1: Machines fitted with an integral combustion engine*

ISO 22867-2011, *Forestry and gardening machinery – Vibration test code for portable hand-held machines with internal combustion engine – Vibration at the handles*

ISO 22868-2011, *Forestry and gardening machinery – Noise test code for portable hand-held machines with internal combustion engine – Engineering method (Grade 2 accuracy)*

SAE J335-2012, *Multi-position small engine exhaust system fire ignition suppression*

UL 969:2012, *Marking and labeling systems*

UL 60745-1 first edition, *Hand-held motor-operated electric tools – Safety – Part 1: General requirements*

U.S. Department of Agriculture Forest Service, *Standard for spark arresters for internal combustion engines* 5100-1

3. Terms and Definitions

For the purpose of this document, the terms and definitions given in ISO 6531 and ISO 7112 and the following apply:

3.1. Pole-mounted powered pruner: A unit, whose power head is attached via a long drive-shaft tube (pole) to a cutting attachment, designed to enable an operator to cut branches from a distance. See Figure 1.

3.2. Cutting attachment: A saw chain and guide bar, a reciprocating blade, or a single-piece circular saw blade, used to cut branches from a standing tree.

3.3. Drive shaft: A shaft used to transmit power from the engine to the cutting attachment.

- 3.4. Drive shaft tube:** The tube which contains the drive shaft and connects the engine to the cutting attachment. It can be fixed, extendable, or telescoping in length. For ease of storage and transportation the drive shaft tube may be detachable.
- 3.5. Dry weight:** Weight of the unit with empty fuel / oil tank(s) and without cutting attachment.
- 3.6. Extendable:** A shaft feature to extend operational length of the pole pruner by adding shaft extensions.
- 3.7. Hand-held:** A unit that during operation is supported and controlled by the operator.
- 3.8. Handle:** A structure that enables the operator to hold and control the unit during operation.
- 3.9. Harness:** Adjustable strap(s) by which the unit is suspended from the operator (which may or may not include a waist or chest belt).
- 3.10. May:** Indicates a permissive condition.
- 3.11. Occasional use:** Infrequent or moderate, non-income generating use.
- 3.12. Power head:** Power source for the unit.
- 3.13. Shall:** Indicates a mandatory requirement.
- 3.14. Telescoping:** A shaft feature to extend operational length of the pole pruner by means of a sliding inner shaft and outer shaft.
- 3.15. Unit:** A complete pole pruner.

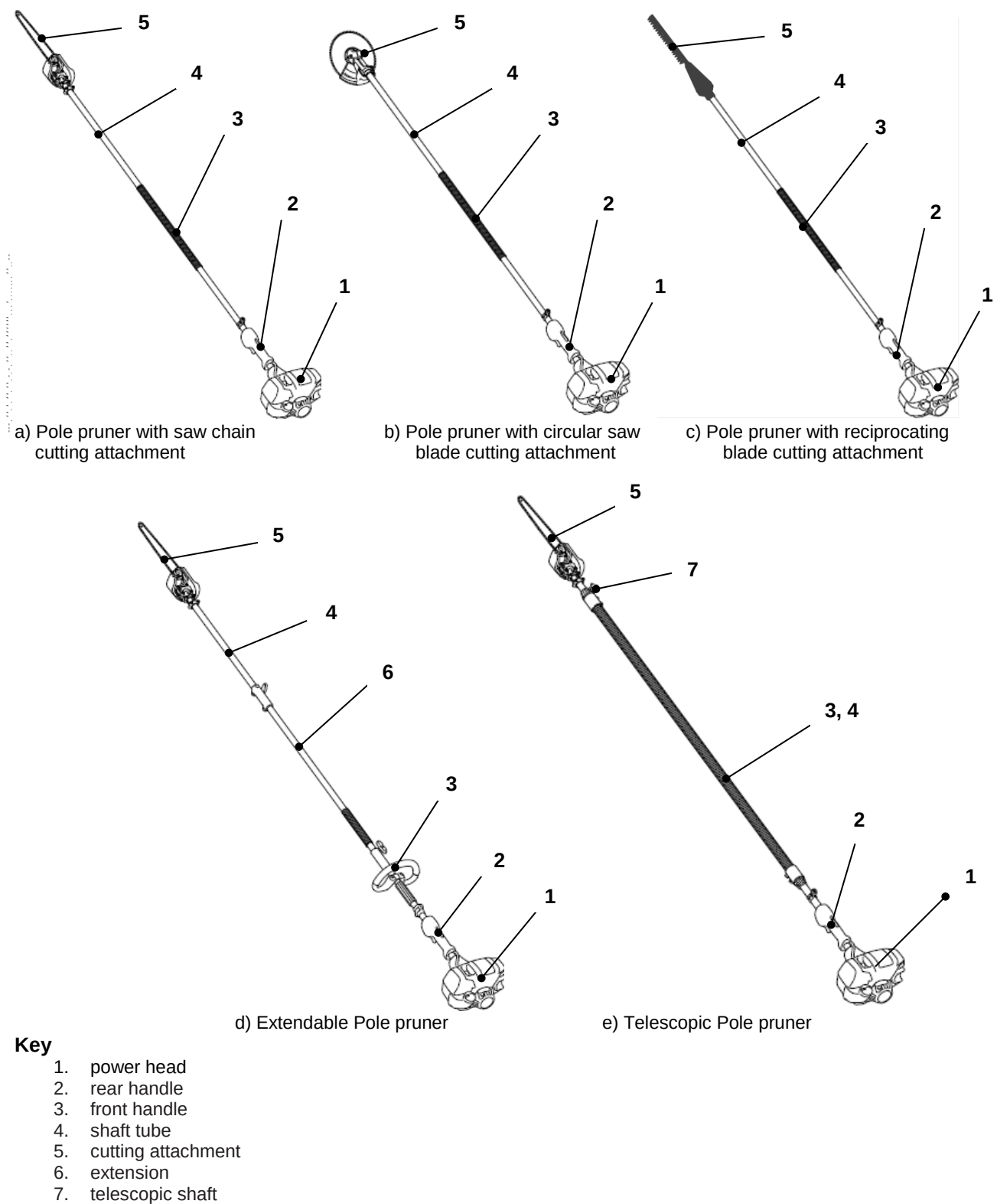


Figure 1 — Examples of Pole-Mounted Powered Pruners with Integral Combustion Engine