

American National Standard

ANSI/OPEI B71.7-2018

*for Powered Consumer
Ram-Type Log Splitters –
Safety Specifications*

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for Powered Consumer
Ram-Type Log Splitters –
Safety Specifications

Sponsor

Outdoor Power Equipment Institute, Inc. (OPEI)

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American National Standard

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Foreword (This foreword is not part of American National Standard ANSI/OPEI B71.7-2018.)

ANSI B71.7 was first published in 1985, and was subsequently withdrawn in 2000.

This new standard was prepared by the Outdoor Power Equipment Institute's (OPEI) Powered Log Splitters Committee (B71.7), as part of OPEI's continuing work on standards.

A summary of the principal differences between the subject and previous edition of the standard is as follows:

Section	Description
1	Updated scope to reflect consumer ram-type log splitters only.
1	Added the effective implementation date.
2	Updated normative references.
3	Updated definitions.
4	Added machine identification requirements.
5	Updated controls section to reflect current label standards and added requirement of a shut-off control device.
7.2	Added minimum test log weight calculation for stability testing based on wedge size.
7.2.1/7.2.2	Added figures to illustrate stability test tilt table orientation(s)
8	Updated shields and guarding requirements to harmonize with current outdoor power equipment ANSI safety standards.
10.1	Updated engine exhaust section to reflect added requirement for spark-arresting muffler.
11.2	Clarified requirement for the means to stabilize a log during the initial splitting operation.
12	Added servicing instruction requirements.
13	Updated electrical requirements to harmonize with current outdoor power equipment ANSI safety standards.
14	Updated safety messaging and durability requirements to harmonize with current outdoor power equipment ANSI safety standards.

Consensus for this standard was achieved by the use of the Canvass Method. The annexes in this standard (A, B, C, D) are informative and not considered part of this standard.

Suggestions for improvement of this standard are welcome, and should be forwarded to the Outdoor Power Equipment Institute, 1605 King Street, Alexandria, VA 22314, www.opei.org, (703) 549-7600.

The following organizations are recognized as having an interest in the subject standard, and were contacted prior to approval of this standard. Inclusion in the list does not necessarily imply that the organization/individual concurred with the submittal of the proposal to ANSI.

Producers

Country Home Products (DR Power)
TEC International
Timberwolf Manufacturing Corporation
Champion Power Equipment

Users

Jimmy Eavenson, Eavenson Consulting, LLC
Tom Wise, independent consultant
Gerry Coons, independent consultant
Mark Petersen, Construction Pro Tips

General Interest

Consumers Union
Forensic Engineering
Heath & Associates

American National Standard

for Powered Consumer Ram-Type Log Splitters – Safety Specifications

1 Scope

The safety specifications given in this standard are for powered consumer

- (a) hydraulic-ram log splitters
- (b) mechanical-ram log splitters

Power may be supplied by an internal-combustion engine or an electric motor.

These specifications are intended to provide safety requirements and to help ensure uniform operator environments. They are intended to apply to products specifically intended as consumer products for the personal use of a consumer around the home. This standard applies to all aftermarket parts, attachments, and accessories. Any manufacturer of aftermarket parts, attachments and accessories is responsible for ensuring compliance to this standard. Safety specifications in this standard apply only to a configuration of attachments/implements/accessories approved by their respective manufacturers.

These specifications are not intended to apply to commercial products customarily used by hired operators or to products designed primarily for agricultural purposes such as those defined in SAE J1116 or three-point hitch mounted machines.

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 anytime after the publication date.

2 Normative references

The following standards contain provisions, which through reference in this text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI Z535.4, *Product safety signs and labels*¹

ASABE/ISO 3767-1, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 1: Common symbols*²

ASTM G152, *Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials*³

ASTM G155, *Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials*

¹ ANSI standards are available from the American National Standards Institute, 25 West 43rd St., New York, NY 10036; (212) 642-4900; www.ansi.org

² ASABE standards are available from the American Society of Agricultural and Biological Engineers, 2950 Niles Road, St. Joseph, MI 49085; (269) 429-0300; www.asabe.org

³ ASTM standards are available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428; (610) 832-9500; www.astm.org

ISO 3767-3, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 3: Symbols for powered lawn and garden equipment*⁴

ISO 11684, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Safety signs and hazards pictorials -- General principles*

ISO 17398, *Safety colours and safety signs – Classification, performance and durability of safety signs*

SAE J156, *Fusible Links*⁵

SAE J350, *Spark Arrester Test Procedure for Medium Size Engines*

SAE J553, *Circuit Breakers*

SAE J554, *Electric Fuses (Cartridge Type)*

SAE J1116, *Categories of Off-Road Self-Propelled Work Machines*

SAE J1127, *Low Voltage Battery Cable*

SAE J1128, *Low Voltage Primary Cable*

SAE J1273, *Recommended Practices for Hydraulic Hose Assemblies*

SAE J1284, *Blade Type Electric Fuses*

SAE J1292, *Automobile and Motor Coach Wiring*

SAE J1362, *Graphical Symbols for Operator Controls and Displays on Off-Road Self-Propelled Work Machines*

SAE J2031, *High Tension Ignition Cable*

USDA FS 5100-1d, *United States Department of Agriculture, Forest Service, Standard for Spark Arresters for Internal Combustion Engines*⁶

3 Definitions

3.1 durable label: A label for the purpose of identification, instruction, or warning that shall meet the requirements of clause 15.

3.2 guard or shield: A barrier that minimizes inadvertent personal contact with hazards.

3.3 guarded by location: A hazard is guarded when it is shielded by other parts or components of the machine or because of its relatively inaccessible location.

3.4 hydraulic-ram log splitter: A machine for splitting logs that uses hydraulic pressure.

3.5 mechanical-ram log splitter: A machine for splitting logs that uses a mechanical means.

3.6 neutral return: A device that will automatically return a control to a neutral position.

3.7 nip point : The mesh point of gears and the run-on point where a belt or chain enters a sheave, sprocket, or idler.

3.8 normal operation: Use of the machine which is reasonably foreseeable and which is consistent with such activities as loading and splitting logs, starting, stopping, fueling, connecting to (or disconnecting from) a power source.

⁴ ISO standards are available from the American National Standards Institute, 25 West 43rd St., New York, NY 10036; (212) 642-4900; www.ansi.org

⁵ SAE standards are available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096; (724) 776-4970; www.sae.org

⁶ USDA standards are available from www.fs.fed.us