

## STANDARD INFORMATION

**Standard Number:** UL 1090

**Standard Name:** Standard for Electric Snow Movers

**Standard Edition and Issue Date:** 7<sup>th</sup> Edition Dated October 5, 2016

**Date of Revision:** October 5, 2016 and September 20, 2017

**Date of Previous Revision of Standard:** September 26, 2013

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **February 21, 2021**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** A review of all Listing Reports is necessary to determine which products comply with new/revise requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

### Overview of Changes:

#### The following changes were made in the October 5, 2016 revision:

- Replace Requirements For Battery Operated Snow Movers In UL 1090 With Requirements From The Standard for General Requirements For Battery-Powered Appliances, UL 2595.

#### The following changes were made in the September 20, 2017 revision:

- Addition of electrostatic discharge test requirements to determine if potential safety hazards exist during operation.
- Revision and addition of safety instruction requirements to specify minimum gauge requirements.

Specific details of new/revise requirements are found in table below.

**If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).**

### Client Action Required:

**Information** – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revise paragraphs noted in the attached or explain why these new/revise requirements do not apply to your product (s).



**Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.**

## STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.
		<b>The following changes reflect the October 5, 2016 revision.</b>
		<b><i>New supplement added;</i></b>
Supplement SA		This Supplement applies to snow movers that are powered by rechargeable batteries either solely or as an alternative or in conjunction with other sources (see standard for details).
		<b>The following changes reflect the September 20, 2017 revision.</b>
		<b><i>New section added;</i></b>
42A		<b>Electrostatic Discharge (ESD) Resistance Test</b>
		After exposure to the electrostatic discharge conditioning as described in 42A.2, there shall be no:
		a) Ignition of the enclosure material;
42A.1		b) Exposure of live parts;
		c) Emission of flame or molten metal, or glowing or flaming of the combustible material upon which the snow mover mower is placed; or
		d) Loss of a safety critical function.



42A.2

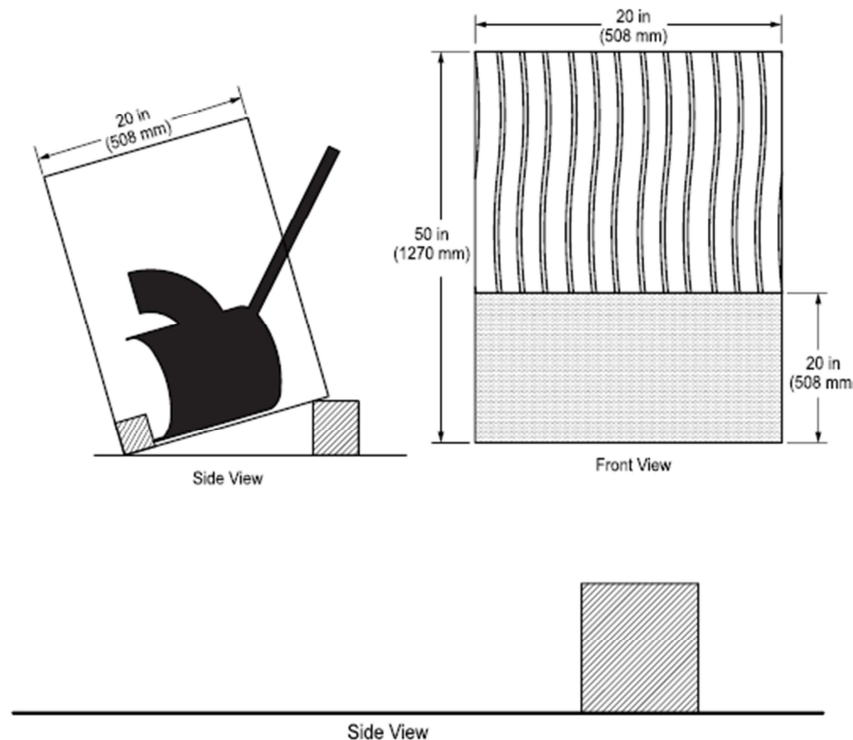
The snow mover shall be operated in the static electricity resistance test booth as specified in 42A.3 and illustrated in Figure 42A.1. During the test, the snow mover shall rest on white tissue paper on a softwood surface and is to operate continuously for 7 hours or until the ultimate results have been determined. The test booth shall be filled with enough Styrofoam pellets to provide a constant static voltage of at least 20 kV, while the snow mover is operating at maximum speed. Humidity levels may be adjusted to help create the conditions for static voltage and air ventilation may be provided to the motor to prevent over heating of the product. The static voltage shall be monitored using a static meter once within each 30 minute interval to verify the static voltage level.

42A.3

The test booth shall be constructed of insulating materials (i.e. plywood, rubber, etc.) and shall be at least 20 x 20 x 50 inches (508 mm by 508 mm by 1270 mm), but can be larger to accommodate larger snow movers. Spacers shall be provided at the back corners of the mover to keep the auger and chute from getting too close to the wall. A minimum of 4 inches (50 mm) from the wall is to be maintained. The front of the test booth shall have a curtain on the top and a back panel to keep the Styrofoam pellets in the test booth. There shall be a block of a minimum of 6 inches (152mm) high located under the front edge of the test booth and the discharge chute or vanes shall be directed at the back wall for proper Styrofoam pellet recirculation.

**Static electricity resistance test booth**

Figure 42A.1



54 Info **Instruction Manual**

54.2 **Important safety instructions**

54.2.1 The instruction manual shall include an important safety instruction section which shall include the applicable items in 54.2.2 (a) or (b), whichever is appropriate, and (c) of the following warning instructions or the equivalent.



54.2.2

The following applicable important safety instructions shall be separated in format from the other instructions, and shall appear before the operating instructions in the instruction manual. The phrases “Read All Instructions” and “SAVE THESE INSTRUCTIONS” shall appear and shall be the first and last items, respectively. The phrase “Read All Instructions” shall be preceded by the statement “WARNING: When using electric gardening appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or injury to persons, including the following:...” Equivalent wording in equally definitive terminology is not prohibited from being used when they comply with the intent of the instruction, except for the signal word. The instructions shall be legible, and shall contrast with the background.

***New table added;***

**Minimum gauge for cord<sup>a</sup>**

Table 54.1

Ampere rating		Volts	Total length of cord in feet			
		120 V	25 ft	50 ft	100 ft	150 ft
		240 V	50 fft	100 ft	200 ft	300 ft
More than	Not more than	AWG				
0	6	-	18	16	16	14
6	10	-	18	16	14	12
10	12	-	16	16	14	12
12	16	-	14	12	Not recommended	

<sup>a</sup> Only the applicable parts of Table 54.1 is required to be included for instance, a 120-V product is not required to include the 240-V heading

Supplement SA

Info

**BATTERY POWERED SNOW MOVERS**

SA2

Info

**Construction and Performance**

***New subclause added;***

SA2.1

e) For the test in 42A.2, the appliance is operated at no-load until the appliance no longer operates due to the battery(ies) being discharged.

**CUSTOMERS PLEASE NOTE:** This Table and column “Verdict” can be used in determining how your current or future production is or will be in compliance with new/revised requirements.