

A Product of the
Cooperative Engineering Program

SAE J292 OCT84

**Snowmobile and
Snowmobile Cutter
Lamps, Reflective
Devices, and
Associated
Equipment**

SAE Recommended Practice
Reaffirmed October 1984

**S. A. E.
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an American National Standard

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**SNOWMOBILE AND SNOWMOBILE CUTTER LAMPS, REFLECTIVE DEVICES, AND
ASSOCIATED EQUIPMENT**

This SAE Recommended Practice is intended as a guide toward standard practice, but may be subject to frequent change to keep pace with experience and technical advances. Hence, its use where flexibility of revision is impractical, is not recommended.

1. **PURPOSE AND SCOPE:** This recommended practice describes requirements for lamps, reflective devices, and associated equipment for signaling to enable safe operation in darkness and other conditions of reduced visibility.
2. **APPLICATION:** This recommended practice applies to snowmobiles and snowmobile cutters.¹

3. **REQUIREMENTS:**

- 3.1 Vehicles shall be equipped with lamps, reflective devices, and associated equipment, in the numbers of units and designed to conform to the references cited in Table 1.

Reflex reflectors as used for rear and side markers shall conform to one of the following.

- 3.1.1 Unit-type reflex reflectors in accordance with SAE J594.
- 3.1.2 Area-type reflex reflectors of any shape, which conform to color limitations, may be used which provide a minimum reflective intensity of 1.5 cd per incident foot-candle (lux) at all incidence angles of 0-20 deg at 0.2 deg divergence when measured within a 36 in² (230 cm²) area not exceeding 24 in (600 mm) in length.

¹As presently defined by law in Canada.

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Front reflectors may be of any color or color combination; however, only the color red shall be used for rear and rear side reflectors.

In addition, the reflective sheeting used in manufacturing area-type reflex reflectors shall conform to Federal Specifications L-S-300A, Sheet and Tape, Reflective: Nonexposed Lens, Adhesive Backing, and Canadian Specification Board 62GP11P for the following characteristics:

Adhesive - Class 1-2-3-4-5, paragraph 3.3.4, Adhesive Backing.

Photometric Measurement - Paragraph 4.4.7, Reflective Intensity, and paragraph 3.5.6.1, Rainfall.

Durability - Paragraph 4.4.9, Resistance to Accelerated Weathering - Exposure 1000 h and retain 50% of the above specified reflective intensity; paragraph 4.4.10, Resistance to Heat, Cold, and Humidity.

3.1.3 Lighted side markers conforming to SAE J592 may be used in addition to reflex reflectors.

3.1.4 No additional lamp, reflective device, or associated equipment shall be installed if it impairs the effectiveness of the required equipment.

3.2 Location of Lamps and Reflectors: Lamps, reflective devices, and associated equipment required by paragraph 3.1 shall be installed in accordance with Table 2.

3.3 Lamp Combinations and Equipment Combinations: Two or more lamps, reflective devices, and items of associated equipment may be combined if the requirements for each lamp, reflective device, and item of associated equipment are met.

3.4 Special Wiring Requirements:

3.4.1 A means for switching between lower and upper headlamp beams shall be provided that is designed to conform to SAE J564, except that in Section 3, Temperature Test, the temperature range shall be between -40 and $+125^{\circ}\text{F}$ (-40 and $+52^{\circ}\text{C}$); in Section 6, Endurance Requirements, the cycle requirements shall be reduced by a factor of 10; and in paragraph 8.2, Upper Beam Indicator, the indicator is not required and if used, the signal color need not be red.

3.4.2 As a minimum, the tail lamp shall be illuminated when the headlamp is illuminated.

3.4.3 The stop lamp shall be illuminated upon application of the service brake or by some other means that automatically results in the steady illumination of the stop lamp to indicate the intent of the operator of the snowmobile to stop or diminish speed.

A means for illuminating the stop lamp shall be provided, which is designed to conform to SAE J68.

3.5 Lighting Display: When energized, each lamp specified in Table 1 shall, in normal operation, be steady burning.

3.6 Maintenance of Design Voltage: The snowmobile electrical system shall be designed to conform to SAE J277.

TABLE 1- EQUIPMENT (MINIMUM)
SNOWMOBILE AND SNOWMOBILE CUTTER

Item	Number and Color Required on		In Accordance with
	Snowmobile	Snowmobile Cutter	
Headlamp	1 white or amber	-	SAE J280
Tail lamp	1 red	-	SAE J279
Stop lamp	1 red	-	SAE J278
Reflex reflectors	3 red ^{a, b} and 2 amber ^{a, b} or colors as indicated in paragraph 3.1.2	3 red ^{a, b} and 2 amber ^{a, b} or colors as indicated in paragraph 3.1.2	SAE J594 or Federal Specification L-S-300A and CGSB62GP11P
Side marker Lamps (optional)	2 red, 2 amber ^c	-	SAE J592

^aSee paragraph 3.1.1.1.

^bSee paragraph 3.1.1.2.

^bSee paragraph 3.1.1.3.

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