

Slow-Moving Vehicle Identification Emblem

1. Scope

- 1.1** This SAE Standard establishes emblem dimensional specifications, performance requirements, related test procedures, and mounting requirements.
- 1.2** This unique identification emblem shall be used only on machines which are designed for and travel at rates of speed less than 40 km/h (25 mph).
- 1.3** The identification emblem shall supplement but not replace warning devices such as tail lamp regulators or flashing lights and shall not be used to identify stationary objects or stopped vehicles and/or machines.
- 1.4** The dimensions and color patterns of the emblem have been established as a unique identification and shall not be altered to permit advertising or other markings on the face of the emblem, except as permitted in 4.2.
- 1.5 Purpose**—The purpose of this document is to establish specifications which define a unique identification emblem to be used only for slow-moving vehicles when operated or traveling on highways.

2. References

- 2.1 Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

- 2.1.1 SAE PUBLICATIONS**—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J575—Tests for Motor Vehicle Lighting Devices and Components

SAE J594—Reflex Reflectors

- 2.1.2 ASAE PUBLICATION**—Available from ASAE, 2950 Niles Road, St. Joseph, MI 49085-9659.

ASAE S277—Mounting Brackets and Socket for Warning Lamps and Slow-Moving Vehicle (SMV) Identification Emblem

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2.1.3 ASTM PUBLICATIONS—Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM D 1014—Conducting Exterior Exposure Tests of Paints on Steel

ASTM D 1788—Specifications for Rigid Acrylonitrile-Butadiene Styrene (ABS) Plastics

ASTM D 2794—Test for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

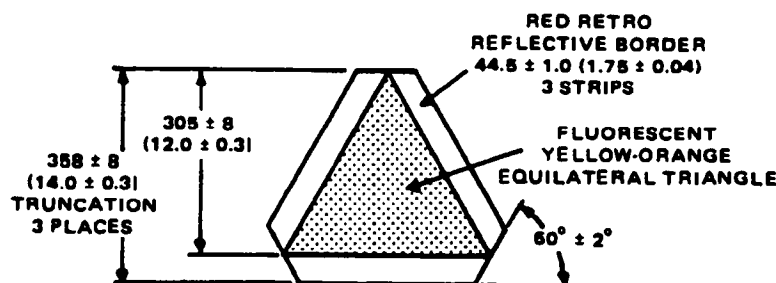
2.1.4 OTHER PUBLICATION

Handbook of Chemistry and Physics, 51st Ed.

3. Definitions

3.1 **Highway**—The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.

3.2 **Permanent-Mounted Emblem**—A yellow-orange triangle with a dark red border as illustrated in Figure 1 and securely affixed to a machine.

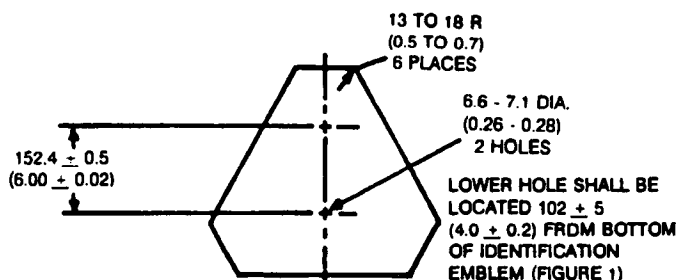


DIMENSIONS ARE IN MILLIMETERS WITH INCH EQUIVALENTS IN PARENTHESES.

NOTE: EMBLEM MUST BE MOUNTED WITH THE POINT UPWARD.

FIGURE 1—SLOW-MOVING VEHICLE IDENTIFICATION EMBLEM

3.3 **Portable Emblem**—A yellow-orange triangle with a dark red border as illustrated in Figure 1 securely affixed to a backing material as illustrated in Figure 2 and displayed on a machine.



DIMENSIONS ARE IN MILLIMETERS WITH INCH EQUIVALENTS IN PARENTHESES.
BACKING MATERIAL SHALL BE AS LARGE AS OR LARGER THAN THE IDENTIFICATION EMBLEM (FIGURE 1)

FIGURE 2—BACKING MATERIAL FOR PORTABLE SLOW-MOVING VEHICLE IDENTIFICATION EMBLEM

4. Description

- 4.1** The identification emblem, Figure 1, consists of a fluorescent, yellow-orange equilateral triangle with a dark red retroreflective border positioned with a point of the triangle up. The yellow-orange fluorescent triangle provides for daylight identification. The reflective border defines the shape of the fluorescent color in daylight and appears as a hollow red triangle in the path of motor vehicle headlights at night. The emblem may be permanently mounted or portable as defined in 3.2 and 3.3.
- 4.2** The emblem manufacturer shall place his name and address on the emblem, and may state that the emblem meets the requirements of this document. This information shall be clearly and permanently marked on the face of the emblem. It shall appear only in the lower center or lower right-hand corner of the emblem. On portable emblems, the information may be located on the reverse side of the backing material. When the information is located on the face of the emblem, it shall not include trademarks, symbols, or other types of promotional communications, and the total area used for such information on the face of the emblem shall not exceed 6.5 cm² (1 in²).

5. Performance Requirements

- 5.1 Visibility**—The emblem shall be entirely visible in daylight and at night from all distances between 183 and 30 m (600 and 100 ft) from the rear when directly in front of the lawful upper beam of headlamps.
- 5.2 Emblem Dimensional Requirements**—The size of the emblem shall be as shown in Figure 1.
- 5.3 Backing Material Dimensional Requirements**—The size of the backing material for portable emblems shall be as shown in Figure 2.
- 5.4 Emblem Material**—The reflective and fluorescent materials shall be tough, flexible, and of sufficient thickness and strength to meet the requirements of Sections 5 and 6. After the durability test, 6.2, the fluorescent and reflective materials shall show no appreciable cracking, crazing, blistering, loss of durable bond, or dimensional change, and reflective material shall show no appreciable discoloration.
- 5.4.1 FLUORESCENT MATERIAL**—The yellow-orange color, purity, luminance, and peak reflectance of the fluorescent material shall be within the values shown in Table 1 before and after durability tests specified in 6.2. The test procedure for measuring fluorescent material is specified in 6.6.

TABLE 1—FLUORESCENT VALUES

	Before Exposure Test	After Outdoor Exposure Test
Dominant wavelength, nm	602–610	585 min
Purity, percent	84 min	77 min
Luminance, percent	28 min	50 max
Peak reflectance observable at wavelength nearest dominant, percent	over 100	75 min

- 5.4.2 REFLECTIVE MATERIAL**—The dark red reflective material shall have minimum intensity values at each of the angles listed in Table 2 before and after durability tests specified in 6.2. The test procedure for measuring the reflective intensity values is specified in 6.5.