

of the rear of the body on the left and right sides.

(d) *Locations for reflex reflectors*—(1) *Sides.* Reflex reflectors shall be applied to each side of the trailer or semitrailer. Each array of reflex reflectors shall be positioned as horizontally as practicable, beginning and ending as close to the front and rear as practicable. The array need not be continuous but the sum of the length of all of the array segments shall be at least half of the length of the trailer and the spaces between the segments of the strip shall be distributed as evenly as practicable. The centerline for each array of reflex reflectors shall be between 375 mm (15 inches) and 1,525 mm (60 inches) above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array. If reflex reflectors are arranged in an alternating color pattern, the length of reflectors of the first color shall be as close as practicable to the length of the reflectors of the second color.

(2) *Lower rear area.* The rear of each trailer and semitrailer must be equipped with reflex reflectors. Each array of reflex reflectors shall be positioned as horizontally as practicable, extending across the full width of the trailer, beginning and ending as close to the extreme edges as practicable. The centerline for each array of reflex reflectors shall be between 375 mm (15 inches) and 1,525 mm (60 inches) above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array.

(3) *Upper rear area.* Two pairs of white reflex reflector arrays, each pair at least 300 mm (12 inches) long, must be positioned horizontally and vertically on the right and left upper corners of the rear of the body of each trailer and semitrailer, as close as practicable to the top of the trailer and as far apart as practicable. If the perimeter of the body, as viewed from the rear, is not square or rectangular, the arrays may

be applied along the perimeter, as close as practicable to the uppermost and outermost areas of the rear of the body on the left and right sides. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array.

[64 FR 15605, Mar. 31, 1999, as amended at 66 FR 30339, June 6, 2001]

§ 393.17 Lamps and reflectors—combinations in driveaway-towaway operation.

A combination of motor vehicles engaged in driveaway-towaway operation must be equipped with operative lamps and reflectors conforming to the rules in this section.

(a) The towing vehicle must be equipped as follows:

(1) On the front, there must be at least two headlamps, an equal number at each side, two turn signals, one at each side, and two clearance lamps, one at each side.

(2) On each side, there must be at least one side-marker lamp, located near the front of the vehicle.

(3) On the rear, there must be at least two tail lamps, one at each side, and two stop lamps, one at each side.

(b) Except as provided in paragraph (c) of this section, the rearmost towed vehicle of the combination (including the towed vehicles of a tow-bar combination, the towed vehicle of a single saddle-mount combination, and the rearmost towed vehicle of a double or triple saddle-mount combination) or, in the case of a vehicle full-mounted on a saddle-mount vehicle, either the full-mounted vehicle or the rearmost saddle-mounted vehicle must be equipped as follows:

(1) On each side, there must be at least one side-marker lamp, located near the rear of the vehicle.

(2) On the rear, there must be at least two tail lamps, two stop lamps, two turn signals, two clearance lamps, and two reflectors, one of each type at each side. In addition, if any vehicle in the combination is 80 inches or more in overall width, there must be three identification lamps on the rear.

(c) If the towed vehicle in a combination is a mobile structure trailer, it must be equipped in accordance with

§ 393.17

49 CFR Ch. III (10-1-23 Edition)

the following lighting devices. For the purposes of this part, *mobile structure trailer* means a trailer that has a roof and walls, is at least 10 feet wide, and can be used off road for dwelling or commercial purposes.

(1) When the vehicle is operated in accordance with the terms of a special permit prohibiting operation during the times when lighted lamps are required, it must have on the rear—

(i) Two stop lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable;

(ii) Two tail lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable;

(iii) Two red reflex reflectors, one on each side of the vertical centerline, at

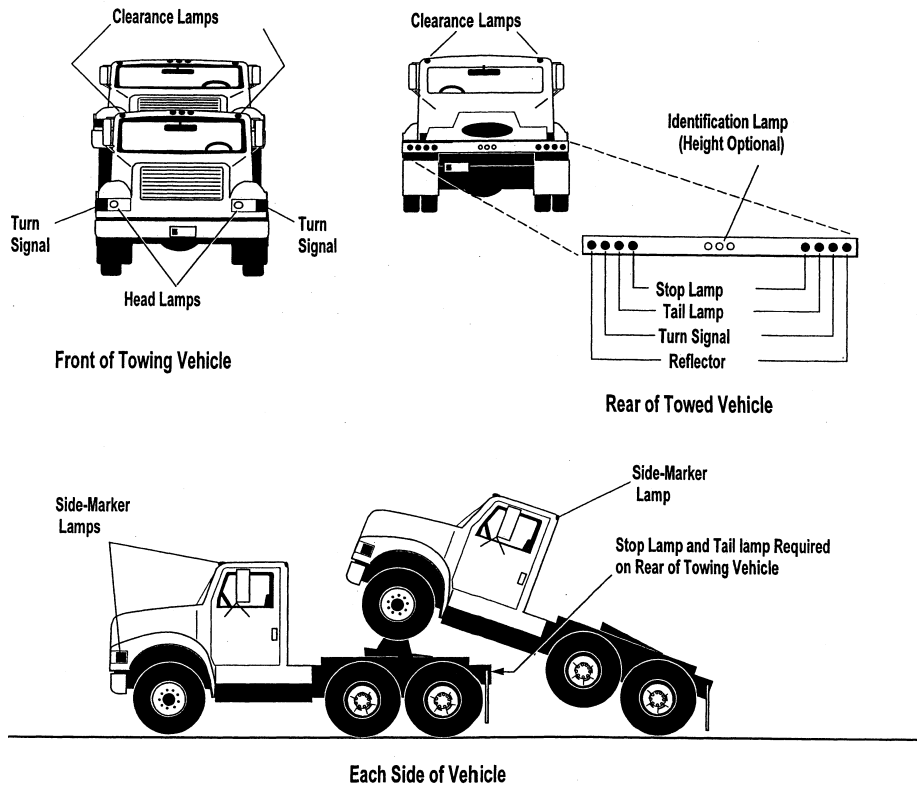
the same height, and as far apart as practicable; and

(iv) Two turn signal lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable.

(2) At all other times, the vehicle must be equipped as specified in paragraph (b) of this section.

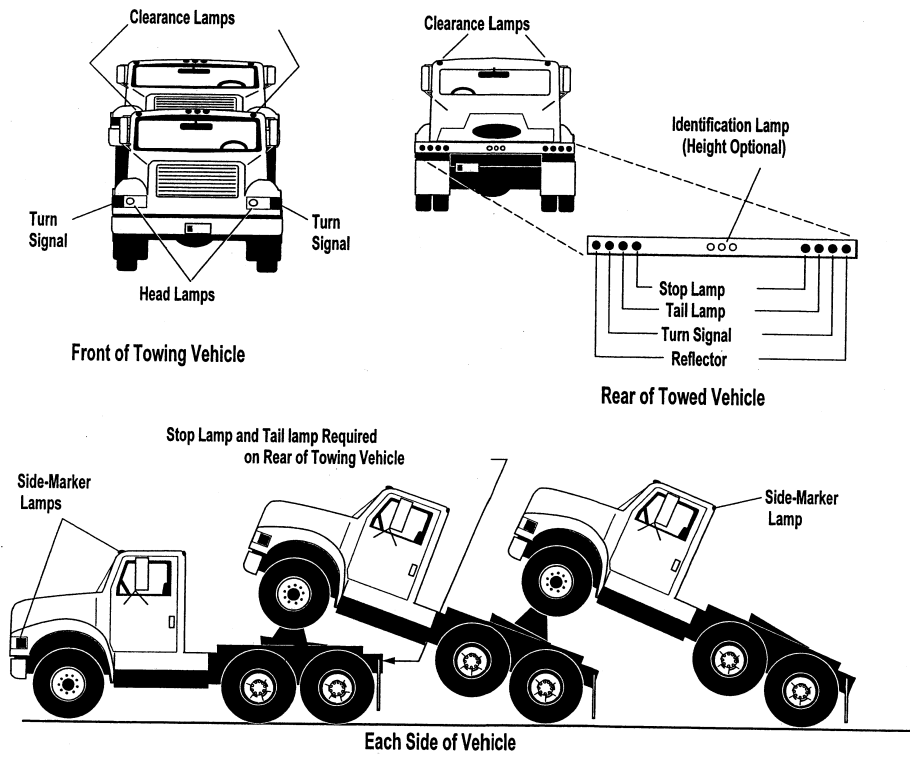
(d) An intermediate towed vehicle in a combination consisting of more than two vehicles (including the first saddle-mounted vehicle of a double saddle-mount combination and the first and second saddle-mount vehicles of a triple saddle-mount combination) must have one side-marker lamp on each side, located near the rear of the vehicle.

Figure 19 - Single-Saddle-Mount Diagram to Illustrate § 393.17



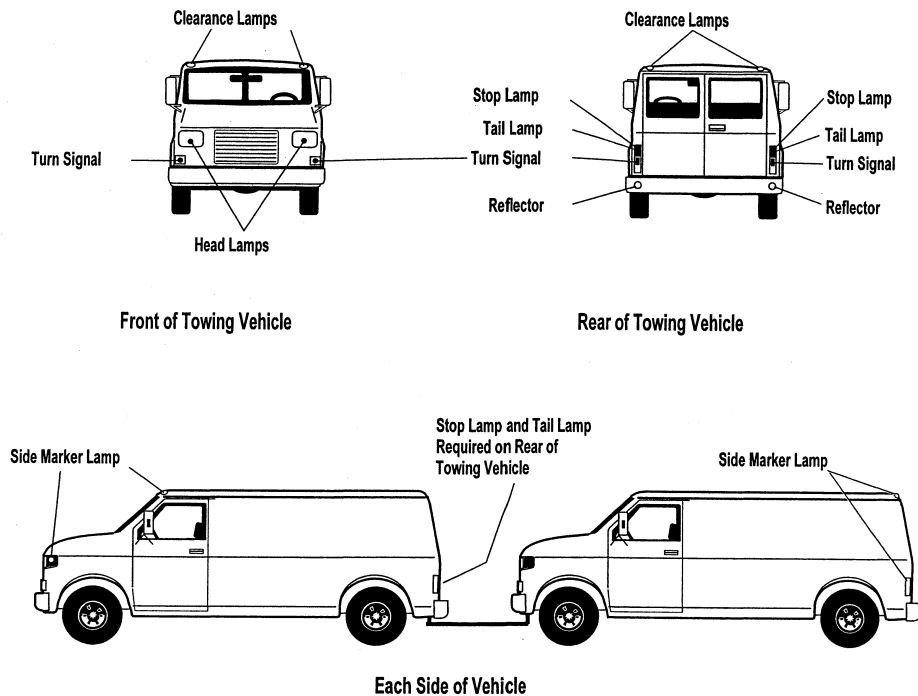
Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

Figure 20 - Double-Saddle-Mount Diagram to Illustrate § 393.17



Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

Figure 21 - Tow-bar Diagram to Illustrate § 393.17



Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

(49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

[40 FR 36126, Aug. 19, 1975, as amended at 47 FR 47837, Oct. 28, 1982; 70 FR 48044, Aug. 15, 2005; 77 FR 59828, Oct. 1, 2012; 80 FR 59075, Oct. 1, 2015]

§ 393.19 Hazard warning signals.

The hazard warning signal operating unit on each commercial motor vehicle shall operate independently of the ignition or equivalent switch, and when activated, cause all turn signals required by § 393.11 to flash simultaneously.

[70 FR 48046, Aug. 15, 2005]

§ 393.20 [Reserved]

§ 393.22 Combination of lighting devices and reflectors.

(a) *Permitted combinations.* Except as provided in paragraph (b) of this sec-

tion, two or more lighting devices and reflectors (whether or not required by the rules in this part) may be combined optically if—

(1) Each required lighting device and reflector conforms to the applicable rules in this part; and

(2) Neither the mounting nor the use of a nonrequired lighting device or reflector impairs the effectiveness of a required lighting device or reflector or causes that device or reflector to be inconsistent with the applicable rules in this part.