

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 vehicle or 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 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 under § 392.30, 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;

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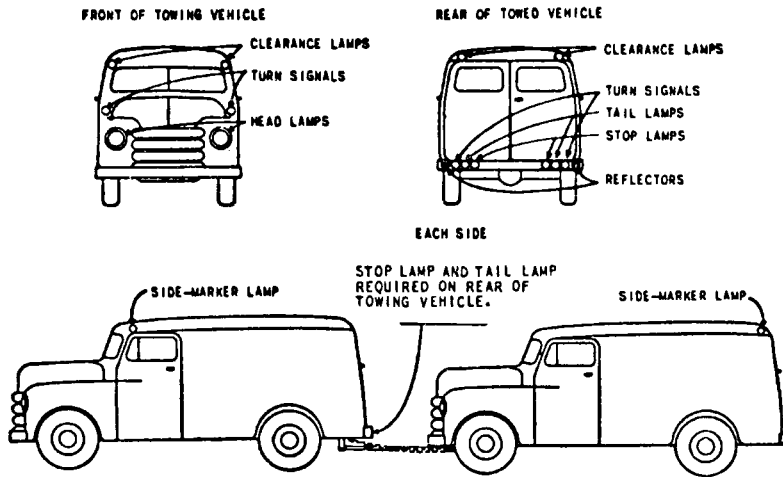
(iii) Two red reflex reflectors, one on each side of the vertical centerline, at the same height, and as far apart as practicable; and

(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.

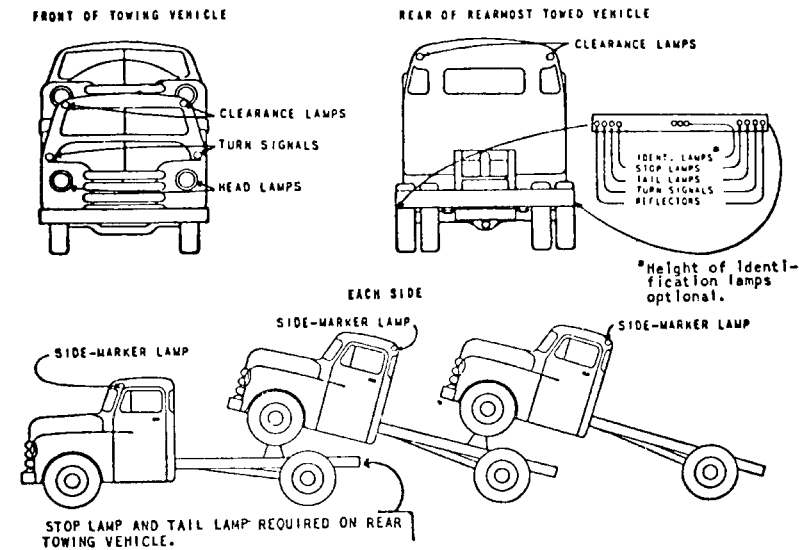
(d) An intermediate towed vehicle in a combination consisting of more than two vehicles (including the first saddle-mounted vehicle of a double saddle-mount combination and the first and second saddle-mount vehicles of a triple saddle-mount combination) must have one side-marker lamp on each side, located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

(Tow-bar diagram to illustrate § 393.17.)

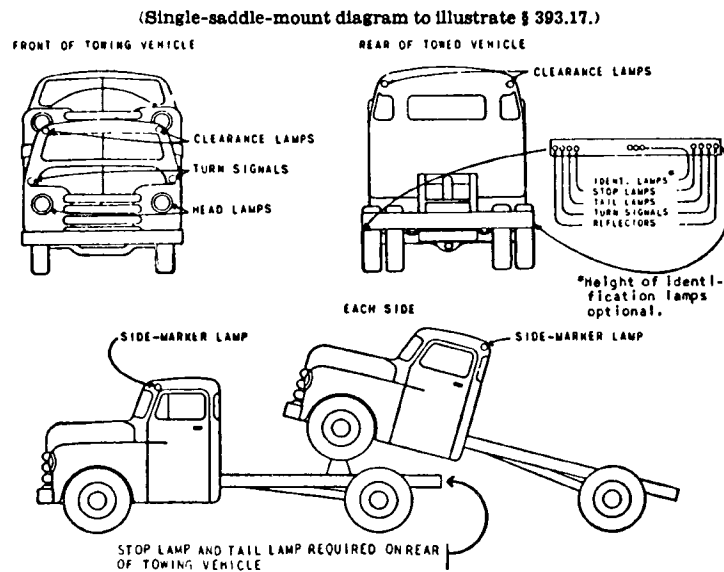


Lamps may be combined as permitted by § 393.22(e). Color of exterior lighting devices shall conform to requirements of § 393.25(e). Color of reflectors shall conform to requirements of § 393.26(d).

(Double-saddle-mount diagram to illustrate § 393.17.)



Lamps may be combined as permitted by § 393.22. Color of exterior lighting devices shall conform to requirements of § 393.25(e). Color of reflectors shall conform to requirements of § 393.26(d).



Lamps may be combined as permitted by § 393.22. Color of exterior lighting devices shall conform to requirements of § 393.25(e). Color of reflectors shall conform to requirements of § 393.26(d).

(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]

**§ 393.19 Requirements for turn signaling systems.**

(a) Every bus, truck, or truck tractor shall be equipped with a signaling system that in addition to signaling turning movements shall have a switch or combination of switches that will cause the two front turn signals and the two rear turn signals to flash simultaneously as a vehicular traffic hazard warning as required by § 392.22 with the ignition on or off.

(b) Every semitrailer and full trailer shall be equipped so as to have the two rear turn signals to flash simultaneously with the two front turn signals of the towing vehicle as a vehicular traffic hazard warning as required by § 392.22(a).

[53 FR 49397, Dec. 7, 1988]

**§ 393.20 Clearance lamps to indicate extreme width and height.**

Clearance lamps shall be mounted so as to indicate the extreme width of the motor vehicle (not including mirrors) and as near the top thereof as practicable: *Provided*, That when rear identification lamps are mounted at the extreme height of the vehicle, rear clearance lamps may be mounted at optional height: *And provided further*, That when mounting of front clearance lamps at the highest point of a trailer results in such lamps failing to mark the extreme width of the trailer, such lamps may be mounted at optional height but must indicate the extreme width of the trailer. Clearance lamps on truck tractors shall be so located as to indicate the extreme width of the truck tractor cab.