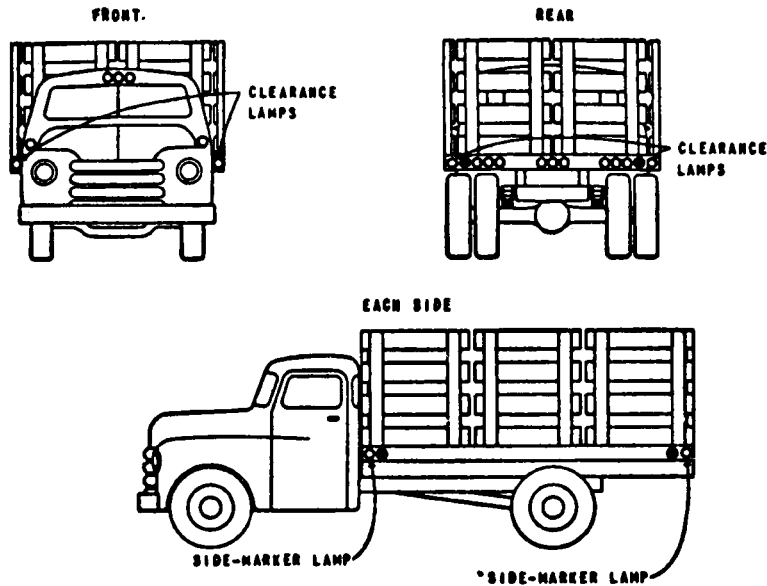
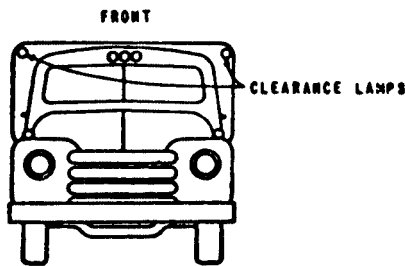


(Diagram to illustrate § 393.20 for mounting of lamps on vehicles without permanent top or sides.)



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).

Diagram to illustrate § 393.20 for mounting of front clearance lamps on truck tractors with sleeper cabs.)



[33 FR 19735, Dec. 25, 1968, as amended at 34 FR 6851, Apr. 24, 1969]

**§ 393.22 Combination of lighting devices and reflectors.**

(a) *Permitted combinations.* Except as provided in paragraph (b) of this section, 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.

(b) *Prohibited combinations.* (1) A turn signal lamp must not be combined optically with either a head lamp or other lighting device or combination of lighting devices that produces a greater intensity of light than the turn signal lamp.

(2) A turn signal lamp must not be combined optically with a stop lamp unless the stop lamp function is always deactivated when the turn signal function is activated.

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(3) A clearance lamp must not be combined optically with a tail lamp or identification lamp.

[39 FR 26908, July 24, 1974]

### § 393.23 Lighting devices to be electric.

Lighting devices shall be electric, except that red liquid-burning lanterns may be used on the end of loads in the nature of poles, pipes, and ladders projecting to the rear of the motor vehicle.

### § 393.24 Requirements for head lamps and auxiliary road lighting lamps.

(a) *Mounting.* Head lamps and auxiliary road lighting lamps shall be mounted so that the beams are readily adjustable, both vertically and horizontally, and the mounting shall be such that the aim is not readily disturbed by ordinary conditions of service.

(b) *Head lamps required.* Every bus, truck, and truck tractor shall be equipped with a headlighting system composed of at least two head lamps, not including fog or other auxiliary lamps, with an equal number on each side of the vehicle. The headlighting system shall provide an upper and lower distribution of light, selectable at the driver's will.

(c) *Fog, adverse-weather, and auxiliary road-lighting lamps.* For the purposes of this section, fog, adverse-weather, and auxiliary road lighting lamps, when installed, are considered to be a part of the headlighting system. Such lamps may be used in lieu of head lamps under conditions making their use advisable if there be at least one such lamp conforming to the appropriate SAE Standard<sup>1</sup> for such lamps on each side of the vehicle.

<sup>1</sup>Wherever reference is made in these regulations to SAE Standards or SAE Recommended Practices, they shall be:

(a) As found in the 1985 edition of the SAE Handbook with respect to parts and accessories other than lighting devices and reflectors.

(b) When reference is made in these regulations to SAE Standards or SAE Recommended Practices, they shall be as found in the 1985 edition of the SAE Handbook:

(1) With respect to parts and accessories other than lighting devices and reflectors:

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(d) *Aiming and intensity.* Head lamps shall be constructed and installed so as to provide adequate and reliable illumination and shall conform to the appropriate specification set forth in the SAE Standards<sup>1</sup> for "Electric Head Lamps for Motor Vehicles" or "Sealed-Beam Head Lamp Units for Motor Vehicles."

[33 FR 19735, Dec. 25, 1968, as amended at 41 FR 53031, Dec. 3, 1976; 53 FR 49397, Dec. 7, 1988]

### § 393.25 Requirements for lamps other than head lamps.

(a) *Mounting.* All lamps shall be permanently and securely mounted in workmanlike manner on a permanent part of the motor vehicle, except that temporary lamps on motor vehicles being transported in driveaway-towaway operations and temporary electric lamps on projecting loads need not be permanently mounted nor mounted on a permanent part of the vehicle. The requirement for three identification lamps on the centerline of a vehicle will be met as to location by one lamp on the centerline, with the other two at right and left. All temporary lamps must be firmly attached.

(b) *Visibility.* All required exterior lamps shall be so mounted as to be capable of being seen at all distances between 500 feet and 50 feet under clear atmospheric conditions during the time lamps are required to be lighted. The light from front clearance and front identification lamps shall be visible to the front, that from sidemarker lamps to the side, that from rear clearance, rear identification, and tail lamps to the rear, and that from projecting loadmarker lamps from those directions required by § 393.11. This shall not be construed to apply to lamps on one unit which are obscured by another unit of a combination of vehicles.

(c) *Specifications.* All required lamps except those already installed on vehicles tendered for transportation in

(2) Lighting devices and reflectors on motor vehicles manufactured on and after March 7, 1990, shall conform to FMVSS 571.108 (49 CFR 571.108) in effect at the time of manufacture of the vehicle. Should a conflict arise between FMVSS 571.108 and a SAE Standard, FMVSS 571.108 will prevail.