

Vehicles manufactured	Must comply with		
	Z 26.1-1950	Z 26.1-1950 as supplemented by Z 26.1a-1964	Z 26.1-1966 as supplemented by Z 26.1a-1969
Before January 1, 1966	x		
From January 1, 1966 to December 31, 1980		x	
On and after January 1, 1981			x

18 inches and a minor axis of 13 inches or an opening containing 200 square inches formed by a rectangle 13 inches by 17¾ inches with corner arcs of 6-inch maximum radius. The major axis of the ellipse and the long axis of the rectangle shall not make an angle of more than 45 degrees with the surface on which the unladen vehicle stands; however, if the cab is designed with a folding door or doors or with clear openings where doors or windows are customarily located, then no windows shall be required in such locations.

(b) *Windshield condition.* Every motor vehicle windshield shall be free of discoloration or other damage in that portion thereof extending upward from the height of the topmost portion of the steering wheel, but not including a 2 inch border at the top and a 1 inch border at each side of the windshield or each panel thereof, except that discoloration and damage as follows are allowable:

(b) *Bus windows.* (1) Except as provided in paragraph (b)(3) of this section a bus manufactured before September 1, 1973, having a seating capacity of more than eight persons shall have, in addition to the area provided by the windshield, adequate means of escape for passengers through windows. The adequacy of such means shall be determined in accordance with the following standards: For each seated passenger space provided, inclusive of the driver there shall be at least 67 square inches of glazing if such glazing is not contained in a push-out window; or at least 67 square inches of free opening resulting from opening of a push-out type window. No area shall be included in this minimum prescribed area unless it will provide an unobstructed opening sufficient to contain an ellipse having a major axis of 18 inches and a minor axis of 13 inches or an opening containing 200 square inches formed by a rectangle 13 inches by 17¾ inches with corner arcs of 6-inch maximum radius. The major axis of the ellipse and the long axis of the rectangle shall make an angle of not more than 45° with the surface on which the unladen vehicle stands. The area shall be measured either by removal of the glazing if not of the push-out type or of the movable sash if of the push-out type, and it shall be either glazed with laminated safety glass or comply with paragraph (c) of this section. No less than 40 percent of such prescribed glazing or opening shall be on one side of any bus.

(1) Coloring or tinting applied in manufacture, for reduction of glare;

(2) Any crack not over ¼-inch wide, if not intersected by any other crack;

(3) Any damaged area which can be covered by a disc ¾-inch in diameter, if not closer than 3 inches to any other such damaged area.

(c) *Use of vision-reducing matter.* No motor vehicle may be operated with any label, sticker, decalcomania, or other vision-reducing matter covering any portion of its windshield or windows at either side of the driver's compartment, except that stickers required by law may be affixed at the bottom of the windshield, provided no portion of any label, sticker, decalcomania, or other vision-reducing matter may extend upward more than 4½ inches from the bottom of such windshield.

[33 FR 19735, Dec. 25, 1968, as amended at 41 FR 53031, Dec. 3, 1976; 44 FR 25457, May 1, 1979; 44 FR 31982, June 4, 1979]

§ 393.61 Window construction.

(a) *Windows in trucks and truck tractors.* Every truck and truck tractor, except vehicles engaged in armored car service, shall have, in addition to the area provided by the windshield, at least one window on each side of the driver's compartment, which window shall have sufficient area to contain either an ellipse having a major axis of

(2) A bus, including a school bus, manufactured on and after September 1, 1973, having a seating capacity of more than 10 persons shall have emergency exits in conformity with Federal

§ 393.62

Motor Vehicle Safety Standard No. 217, part 571 of this title.

(3) A bus manufactured before September 1, 1973, may conform to Federal Motor Vehicle Safety Standard No. 217, part 571 of this title, in lieu of conforming to paragraph (b)(1) of this section.

(c) *Push-out window requirements.* (1) Except as provided in paragraph (c)(3) of this section, every glazed opening in a bus manufactured before September 1, 1973, and having a seating capacity of more than eight persons, used to satisfy the requirements of paragraph (b)(1) of this section, if not glazed with laminated safety glass, shall have a frame or sash so designed, constructed, and maintained that it will yield outwardly to provide the required free opening when subjected to the drop test specified in Test 25 of the American Standard Safety Code referred to in § 393.60. The height of drop required to open such push-out windows shall not exceed the height of drop required to break the glass in the same window when glazed with the type of laminated glass specified in Test 25 of the Code. The sash for such windows shall be constructed of such material and be of such design and construction as to be continuously capable of complying with the above requirement.

(2) On a bus manufactured on and after September 1, 1973, having a seating capacity of more than 10 persons, each push-out window shall conform to Federal Motor Vehicle Safety Standard No. 217, (§ 571.217) of this title.

(3) A bus manufactured before September 1, 1973, may conform to Federal Motor Vehicle Safety Standard No. 217 (§ 571.217) of this title, in lieu of conforming to paragraph (c)(1) of this section.

[33 FR 19735, Dec. 25, 1968, as amended at 37 FR 11677, June 10, 1972]

§ 393.62 Window obstructions.

Windows, if otherwise capable of complying with § 393.61 (a) and (b), shall not be obstructed by bars or other such means located either inside or outside such windows such as would hinder the escape of occupants unless such bars or other such means are so constructed as to provide a clear opening, at least equal to the opening provided by the window to which it is adjacent, when

49 CFR Ch. III (10–1–96 Edition)

subjected to the same test specified in § 393.61(c). The point of application of such test force shall be such as will be most likely to result in the removal of the obstruction.

§ 393.63 Windows, markings.

(a) On a bus manufactured before September 1, 1973, each bus push-out window and any other bus escape window glazed with laminated safety glass required in § 393.61 shall be identified as such by clearly legible and visible signs, lettering, or decalcomania. Such marking shall include appropriate wording to indicate that it is an escape window and also the method to be used for obtaining emergency exit.

(b) On a bus manufactured on and after September 1, 1973, emergency exits required in § 393.61 shall be marked to conform to Federal Motor Vehicle Safety Standard No. 217 (§ 571.217), of this title.

(c) A bus manufactured before September 1, 1973, may mark emergency exits to conform to Federal Motor Vehicle Safety Standard No. 217 (§ 571.217), of this title in lieu of conforming to paragraph (a) of this section.

[37 FR 11678, June 10, 1972]

Subpart E—Fuel Systems

AUTHORITY: Sec. 204, Interstate Commerce Act, as amended, 49 U.S.C. 304; sec. 6, Department of Transportation Act, 49 U.S.C. 1655; delegation of authority at 49 CFR 1.48 and 389.4.

§ 393.65 All fuel systems.

(a) *Application of the rules in this section.* The rules in this section apply to systems for containing and supplying fuel for the operation of motor vehicles or for the operation of auxiliary equipment installed on, or used in connection with, motor vehicles.

(b) *Location.* Each fuel system must be located on the motor vehicle so that—

(1) No part of the system extends beyond the widest part of the vehicle;

(2) No part of a fuel tank is forward of the front axle of a power unit;

(3) Fuel spilled vertically from a fuel tank while it is being filled will not