

(2) The vehicle is being operated at a reduced speed to compensate for the tire loading in excess of the manufacturer's rated capacity for the tire. In no case shall the speed exceed 80 km/hr (50 mph).

(h)(1) *Tire loading restrictions for manufactured homes built before January 1, 2002.* Manufactured homes that are labeled pursuant to 24 CFR 3282.362(c)(2)(i) before January 1, 2002, must not be transported on tires that are loaded more than 18 percent over the load rating marked on the sidewall of the tire or, in the absence of such a marking, more than 18 percent over the load rating specified in any of the publications of any of the organizations listed in FMVSS No. 119 (49 CFR 571.119, S5.1(b)). Manufactured homes labeled before January 1, 2002, transported on tires overloaded by 9 percent or more must not be operated at speeds exceeding 80 km/hr (50 mph).

(2) *Tire loading restrictions for manufactured homes built on or after January 1, 2002.* Manufactured homes that are labeled pursuant to 24 CFR 3282.362(c)(2)(i) on or after January 1, 2002, must not be transported on tires loaded beyond the load rating marked on the sidewall of the tire or, in the absence of such a marking, the load rating specified in any of the publications of any of the organizations listed in FMVSS No. 119 (49 CFR 571.119, S5.1(b)).

(i) *Tire inflation pressure.* (1) No motor vehicle shall be operated on a tire which has a cold inflation pressure less than that specified for the load being carried.

(2) If the inflation pressure of the tire has been increased by heat because of the recent operation of the vehicle, the cold inflation pressure shall be estimated by subtracting the inflation buildup factor shown in Table 1 from the measured inflation pressure.

TABLE 1—INFLATION PRESSURE MEASUREMENT CORRECTION FOR HEAT

Average speed of vehicle in the previous hour	Minimum inflation pressure buildup	
	Tires with 1,814 kg (4,000 lbs.) maximum load rating or less	Tires with over 1,814 kg (4,000 lbs.) load rating
66–88.5 km/hr (41–55 mph).	34.5 kPa (5 psi) ...	103.4 kPa (15 psi).

[34 FR 9344, June 13, 1969, as amended at 40 FR 44557, Sept. 29, 1975; 41 FR 36657, Aug. 31, 1976; 44 FR 25455, May 1, 1979; 44 FR 47938, Aug. 16, 1979; 53 FR 18057, May 19, 1988; 53 FR 49401, Dec. 7, 1988; 63 FR 8339, Feb. 18, 1998; 65 FR 70220, Nov. 21, 2000; 66 FR 67694, Dec. 31, 2001; 70 FR 48054, Aug. 15, 2005; 81 FR 47731, July 22, 2016]

§ 393.76 **Sleeper berths.**

(a) *Dimensions*—(1) *Size.* A sleeper berth must be at least the following size:

Date of installation on motor vehicle	Length measured on center-line of longitudinal axis (inches)	Width measured on center-line of transverse axis (inches)	Height measured from highest point of top of mattress (inches) ¹
Before January 1, 1953	72	18	18
After December 31, 1952, and before October 1, 1975 ...	75	21	21
After September 30, 1975	75	24	24

¹ In the case of a sleeper berth which utilizes an adjustable mechanical suspension system, the required clearance can be measured when the suspension system is adjusted to the height to which it would settle when occupied by a driver.

(2) *Shape.* A sleeper berth installed on a motor vehicle on or after January 1, 1953 must be of generally rectangular shape, except that the horizontal corners and the roof corners may be rounded to radii not exceeding 10½ inches.

(3) *Access.* A sleeper berth must be constructed so that an occupant's ready entrance to, and exit from, the sleeper berth is not unduly hindered.

(b) *Location.* (1) A sleeper berth must not be installed in or on a semitrailer or a full trailer other than a house trailer.

(2) A sleeper berth located within the cargo space of a motor vehicle must be securely compartmentalized from the remainder of the cargo space. A sleeper berth installed on or after January 1, 1953 must be located in the cab or immediately adjacent to the cab and must be securely fixed with relation to the cab.

(c) *Exit from the berth.* (1) Except as provided in paragraph (c)(2) of this section, there must be a direct and ready means of exit from a sleeper berth into the driver's seat or compartment. If the sleeper berth was installed on or after January 1, 1963, the exit must be a doorway or opening at least 18 inches

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high and 36 inches wide. If the sleeper berth was installed before January 1, 1963, the exit must have sufficient area to contain an ellipse having a major axis of 24 inches and a minor axis of 16 inches.

(2) A sleeper berth installed before January 1, 1953 must either:

(i) Conform to the requirements of paragraph (c)(1) of this section; or

(ii) Have at least two exits, each of which is at least 18 inches high and 21 inches wide, located at opposite ends of the vehicle and useable by the occupant without the assistance of any other person.

(d) *Communication with the driver.* A sleeper berth which is not located within the driver's compartment and has no direct entrance into the driver's compartment must be equipped with a means of communication between the occupant and the driver. The means of communication may consist of a telephone, speaker tube, buzzer, pull cord, or other mechanical or electrical device.

(e) *Equipment.* A sleeper berth must be properly equipped for sleeping. Its equipment must include:

(1) Adequate bedclothing and blankets; and

(2) Either:

(i) Springs and a mattress; or

(ii) An innerspring mattress; or

(iii) A cellular rubber or flexible foam mattress at least four inches thick; or

(iv) A mattress filled with a fluid and of sufficient thickness when filled to prevent "bottoming-out" when occupied while the vehicle is in motion.

(f) *Ventilation.* A sleeper berth must have louvers or other means of providing adequate ventilation. A sleeper berth must be reasonably tight against dust and rain.

(g) *Protection against exhaust and fuel leaks and exhaust heat.* A sleeper berth must be located so that leaks in the vehicle's exhaust system or fuel system do not permit fuel, fuel system gases, or exhaust gases to enter the sleeper berth. A sleeper berth must be located so that it will not be overheated or damaged by reason of its proximity to the vehicle's exhaust system.

(h) *Occupant restraint.* A motor vehicle manufactured on or after July 1,

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1971, and equipped with a sleeper berth must be equipped with a means of preventing ejection of the occupant of the sleeper berth during deceleration of the vehicle. The restraint system must be designed, installed, and maintained to withstand a minimum total force of 6,000 pounds applied toward the front of the vehicle and parallel to the longitudinal axis of the vehicle.

[39 FR 14711, Apr. 26, 1974; 39 FR 17233, May 14, 1974, as amended at 53 FR 49401, Dec. 7, 1988]

§ 393.77 Heaters.

On every motor vehicle, every heater shall comply with the following requirements:

(a) *Prohibited types of heaters.* The installation or use of the following types of heaters is prohibited:

(1) *Exhaust heaters.* Any type of exhaust heater in which the engine exhaust gases are conducted into or through any space occupied by persons or any heater which conducts engine compartment air into any such space.

(2) *Unenclosed flame heaters.* Any type of heater employing a flame which is not fully enclosed, except that such heaters are not prohibited when used for heating the cargo of tank motor vehicles.

(3) *Heaters permitting fuel leakage.* Any type of heater from the burner of which there could be spillage or leakage of fuel upon the tilting or overturning of the vehicle in which it is mounted.

(4) *Heaters permitting air contamination.* Any heater taking air, heated or to be heated, from the engine compartment or from direct contact with any portion of the exhaust system; or any heater taking air in ducts from the outside atmosphere to be conveyed through the engine compartment, unless said ducts are so constructed and installed as to prevent contamination of the air so conveyed by exhaust or engine compartment gases.

(5) *Solid fuel heaters except wood charcoal.* Any stove or other heater employing solid fuel except wood charcoal.

(6) *Portable heaters.* Portable heaters shall not be used in any space occupied by persons except the cargo space of motor vehicles which are being loaded or unloaded.