

761—450.2(307,321) Equipment requirements for specially constructed, reconstructed, street rod, and replica motor vehicles other than autocycles, motorcycles and motorized bicycles. The following standards are minimum requirements to meet the definition of a specially constructed, reconstructed, street rod, and replica motor vehicle other than autocycles, motorcycles and motorized bicycles:

450.2(1) Defroster and defogging device. If the motor vehicle is a closed motor vehicle, it is equipped with a device capable of defogging or defrosting the windshield area.

450.2(2) Door latches. The motor vehicle that is equipped with doors leading directly into a compartment that contains one or more seating accommodations is equipped with mechanically actuated door latches that firmly and automatically secure the door when pushed closed and that allow each door to be opened from the inside by the actuation of a convenient lever, handle or other nonelectric device. Interior handles must be visible.

450.2(3) Floor pan. The motor vehicle is equipped with a floor pan under the entire passenger-carrying compartment that supports the weight of the number of occupants that the vehicle is designed to carry. The floor pan shall be so constructed that it prevents the entry of exhaust fumes.

450.2(4) Glazing.

a. Windshields. The motor vehicle is equipped with a laminated safety glass windshield that complies with and bears the approval marking of the American National Standards Institute (ANSI) Z 26.1-1996 Standard as set forth in 49 CFR Section 571.205 effective October 1, 2024. The windshield shall be in such a position that it affords continuous horizontal frontal protection to the driver and front seat occupants. The minimum vertical height of the unobstructed windshield glass shall be six inches. This paragraph does not preclude the use of a windshield that can be folded down to a horizontal position, provided that the windshield can be firmly fastened in both the vertical and horizontal positions.

b. Side and rear glass. Side and rear glass is not required in motor vehicles. If present, however, this glass must be either laminated or tempered safety glass bearing the approval of the ANSI Z 26.1-1996 Standard as set forth in 49 CFR Section 571.205 effective October 1, 2024.

450.2(5) Driver visibility. The motor vehicle provides the driver with a minimum outward horizontal vision capability of 90 degrees each side of a vertical plane passing through the fore and aft centerline of the vehicle. This plane of vision may be interrupted by window framing and windshield door support posts not exceeding four inches in width at each side location.

450.2(6) Hood latches. If a motor vehicle is equipped with a front-opening hood, that hood is equipped with a primary and secondary latching system to hold the hood in a closed position.

450.2(7) Instruments and controls. The motor vehicle is equipped with:

a. An operating speedometer calibrated to indicate “miles per hour.”

b. An operating odometer calibrated to indicate “total miles driven.”

c. A steering wheel circular or nearly circular in shape, having an outside diameter of not less than 13 inches.

d. An accelerator control system that returns the engine throttle to an idle position automatically when the driver removes the actuating force from the accelerator control.

450.2(8) Brakes. The motor vehicle is equipped with brakes acting upon all wheels, service brakes, and parking brakes that comply with Iowa Code sections 321.430 and 321.431.

450.2(9) Rearview mirror. The motor vehicle is equipped with two rearview mirrors, each having substantial unit magnification. One is mounted on the inside of the vehicle in such a position that it affords the driver a clear view to the rear. The other is mounted on the outside of the vehicle on the driver’s side in such a position that it affords the driver a clear view to the rear. When an inside mirror does not give a clear view to the rear, a right-hand outside mirror is required in lieu thereof. The mirror mounting provides a stable support for the mirror and provides for mirror adjustment by tilting in both horizontal and vertical directions. Each mirror has a minimum of ten square inches of reflective surface.

450.2(10) Seat belts. The motor vehicle complies with Iowa Code section 321.445(1).

450.2(11) Seating. All bench-type and individual seats in motor vehicles are firmly anchored to structural components or body parts.

450.2(12) Exhaust system. The motor vehicle has an exhaust system meeting the following requirements:

- a. The system is free of leaks, including the exhaust manifold (or headers), piping forward of the muffler, the muffler(s), and tail piping.
- b. Exhaust fumes are emitted to the extremity of the vehicle, behind the rear wheels, or to the extremity of the vehicle within six inches in front of the rear wheels. Exhaust fumes from trucks, other than enclosed vans, may be emitted to the rear of that part of the vehicle designed for and normally used for carrying the driver and passengers.
- c. Each exhaust system is equipped with a muffler that prevents excessive noise.
- d. No part of the exhaust system passes through any area of the vehicle that is used as a passenger-carrying compartment, and is constructed that persons entering the vehicle cannot make contact with the exhaust system.
- e. All exterior side exhaust pipes are fully shielded and any vertical truck exhaust stacks are shielded to the top of the cab.

450.2(13) *Frame.* The motor vehicle is equipped with a frame consisting of wall box tubing, round tubing, wall channel or unitized construction capable of supporting the vehicle, its load and the torque produced by the power source.

450.2(14) *Fuel system.* The motor vehicle has a fuel system in which all components are securely fastened with fasteners designed for this purpose, including the tank, tubing, hoses, clamps, etc. The filler from the system is located in a position not within the passenger-carrying compartment and is capped. The system is leakproof, and fuel lines are positioned so as not to come in contact with high temperature surfaces or moving parts.

450.2(15) *Steering and suspension.*

- a. The motor vehicle does not have any parts extending below the wheel rims in their lowest position, except for tires and electrical grounding devices designed for this purpose.
- b. The steering system remains unobstructed when turned from lock to lock.
- c. The steering wheel has no less than two turns and no more than six turns when turning the road wheels from lock to lock.
- d. While in a sharp turn at a speed between 5 and 15 MPH, release of the steering wheel results in a distinct tendency for the vehicle to increase its turning radius.
- e. The motor vehicle is not constructed so that the weight on any axle is less than 20 percent of the gross weight of the vehicle and load.
- f. The motor vehicle is equipped with a damping device at each wheel location providing a minimum relative motion between the unsprung axle and the chassis of plus or minus two inches.
- g. When each corner of the vehicle is depressed and released, the damping device stops vertical body motion within two cycles.
- h. There is no heating or welding on coil springs, leaf springs, or torsion bars.

450.2(16) *Tires.* Tires comply with Iowa Code section 321.440. Each tire has a load-bearing capacity in keeping with the size and weight of the vehicle.

450.2(17) *Lighting and electrical system.* The motor vehicle is equipped with approved lighting devices in sufficient number, type, and locations to meet the requirements of Iowa Code sections 321.384 through 321.423, including headlamps, rear lamps, license plate lamp, rear reflectors, parking lamps, stop lamps, turn signals, and high-low beam indicator. In addition, the motor vehicle is equipped with:

- a. A driver-controlled switch capable of selecting high and low beams (dimmer switch).
- b. A motor vehicle more than 40 inches in width is equipped with turn signal lamps and have a manually operated switch controlled by the driver that causes the turn signal lamps to function. This switch is self-canceling.
- c. A horn that complies with Iowa Code section 321.433.
- d. All wiring is done in an orderly and workmanlike fashion, with no wiring in contact with high temperature surfaces or moving parts.
- e. Headlamps are in a plane that is perpendicular to a vertical plane through the longitudinal centerline of the vehicle. The headlamps are mounted not less than 24 inches, nor more than 54 inches, above the road surface when measured to the headlamp center.

f. A tail lamp or lamps are mounted on the rear of the motor vehicle or vehicle, exhibiting a red light plainly visible from a distance of 500 feet to the rear. The tail lamp or lamps are mounted not less than 15 inches, nor more than 72 inches, above the roadway.

g. All original lamps and lighting equipment provided on the motor vehicle by the manufacturer are maintained in working condition or shall be replaced with equivalent equipment.

This rule is intended to implement Iowa Code sections 307.12(1) “*j*” and 321.23.

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