

## CHAPTER 347.

## EQUIPMENT OF VEHICLES

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## GENERAL PROVISIONS.

347.01 Words and phrases defined. Words and phrases defined in s. 340.01 are used in the same sense in this chapter unless a different definition is specifically provided.

347.02 Applicability of chapter. (1) No provision of this chapter requiring vehicles to be equipped in a particular manner is applicable to any of the following vehicles unless the vehicle is expressly included within or made subject to the particular provision:

- (a) Farm tractors and self-propelled farm implements;
- (b) Implements of husbandry;
- (c) Vehicles drawn by animals;
- (d) Road machinery;
- (e) Bicycles.
- (f) Trackless trolley busses purchased prior to July 1, 1958.

(2) No provision of this chapter requiring or prohibiting certain types of equipment on a vehicle is applicable when such vehicle is not operated upon or occupying a highway.

(3) Nothing in this chapter shall be construed to prohibit the use of additional parts and accessories on any vehicle not inconsistent with this chapter.

(4) Beginning July 1, 1960, the provisions of this chapter covering lighting shall be applicable to all state, county and municipal trucks, truck tractors, trailers and semi-trailers.

347.03 Sale of prohibited equipment unlawful. No person shall sell for highway use any device, appliance, accessory or replacement part the use of which on a motor vehicle is unlawful.

347.04 Owner responsible for improperly equipped vehicle. Any owner of a vehicle not equipped as required by this chapter who knowingly causes or permits such vehicle to be operated on a highway in violation of this chapter is guilty of the violation the

same as if he had operated the vehicle himself. No demerit points shall be assessed or counted pursuant to s. 343.32 against the operator's or chauffeur's license of the owner of the vehicle on account of or by reason of his guilt or conviction of any such violation unless he was personally operating the vehicle at the time of the violation.

**History:** 1961 c. 176.

**347.05 Reciprocity agreements as to equipment.** (1) The motor vehicle commissioner, with the approval of the governor, is authorized to enter into reciprocal agreements with the duly authorized representatives of other jurisdictions exempting the residents of those jurisdictions from details of vehicle equipment requirements of this state which are particularly burdensome to residents of such other jurisdictions operating vehicles in this state, provided the law of such other jurisdiction requires vehicles to be equipped in a manner rendering them substantially as safe as those equipped in the manner required by the laws of this state. The agreements shall provide substantially like exemptions for residents of this state when operating vehicles in such other jurisdiction.

(2) This section does not authorize reciprocity agreements as to laws governing the size and weight of vehicles.

#### LIGHTING EQUIPMENT.

**347.06 When lighted lamps required.** (1) Except as provided in sub. (2), no person shall operate a vehicle upon a highway during hours of darkness unless all headlamps, tail lamps and clearance lamps with which such vehicle is required to be equipped are lighted. Parking lamps as defined in s. 347.27 shall not be used for this purpose.

(2) Headlamps need not be lighted on a towed vehicle or on a vehicle having at least 2 lighted adverse weather lamps on the front thereof and being operated under the circumstances described in s. 347.26 (3) (b).

(3) The operator of a vehicle shall keep all lamps and reflectors with which such vehicle is required to be equipped reasonably clean and in proper working condition at all times.

**History:** 1961 c. 414.

**347.07 Special restrictions on lamps and the use thereof.** (1) Whenever a motor vehicle equipped with headlamps also is equipped with any adverse weather lamps, spotlamps or auxiliary lamps, or with any other lamp on the front thereof projecting a beam of intensity greater than 300 candlepower, not more than a total of 4 of any such lamps or combinations thereof on the front of the vehicle shall be lighted at any one time when such vehicle is upon a highway.

(2) Except as otherwise expressly authorized or required by this chapter, no person shall operate any vehicle or equipment on a highway which has displayed thereon:

- (a) Any color of light other than white or amber visible from directly in front; or
- (b) Any color of light other than red on the rear; or
- (c) Any flashing light.

**347.08 Determining the visibility distance and mounted height of lamps.** (1) Whenever this chapter states a requirement as to distance from which certain lamps and devices shall render objects visible or within which such lamps or devices shall be visible, such distance shall be measured during hours of darkness under normal atmospheric conditions and upon a straight, level, unlighted highway unless a different time, direction or condition is expressly stated.

(2) Whenever this chapter requires a lamp or device to be mounted at a certain height, the distance shall be measured from the center of the lamp or device to the level ground upon which the vehicle stands when such vehicle is without load.

**347.09 Headlamps on motor vehicles.** (1) No person shall operate a motor vehicle on a highway during hours of darkness unless such vehicle is equipped as follows:

(a) Every motor vehicle other than a motor driven cycle shall be equipped with at least 2 headlamps, which headlamps shall comply with the requirements and limitations set forth in sub. (2) and s. 347.10 and shall be mounted symmetrically with respect to the vertical plane extending through the longitudinal axis of the vehicle with at least one on each side of the center of the front of the motor vehicle.

(b) Every motorcycle shall be equipped with at least one and not more than 2 headlamps, which headlamps shall comply with the requirements and limitations set forth in sub. (2) and s. 347.10.

(c) Every power driven cycle and motor bicycle shall be equipped with at least one and not more than 2 headlamps, which headlamps shall comply with the requirements and limitations set forth in sub. (2) and s. 347.11.

(2) Every headlamp on a motor vehicle shall be located at a height of not more than 54 inches nor less than 24 inches.

**347.10 Headlamp specifications for motor vehicles other than power-driven cycles and motor bicycles.** (1) Except as provided in sub. (4), the headlamps or the auxiliary driving lamp or the auxiliary passing lamp or combination thereof on motor vehicles other than power-driven cycles and motor bicycles shall be so arranged that the driver may select at will between distributions of light projected to different elevations. Such lamps may, in addition, be so arranged that such selection can be made automatically.

(2) Multiple-beam headlamps shall comply with the following requirements:

(a) There shall be an uppermost distribution of light or composite beam so aimed and of such intensity as to reveal persons and vehicles at a distance of at least 350 feet ahead for all conditions of loading;

(b) There shall be a lowermost distribution of light or composite beam so aimed and of sufficient intensity to reveal persons and vehicles at a distance of at least 100 feet ahead, and on a straight level road under any condition of loading none of the high-intensity portion of the beam shall be so directed as to strike the eyes of an approaching driver.

(3) No person shall sell after July 1, 1958 any new motor vehicle equipped with multiple beam headlamps and no person shall operate any motor vehicle sold new after July 1, 1958 and equipped with multiple beam headlamps unless such vehicle also is equipped with a beam indicator which is lighted whenever the uppermost distribution of light from the headlamps is in use and which is not otherwise lighted. Such indicator shall be so designed and located that when lighted it will be readily visible without glare to the driver of the vehicle so equipped. This subsection does not apply to motor driven cycles.

(4) Any motor vehicle may be operated during hours of darkness when equipped with 2 lighted lamps upon the front thereof capable of revealing persons and objects 75 feet ahead in lieu of lamps required by subs. (1) to (3) if such vehicle at no time is operated at a speed in excess of 20 miles per hour.

**347.11 Headlamp specifications for power-driven cycles and motor bicycles.** The headlamps on power-driven cycles or motor bicycles may be of the single-beam or multiple-beam type but in either event shall comply with the following requirements and limitations:

(1) The headlamp shall be an electric headlamp and the current shall be supplied by a wet battery and electric generator, by a current-generating coil incorporated into the magneto or by a generator driven directly by the motor by means of gears, friction wheel, chain or belt.

(2) The headlamp shall display a white light of sufficient illuminating power to reveal any person, vehicle or substantial object at a distance of 200 feet ahead and shall be so adjusted or operated that the glaring light rays therefrom are not directed into the eyes of the driver of any oncoming vehicle.

(3) If the power-driven cycle or motor bicycle is equipped with a multiple-beam headlamp, the upper beam shall meet the minimum requirements set forth in sub. (2) and the lowermost beam shall meet the requirements applicable to a lowermost distribution of light as set forth in s. 347.10 (2) (b).

(4) If the power-driven cycle or motor bicycle is equipped with a single-beam lamp, such lamp shall be so aimed that when the vehicle is loaded none of the high-intensity portion of light, at a distance of 25 feet ahead, projects higher than the level of the center of the lamp from which it comes.

**347.12 Use of multiple-beam headlamps.** Whenever a motor vehicle is being operated on a highway during hours of darkness, the operator shall use a distribution of light or composite beam directed high enough and of sufficient intensity to reveal a person or vehicle at a safe distance in advance of the vehicle, subject to the following requirements and limitations:

(1) Whenever the operator of a vehicle equipped with multiple-beam headlamps approaches an oncoming vehicle within 500 feet, he shall dim, depress or tilt his headlights so that the glaring rays are not directed into the eyes of the operator of the other vehicle.

(2) Whenever the operator of a vehicle equipped with multiple-beam headlamps approaches or follows another vehicle within 500 feet to the rear, he shall dim, depress, or tilt his headlights so that the glaring rays are not reflected into the eyes of the operator of the other vehicle.

**347.13 Tail lamps and registration plate lamps.** (1) No person shall operate a motor vehicle or mobile home upon a highway during hours of darkness unless such motor vehicle or mobile home is equipped with at least one tail lamp mounted on the rear which,

when lighted during hours of darkness, emits a red light plainly visible from a distance of 500 feet to the rear. No motor vehicle originally equipped at the time of manufacture and sale with 2 tail lamps shall be operated upon a highway during hours of darkness unless both such lamps are in good working order.

(2) Every tail lamp on a vehicle shall be located at a height of not more than 72 inches nor less than 20 inches.

(3) No person shall operate on a highway during hours of darkness any motor vehicle upon the rear of which a registration plate is required to be displayed unless such motor vehicle is equipped with a lamp so constructed and placed as to illuminate with a white light the rear registration plate and render it clearly legible from a distance of 50 feet to the rear. Such lamp may be incorporated as part of a tail lamp or may be a separate lamp.

(4) Tail lamps and registration plate lamps shall be so wired as to be lighted whenever the headlamps or auxiliary driving lamps are lighted.

**347.14 Stop lamps.** (1) No person shall operate a motor vehicle or mobile home upon a highway unless such motor vehicle or mobile home is equipped with at least one stop lamp mounted on the rear and meeting the specifications set forth in this section. The stop lamp on a mobile home shall be controlled and operated from the driver's seat of the propelling vehicle. A stop lamp may be incorporated with a tail lamp. No motor vehicle originally equipped at the time of manufacture and sale with 2 stop lamps shall be operated upon a highway unless both such lamps are in good working order.

(2) A stop lamp shall be so constructed as to be actuated upon application of the service or foot brake and shall emit a red or amber light plainly visible and understandable from a distance of 100 feet to the rear both during normal sunlight and during hours of darkness.

(3) If any trailer or semitrailer is so loaded or if of such dimensions as to obscure the stop light on the towing vehicle, then such trailer or semitrailer shall also be equipped with at least one stop lamp.

**History:** 1961 c. 662.

**347.15 Direction signal lamps or devices.** (1) No person shall sell any new motor vehicle, other than a motor driven cycle, unless such motor vehicle is equipped with direction signal lamps meeting the requirements of this section. No person shall operate on a highway any motor vehicle sold new after January 1, 1955, other than a vehicle which is operated pursuant to s. 341.47 (1) (b) or a motor driven cycle, unless such motor vehicle is equipped with direction signal lamps meeting the requirements of this section. Any other vehicle may be equipped with such lamps.

(2) There shall be 2 direction signal lamps showing to the front and 2 showing to the rear so as to indicate intention to turn right or left. Both lamps showing to the front shall be located on the same level and as widely spaced laterally as practicable and both lamps showing to the rear shall be located on the same level and as widely spaced laterally as practicable. Such lamps shall project a flashing white or amber light visible to the front and a flashing red or amber light visible to the rear. Direction signal lamps when in use shall be plainly visible and understandable from a distance of 100 feet both during normal sunlight and during hours of darkness. When actuated, such lamps shall indicate the intended direction of turning by flashing the lights showing to the front and rear on the side toward which the turn is made.

(3) Vehicles equipped with direction signal lamps shall also be equipped with a visible signal in the driver's compartment to indicate to the driver when either signal lamp is operating.

(3m) Any motor vehicle or combination of vehicles in use on a highway shall be equipped with direction signals meeting the requirements of this section when the distance from the center of the top of the steering post to the left outside limit of the body, cab or load of such motor vehicle or combination of vehicles exceeds 24 inches, or when the distance from the center of the top of the steering post to the rear limit of the body or load thereof exceeds 14 feet.

(4) Vehicles sold new prior to July 1, 1958, are exempt from the requirements of this section if they either comply with the requirements of s. 85.06 (15), statutes of 1955, or are exempt from the requirements of that section.

**History:** 1961 c. 662 s. 18.

**347.16 Clearance lamps and reflectors.** (1) No person shall operate on a highway during hours of darkness any vehicle, except automobiles, having a width at any part in excess of 80 inches unless such vehicle is equipped with:

(a) Two clearance lamps mounted on the front of the vehicle so as to be visible from the front; and

(b) Two clearance lamps mounted on the rear of the vehicle so as to be visible from the rear; and

(c) Two reflectors mounted on the front and 2 reflectors mounted on the rear of the vehicle in such a manner as to indicate as nearly as possible the extreme width of the vehicle.

(2) No person shall operate any of the following vehicles on a highway during hours of darkness unless such vehicles are equipped as indicated:

(a) Every truck tractor shall carry on the front 2 clearance lamps, one at each side.

(b) Every trailer or semitrailer shall carry on the rear 2 reflectors, one on each side.

(3) Reflectorized material extending across the full width of the vehicle and otherwise meeting the mounting and visibility specifications for reflectors may be used in lieu of the reflectors required by this section.

**History:** 1961 c. 662.

**347.17 Color of clearance and marker lamps and reflectors.** Whenever a vehicle is equipped with clearance lamps, sidemarker lamps or reflectors:

(1) Those clearance and marker lamps and reflectors mounted on the front or on the side near the front of the vehicle shall display or reflect an amber color;

(2) Those clearance lamps and marker lamps and reflectors mounted on the rear or on the sides near the rear of the vehicle, or on both, shall display or reflect a red color.

**347.18 Mounting of clearance lamps and reflectors.** (1) Whenever s. 347.16 requires any reflector to be displayed upon a vehicle, each such reflector shall be mounted at a height not less than 16 inches nor more than 60 inches above the ground on which the vehicle stands. On vehicles which are more than 80 inches wide, the front and rear reflectors shall be mounted so as to indicate as nearly as possible the extreme width of the vehicle. Any required red reflector on the rear of a vehicle may be incorporated with the tail lamp but such reflector shall meet all the other reflector requirements of this chapter.

(2) Whenever this chapter requires a vehicle to be equipped with clearance lamps, such lamps shall be mounted in such a manner as to indicate the extreme width of the vehicle and as near to the top thereof as practicable.

**347.19 Visibility of clearance lamps and reflectors.** (1) Every reflector required by s. 347.16 to be displayed upon a vehicle shall be of such size and characteristics and so maintained as to be readily visible during the hours of darkness from all distances within 500 feet to 50 feet from the vehicle when directly in front of lawful upper beams of headlamps.

(2) Front and rear clearance lamps when lighted shall be capable of being seen and distinguished under normal atmospheric conditions during hours of darkness at a distance of 500 feet from the front and rear, respectively, of the vehicle.

**347.20 Lamp or flag on projecting load.** (1) No person shall operate on a highway during hours of darkness any vehicle with a load thereon extending more than 4 feet beyond the rear of the bed or body thereof unless there is displayed at the extreme rear end of the load a red light or lantern plainly visible from a distance of at least 500 feet to the sides and rear. The red light or lantern shall be in addition to any tail lamp or clearance lamp which the vehicle is required to carry.

(2) No person shall operate on a highway, at times other than hours of darkness, any vehicle with a load thereon extending more than 4 feet beyond the rear of the bed or body thereof unless there is displayed at the extreme rear end of such load a red flag or cloth not less than 12 inches square and so hung that the entire area is visible to the operator of a vehicle approaching from the rear.

(3) This section does not apply to vehicles loaded with loose hay or straw.

**347.21 Lamps and flags on trains of agricultural vehicles and towed trucks.** (1) No person shall operate on a highway during hours of darkness any train of agricultural vehicles authorized by s. 348.08 (1) (b) unless there is mounted on each side of every vehicle in such train, including farm tractors and implements of husbandry, at least one lamp emitting a red light visible from a distance of 500 feet to the side of the vehicle on which mounted or, in lieu thereof, at least one red reflector visible from all distances within 500 feet to 50 feet of the side of the vehicle when directly in front of lawful upper beams of headlamps.

(2) No person shall operate on a highway, at times other than hours of darkness, any train of agricultural vehicles authorized by s. 348.08 (1) (b) unless there is displayed a

red flag at least 12 inches square on each rear corner of the rearmost vehicle in the train.

(3) No person shall tow a motor truck on a highway, at times other than hours of darkness, unless a red flag at least 12 inches square is displayed upon the rear of such towed truck, or unless such towed motor truck is being transported in compliance with s. 341.47 (1) (b).

**347.22 Lamps on farm tractors and self-propelled farm implements.** (1) No person shall operate or park a farm tractor or self-propelled farm implement upon a highway during hours of darkness unless such tractor or implement carries the lighted headlamps and tail lamps which would be required of other motor vehicles under similar circumstances.

(2) No person shall operate or park a farm tractor or self-propelled farm implement upon a highway during hours of darkness with any lamp thereon showing any light to the rear other than red in color.

**347.23 Lamps on highway maintenance equipment.** (1) No person shall operate upon a highway during hours of darkness any road machinery or motor vehicle used in highway construction or maintenance unless such vehicle or road machinery is equipped either as prescribed by par. (a) or (b):

(a) A red light visible from a distance of 500 feet shall be displayed on each side of the front and on each side of the rear to give adequate warning of the presence of such vehicle or machinery and to show safe clearance for passing or overtaking vehicles; or

(b) In lieu of the red lights prescribed by par. (a), 2 amber floodlamps may be used, one to be mounted on each side of the vehicle or machinery so as to illuminate its sides and its attachments, if any, to show safe clearance for passing or overtaking vehicles. Such floodlamps shall display an amber light of sufficient illuminating power to indicate safe clearance from a distance of 200 feet to the front and rear of such vehicle or machinery.

(2) The lights specified in sub. (1) need not be displayed upon motor vehicles used in highway construction or maintenance work when such vehicles are traveling along the highway at their normal operating speed in the ordinary course of traffic.

(4) No person shall operate upon the left-hand side of a highway during hours of darkness any road machinery or motor vehicle used in highway construction or maintenance, including snow and ice control, unless such vehicle or machinery is equipped with an auxiliary lamp or lamps projecting a flashing amber light visible from all directions for a 360-degree lens (beehive type lamp) or revolving type lamp and visible front and rear for reflectorized stationary directional type lamps. For flashing type lamps the number of flashes per minute shall be between 60 and 90. For revolving type lamps the revolutions per minute shall be between 45 and 90. The lenses of such auxiliary lamps shall not be less than 6 inches in diameter for the reflectorized stationary directional type lamp; 3- $\frac{3}{4}$  inches minimum diameter and 5-inch minimum height for the 360-degree lens (beehive type lamp); and 3- $\frac{3}{4}$  inches minimum width and 4- $\frac{5}{8}$  inches minimum height for the revolving type lamp. The lamps shall be equipped with bulbs of 50 candle power minimum. The lamps shall be mounted approximately midway between the transverse extremities of the vehicle or machinery and at the highest practicable point.

**History:** 1961 c. 33.

**347.24 Lamps on nonmotor vehicles and equipment.** No person shall operate on a highway during hours of darkness any implement of husbandry or animal-drawn vehicle or any other vehicle not specifically required by law to be equipped with lamps or other lighting devices unless such implement or vehicle is equipped with at least one lighted lamp or lantern exhibiting a white light visible from a distance of 500 feet ahead and a lighted lamp or lantern exhibiting a red light visible from a distance of 500 feet to the rear or, as an alternative to the red lamp or lantern, 2 red reflectors mounted as specified in s. 347.18 and meeting the visibility requirements of s. 347.19 may be displayed on the rear of such vehicle or implement of husbandry.

**347.25 Special warning lamps on emergency vehicles and school busses.** (1) An authorized emergency vehicle may be equipped with one or more flashing, oscillating or rotating red lights and shall be so equipped when the operator thereof is exercising the privileges granted by s. 346.03. Such lights shall be so designed and mounted as to be plainly visible and understandable from a distance of 500 feet both during normal sunlight and during hours of darkness. No operator of an authorized emergency vehicle shall use such warning lights except when responding to an emergency call or when in pursuit of an actual or suspected violator of the law, when responding to but not upon returning from a fire alarm or when necessarily parked on a highway in a position which is likely to be hazardous to traffic using the highway.

(2) No person shall operate a school bus which is painted as provided in s. 347.44

unless it is equipped with flashing red signals of a type and actuated in a manner approved by the commissioner. No vehicle shall be equipped with such flashing signals unless it also is painted as provided in s. 347.44.

History: 1961 c. 662.

**347.26 Restrictions on certain optional lighting equipment.** (1) **GENERAL RESTRICTIONS.** A vehicle need not be equipped with the lamps specified in this section, but if a vehicle is equipped with any such lamps, no person shall operate such vehicle on a highway during hours of darkness unless such lamps comply with the requirements of this section and no person shall use such lamps in a manner inconsistent with this section.

(2) **SPOTLAMPS.** (a) Any motor vehicle may be equipped with not more than 2 spotlamps which shall be mounted at a height of not less than 30 nor more than 72 inches.

(b) No spotlamp shall be used as a substitute for headlamps. No spotlamp shall be used as an auxiliary driving light on any motor vehicle except when such spotlamp is set or adjusted so that the rays of light are projected directly upon the road surface at a distance not exceeding 150 feet directly in front of the vehicle and to the right of the center of the traveled roadway. No spotlamp shall project any glaring light into the eyes of an approaching driver.

(3) **ADVERSE WEATHER LAMPS.** (a) Any motor vehicle may be equipped with not more than 2 adverse weather lamps which shall be mounted on the front of the vehicle below the level of the centers of the headlamps.

(b) Adverse weather lamps shall not be used in lieu of headlamps unless absolutely necessary in case of rain, snow, dust or fog and then only when a vehicle is equipped with 2 adverse weather lamps mounted on opposite sides of the front of the vehicle and when both such adverse weather lamps are lighted. Whenever any vehicle is equipped with only one adverse weather lamp, both headlamps of such vehicle shall be lighted at all times when such adverse weather lamp is lighted.

(4) **BACK-UP LAMPS.** (a) Any motor vehicle may be equipped with not more than 2 back-up lamps which shall be so directed as to project a white or amber light illuminating the roadway to the rear of such vehicle for a distance not to exceed 75 feet.

(b) No lighted back-up lamp shall be displayed on any vehicle upon a highway except when such vehicle is about to be or is being driven backward. Whenever a back-up lamp is lighted during hours of darkness, the tail lamp or tail lamps on the vehicle displaying such lighted back-up lamp also shall be lighted.

(5) **IDENTIFICATION LAMPS ON TAXICABS AND BUSESSES.** No person shall operate a motor vehicle regularly used for transporting passengers for hire displaying any lighting device for identification purposes other than a single illuminated sign or lighted lamp mounted above the top line of the windshield, colored white, amber or green. Such illuminated sign or lamp shall be so constructed as to emit a steady or flashing nonglaring light.

(6) **WARNING LAMPS ON TOW TRUCKS.** The chief of police of any city or, when the owner resides outside of a city, the sheriff of the county may authorize the owner of a motor truck equipped and used for towing or moving disabled vehicles to mount not to exceed 2 fixed flashing red lamps on the front of such truck. Such lamps may be lighted only when the truck is being used to move a disabled vehicle along or upon a highway or when the truck is standing on or near the traveled portion of a highway preparatory to towing the disabled vehicle. Chiefs of police and sheriffs shall keep a record of all authorizations issued by them pursuant to this subsection.

(7) **WARNING LAMPS ON CERTAIN HIGHWAY VEHICLES.** Any vehicle of the state highway commission or a county or municipal highway department which by reason of its use upon a highway creates a vehicular traffic hazard requiring the exercise of unusual care in approaching, overtaking or passing may be equipped with a flashing red or amber lamp of the dome-light type or with 2 flashing red or amber lamps, one showing to the front and one showing to the rear. Such lamp or lamps shall be mounted approximately midway between the extremities of the width of the vehicle and at the highest practicable point and shall be used only for the purpose of warning operators of other vehicles of the presence of the traffic hazard.

(8) **WARNING LAMPS FOR RURAL MAIL DELIVERY VEHICLES.** Any vehicle used for rural mail delivery may be equipped with a flashing amber lamp mounted above the top line of the windshield and showing to the front and rear so as to warn other motorists that the operator of the vehicle is stopped or about to stop to deliver mail or is preparing to resume operation on the highway after having stopped to deliver mail. Such lamp may be used only for the purpose specified in this subsection.

(9) **WARNING LAMPS ON PUBLIC UTILITY VEHICLES.** Any vehicle of a public utility as defined in s. 196.01 (1) which by reason of its use upon a highway creates a vehicular traffic hazard requiring the exercise of unusual care in approaching, overtaking or

passing may be equipped with a flashing amber lamp of the dome type or with 2 flashing amber lamps, one showing to the front and one showing to the rear. Such lamps shall be mounted approximately midway between the extremities of the width of the vehicle and at the highest practicable point and shall be used only for the purpose of warning operators of other vehicles of the presence of the traffic hazard.

**History:** 1961 c. 393.

**347.27 When lighted lamps required on parked vehicles.** (1) No person shall park or leave a vehicle standing, whether attended or unattended, upon a roadway or the shoulder immediately adjacent thereto during hours of darkness unless:

(a) Such vehicle is parked or standing where there is sufficient artificial light to render it visible from a distance of 500 feet or is lawfully parked within the corporate limits of a city or village and in either case is equipped with at least one red reflector mounted on the rear thereof as near as practicable to the side of the vehicle which is closest to passing traffic and otherwise meeting the mounting and visibility requirements specified in ss. 347.18 and 347.19; or

(b) Such vehicle displays one or more lighted lamps meeting the following requirements:

1. At least one lamp shall display a white or amber light visible from a distance of 500 feet to the front of the vehicle, and the same lamp or at least one other lamp shall display a red light visible from a distance of 500 feet to the rear of the vehicle.

2. The location of such lamp or lamps shall always be such that at least one lamp or combination of lamps meeting the requirements of this section is installed as near as practicable to the side of the vehicle which is closest to passing traffic.

3. If the vehicle is equipped with 2 parking lamps and 2 tail lamps, both parking lamps and both tail lamps shall be lighted.

(2) Any lighted headlamps on a vehicle parked on a highway shall be depressed or dimmed.

(3) In this section, "vehicle" includes farm tractors and self-propelled farm implements, implements of husbandry, animal-drawn vehicles and road machinery.

**347.28 Certain vehicles to carry flares or other warning devices.** (1) No person shall operate a motor truck or motor bus more than 80 inches in width or a truck tractor or road tractor on any highway outside the corporate limits of a city or village during hours of darkness unless such vehicle carries in a place readily accessible to the driver the following warning devices:

(a) At least 3 pot torches or 3 red electric lanterns, each of which shall be capable of being seen and distinguished at a distance of at least 600 feet under normal atmospheric conditions during hours of darkness. If pot torches are carried in lieu of red electric lanterns, at least 3 red-burning fusees shall be carried in addition to such pot torches; and

(b) At least 2 red-cloth flags, not less than 12 inches square, with standards to support such flags.

(2) No person shall operate upon a highway outside the corporate limits of a city or village during hours of darkness any motor vehicle used for the transportation of explosives or any cargo tank truck used for the transportation of flammable liquids or compressed gases unless there is carried in such vehicle 3 red electric lanterns meeting the requirements of sub. (1). No pot torch or fusee or signal produced by flame shall be carried in any such vehicle.

**347.29 Display of warning devices for certain vehicles when standing on highway.**

(1) Whenever any motor truck, motor bus, trailer or semitrailer more than 80 inches in width or truck tractor or road tractor is left standing, whether attended or unattended, during hours of darkness upon the traveled portion of any highway or the shoulder adjacent thereto outside the corporate limits of a city or village, the operator of such vehicle shall display the following warning devices upon the highway during the entire time the vehicle is so left standing and such devices shall be placed in the following order:

(a) A lighted fusee or lighted red electric lantern shall immediately be placed at the traffic side of the vehicle in the direction of the nearest approaching traffic. If a lighted fusee was so placed, the driver shall replace such fusee with a lighted pot torch or lighted red electric lantern after he has placed the warning devices specified in pars. (b) and (c) and before the fusee burns out.

(b) A lighted pot torch or lighted red electric lantern shall be placed approximately 100 feet from the standing vehicle in the center of the lane occupied by such vehicle and toward traffic approaching in that lane.

(c) One lighted pot torch or lighted red electric lantern shall be placed approximately



100 feet from the standing vehicle in the center of the lane occupied by such vehicle and in the opposite direction from the warning device placed in accordance with par. (b).

(2) Whenever any vehicle referred to in this section is left standing, whether attended or unattended, within 500 feet of a curve, hillcrest or other obstruction to view, the warning signal in that direction shall be so placed as to afford ample warning to other users of the highway, but in no case less than 100 feet nor more than 500 feet from the standing vehicle.

(3) Whenever any vehicle of a type referred to in this section is left standing, whether attended or unattended, upon any roadway of a divided highway during hours of darkness, the appropriate warning devices prescribed in subs. (1) and (4) shall be placed as follows:

(a) One shall be placed at a distance of approximately 200 feet from the vehicle in the center of the lane occupied by the standing vehicle and in the direction of traffic approaching in that lane;

(b) One shall be placed at a distance of approximately 100 feet from the vehicle in the center of the lane occupied by the vehicle and in the direction of traffic approaching in that lane;

(c) One shall be placed at the traffic side of the vehicle and approximately 10 feet from the vehicle in the direction of the nearest approaching traffic.

(4) No operator of a motor vehicle used in the transportation of explosives, or of a cargo tank truck used for the transportation of any flammable liquid or compressed flammable gas shall use any flame-producing emergency signal for protecting any such vehicle. In lieu thereof, red electric lanterns shall be used, the placement of which shall be in the same order and manner as prescribed in subs. (1) to (3).

(5) Whenever any vehicle of a type referred to in this section is left standing at any place mentioned in this section at times other than during hours of darkness, the operator of the vehicle shall display 2 red flags upon the roadway in the lane of traffic occupied by the standing vehicle, one at a distance of approximately 100 feet in advance of the vehicle and one at a distance of approximately 100 feet to the rear of the vehicle.

(6) The flares, fuseses, red electric lanterns and flags to be displayed as required in this section shall conform with the requirements of s. 347.28.

(7) This section does not apply to vehicles standing on a highway in compliance with traffic regulations or the directions of a traffic officer or official traffic sign or signal.

**347.30 Penalty for violating lighting equipment requirements.** (1) Any person violating s. 347.06 or 347.13 (2), (3) or (4) may be fined not less than \$10 nor more than \$20 for the first offense and not less than \$25 nor more than \$50 for the second or subsequent conviction within a year.

(2) Any person violating any provision of ss. 347.03, 347.07 to 347.12, 347.13 (1) or 347.14 to 347.29 may be fined not less than \$10 nor more than \$200 or imprisoned not more than 30 days or both.

**History:** 1961 c. 414.

#### OTHER EQUIPMENT.

**347.35 Brakes.** (1) **MOTOR VEHICLES.** No person shall operate any motor vehicle, other than a motor driven cycle, upon a highway unless such motor vehicle is equipped with brakes adequate to control the movement of and to stop and hold such vehicle and capable of meeting the performance specifications set forth in s. 347.36. There shall be 2 separate means of applying the brakes, each of which means shall be effective to apply the brakes to at least 2 wheels. If these 2 separate means of applying the brakes are connected in any way, they shall be so constructed that failure of any one part of the operating mechanism will not leave the motor vehicle without brakes on at least 2 wheels. One of the means of brake operation shall consist of a mechanical connection from the operating lever to the brake shoes or bands and this brake shall be capable of holding the vehicle, or combination of vehicles, stationary under any condition of loading on any up grade or down grade upon which it is operated.

(2) **MOTOR DRIVEN CYCLES.** No person shall operate a motor driven cycle upon a highway unless such motor driven cycle is equipped with at least one brake capable of meeting the performance specifications set forth in s. 347.36. Such brake may be designed to be operated either by hand or by foot. The brake on a power driven cycle shall be an enclosed brake of sound design with the disc or brake drum directly connected or integral with the rear wheel and with internal-expanding brake shoes or engaging discs. The design shall permit simple and easy adjustment to compensate for wear. If the brake control is hand-operated, there shall be no other controls linked to it.

(3) **TRAILERS, SEMITRAILERS AND TOWED VEHICLES.** (a) No person shall operate on

a highway any trailer, semitrailer or other towed vehicle having a gross weight of 3,000 pounds or more and manufactured after January 1, 1942 unless such vehicle is equipped with brakes adequate to control the movement of and to stop and hold it.

(b) This subsection does not apply to farm trailers or to disabled vehicles while being towed to a place of repair or to automobiles or trucks while being towed or being transported pursuant to s. 341.47 (1) (b).

(4) **MOBILE HOMES.** No person shall manufacture and no person shall sell a new mobile home in this state unless such mobile home is equipped with brakes adequate to control the movement of and to stop and hold it. No person shall operate on a highway any mobile home sold new after January 1, 1940 unless such mobile home is equipped with brakes adequate to control the movement of and to stop and hold it. The brakes on a mobile home shall be so designed as to be applied by the driver of the towing vehicle from the driver's compartment.

**347.36 Performance ability of brakes.** (1) Brakes on motor vehicles other than power driven cycles and brakes on combinations of vehicles shall be capable of bringing the vehicle or combination of vehicles to a stop, under normal conditions, within 50 feet when traveling at a speed of 20 miles per hour.

(2) Brakes on a power driven cycle shall be capable of bringing such vehicle to a stop within 35 feet when traveling at a speed of 20 miles per hour with a 150 pound rider and on a level, dry, hard surface free from loose material and with no wind.

(3) All required brakes shall be maintained in good working order.

**347.37 Brake fluid, sale regulation.** (1) After January 1, 1960, no hydraulic brake fluid for use in motor vehicles shall be sold in this state if such brake fluid is below the minimum standard of specifications established by the society of automotive engineers for heavy duty type brake fluid No. 70R1 or a later designator for an improved product.

(2) All manufacturers of brake fluids selling such fluids in Wisconsin shall state on the immediate containers in which such fluid is packaged that the fluid therein meets or exceeds the specifications under sub. (1).

**347.38 Horns and warning devices.** (1) No person shall operate a motor vehicle upon a highway unless such motor vehicle is equipped with a horn in good working order and capable of emitting sound audible under normal conditions from a distance of not less than 200 feet, but no person shall at any time use a horn otherwise than as a reasonable warning or make any unnecessary or unreasonably loud or harsh sound by means of a horn or other warning device.

(2) Except as otherwise provided in this section, no vehicle shall be equipped with nor shall any person use upon a vehicle any siren or compression or exhaust whistle.

(3) Any vehicle may be equipped with a theft alarm signal device if such device is so arranged that it cannot be used by the driver as an ordinary warning signal.

(4) An authorized emergency vehicle shall be equipped with a siren, but such siren shall not be used except when such vehicle is operated in response to an emergency call or in the immediate pursuit of an actual or suspected violator of the law, in which events the driver of such vehicle shall sound the siren when reasonably necessary to warn pedestrians and other drivers.

**347.39 Mufflers.** (1) No person shall operate on a highway any motor vehicle subject to registration unless such motor vehicle is equipped with an adequate muffler in constant operation and properly maintained to prevent any excessive or unusual noise or annoying smoke.

(2) No muffler or exhaust system on any vehicle mentioned in sub. (1) shall be equipped with a cutout, by-pass or similar device nor shall there be installed in the exhaust system of any such vehicle any device to ignite exhaust gases so as to produce flame within or without the exhaust system. No person shall modify the exhaust system of any such motor vehicle in a manner which will amplify or increase the noise emitted by the motor of such vehicle above that emitted by the muffler originally installed on the vehicle, and such original muffler shall comply with all the requirements of this section.

(3) In this section, "muffler" means a device consisting of a series of chambers of baffle plates or other mechanical design for receiving exhaust gases from an internal combustion engine and which is effective in reducing noise.

**347.40 Mirrors.** No person shall operate any motor vehicle upon a highway unless such vehicle is equipped with a mirror so located as to reflect to the operator a view of the roadway for a distance of 200 feet to the rear of such vehicle.

**347.41 Speed indicators.** No person shall operate on a highway any motor vehicle primarily designed for use upon a highway unless such motor vehicle is equipped with a speedometer which with reasonable accuracy registers the speed of the vehicle, except that motor trucks or truck tractors may be equipped with tachometers or any other devices that indicate speed and motor vehicles transported pursuant and in compliance with s. 341.47 (1) (b) and (c) may be equipped with a governor of speed of a type which restricts speed and which is set at a level equal to or below the limits of s. 346.58 (2) in lieu of a speedometer.

**347.42 Windshield wipers.** No person shall operate on a highway any motor vehicle equipped with a windshield unless such motor vehicle also is equipped with a device for cleaning rain, snow or other moisture from the windshield. Such device shall be so constructed as to be controlled or operated by the operator of the vehicle and shall at all times be maintained in good working order.

**347.43 Safety glass.** (1) No person shall operate upon a highway any trackless trolley bus manufactured after January 1, 1952, or any other motor vehicle manufactured after January 1, 1936, unless such trackless trolley bus or motor vehicle is equipped with safety glass wherever glass is used thereon in partitions, doors, windows or windshields.

(2) No person shall sell any new motor vehicle unless such vehicle is equipped with safety glass in accordance with the requirements of sub. (1).

(3) In this section, "safety glass" means glass so treated or combined with other materials as to reduce, in comparison with ordinary sheet glass or plate glass, the likelihood of injury to persons by objects from external sources or by such glass when it is struck, cracked or broken.

(4) If a common carrier or person operating under a permit or certificate issued by the public service commission is convicted of operating a vehicle in violation of this section, the commission may suspend or revoke such permit or certificate until such time as the vehicle has been equipped with safety glass as required by this section.

**347.44 Painting requirements for school busses; restrictions as to painting of other vehicles.** (1) Except as provided in sub. (2), all school busses shall be painted as follows:

(a) With the exception of fenders and trim, the body, including hood, cowl and roof shall be painted a uniform color, national school bus chrome, according to national bureau of standards specifications;

(b) The fenders and body trim, if used, shall be black; and

(c) The words, "SCHOOL BUS", in black letters at least 8 inches high shall appear on both the front and rear of the body or on a sign attached thereto.

(2) Subsection (1) does not apply to common carrier motor busses when used for the transportation of school children to and from extracurricular activities. The following vehicles may, but need not comply with sub. (1):

(a) Motor busses which are used jointly as school busses and in regular urban service.

(b) School busses having a passenger-carrying capacity of fewer than 10 persons, including the operator. Passenger-carrying capacity shall be determined by dividing by 20 the total seating space measured in inches.

(3) If a vehicle mentioned in sub. (2) (a) or (b) is painted as provided in sub. (1), it must also be equipped with flashing red signals of the type specified in s. 347.25 (2). The commissioner may by rule specify the size of lettering for those vehicles mentioned in sub. (2) (b) whose width limitations would make it difficult to comply with sub. (1) (c).

(4) No owner of any vehicle using the highways shall paint or in any way designate his vehicle in the manner described in this section, except as expressly authorized by this section.

**347.45 Tire equipment.** (1) All automobiles, motor trucks, motor busses, trackless trolley busses, truck tractors, trailers, semitrailers and mobile homes when operated upon a highway shall be completely equipped with tires inflated with compressed air and all other motor vehicles when operated on a highway shall be equipped with tires of rubber or of some material or construction of equal resiliency. No person shall operate on a highway any motor vehicle, trailer, semitrailer or mobile home having any metal tire in contact with the roadway, except that tire chains of reasonable proportions may be used when required for safety because of snow, ice or other conditions tending to cause a vehicle to skid.

(2) No person shall operate on a highway any vehicle, including farm tractors, self-propelled farm implements, implements of husbandry, animal-drawn vehicles and road machinery, if such vehicle has on the periphery of any of its tires any block, stud, flange,

cleat, spike or other protuberance of any material other than rubber which projects beyond the tread of the traction surface of the tire, except that:

(a) Farm tractors, self-propelled farm implements, implements of husbandry, animal-drawn vehicles and road machinery may be operated with metal tires or tires having protuberances which will not injure the highway; and

(b) Tire chains of reasonable proportions may be used on any vehicle when required for safety because of snow, ice or other conditions tending to cause a vehicle to skid.

(3) The authority in charge of maintenance of the highway in question may, in its discretion, issue a special permit authorizing operation upon such highway of a vehicle the operation of which would otherwise be prohibited under this section.

**347.46 Fenders and mudguards.** (1) No person shall operate a vehicle of the tractor type on a highway unless the driving wheels of such vehicle are protected by suitable fenders.

(2) No person shall operate on a highway in intercity movement any privately owned motor truck or privately owned semitrailer drawn by a truck tractor, except those motor trucks and semitrailers equipped with dump bodies, unless such motor truck or semitrailer is equipped with rear fenders or mudguards of such material and so constructed and placed as to restrict to a minimum the splashing of water, mud or other material which may be thrown by the rear wheels. Such rear fenders or mudguards shall meet the following minimum specifications:

(a) The fenders or mudguards shall cover the tire or multiple tires they are protecting starting at the top from a line drawn vertically through the center of the axle and extending rearward and downward so that the fender or mudguard under any condition of operation or loading of the vehicle has a ground clearance of not more than one third of the horizontal distance from the center of the rearmost axle to the fender or mudguard;

(b) The fenders or mudguards shall be at least as wide as the tire or multiple tires they are protecting;

(c) If the vehicle is so designed and constructed that the rear wheels are covered in the manner specified in pars. (a) and (b) by means of fenders, body construction or other means of enclosure, then no special mudguards are required. Otherwise, the vehicle shall be equipped with special mudguards to the extent necessary to meet the requirements of pars. (a) and (b).

**347.47 Drawbars, trailer hitches and mobile home couplings.** (1) No person shall operate a vehicle towing or drawing another vehicle or vehicles on a highway if the drawbar or other connection between any 2 vehicles exceeds 12 feet in length.

(2) No person shall operate a motor vehicle drawing a trailer, semitrailer or mobile home upon a highway unless the hitch or coupling attaching the trailer, semitrailer or mobile home to the vehicle by which it is drawn is of such construction as to cause such trailer, semitrailer or mobile home to follow in direct line with the propelling vehicle without dangerous side swing or wobble.

(3) In addition to the hitch or coupling specified in sub. (2), every such trailer or semitrailer, except those drawn by a motor truck, truck tractor or road tractor, and every such mobile home shall be coupled with stay chains or cables of sufficient size and strength to prevent its parting from the drawing vehicle if the regular hitch or coupling breaks or otherwise becomes disengaged.

**347.48 Safety belts.** (1) SAFETY BELTS REQUIRED. It is unlawful for any person to buy, sell, lease, trade or transfer from or to Wisconsin residents at retail an automobile, which is manufactured or assembled commencing with the 1962 models, unless such vehicle is equipped with safety belts installed for use in the left front and right front seats thereof.

(2) TYPE AND MANNER OF INSTALLING. All such safety belts must be of a type and must be installed in a manner approved by the motor vehicle department. The department shall establish specifications and requirements for approved types of safety belts and attachments thereto. The department will accept, as approved, all seat belt installations and the belt and anchor meeting the society of automotive engineers' specifications.

**History:** 1961 c. 521.

**347.49 Equipment of vehicles transporting flammable liquids.** (1) In this section, "flammable liquid" means any gasoline, naphtha, benzene, fuel oil, crude oil, kerosene or other liquid which has a flashpoint of 80° F. or less as determined by a Tagliabue or equivalent closed-cup test device.

(2) No person shall transport in or on any motor vehicle, trailer or semitrailer upon a highway any flammable liquid except by tank mounted on or attached to or structurally

a part of such motor vehicle, trailer or semitrailer and which is plainly marked to show that flammable liquids are being transported therein.

(3) This section does not apply to transportation of flammable liquids as freight only by the consumer from the place of purchase to the place of consumption if such liquids are transported in drums or other containers having a capacity of not more than 100 gallons each and if the total amount of such liquids so transported in any one vehicle or combination of vehicles does not exceed 500 gallons.

**347.50 Penalty for violating sections 347.35 to 347.49.** Any person violating any provision of ss. 347.35 to 347.49 may be fined not less than \$10 nor more than \$200 or imprisoned not more than 30 days or both.