

SUBCHAPTER F

MEDIUM AND HEAVY TRUCKS, BUSES AND SCHOOL BUSES

175.91. APPLICATION OF SUBCHAPTER.

Equipment standards in this subchapter apply to medium and heavy trucks, buses and school buses driven on highways.

175.92. SUSPENSION.

Every suspension component shall be in safe operating condition as described in §175.110 (*relation to inspection procedure*).

175.93. STEERING.

- (a) **Condition of Steering Components** - The steering assembly and steering mechanism shall be in safe operating condition as described in §175.110 (*relation to inspection procedure*).
- (b) **Steering Wheel** - The steering wheel, except specially designed for handicapped drivers, shall be equivalent to original equipment in material strength and have a minimum outside diameter of 13 inches.

175.94. BRAKING SYSTEMS.

- (a) **Condition of Braking Systems** - Braking systems and components shall be in safe operating condition as described in §175.110 (*relation to inspection procedure*).
- (b) **Service Brakes** - Every medium and heavy truck, bus and school bus shall be equipped with a service brake system. See 75 Pa. C.S. §4502 (*relation to general requirements for braking systems*).
- (1) The service brakes shall act on all wheels upon application except for the following:
 - (i) On interconnected dual wheels, brakes may act upon only one wheel.
 - (ii) A motor vehicle being towed in driveaway-towaway operation.
 - (iii) The steering axle of a truck or truck-tractor having three or more axles was manufactured before July 25, 1980. The steering axle of truck or truck-tractor having three or more axles manufactured between July 24, 1980 and October 27, 1986 shall be equipped with functioning service

brakes not later than February 26, 1988.

- (2) Service brakes, when required, shall be capable of stopping the vehicle in not more than the maximum stopping distance prescribed in Table I (*relating to brake performance*).
 - (3) Surge or inertia type brake systems are authorized.
 - (4) The brake lining and brake fluids shall be of type approved by the vehicle manufacturer or shall meet Society of Automotive Engineers (SAE) standards (1998, January 1980)—see Appendix A (*relating to minimum requirements for motor vehicle brake lining-SAEJ998*).
 - (5) A vehicle specified under this subchapter manufactured or assembled after June 30, 1967 and designated as a 1968 or later model shall be equipped with a service brake system of a design that rupture or failure of either the front or rear brake system will not result in the complete loss of braking function. Braking function may be obtained by hydraulic or other means through normal brake mechanism. In the event of a rupture or failure of an actuating force component, the unaffected brakes shall be capable of applying an adequate braking force to the vehicle.
 - (6) Metal from the shoe may not contact the brake drums or rotors.
 - (7) If a vehicle has air brakes, warning signal devices, or gauges, it shall be maintained in proper operating condition, as described in §175.110.
 - (8) A vehicle to which additional axles and wheels have been added shall be equipped with brakes on all additional wheels.
 - (9) An air chamber push rod travel may not exceed the manufacturer's specifications' maximum stroke allowance. See Chart 4 (*relating to brake chamber push rod travel typical*) for a drawing of the air chamber push rod.
 - (10) Brake lines shall be approved for use as brake lines.
- (c) **Parking Brake System** - A vehicle specified under this subchapter shall be equipped with a parking brake system. See 75 Pa. C.S. §4502.

- (1) The parking brake system shall be adequate to hold the vehicle on a surface free from ice or snow on a 20% grade with the vehicle in neutral.
- (2) The parking brakes shall be separately actuated so that failure of any part of the service brake actuation system does not diminish the vehicle's parking brake holding capability.

175.95. TIRES AND WHEELS.

- (a) **Condition of Tires and Wheels** - Tires and wheels shall be in safe operating condition as described in §175.110 (*relating to inspection procedure*).
- (b) **Tire Standards** - A vehicle specified under this subchapter shall have tires manufactured in conformance with standards contained in Chapter 159 (*relating to new pneumatic tires*). See 75 Pa. C.S. §4525 (*relating to tire equipment and traction surfaces*). Tires with equivalent metric size designations may be used.
- (c) **Radial Ply Tires** - A radial ply tire shall not be used on the same axle with a bias or belted tire.
- (d) **Different Types of Tires** - Tires of different types and sizes, such as one snow tire and one regular tire or bias, belted or radial tires, may not be used on the same axle except in an emergency.
- (e) **Non-Pneumatic Tires** - A vehicle specified under this chapter operated on highways may not be equipped with nonpneumatic tires, except an antique vehicle with nonpneumatic tires if originally equipped by the manufacturer.
- (f) **Ice Grips or Studs** - A tire may be equipped with ice grips or tire studs of wear-resisting material which have projections exceeding 2/32 inch beyond the tread of the traction surface of the tire.
- (g) **Tires and Rims** - The axles of a vehicle specified under this subchapter shall be equipped with the number and type of tires and rims with a load rating equal to or higher than those offered by the manufacturer.
- (h) **Exceptions** - Subsection (b), insofar as it requires tires to conform to the vehicle manufacturer's specifications as to tire size, and subsection (g) are not applicable if the Department has issued a permit under 75 Pa. C.S. §4969 (*relating to permit for movement of vehicles with oversize wheels and tires*)

authorizing the vehicle to be operated with oversize wheels and tires.

175.96. LIGHTING AND ELECTRICAL SYSTEMS.

- (a) **Condition of Lamps and Switches** - Every required lamp or switch shall be in safe operating condition as described in §175.110 (*relating to inspection procedure*).
- (b) **Lighting Standards** - Lamps shall comply with vehicle lighting equipment requirements of this title. See Appendix A and Tables II-III-IV of Chapter 153 (*relating to lamps, reflective devices and associated equipment*); and 75 Pa. C.S. §4301 (*relating to promulgation of regulations by Department*).
- (c) **Headlamp System** - A vehicle specified under this subchapter driven on a highway shall have two- or four-headlamp system. See 75 Pa. C.S. §4303(a) (*relating to general lighting requirements*).
 - (1) Both lamps in a two-headlamp system shall be of Type II construction consisting of high beam and low beam. One lamp shall be located on each side of front of the motor vehicle.
 - (2) In the four-headlamp system, two lamps shall be of Type II construction and two lamps shall be of Type I construction. A Type I lamp consists of a high beam only. One of each type shall be located on each side of the front of the motor vehicle.
 - (3) The headlamp low beam minimum candlepower shall not be less than 7,500.
 - (4) The headlamp high beam minimum candlepower shall not be less than 10,000.
 - (5) Every headlamp shall be aimed to comply with inspection procedure of this subchapter.
 - (6) A vehicle specified under this subchapter shall be equipped with manual dimmer switch conveniently located for use by the driver while in a normal operating position. An automatic dimming device may be used in addition to a manual switch.
 - (7) A vehicle specified under this subchapter shall be equipped with a beam indicator, which shall be lighted whenever the high beam of light from the headlamp is in use, and shall not otherwise be lighted.

The indicator shall be located so that when lighted, it is readily visible without glare to the operator of the vehicle.

- (d) **Total Candlepower** - Total candlepower for headlamps and auxiliary lamps shall not exceed 150,000.
- (e) **Other Required Lamps** - A vehicle specified under this subchapter shall have at least one red stop lamp on each side of the rear of the vehicle, which shall be illuminated immediately upon application of the service brake.
- (f) **Illumination, Except Headlamps, Fog Lamps, and Auxiliary Driving Lamps** - A vehicle specified under this subchapter shall be equipped with parking lamps, stop lamps, tail lamps, turn signal lamps and hazard warning lamps designed for that specific function which, under normal atmospheric conditions, shall be capable of being seen and distinguished during nighttime operation at a distance of 500 feet. See 75 Pa. C.S. §4303(b)-(d).
- (1) Stop lamps, turn signals and hazard warning lamps shall be visible at a distance of 100 feet during normal sunlight.
 - (2) Rear lamps shall be lighted whenever headlamps, fog lamps or auxiliary driving lamps are in operation.
 - (3) A vehicle specified under this subchapter shall be equipped with hazard warning lamps, unless these lamps were not included as original equipment.
 - (4) The turn signals shall have frequency of flash between 60-120 flashes per minute.
- (g) **Condition and Position of Lamps** - Lamps shall be properly fastened; direct light properly; be of a color not contrary to Tables II-IV; and may not be so obstructed by a screen, bar, auxiliary equipment or a device so as to obscure, change the color of or obstruct the beam.

Note: The General Assembly amended 75 Pa. C. S. §4537 (*relating to devices used to carry pedalcycles*). This amendment permits the operation of a bus used for public transportation with a device used to carry pedalcycles mounted on the front of the bus if the device, including the pedalcycle, does not extend more than 36 inches.

- (h) **Ornamental Lamps** - A lamp not enumerated in this section, and not located as described in Tables III-V of this chapter, is prohibited unless it is available as original equipment. An illuminated sign is prohibited except on taxicabs, ambulances and trucks. Flashing or revolving lights are not ornamental lamps. Provisions relating to flashing or revolving lights are in Chapters 15 and 173 (*relating to authorized vehicles and special operating privileges; and flashing or revolving lights on emergency and authorized vehicles*).
- (i) **Back-Up Lamps** - Back-up lamps are not permitted to be lighted when the vehicle is in forward motion. Back-up lamps shall turn off automatically when the vehicle goes forward. If the lamps do not turn off automatically, a dash indicator that lights or creates audible warning is required.
- (k) **Registration Plate Lamp** - If the vehicle was originally so equipped, the registration plate lamp shall emit white light and make registration plate visible from distance of 50 feet to rear of vehicle. This requirement does not apply to a vehicle which has the registration plate mounted on the front of the vehicle.
- (l) **Auxiliary Driving Lamps and Fog Lamps** - Auxiliary driving lamps and fog lamps may be installed on a medium or heavy truck and bus if the lamps comply with the following:
- (1) Auxiliary driving lamps shall not be substituted for headlamps. Auxiliary driving lamps may only be used with high headlamp beams.
 - (2) Fog lamps are not permitted to be substituted for headlamps.
 - (3) Auxiliary driving lamps and fog lamps shall be mounted on the front, spaced not less than 20 inches apart from center to center and at a height not more than 42 inches above level surface upon which the vehicle stands, nor lower than the lowest chassis part. Rear fog lamps, if originally installed or offered as optional equipment are acceptable.
 - (4) Auxiliary driving lamps and fog lamps shall be aimed when the vehicle and lamp assembly are in straight ahead position with beam not above the horizontal centerline of lamp at 25 feet.
 - (5) A vehicle specified under this subchapter may have only one pair of approved auxiliary driving lamps and fog lamps.

- (6) Auxiliary driving lamps and fog lamps shall not be placed in front of a required lamp.
- (7) Auxiliary driving lamps shall not be used on snowplows as a substitute for headlamps obscured by blade. A substitute for headlamps used on these vehicles shall be complete, approved headlamps having both high and low beams.
- (8) Snowplow lamps shall be installed as follows:
 - (i) These lamps shall be wired through a double throw switch so that both sets of lights will not operate at the same time.
 - (ii) Snowplow lamps shall be aimed so that the high intensity beam does not project to the left of the extreme left side of the vehicle, nor higher than the center of the lamp at a distance of 25 feet in front of vehicle. In no case shall the high intensity portion of a beam be higher than 42 inches above the level surface upon which vehicle stands at a distance of 75 feet ahead. The lamps shall be spaced at a distance of not less than 20 inches apart and shall be symmetrically located on each side of the vehicle centerline.
- (9) In accordance with 75 Pa. C.S. §4303(f), roof or roll bar mounted off-road lights may be installed if they are not used on a highway or trafficway and are covered with an opaque covering at all times while operating on the highway or trafficway. Vehicles equipped with roof or roll bar mounted off-road lights shall have a switch that indicates to the driver, through the use of a pilot light, that the lights are on when so switched.
- (10) White or clear cargo lamps are permitted if available as original equipment or installed in a manner which expressly illuminates the cargo area of a truck or bus.

(m) Antique Vehicle Lighting Exemption - An antique vehicle, if operated exclusively between the hours of sunrise to sunset and not during periods of reduced visibility or insufficient illumination, is exempt from the requirements of this section, except requirements pertaining to stop lamps.

(n) Battery Fastening - A vehicle specified under this subchapter shall be equipped with a system specifically designed for the secure fastening of the battery.

175.97. GLAZING.

(a) Condition of Glazing - Glazing shall meet requirements of Chapter 161 (*relating to glazing materials*). See 75 Pa. C.S. §4526 (*relating to safety glass*).

(b) Safety Glazing

- (1) A vehicle specified under this subchapter shall be equipped with safety glazing in all windshields, windows, and wings. Requirements of this subsection do not apply to a vehicle manufactured or assembled before January 1, 1934, if the original glazing is not cracked or discolored.
- (2) Rigid plastic glazing may be used in doors and windows of buses except windshields and windows to the immediate right or left of the driver.

(c) Stickers

- (1) Truck Weight Classification Stickers, Trucks Only - shall be affixed to the lower left-hand corner of the windshield to the immediate right of the certificate of inspection.
- (2) The following stickers are authorized to be affixed to the windshield or windows as indicated:
 - (i) Out-of-state inspection stickers, school bus stickers, tax stamps, road use permits or other government-related permits—municipalities and states— may be placed at the lower left- or right-hand corner of the windshield.
 - (ii) A Delaware River Port Authority Bridge Travel Permit may be affixed to the left rear window. This permit is 2 ¼ inches x 4 ¼ inches and is automatic triggering device for passing vehicles through toll gates on bridge.
 - (iii) The suggested manufacturer’s retail price sheet may be affixed to a new vehicle of a dealer. These labels are permitted only on the lower portion of a side window, as far to the rear of the vehicle as possible. When the vehicle is sold, this label shall be removed.

(d) Obstructions - A vehicle specified under this subchapter shall have glazing free from obstructions as described in §175.110 (*relating to inspection procedure*).

- (1) With the exception of materials in paragraph (3), signs, posters or other materials, whose design prevents a driver from seeing through the material, may not be placed on the windshield or a side wing or a side window so as to obstruct, obscure or impair the driver's clear view of the highway or an intersecting highway. Under FMVSS No. 205, these restrictions do not apply to the rear side windows, rear wings or rear window.
- (2) The requirements of this subsection also apply to glass etchings, except those used for vehicle identification.
- (3) A sun screening device or other material which does not permit a person to see or view the inside of the vehicle is prohibited unless otherwise permitted by FMVSS No. 205, or a certificate of exemption has been issued in compliance with §175.265 (*relating to exemption provisions*). See Table X for specific requirements for vehicles subject to this subchapter.

175.98. MIRRORS.

(a) Condition of Mirrors - Mirrors shall be in safe condition as described in §175.110 (*relating to exemption provisions*).

(b) Rearview Mirrors - A vehicle specified under this subchapter shall be equipped with at least one rearview mirror, or similar device which provides driver unobstructed view of the highway to the rear of the vehicle for a distance of not less than 200 feet. Mirrors shall not be cracked, broken or discolored.

(c) Obstructions - On a vehicle specified under this subchapter, the rearview mirror shall be free from obstructions as described in §175.110.

- (1) A vehicle specified under this subchapter having a sign or load or another material which obstructs, obscures or impairs driver's clear view of the highway or an intersecting highway shall have two outside rearview mirrors, one on the driver's side and one on the passenger's side, each with minimum reflective surface as follows:

Required Reflective Surface	Gross Vehicle Weight
19.5 square inches.....	Less than 10,001 pounds
50 square inches.....	Over 10,000 pounds

- (2) Rear window louvers are permitted only if the vehicle has at least two outside rearview mirrors, one on driver's side and one on the passenger's side, each with minimum reflective surface of 19.5 square inches. This paragraph does not apply to school buses.
- (3) Rearview mirrors, each with a minimum reflective surface of 19.5 square inches, shall be installed on both sides of a vehicle for which a certificate of exemption for a sun screening device or other material has been issued. A vehicle for which a certificate of exemption has been issued for medical reasons may be equipped with only a left outside rearview mirror, unless originally equipped with an outside rearview mirror on both sides of the vehicle.
- (4) An object or material may not be hung from rearview mirror and an object or material may not be hung, placed or attached in such position that materially obstructs, obscures, or impairs driver's vision through windshield or in a manner that constitutes a safety hazard.
- (5) This subsection also applies to glass etchings, except those used for vehicle identification.

(d) Motor Homes - A motor home shall be free from obstructions as described in this subchapter.

- (1) A vehicle manufactured as or permanently converted into motor home with a GVW of 11,001 pounds or more may have windows, approved glass only, transparent screens and roll-up shades or curtains installed if the shades and curtains are securely fastened in completely opened position to avoid covering a portion of a window, while the vehicle is being operated on the highway. Venetian blinds may not cover a window while the vehicle is operated on a highway.
- (2) If a window is covered for installation of wardrobe, cupboard or other convenience, it shall be factory installed or otherwise permanently installed

optional equipment or facsimile only.
Two outside mirrors shall be installed to afford the operator a clear view 200 feet to the rear of the vehicle.

175.99. WINDSHIELD DEFROSTERS.

The windshield defroster system shall be in safe operating condition.

175.100. WINDSHIELD WASHERS.

The windshield washer system shall be installed and in safe operating condition on medium and heavy trucks and buses manufactured after 1968.

175.101. WINDSHIELD WIPERS.

- (a) **Condition of Windshield Wipers** - The wiper system shall be in safe operating condition as described in §175.110 (*relating to inspection procedure*).
- (b) **Cleaning** - A vehicle specified under this subchapter shall be equipped with wiper system, capable of cleaning rain, snow and other moisture from the windshield and constructed so as to be operated by a switch conveniently located for use by the driver while in normal operating position.
 - (1) Wipers shall operate as required by the manufacturer or a minimum of 45 cycles per minute if not specified.
 - (2) A vehicle specified under this subchapter originally equipped with two wiper blades and two wiper arms—driver and passenger side—shall have them in place and in good working order.

175.102 FUEL SYSTEMS.

- (a) **Condition of Fuel Systems** - All components in a fuel system shall be in safe operating condition as described in §175.110 (*relating to inspection procedure*).
- (b) **Fuel System Requirements** - Fuel system components shall be leakproof and shall be fastened securely to the vehicle with fasteners designed for that purpose.
- (c) **Accelerator Operation** - An accelerator control system shall return the engine throttle to the idle position when the operator removes the actuating force from accelerator control.
- (d) **Filler Cap** - A fuel system shall be equipped with a filler cap.
- (e) **Alternate Fuel Systems** - See Subchapter M (*relating to alternate fuel systems and controls*).

175.103. SPEEDOMETERS.

A vehicle specified under this subchapter shall have an operating speedometer calibrated to indicate miles per hour or kilometers per hour.

175.104. ODOMETERS.

A vehicle specified under this subchapter shall have an operating odometer calibrated to indicate total miles or kilometers driven, except a motor vehicle at least 25 years old or a vehicle over 17,000 pounds registered gross weight.

175.105. EXHAUST SYSTEMS.

- (a) **Condition of Exhaust System** - All components of the exhaust system shall be in safe operating condition as described in §175.110 (*relating to inspection procedure*).
- (b) **Exhaust System Requirements** - A vehicle specified under this subchapter shall be constructed, equipped, maintained and operated to prevent engine exhaust gases from penetrating and collecting in any part of the vehicle occupied by the driver or a passenger, in addition to the requirements of this title for emission control systems and smoke control for a diesel-powered vehicle.
 - (1) A vehicle specified under this subchapter shall be equipped with a muffler or other effective noise-suppressing system in good working order and in constant operation. A muffler or exhaust system may not be equipped with a cutout, bypass or similar device, and a muffler may not show evidence of external repair.
 - (2) The exhaust system of a vehicle may not be modified in a manner which will amplify or increase noise emitted by the motor of a vehicle above the maximum level permitted by Chapter 157 (*relating to established sound levels*).
 - (3) Headers and side exhaust are permitted if the vehicle meets the requirements of this section.
 - (4) An exposed exhaust system shall be equipped with an adequate heat shield or protective system.
 - (5) An exhaust system shall extend and discharge completely to the outside edge of the vehicle body, including a truck bed, or as originally designed, except for the following:
 - (i) Reserved.

- (ii) Gasoline powered buses, including school buses. The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus. Until June 15, 1998, the tailpipe of the school buses may extend to, but not beyond the body limits on the left side of the school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.
- (iii) Buses, including school buses, powered by fuels other than gasoline. The exhaust system of a bus using fuels other than gasoline shall discharge to the atmosphere either at or within 15 inches forward of the rearmost part of the vehicle; or to the rear of all doors or windows designed to be opened, except windows designed to be opened solely as emergency exits. Until June 15, 1998, the tailpipe of school buses may extend to, but not beyond the body limits on the left side of the school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.

- (c) Exemption: A firefighting vehicle is exempt from this section.

175.106. HORNS AND WARNING DEVICES.

- (a) **Condition of Horns and Warning Devices** - Components of a horn or warning device shall be in safe operating condition as described in §175.110 (relating to inspection procedure).
- (b) **Horn and Warning Device Requirements** - A vehicle specified under this subchapter shall have a horn or other warning device which is audible under normal conditions at distance of not less than 200 feet. No vehicle shall be equipped with siren, bell, whistle or similar device emitting any unreasonably loud or harsh sound, except emergency vehicles and vehicles equipped with an antitheft device.

175.107. BODY.

- (a) **Condition of Body** - All items on the body shall be in safe operating condition as described in §175.110 (4-02) (relating to inspection procedure).

- (b) **Fenders** - The wheels of a vehicle specified under this subchapter shall be equipped with fenders of a type used as original equipment. A tire may not come in contact with body, fenders or chassis of vehicle, at any time.
- (c) **Hood and Hood Latches** - The entire motor compartment of a vehicle specified under this subchapter shall be covered by a hood. The hood shall be equipped with a double latch system to hold it in the closed position if the hood was originally so equipped.
- (d) **Protruding Objects** - Torn metal, glass or other loose or dislocated parts may not protrude from the body of the vehicle.
- (e) **Fender Flares** - A vehicle may be equipped with fender flares not to exceed 3 inches.
- (f) **Doors** - A vehicle specified under this subchapter shall be equipped with doors of a type used as original equipment. The doors shall open and close securely unless the vehicle has been manufactured or modified to the extent that there is no roof or side. Tailgates, except on vehicles where the tailgate gives access to the passenger compartment, may be replaced with wood planking, nets or other material that will prevent loss of load. Tailgates may be removed when optional equipment, for example a truck camper, is added.

175.108. CHASSIS.

- (a) **Condition of Chassis** - All items on the chassis shall be in safe operating condition as described in §175.110 (relating to inspection procedure).
- (b) **Vehicle Frame** - A vehicle frame shall be in solid condition.
- (c) **Motor Mounts** - The motor mounts may not be broken, cracked or missing.
- (d) **Flooring and Floor Beds** - Flooring and floor beds shall be of a construction to support occupants and cargo which the vehicle is capable of carrying, and shall not have any openings through which exhaust gases could enter passenger compartment.
- (e) **Front Bumper** - Every vehicle specified under this subchapter shall be equipped with front bumper or a suitable replacement which is equal to or greater in strength than that provided by the vehicle manufacturer, securely attached to chassis or frame. See 75 Pa. C.S. §4536 (relating to bumpers).
 - (1) A bumper shall be of at least equivalent strength and mounting as the original equipment.

- (2) No portion of bumper shall be broken, torn or protruding as to create a hazard.
 - (3) No bumper shall extend beyond the body line or be longer than original equipment, whichever is greater.
 - (4) A wood plank bumper is permitted on a road service truck or wrecker, if firmly attached to a regular bumper or equivalent steel backing.
 - (5) Some part of the horizontal bumper bar shall fall within 16-30 inches above ground level.
- (f) Rear Protection Device** - A vehicle specified under this subchapter, except truck tractors, whose body or chassis has a rear end clearance of more than 30 inches from the ground when empty, shall be equipped with a rear bumper or rear end protection devices as follows:
- (1) The rear bumper or rear end protection device shall be:
 - (i) Within 30 inches of ground when the vehicle is empty.
 - (ii) Within 24 inches of another rear bumper or rear end protection device, if more than one rear bumper or rear end protection device is used.
 - (iii) Within 18 inches—transverse distance—of the widest part of the rear of the vehicle.
 - (iv) Within 24 inches of the extreme rear of the vehicle.
 - (v) Substantially constructed and firmly attached.
 - (2) Vehicles constructed and maintained so that the body, chassis or other parts of the vehicle afford the rear end protection described in paragraph (1) will be deemed to be in compliance with this subsection.
 - (3) No bumper shall extend beyond the body or line or be longer than original equipment, whichever is greater.
 - (4) A wood plank bumper is permitted on a road service truck or wrecker if firmly attached to a regular bumper or equivalent steel backing.
 - (5) Some part of the horizontal bumper bar shall fall within 16-30 inches above ground level.
- (g) Fenders and Flaps** - A vehicle specified under this subchapter shall be equipped with fenders which provide at least as much coverage of the wheel as original equipment. Wheels shall be sufficiently covered with fenders or flaps to prevent loose objects, rain, snow, and the like from being thrown about in a manner which may interfere with other persons using the highways.
- (h) Rear Wheel Shields** - A vehicle specified under this subchapter, except a truck-tractor while towing a trailer, shall be constructed or equipped to bar water or other road surface substances thrown from the rear wheels of the vehicle or combination at tangents exceeding 22.5°, measured from the road surface, from passing in a straight line to the rear of the vehicle or combination. See 75 Pa. C.S. §4533 (*relating to rear wheel shields*).
- (i) [Reserved].**
- (j) Seats** - A vehicle specified under this subchapter shall be equipped with an operator seat which is firmly anchored to frame or support.
- (1) No metal spring shall protrude from driver's seat.
 - (2) A seat adjusting mechanism shall not move from set position when so adjusted.
- (k) Safety Belts** - A vehicle specified under this subchapter shall be equipped with safety belts, of a type used as original equipment, securely attached to frame or structure. If attached to sheet metal they shall have backing plates.
- (1) Safety belt webbing shall not be frayed.
 - (2) Belt buckles shall operate properly.
- (l) Body Mounts** - Body mounts may not be broken, cracked, deteriorated or missing.

175.110. INSPECTION PROCEDURE.**(a) External Inspection - An external inspection shall be performed as follows:**

- (1) Verify ownership, legality, and proof of financial responsibility. For the purpose of this subchapter, ownership and legality shall be proven by a vehicle registration card, certificate of title or manufacturer's statement of origin.

REJECT IF one or more of the following apply:

- (i) When vehicle ownership and legality are demonstrated by presentation of certificate of title or manufacturer's statement of origin:

(A) The VIN is not in agreement with the vehicle registration card, title or manufacturer's statement of origin. Exception: If only one digit is incorrect or two digits are transposed, and the owner provides evidence that the appropriate Department form has been completed to correct an error or transposition.

(B) The VIN plate is not securely fastened or is defaced, misplaced or missing.

- (ii) When vehicle ownership and legality are demonstrated by presentation of vehicle registration card:

(A) The license plate is not in agreement with numbers on vehicle registration card. Exception: If only one digit is incorrect or two digits are transposed, and the owner provides evidence that the appropriate Department form has been completed to correct an error or transposition.

(B) The license plate is hanging loosely from its mounting bracket.

(C) The license plate is obscured so that the numbers cannot be identified.

(D) The license plate lamp, if so equipped, does not illuminate the license plate, except truck-tractors.

- (iii) Acceptable proof of financial responsibility is not provided. For the purpose of this chapter, financial responsibility shall be proven by one of the following documents:

- (A) A valid financial responsibility identification card issued in accordance with 31 Pa. Code (*relating to insurance*).
- (B) The declaration page of a valid insurance policy.
- (C) A valid self-insurance identification card.
- (D) A valid binder of insurance issued by an insurance company licensed to sell motor vehicle liability insurance in this Commonwealth.
- (E) A valid insurance policy issued by an insurance company licensed to sell motor vehicle liability insurance in this Commonwealth.

- (2) Check the Glazing.

- (i) **REJECT IF** one or more of the following apply:

(A) Approved safety glazing is not used in every windshield, window or wing.

(B) A sign, poster or other material whose design prevents a driver from seeing through the material, obstructs, obscures or impairs the driver's clear view of the highway or an intersecting highway. In accordance with FMVSS No. 205, this restriction does not apply to the rear side windows, rear wings or rear window of vehicles subject to this subchapter.

(C) A vehicle displays a sticker other than those prescribed under §175.97(c) (*relating to glazing*), or displays a parking sticker in a location described in §175.97(d).

(D) The glass is shattered, broken or has any exposed sharp edges.

(E) The windshield is removed.

(F) There are defects in an acute area of windshield—center of the critical area on the driver's side of the vehicle directly in driver's normal line of vision—8 ½ inches wide and 5 ½ inches high—or discolorations or hazardous cracks to the front, right, left or rear of the driver which would interfere with the driver's vision.





- (G) Glass etchings, except those used for vehicle identification, are on windshield or front side windows.
- (H) Glass etchings extend more than 3 ½ inches from lowest exposed portion of rear window, rear side windows or rear wings.
- (ii) This paragraph does not prohibit the use of a product or material along the top edge of the windshield as long as the product or material is transparent and does not encroach upon the AS-1 portion of the windshield as provided by FMVSS No. 205, and the product or material is not more than 3 inches from the top of the windshield.
- (3) Check the windshield wiper system and **REJECT IF** one or more of the following apply:
 - (i) The wipers do not operate as specified by the manufacturer or 45 cycles per minute if not specified.
 - (ii) The wiper blades are torn or smear or streak the windshield after five cycles.
 - (iii) There is only one wiper, where two are required.
 - (iv) Wipers do not return to rest position.
 - (v) The windshield washers, if originally so equipped, do not operate.
- (4) Check the door operation, including tailgate, and **REJECT IF** one or more of the following apply:
 - (i) The doors are not on the vehicle if originally fitted by manufacturer.
 - (ii) The doors, including the tailgate, if so equipped, do not open and close securely.
 - (iii) Tailgate or equivalent is not on the vehicle, unless removed for the addition of optional equipment that is present at the time of the inspection.
- (5) Check the outside mirrors and **REJECT IF** one or more of the following apply:
 - (i) A required mirror is cracked, broken, missing or discolored.
 - (ii) A mirror will not hold adjustment.
 - (iii) The vehicle does not have a mirror where required for the driver's side and one on the opposite side, each with a minimum reflective surface as follows:

- | Gross Vehicle Weight | Required Reflective Surface |
|-------------------------|-----------------------------|
| Less than 10,001 pounds | 19.5 square inches |
| Over 10,000 pounds | 50 square inches |
- (iv) Outside rearview mirrors, with a minimum reflective surface as described in §175.98 (*relating to mirrors*), are not installed on both sides of the vehicle if a certificate of exemption for a sun screening device or other material has been issued by the Department. See §175.264 (*relating to mirrors*). A vehicle for which a certificate of exemption has been issued for medical reasons may be equipped with only a left outside rearview mirror, unless originally equipped with an outside rearview mirror on both sides of the vehicle.
 - (6) Check fenders, hood and truck lid and **REJECT IF** any of the following apply:
 - (i) Any fender, front and rear, has been removed.
 - (ii) The fenders are not of a type and size used as original equipment.
 - (iii) The hood does not cover the entire motor compartment or cannot be fully closed.
 - (iv) The trunk lid does not close.
 - (v) The fender flares exceed 3 inches in width.
 - (7) Check flooring and floor beds and **REJECT IF** any of the following apply:
 - (i) They are not in a condition to support the occupants and cargo.
 - (ii) The floor pan is rusted through so as to cause hazard to occupants or to permit exhaust gases to enter passenger compartment.
 - (iii) Not equipped with rear wheel shields—mud flaps—as required under 75 Pa. C.S. §4533 (*relating to rear wheel shields*).
 - (iv) The lamps or wiring are attached to any guard or flap.
 - (v) A flap or guard does not consist of suitable metal protectors or substantial flexible flaps which are strong enough to prevent stones or objects being thrown through them.
 - (vi) On buses, reject if any of the following apply:
 - (A) The step well or floor on the bus is cluttered or worn to present tripping hazard.

- (B) The guard rails or grab rails on the bus are loose or fastening parts are missing.
- (C) The service doors on a bus, bind, jam or malfunction, preventing proper operation
- (D) The emergency exit is not easily accessible.
- (E) The inside or outside quick release mechanism on emergency doors or windows on the bus fails to function properly or opens accidentally or too easily.
- (8) Check bumpers and **REJECT IF** any of the following apply:
- (i) The bumpers are not on the vehicle if required as original equipment.
 - (ii) The bumpers are not firmly attached to frame or chassis.
 - (iii) Some part of horizontal bumper bar on medium and heavy trucks and buses does not fall within 16-30 inches above ground level.
 - (iv) A broken or torn portion is protruding, so as to create hazard.
 - (v) The bumper extends beyond the body line or is longer than originally equipped, whichever is greater.
- (9) Check the lamps and lenses and **REJECT IF** one or more of the following apply:
- (i) An exterior bulb or sealed beam, if originally equipped or installed, fails to light properly, except ornamental lights.
 - (ii) The turn signal lamps do not flash between 60-120 flashes per minute.
 - (iii) The turn signal lamps do not properly indicate the right or left or hold in position when so switched or do not self-cancel if originally designed to do so.
 - (iv) The back-up lamp does not turn off automatically when vehicle goes forward, there is no indicator on dash that lights, or there is no audible warning signal.
 - (v) The lamp shows a color contrary to the lighting chart.
 - (vi) The lamp or filament indicated at the switch position does not light when the correct switch indicates the lamp should be on.
 - (vii) The lamp has missing or broken lens.
 - (viii) A required lamp is missing.
 - (ix) The auxiliary equipment is placed on, in or in front of a lamp.
- Note:** The General Assembly amended 75 Pa. C.S. §4537 (*re-lating to devices used to carry pedalcycles*). This amendment permits the operation of a bus used for public transportation with a device used to carry pedalcycles mounted on the front of the bus if the device, including the pedalcycle, does not extend more than 36 inches.
- (x) The fog lamps operate with the high beams of headlamps.
 - (xi) The auxiliary driving lamps operate with the low beam of a standard headlamp system or alone.
 - (xii) The headlamps are out of adjustment as follows:
 - (A) Mechanical aimer:
 - (I) The horizontal aim is more than 4 inches to left or right.
 - (II) The vertical aim is higher or lower than 4 inches from center.
 - (B) Screen or photo electric type tester. See Charts 1-3 (*relating to headlight aiming screen distance and marking identification; high beam inspection limits; and low beam inspection limits*):
 - (I) Turn lamps on high beam and **REJECT IF** the center of the beam is horizontally more than 4 inches to the right or left of straight ahead or if the center of the light beam is vertically more than 4 inches above or below horizontal line.
 - (II) Turn lamps on low beam and **REJECT IF** the upper edge of the beam is more than 4 inches above or below horizontal center line of headlamp or if inner edge of beam is more than 4 inches to right or left of vertical line.
- (10) Check for protruding metal and **REJECT IF** torn metal, glass or other loose or dislocated parts protrude from the surface of the vehicle so as to create a hazard.





- (11) Check fuel tank cap and **REJECT IF** fuel tank filler cap is missing.
- (12) Check the shock absorbers and **REJECT IF** the vehicle continues a free rocking motion greater than three cycles after release, indicating loss of shock absorber function.
- (13) Inspect the fifth wheel completely and **REJECT IF** any of the following apply:
 - (i) The lower half of the fifth wheel is not securely affixed by U-bolts or by other secure means.
 - (ii) The lower half of the fifth wheel is cracked, loose, missing or has inoperative locking devices.

(b) Internal Inspection - An internal inspection shall be performed as follows:

- (1) Check steering column completely and **REJECT IF** one or more of the following apply:
 - (i) Freeplay exceeds the following allowances:

Wheel Diameter	Freeplay
16 inches or less.....	2 inches
18 inches.....	2 ¼ inches
20 inches.....	2 ½ inches
22 inches.....	2 ¾ inches
 - (ii) The gear box is loose on the frame.
 - (iii) The energy absorbing column is defective.
 - (iv) The steering wheel, except specially designed for handicapped drivers, is not circular or equivalent in strength to original equipment, or has outside diameter less than 13 inches.
 - (v) The front wheels cannot be turned to the full right or left position without binding or interference.
 - (vi) The flexible steering coupler–rag joint–is badly misaligned–twisted or out of alignment between attaching collars.
 - (vii) The U-Bolts, or positioning parts, are absent or loose. Some steering column systems are designed to permit some movement.
 - (viii) The steering wheel is not properly secured.
- (2) Check high beam and turn signal indicator lamps and **REJECT IF** indicator lamps are not working.

- (3) Check horn and **REJECT IF** any of the following apply:
 - (i) There is no horn or other acceptable audible warning device.
 - (ii) The horn or other warning device is not audible under normal conditions for distance of not less than 200 feet.
 - (iii) The vehicle is equipped with a siren, bell, whistle, or a device emitting a harsh or unreasonably loud sound, except on emergency vehicles and vehicles equipped with antitheft device.
- (4) Check brake pedal and **REJECT IF** any of the following apply:
 - (i) The brake pedal travel exceeds 80% of total available travel.
 - (ii) The brake pedal fades while vehicle is stopped.
 - (iii) There is excessive friction in the pedal linkage or components if the pedal levers are misaligned or improperly positioned, or the pedal pad is missing.
 - (iv) The low-vacuum indicator fails to activate at a reading of 8 inches Hg (*Mercury*).
 - (v) Any brake warning system is not working.
 - (vi) Air brakes, if any of the following apply:
 - (A) With the engine stopped and brakes not applied, the gauge indicates loss of more than 3 pounds per minute.
 - (B) With the engine running, the gauge indicates a loss of more than 4 pounds per minute after the full brake application for 2 minutes.
 - (C) With the engine running at fast idle, the time to raise the pressure to cutout exceeds 5 minutes.
 - (D) A warning device–audible or visible–does not operate at all pressures at and below 60 psi pressure.
- (5) Check parking brake operation and **REJECT IF** the pedal or lever reaches its limit of travel before the parking brakes are set.

- (6) Check the seat and safety belts, if the vehicle is so equipped and **REJECT IF** one or more of the following apply:
- (i) The driver's seat or back rest is not firmly attached.
 - (ii) The metal spring protrudes from the driver's seat.
 - (iii) The seat adjusting mechanism slips out of a set position.
 - (iv) There is no safety belt for each seating location, if the vehicle was originally so equipped, or if seats have been added.
 - (v) The safety belt webbing is frayed.
 - (vi) The belt buckles do not operate properly.
 - (vii) The belt anchorages are broken.
- (7) Check the inside mirror and **REJECT IF** one or more of the following apply:
- (i) The mirror is cracked, broken, or discolored.
 - (ii) The mirror will not hold adjustment.
 - (iii) An object or material is hung from or blocking inside mirror.
 - (iv) Mirror is missing, unless the vehicle is equipped with outside mirror, except on school buses.
- (8) Check front windshield defroster system, if so equipped, and reject if the defroster fan does not function.
- (c) Under the Hood Inspection - An under the hood inspection shall be performed as follows:**
- (1) Check hood and **REJECT IF** any of the following apply:
 - (i) Latch does not hold securely in fully-closed position.
 - (ii) Latch release mechanism or its parts are broken, missing, or so poorly adjusted so that the hood can not be properly closed.
 - (iii) The double latch mechanism is not operating as originally equipped.
 - (2) Check the motor mounts, either here or during beneath vehicle inspection, and **REJECT IF** motor mounts are broken, cracked, or missing.
 - (3) Check air pressure and **REJECT IF** one or more of the following apply:
 - (i) The air pressure relief valve does not operate.
 - (ii) The compressor drive belts are worn, loose or frayed so as to prevent proper operation of the compressor.
 - (iii) Air intake cleaner is clogged so as to prevent proper air intake.
 - (iv) The air compressor has loose mounting bolts.
 - (v) The air compressor has a cracked, broken or loose pulley.
 - (4) Check fuel systems and controls.
 - (i) **REJECT IF** any of the following apply:
 - (A) There is liquid fuel leakage at any point in system.
 - (B) Part of fuel line is not securely fastened.
 - (C) A fuel tank or line was not specifically designed or manufactured as fuel tank or line.
 - (D) A fuel line is in contact with high temperature surfaces or moving parts.
 - (E) The fuel tank or line intrudes into a driver, passenger or cargo compartment, except if the vehicle was originally so equipped.
 - (F) The throttle does not return to the idle position when actuating force is removed.
 - (G) The firewall has holes or cracks which would permit fumes to enter the driver and passenger compartments.
 - (ii) If the vehicle is equipped with an alternate fuel system, see Subchapter M (*relating to alternate fuel systems and controls*).
 - (5) Check the exhaust system and **REJECT IF** there is an exhaust leak.
 - (6) Check the brake system and **REJECT IF** one or more of the following apply:
 - (i) The master cylinder leaks.
 - (ii) The power brake lines or hydraulic hoses or lines leak or are disconnected, flattened, or restricted.
 - (iii) The hydraulic booster for the power brake system is leaking or inoperative or has excessively worn belts that would prevent proper operation of the pump.
 - (iv) The brake hoses seep or swell under application of pressure.





- (v) The connecting hoses are improperly joined; for example, a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube.
- (7) Check the battery and reject if the battery is not securely fastened with a device specifically designed for that function.
- (8) Check steering gear box and reject if loose on frame.

(d) Beneath the Vehicle Inspection - A beneath the vehicle inspection shall be performed as follows:

- (1) Inspect the tires and wheels and **REJECT IF** one or more of the following apply:
 - (i) A tire has two adjacent treads with less than 2/32-inch tread remaining at any point - less than 4/32-inch tread on front tires of vehicles having gross weight in excess of 10,000 pounds.
 - (ii) The tire is worn so that tread wear indicators contact the road in any two adjacent grooves.
 - (iii) Part of the ply or cord is exposed.
 - (iv) A tire has been repaired with blow-out patch or boot.
 - (v) There is a bump, bulge or separation.
 - (vi) A tire is marked "not for highway use," "for racing purposes only" or "unsafe for highway use," or has a similar designation. This subparagraph is not applicable if the Department has issued a permit under 75 Pa. C.S. §4969 (*relating to permit for movement of vehicles with oversized wheels and tires*) authorizing the vehicle to be operated with oversize wheels and tires.
 - (vii) There are other conditions or markings reasonably believed to render tire unsafe for highway use.
 - (viii) The front tire on a bus is retreaded or recapped.
 - (ix) A front tire has been regrooved.
 - (x) A tire has been regrooved or recut below the original tread design depth, except a tire which is identified as having extra undertread rubber.
 - (xi) The diameter of one of the duals is not within 3/8 inch of other.
 - (xii) A tire's tread extends beyond the outer edge of the wheel housing, inclusive of fender flares, or exceeds

- the manufacturer's specifications as to size.
- (xiii) The tires used on same axle are not the same size or type of construction—bias, belted, radial or snow.
- (xiv) The wheel nuts or bolts are missing or loose or have improper thread engagement.
- (xv) The stud or bolt holes are worn out of round.
- (xvi) Part of wheel is bent, cracked, welded or damaged so as to affect safe operation of vehicle.
- (xvii) The rear wheel does not track the front wheel in the straight ahead position as originally designed.
- (xviii) The wheel base on one side differs from the wheel base on other side by more than 1 inch, unless the vehicle's design specifications indicate different left and right wheel base dimensions.
- (xix) Studded tires are in use after April 15 and before November 1.
- (xx) Any axle has missing wheels or rims.
- (xxi) A tire makes contact with the body or chassis.
- (2) Inspect the steering system and **REJECT IF** one or more of the following apply:
 - (i) Movement at front or rear of a tire is greater than 1/4 inch on wheels 16 inches or under, greater than 3/8 inch on wheels 17 inches or 18 inches, or greater than 1/2 inch on wheels over 18 inches. Make sure any looseness detected is not wheel bearing free play.
 - (ii) The linkage components are not secured with cotter pins or other suitable devices.
 - (iii) The steering stops allow the tire to rub on the frame or the chassis parts.
 - (iv) The front wheels are incapable of being turned to the right and left steering stops without binding or interference.
 - (v) The universal joint is worn, faulty or shows repairs that were obviously welded.
 - (vi) The front axle beam or steering components are cracked or show repairs that were obviously welded.

- (3) Inspect the suspension system and **REJECT IF** one or more of the following apply:
- (i) The ball joint movement is in excess of the manufacturer's specifications.
 - (ii) The shock absorbers are missing.
 - (iii) The shock absorbers mounting bolts or mounts are broken.
 - (iv) The shock absorbers have severe leakage—not slight dampness.
 - (v) The sway or stabilizer bar is missing or broken, if originally equipped.
 - (vi) The coil spring or main leaf spring is broken.
 - (vii) The spring attaching part is loose, badly worn, broken or missing.
 - (viii) The king pin movement is in excess of 1/4 inch on rims less than 20 inches in diameter.
 - (ix) The king pin movement is in excess of 1/2 inch on rims 20 inches in diameter or larger.
 - (x) A torsion bar spring is broken.
 - (xi) A part of a torque, radius or tracking component assembly or a part used for attaching the same to the vehicle frame or axle is cracked, loose, broken or missing. This subparagraph does not apply to loose bushings in torque or track rods.
 - (xii) The air suspension is leaking or deflated.
- (4) Inspect the floor and **REJECT IF** any of the following apply:
- (i) The floor bed or inner panels have openings which would allow exhaust gases to enter either occupant compartment or trunk.
 - (ii) The floor bed is not sufficient to hold the weight of the driver, passengers and cargo.
- (5) Inspect the vehicle frame and **REJECT IF** one or more of the following apply:
- (i) The vehicle frame is not in solid condition.
 - (ii) The repairs are made with tape, tar paper or cloth or are made in another temporary manner.
 - (iii) The frame components are missing cracked, rotted, or broken, or are in a deteriorated or dangerous condition.
 - (iv) An adjustable axle assembly has locking pins missing or not engaged.
- (6) Inspect the exhaust system and **REJECT IF** one or more of the following apply:
- (i) The vehicle has no muffler or noise suppressing system or the muffler has external repair.
 - (ii) There are loose or leaking joints.
 - (iii) There are holes, cracks or leaking seams in exhaust system.
 - (iv) There is a muffler cutout or similar device.
 - (v) Part of the exhaust system passes through the occupant compartments.
 - (vi) The elements are not securely fastened with proper clamps and hangers.
 - (vii) The exposed exhaust system does not have an adequate heat shield or protective system.
 - (viii) The exhaust does not discharge to the outside edge of the vehicle body, including a truck bed, or as originally designed.
 - (A) Reserved.
 - (B) Gasoline powered buses, including school buses. The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus. Until June 15, 1998, the tailpipe of the school buses may extend to, but not beyond the body limits on the left side of the school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.
 - (C) Buses, including school buses, powered by fuels other than gasoline. The exhaust system of a bus using fuels other than gasoline shall discharge to the atmosphere either at or within 15 inches forward of the rearmost part of the vehicle; or to the rear of all doors or windows designed to be opened, except windows designed to be opened solely as emergency exits. Until June 15, 1998, the tailpipe of school buses may extend to, but not beyond the body limits on the left side of the



school bus within 60 inches of the left rear wheel as measured from the center of the wheel axis.

- (7) Inspect the braking system. At least one front and one opposite rear wheel shall be removed. It is not necessary to remove the wheel and drum assembly if there is a removable backing plate that allows examination of the brake system. **REJECT IF** one or more of the following apply:

Note: The Department delayed the effective date of amendments to §175.110 (d)(7) at 29 Pa. B. 2577 (May 15, 1999), which deleted part of this section.

- (i) The hydraulic hoses or tubing leak; is flattened, restricted, insecurely fastened or improperly retained; or has exposed cords.
- (ii) The wheel cylinder leaks, has missing parts or is improperly retained or not functioning.
- (iii) The caliper leaks, has missing parts or is improperly retained or not functioning.
- (iv) The lining is broken; not firmly attached to the shoe; or is contaminated with oil, grease, or another substance that would affect proper brake operation.
- (v) There are leaks in air brake system valves, diaphragms or piston cups.
- (vi) The drums are scored deeper than .060 inch.
- (vii) The inside diameter of the drum is greater than the maximum diameter stamped on the drum or greater than .090 inch over the original drum diameter for unmarked drums less than 14 inches, or greater than .120 inch over original drum diameter for unmarked drums 14 inches or larger.
- (viii) The disc thickness is less than minimum stamped on the assembly or less than the manufacturer's specifications.
- (ix) The bonded linings are less than 2/32 inch at the thinnest point.
- (x) The riveted linings are less than 1/32 inch above the rivet head at thinnest point.

- (xi) The bolted lining is worn to less than 5/16 inch at the center of shoe.
 - (xii) The air pressure relief valve does not operate.
 - (xiii) The air compressor belts are worn, loose or frayed so as to prevent the proper operation of the compressor.
 - (xiv) The air intake cleaner is clogged so as to prevent proper air intake.
 - (xv) There is mechanical damage other than wear.
 - (xvi) A truck or truck-tractor with three or more axles manufactured after October 26, 1986, is not equipped with service brakes on all axles.
 - (xvii) A truck or truck-tractor with three or more axles manufactured between July 24, 1980 and October 27, 1986, is not equipped with service brakes on all axles after February 26, 1988.
 - (xviii) The brake hoses seep or swell under application of pressure.
 - (xix) The connecting hoses are improperly joined; for example, a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube.
 - (xx) One or more of the following are mismatched across a motor vehicle steering axle:
 - (A) Air chamber size.
 - (B) Slack adjuster length.
 - (C) Retracted push rod lengths differing by more than 1/2 inch.
- (8) Inspect critical body mounts and reject if one or more of the following apply:
- (i) Body mounts do not hold as required.
 - (ii) A body mount is broken, cracked, deteriorated or missing.
- (9) Inspect the fuel system and **REJECT IF** one or more of the following apply:
- (i) There is fuel leakage.
 - (ii) Part of system is not securely fastened.
 - (iii) The system is not properly routed.



(e) Road Test - Perform a road test and REJECT IF one or more of the following apply:

- (1) The parking brake fails to exhibit normal resistance when an attempt is made to move the vehicle both forward and backward from a stopped position.
- (2) The automatic transmission will not hold in the park position.
- (3) The vehicle is not capable of stopping within the maximum stopping distance prescribed in Table I or swerves so that any part leaves the 12-foot lane.
- (4) There is a malfunction of braking or steering mechanism—particularly shimmy, wander, pull—or another questionable operating behavior that affects the safe operation of vehicle.
- (5) The speedometer does not operate.
- (6) The odometer does not operate, except a motor vehicle at least 25 years old or a vehicle over 17,000 pounds registered gross weight.
- (7) The vehicle cannot be driven both forward and backward.

175.112. [RESERVED].

175.113. [RESERVED].

