

VERMONT SCHOOL BUS PERIODIC INSPECTION MANUAL



State of Vermont
DEPARTMENT OF MOTOR
VEHICLES
120 State Street
Montpelier, VT 05603-0001



dmv.vermont.gov

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“With a commitment to excellence, the dedicated employees of DMV strive to provide the highest level of customer service through the administration of motor vehicle laws and the promotion of highway safety.”

Integrity, Accountability, Professionalism and Accuracy/Quality of Information are the DMV's Core Values.

Robert D. Ide, Commissioner

INTRODUCTION

TO: Inspection Station Owner/Operator

The procedure outlined herein should be carefully studied and frequently reviewed by your entire organization. Be thoroughly familiar with all the provisions, regulations and laws contained herein, as full compliance will be required of all concerned.

Failure to comply with all provisions, regulations and laws pertaining to motor vehicle inspection may result in the assessment of administrative penalties, a fine and/or suspension of the mechanic's certification or the appointment of an inspection station.

It is the responsibility of the station owner and/or operators to maintain this manual in an up-to-date manner at all times for the use of inspection personnel. Examine all correspondence immediately upon arrival from this Department, as this is our primary method of keeping you informed of important changes or additions to the regulations.

YOUR STATION NUMBER OR MECHANIC'S CERTIFICATION NUMBER should be placed on all correspondence pertaining to inspections and such communications should be addressed to:

Agency of Transportation
Department of Motor Vehicles
Enforcement & Safety Division
Inspection Unit
120 State Street
Montpelier, VT 05603-0001

Any inspection station or mechanic needing assistance may contact the Department of Motor Vehicles between 7:45 A.M. and 4:30 P.M. on Monday through Friday, except holidays.

For Information on Station Appointment, Mechanic Certification, Inspection Procedures and Regulations and Inspection Stickers, call the Inspection Unit at (802) 828-2094.

**Vermont
Law
Regarding
Motor
Vehicle
Inspection**

VERMONT LAW REGARDING MOTOR VEHICLE INSPECTION

23 V.S.A. §4 (34), (64) and (65) ~ Definitions

- (34) (A) "School bus" means any motor vehicle used to transport children to or from school or in connection with school activities, except:
- (i) Buses operated by common carriers who incidentally accept school children as passengers;
 - (ii) Private motor vehicles used to carry members of the owner's household. For the purposes of this Section, private motor vehicle means a vehicle neither owned nor leased by a public school or an approved independent school;
 - (iii) Private motor vehicles used to transport children without compensation. For the purposes of this Section, compensation means payment in any form except reimbursement for mileage or the normal salary paid to a person otherwise employed by the school.
 - (iv) Motor vehicles with a manufacturer's rated seating capacity of fewer than 11 persons, including the operator, which are owned, leased or hired by a school, or for which services are reimbursed by a school. However, if used to transport students, these shall be considered a Type II school bus for purposes of licensure, shall display an identification sign as prescribed in subdivision 1283(a)(1) of this title, and shall be equipped with a simple system of at least two red alternating warning lights; unless the driver is a school employee or a volunteer subject to a criminal background check and is transporting no more than five persons excluding the operator; provided that the vehicle has safety belts for all persons being transported;
 - (v) Motor coaches provided with a driver to a school on a single-trip or multi-trip contract basis to provide transportation to or from, or to and from, athletic or other special events. A motor coach is a vehicle at least 35 feet in length with a manufacturer's rated seating capacity of more than 30 passengers and is designed for long distance transportation of passengers, characterized by integral construction with an elevated passenger deck located over a baggage compartment. Pursuant to 16 V.S.A. §255, a superintendent or headmaster shall request criminal record information for a driver of a motor coach if the driver may be in unsupervised contact with schoolchildren;
 - (vi) Multifunction school activity buses, as defined in Section 1287 of this title, provided with a driver to a school on a single-trip or multi-trip contract basis to provide transportation to or from, or to and from, athletic or other

special events. Pursuant to 16 V.S.A. §255, a superintendent or headmaster shall request criminal record information for a driver of a multifunction school activity bus if the driver may be in unsupervised contact with schoolchildren;

(vii) Other multifunction school activity buses as defined in Section 1287 of this title.

(B) "Type I school bus" means a school bus designed to transport more than 15 passengers, including the operator.

(C) "Type II school bus" means a school bus designed to transport more than 10 and less than 16 passengers, including the operator.

(64) Commercial Fleet Inspection Station shall mean a company or business that has been designated by the Commissioner as an official commercial fleet inspection station, provided it has 10 or more motor vehicles registered in the name of the company or business, and meets all the requirements for designations as an Official Inspection Station. Commercial fleet inspection stations shall be authorized to inspect only those vehicles registered to the company or business.

(65) Municipal fleet inspection station shall mean a municipality that has been designated as an official municipal fleet inspection station, provided it has motor vehicles registered in the name of the municipality and meets all the requirements for designation as an Official Inspection Station. Municipal fleet inspection stations shall be authorized to inspect only those vehicles registered to a municipality.

23 V.S.A. §1001(a)(1) ~ Regulations

(a) The commissioner may make regulations:

(1) Relating to motor vehicle equipment in all cases where its use is not defined in this title and whenever the use or nonuse, contrary to the regulation, in the judgment of the commissioner, may render the operation of the motor vehicle hazardous or unlawful;

23 V.S.A. §1125 ~ Obstructing Windshields

(a) No person shall paste, stick, or paint advertising matter or other things on or over any transparent part of a motor vehicle windshield, vent windows, or side windows located immediately to the left and right of the operator, nor hang any object, other than a rear view mirror, in back of the windshield except as follows:

(1) In a space not over four inches high and 12 inches long in the lower right-hand corner of the windshield;

- (2) In such space as the commissioner of motor vehicles may specify for location of any sticker required by governmental regulation;
 - (3) In a space not over two inches high and two and one-half inches long in the upper left-hand corner of the windshield;
 - (4) by persons employed by the federal, state, or local government and volunteer emergency responders operating authorized emergency vehicles who may place any necessary equipment in back of the windshield of the vehicle, provided the equipment does not interfere with the operator's control of the driving mechanism of the vehicle;
 - (5) On a motor vehicle that is for sale by a licensed automobile dealer prior to the sale of the vehicle, in a space not over three inches high and six inches long in the upper left-hand corner of the windshield, and in a space not over four inches high and 18 inches long in the upper right-hand corner of the windshield;
 - (6) The commissioner may grant an exemption upon application from a person required for medical reasons to be shielded from the rays of the sun and who attaches to the application a document signed by a licensed physician or optometrist certifying that shielding from the rays of the sun is a medical necessity. The physician or optometrist certification shall be renewed every four years. However, when a licensed physician or optometrist has previously certified to the commissioner that an applicant's condition is both permanent and stable, the exemption may be renewed by the applicant without submission of a form signed by a licensed physician or optometrist. Additionally, the window shading or tinting permitted under this subdivision shall be limited to the vent windows or side windows located immediately to the left and right of the operator. The exemption provided in this subdivision shall terminate upon the sale of the approved vehicle and at that time the applicable window tinting shall be removed by the seller. Furthermore, if the material described in this subdivision tears or bubbles or is otherwise worn to prohibit clear vision, it shall be removed or replaced.
- (b) The rear side windows and the back window may be obstructed only if the motor vehicle is equipped on each side with a securely attached mirror, which provides the operator with a clear view of the roadway in the rear and on both sides of the motor vehicle.

23 V.S.A. §1221 ~ Condition of Vehicle

A motor vehicle, operated on any highway, shall be in good mechanical condition and shall be properly equipped.

23 V.S.A. §1222 ~ Inspection of Registered Vehicles

- (a) Except for school buses which shall be inspected as prescribed in Section 1282 of this title and motorbuses as defined in subdivision 4 (17) of this title which shall be inspected twice during the calendar year at six-month intervals, all motor vehicles registered in this state shall be inspected once each year. Any motor vehicle, trailer, or semi-trailer not currently inspected in this state shall be inspected within 15 days from the date of its registration in the State of Vermont.
- (b) The inspections shall be made at garages or qualified service stations, designated by the Commissioner as inspection stations, for the purpose of determining whether those motor vehicles are properly equipped and maintained in good mechanical condition. The charges for such inspections made by garages or qualified service stations designated to conduct periodic inspections shall be subject to the approval of the Commissioner. If a fee is charged for inspection, it shall be based upon the hourly rate charged by each Official Inspection Station or it may be a flat rate fee and, in either instance, the fee shall be prominently displayed beside the Official Inspection Station certificate. In addition, the official inspection station may disclose the state inspection certificate charge on the repair order as a separate item and collect the charge from the consumer.
- (c) A person shall not operate a motor vehicle unless it has been inspected as required by this Section and has a valid certification of inspection affixed to it. A person shall be subject to a fine of not more than \$5.00 if he or she is cited for a violation of this section within 14 days of expiration of the motor vehicle inspection sticker. The month of next inspection for all other motor vehicles shall be shown on the current inspection certificate affixed to the vehicle.
- (d) Notwithstanding the provisions of subsection (a) of this section, an exhibition vehicle of model year 1940 or before, registered as prescribed in section 373 of this title or a trailer registered as prescribed in subdivision 371(a)(1)(A) of this title shall be exempt from inspection; provided, however, the vehicle must be equipped as originally manufactured, must be in good mechanical condition, and must meet the applicable standards of the inspection manual.

23 V.S.A. §1223 ~ Prohibitions

A person shall not affix or cause to be affixed to a motor vehicle, trailer, or semi-trailer a certification of inspection that was not assigned by an official inspection station to such motor vehicle, trailer, or semi-trailer. No person shall reaffix or cause to be reaffixed an official sticker once removed; instead, replacement stickers shall be affixed as prescribed by the rules for replacement sticker agents. A person shall not knowingly operate a motor vehicle, trailer, or semi-trailer to which a certification of inspection is

affixed if the certification of inspection was not assigned by an official station to that vehicle, trailer, or semi-trailer.

23 V.S.A. §1224 ~ Inspection Certificates

For each inspection certificate issued by the Department, the designated station shall pay the Commissioner the fee required under Section 1230 of this title. All unused inspection certificates shall be returned to the Department within two months of the certificate's expiration date. A designated inspection station shall receive a refund for each unused certificate returned during the two-month period. If the station's designation is revoked or suspended under Section 1228 of this title, the station shall return all unused certificates to the Department and shall not receive a refund.

23 V.S.A. §1225 ~ Penalty

The Commissioner may suspend the registration of any motor vehicle, trailer or semi-trailer until the owner thereof complies with the requirements of this article.

23 V.S.A. §1226 ~ Reciprocity

The Commissioner may authorize the acceptance in this state of a certificate of inspection and approval issued in another state or province having inspection requirements similar to the requirements in effect in this state. He/she may extend the time within which a certificate of inspection shall be obtained in this state by the owner of a motor vehicle registered in this state and so inspected which was not in this state during the time an inspection was required.

23 V.S.A. §1227 ~ Certified Inspection Mechanics

- (a) Periodic inspections may be performed only by mechanics who have been certified by the commissioner; provided that an uncertified person employed as an inspection mechanic may perform inspections during the first 30 days that he or she is employed by the inspection station.
- (b) A person who applies for certification under this Section shall complete an application form prescribed by the commissioner, shall be at least 18 years of age, and shall pass an examination based on the official inspection manual for each type of vehicle to be inspected.
- (c) Applicants for certification under this Section shall be examined on the inspection requirements for each type of vehicle to be inspected. Upon satisfactory completion of the examination, the commissioner shall issue a certification which shall remain in effect for a period of five years or until surrendered, suspended or revoked.

Inspection Mechanics certified by their employer as competent to perform inspections and who were continuously employed by one or more designated inspection stations for a period of at least one year at any time prior to July 1, 1998 shall not be required to take the examination.

23 V.S.A. §1228 ~ Mechanic Certification; Inspection Designation; Revocation

Any certification for mechanic or designation as an inspection station may be revoked or suspended for cause as described in the official inspection manuals.

23 V.S.A. §1230 ~ Charge

For each inspection certificate issued by the Department of Motor Vehicles, the commissioner shall be paid \$6.00; provided that state and municipal inspection stations that inspect only state or municipally owned and registered vehicles shall not be required to pay a fee. All vehicle inspection certificate charge revenue shall be allocated to the transportation fund with one-half reserved for bridge maintenance activities.

23 V.S.A. §1231 ~ Administrative Penalties

- (a) The Commissioner may impose an administrative penalty of not more than \$500.00 for each violation against a designated inspection station or a certified inspection mechanic who violates the laws relating to the performance of periodic motor vehicle inspections or the official inspection manuals.
- (b) Each violation is a separate and distinct offense and, in the case of a continuing violation, each day's continuance may be deemed a separate and distinct offense. In no event shall the maximum amount imposed for a continuing offense exceed \$1,000.00.
- (c) The Commissioner shall adopt rules establishing categories of violations for which administrative penalties are to be imposed under this Section. Categories shall be based on the severity of the violation involved. Penalties assessed for each determination of violation of the inspection rules shall not exceed the following amounts per category:
 - (1) Category 1. Violation of state law relative to inspection – \$500.00
 - (2) Category 2. Violation of inspection rule (fraud related) – \$300.00
 - (3) Category 3. Violation of inspection rule (improper action) – \$250.00
 - (4) Category 4. Violation of inspection rule (records/equipment) – \$100.00

(5) Category 5. Violation of inspection rule (documentation) – \$50.00

- (d) The alleged violator shall be given notice and opportunity for a hearing. Service of the notice shall be sufficient if sent by first class mail to the station's address or the most recent address provided by the mechanic. The notice shall include the following:
- (1) A factual description of the alleged violation.
 - (2) A reference to the particular statute allegedly violated.
 - (3) The amount of the proposed administrative penalty.
 - (4) A warning that the person will be deemed to have waived his or her right to a hearing, that the penalty will be imposed if no hearing is requested within 15 days from date of notice and that failure to pay a penalty may result in suspension of his or her license.
- (e) A person who receives notice under subsection (d) of this Section shall be deemed to have waived the right to a hearing unless, within 15 days from date of the notice, the person requests a hearing in writing. If the person waives the right to a hearing, the Commissioner shall issue a final order finding the person in default and imposing the penalty.
- (f) The provisions of Sections 105, 106 and 107 of this title shall apply to hearings conducted under this Section.
- (g) The Commissioner may collect an unpaid administrative penalty by filing a civil action in Superior Court, or through any other means available to state agencies.
- (h) If a penalty is not paid within 60 days after it is imposed, the Commissioner may suspend any license, certificate, registration or permit issued under this subchapter.
- (i) The remedies authorized by this Section shall be in addition to any other civil or criminal remedies provided by law for violation of this subchapter.
- (j) Penalties assessed under this Section shall be deposited in the Transportation Fund.

23 V.S.A. §1247 ~ Approval of Lighting Devices

The manufacturer or distributor of each device or lens designed to control lights on motor vehicles shall apply to the commissioner for his approval of the use of such device or lens in this state. The commissioner shall make or cause to be made such laboratory and road tests of each device or lens submitted as he deems necessary, or he may adopt the approval or disapproval of such device or lens by the American Association of Motor Vehicle Administrators.

23 V.S.A. §1282(b) ~ Operator, Equipment and Inspection

A school bus shall not be operated in the transportation of children to and from school unless and until it is inspected at an inspection station designated as such by the Motor Vehicle Department. The inspection shall thoroughly cover mechanical conditions, standard equipment, extra equipment and safety and comfort conditions all as provided in section 1281 of this title; and, if the inspected vehicle meets all of these requirements, the inspection station shall give the owner or operator of the inspected vehicle a signed certificate so stating. This certificate shall be shown as soon as possible by the owner or operator to a school director in the town in which this vehicle is to be operated, and shall thereafter be carried in some easily accessible place in the vehicle. Thereafter, so long as this bus remains in this service, it must be re-inspected as provided in this Section during each of the following periods: July – August, November – December, and February – March. School buses of the pleasure car type, if regularly used in this service, shall display signs required in subdivision 1281(9) of this title when transporting schoolchildren.

23 V.S.A. §1283 ~ Identification and Equipment of School Buses

(a) Types I and II school buses shall be:

- (1) Identified with the words, "School Bus," printed in letters not less than eight inches high, located between the warning signal lamps as high as possible without impairing visibility of the lettering from both front and rear;
- (2) Painted National School Bus Glossy Yellow, except that the hood shall be either that color or lusterless black and the fenders shall be either that color or black. For Type II school buses, the requirements of this subsection and subdivision (a)(3) of this Section shall apply to any new bus ordered on or after January 1, 2000;
- (3) Equipped with bumpers of glossy black, unless for increased night visibility they are covered with a reflective material;
- (4) Equipped with a system of signal lamps approved by the commissioner, including an eight light system on any new or used school bus ordered on and after July 1, 1976. The driver of a Type I or a Type II school bus shall keep the alternately flashing red signal lamps lighted whenever school children are being received or discharged, and they shall be used only for that purpose. A school bus driver found in violation of this subdivision shall be guilty of a traffic violation;
- (5) (A) Equipped with a system of mirrors, if such a system is necessary to give the seated driver a view of the roadway to each side of the bus, and of the area immediately in front of the front bumper, in accordance with the following

procedure: When a rod, 30 inches long, is placed upright on the ground at any point along a traverse line 1 foot forward of the forward most point of a school bus, and extending the width of the bus, at least 7½” inches of the length of the rod shall be visible to the driver, either by direct view or by means of an indirect visibility system.

- (B) In addition, equipped with an inside mirror so located as to give the driver clear vision of the interior of the bus, and an outside mirror located on each side of the bus located so as to give an unobstructed view of the road to the rear; and
- (6) In compliance with the Federal Motor Vehicle Safety Standards for school buses as of the date of manufacture.
- (b) Any school bus meeting the identification requirements of (a)(1)(4) of this Section that is permanently converted for use wholly for purposes other than transporting pupils to or from school, or transporting organized groups of preschool or school age children, shall be painted a color other than National School Bus Glossy Yellow, and shall have the stop arm, if any, and equipment required by this Section removed.
- (c) Type I and Type II school buses being operated on a public highway and transporting primarily passengers other than school pupils shall have the words, "School Bus," covered, removed, or otherwise concealed, and the stop arms and equipment permitted by Section 1281a of this title shall not be operable through the usual controls.
- (d) No motor vehicle other than a school bus shall display the identifying equipment and signs required by this Section.

23 V.S.A. §1284 ~ Vehicle Maintenance

- (a) School buses shall at all times be maintained in a safe operating condition.
- (b) A systematic preventive maintenance program shall be established and records kept, which at all times shall be available for inspection by any enforcement officer.
- (c) School bus drivers shall perform daily pre-trip inspections of their vehicles and report immediately, in writing, to their supervisors, any defects or deficiencies discovered that may affect the safety of the operation of the vehicle or result in its mechanical breakdown.

23 V.S.A. §1287 ~ Multifunction School Activity Bus

- (a) "Multifunction school activity bus" is a vehicle which is used to transport students on trips other than on a fixed route between home and school, and which meets the construction and safety standards for a "multifunction school activity bus" adopted by rule by the National Highway Traffic Safety Administration.

- (b) If a school bus owns a multifunction school activity bus or leases on other than as provided in subdivision 4(34)(A)(vi) of this title, the driver shall be required to hold a license which includes a school bus driver's endorsement. The endorsement shall be a Type I or Type II endorsement as appropriate to the size of the vehicle.
- (c) A multifunction school activity bus may be a color other than National School Bus Yellow.



General Information

Handbook of Rules Governing Inspection of School Buses

GENERAL INFORMATION

INSPECTION OF REGISTERED VEHICLES

Every motor vehicle registered in this state shall be inspected at a station designated as an Official Inspection Station by an Inspection Mechanic certified by the Commissioner of Motor Vehicles and, if found to be unsafe or unfit for operation or improperly equipped, it must be put in a safe condition and properly equipped before an official sticker is placed on the windshield.

WHERE CAN REPAIRS BE MADE

It must be understood any motor vehicle owner is free to select his or her own Official Inspection Station, and is not obliged to have needed work done at the station where the inspection was made unless the owner or operator so desires.

FEES TO CUSTOMER FOR INSPECTION AND DOCUMENTATION OF REPAIR

Every Official Inspection Station shall provide an invoice to its customer when a Vermont Inspection Sticker is issued.

If a charge or fee is to be made for inspection, every Official Inspection Station shall post that fee or the hourly rate which is charged for the inspection and present an itemized bill or invoice to the owner or person presenting the motor vehicle for inspection, and such itemized bill shall contain the following information:

1. Charges for parts and materials installed for inspection.
2. Labor charge (to include time spent and hourly rate charged if charging by a posted hourly rate, whether or not the vehicle passed the inspection).
3. Flat rate fee if charging by a posted flat rate for inspection.

A copy of that itemized bill/invoice shall be maintained and available to any authorized agent of the Commissioner of Motor Vehicles for a period of three (3) years.

The sign posting the charge or the hourly rate for inspections shall be prominently posted near the station's certification as an Official Vermont Inspection Station.

REPORTS, CERTIFICATES AND SUPPLIES

1. The Department will furnish Official certificates, inspection stickers and official display posters. Additional supplies will be forwarded upon request.
2. For each inspection certificate (sticker) issued by the Department of Motor Vehicles, the statutory fee shall be paid to the Department of Motor Vehicles, except state and municipal inspection stations, when inspecting state and municipal vehicles.
3. All unused stickers must be returned before the end of the last day of February. For example, all unused 2011 stickers must be returned before February 28, 2012. If the unused stickers are not returned by this date you will be subject to a penalty as provided and no refund shall be issued.
4. Refunds will not be issued for used, voided, lost or stolen stickers.

STANDARD EQUIPMENT AND "PROPERLY EQUIPPED"

All motor vehicles shall be equipped with:

- Adequate shocks
- Brakes
- Headlamps
- Horn
- Lenses
- Muffler
- Number plate brackets
- Rear-view mirror
- Reflectors
- Directional signals (if manufactured or assembled after January 1, 1955)
- Tail lamps
- Tires
- Windshield
- Windshield wiper

All pleasure cars, motor trucks and motor buses, beginning with the manufacturer's model year of 1964, must be equipped with an adequate windshield defroster of a type approved by the Commissioner of Motor Vehicles. The Commissioner approves any standard defroster installed by the manufacturer of the vehicle.

- **Note:** All original factory installed equipment, or its approved after-market equivalent designed to enhance safety, must be operational at the time of inspection.
- **Note:** All motor vehicles must comply with Federal Motor Vehicle Safety Standards (FMVSS).



REQUIREMENTS FOR DESIGNATION: SPECIFICATIONS

APPLICATION FOR APPOINTMENT

1. Inspection Stations are appointed and mechanic's certifications are issued solely for the benefit of the motoring public. Before a certificate of appointment as an Official Motorcycle or Moped Inspection Station will be issued, an applicant must have an approved place of business. Recommendation for designation as an Official Motorcycle or Moped Inspection Station shall be made by a Motor Vehicle Inspector.
 2. All appointments are provisional and are conditional upon the proper conduct of the work and compliance with Department regulations as specified in this manual.
 3. All applications for appointment as an Official Inspection Station for each vehicle type and any changes to the station ownership, type of vehicles to be inspected or location must be submitted to the Department on a form provided by the Department and must be accompanied by a form provided by the Department indicating the station is compliance with the local zoning regulations.
 4. Inspection Stations and licensed replacement stations need to be physically located in Vermont.
 5. For appointment as an Official Inspection Station, the applicant must meet the following requirements:
 - a. For initial inspection station appointment only, an applicant has had no previous record of criminal convictions for extortion, forgery, fraud related crimes, larceny or embezzlement.
 - b. Applicant has had no previous record of willful violations of inspection laws or regulations in this or any other jurisdiction.
 - c. Applicant has had no civil judgments that are the result of willful intent to commit fraud or misrepresentation.
 - d. Applicant has no history of violations of issuing non-negotiable, insufficient funds, account closed or counterfeit checks within the past 5 years.
- **Note:** Upon designation, your certificate of authorization as an inspection station must be prominently displayed under glass or clear plastic. In addition the station shall prominently display an exterior sign with the words, "Official Vermont Inspection Station" on it. The letters must be at least four inches (4") high.

TOOLS AND EQUIPMENT REQUIREMENTS

Certain vehicle makes or models may require specific tools or devices unique to that vehicle in order to complete a proper inspection. It is the responsibility of the station owner or operator to be properly equipped and to use those tools or devices, if required, to inspect a specific type of vehicle. At a minimum, the following is required:

- **For new stations:** Automotive lift capable of hoisting whatever vehicle is undergoing inspection.
- Adequate Tools for General Repairs - As Required
- Approved Floor
- Approved Headlamp Aiming Device
- Approved Jacking Facilities
- Approved OBD-II Scan Tool – As Required
- Ball Joint Dial Indicator
- Computer software and hardware workstations authorized by the Commissioner to conduct electronic safety and emissions inspections.
- Tire Pressure Gauge
- Tire Tread Depth Gauge

CERTIFIED INSPECTION MECHANIC REQUIREMENTS

1. Any person conducting inspections must be 18 years of age or over and must be certified by the Commissioner. An uncertified person employed as an Inspection Mechanic may perform inspections during the first thirty (30) days that he or she is employed by the inspection station.
2. Individuals age 16 or 17 that have completed an approved vocational school Inspection Mechanic credentialing program may be issued a “provisional” inspection license. Upon being issued a provisional inspection license, these individuals may perform vehicle inspections; except for the vehicle road test (a fully Certified Inspection Mechanic must perform this test). Additionally, their inspection must be approved and signed off by a fully Certified Inspection Mechanic, vouching for their work. The provisional inspection license may be surrendered any time on or after the licensee’s 18th birthday in favor of a full certification.
3. The examination shall be an “open book” test and the applicant must answer eighty percent (80%) of the questions correctly in order to pass the examination.

4. At the discretion of a Motor Vehicle Inspector, a practical proficiency test (i.e. mock inspection) may be administered to any inspection mechanic applicant or previously certified inspection mechanic.

SPACE REQUIREMENTS

1. Available, level space within the approved area for inspection and repair is a requirement for obtaining and retaining an appointment as an Official Inspection Station. All inspections must be conducted in the approved area, unless specific regulations state otherwise.
2. "Inspection Area" is defined as "the designated space approved for inspection purposes". Approval cannot be granted, nor permitted to continue, unless full compliance of the following requirements are maintained.
 - a. A station using an approved headlamp testing machine or an approved mechanical aimer shall have at least twenty-five feet (25') of adequate floor within the approved area.
 - b. An adequate floor must not slope other than to the front or rear, as the vehicle would sit to be inspected. The rate of slope shall be uniform and no greater than three inches (3") in twenty-five feet (25').
 - c. When a standard headlamp-testing screen is to be used, there must be at least forty-five feet (45') of floor space within the approved area. The first twenty-five feet (25') shall be an adequate floor.
 - d. Floors must be hard surface of a type approved by the Department of Motor Vehicles (concrete or blacktop).
 - e. Lifts are permissible.
 - f. A center drain is permitted providing the sloped area on all sides of the drain is a uniform pitch and the floor is clearly marked to indicate where the vehicle must be parked for inspection.
 - g. Door tracks cannot be included in the space requirements.
 - h. Have a telephone line or internet connection to conduct electronic safety and emissions inspections.
3. Any trailer, semi-trailer or trailer coach may be inspected outside of the inspection station's building and need not be inside the building for inspection purposes.

HOURS OF OPERATION

Inspection Stations shall be ready to conduct inspections during normal business hours at any time during the year. This means the floor area used for inspection must be clean and clear of obstructions; guide lines painted, and all necessary equipment in place and ready for use.

REGULAR INSPECTION STATIONS

Each station shall, on the average, be open at least five (5) days a week for a total of at least thirty-five (35) hours per week, holidays and emergencies excepted. For the calculations of these hours, the period between 9:00 P.M. and 6:00 A.M. of any day shall not be counted. The Department may, upon determination of compelling need or exceptional circumstances, waive this requirement. The hours of operation shall be posted in a conspicuous manner. The station shall be subject to random visits by authorized agents of the Commissioner of Motor Vehicles.

A station may be closed temporarily, for example for an extended vacation, provided the owner or authorized agent obtains prior approval from the area Inspector and written notice is sent to the Inspection Unit.

FLEET INSPECTION STATIONS

A company or business may be designated as an Official Fleet Inspection Station, provided they have ten (10) or more motor vehicles registered in the name of the company or business, and meet all the requirements for designation as an Official Inspection Station. Fleet stations shall be authorized to inspect **only** those vehicles registered to the company or fleet.

Fleet stations need only be open the hours necessary for their operation, but if not open during normal business hours, they must post their days/hours of operation at some place readily visible to the Inspector or authorized agent.

TECHNICAL CENTER CREDENTIALING PROGRAM

Vermont DMV partners with several technical centers throughout Vermont who train students to become Certified Inspection Mechanics. Technical centers participating in the Vermont DMV credentialing program must be approved to conduct vehicle inspections prior to participating in the credentialing program. Technical centers must be approved in the same manner as regular inspection stations; however, they do not conduct inspections for the motoring public and are not provided inspection stickers for issuance. Technical centers approved for the credentialing program are not required to

post hours of operation or any type of fee, as these stations/training facilities exist solely for credentialing purposes.

INSPECTION STICKER SECURITY

Inspection stickers must be kept in a locked drawer, cabinet or other device that is not easily moved or portable when not being issued to prevent theft and limit access to only those persons authorized to inspect vehicles. The mechanism used to secure inspection stickers must be approved by an agent of the Commissioner.



STICKER REPLACEMENT AGENTS

Any firm doing a substantial business in the replacement of automotive windshields and desiring to act as an agent of the Department for the issuance of replacement inspection stickers shall make application for appointment and forward same to the Department. Application forms may be obtained from the Department. Each applicant shall be investigated, and appointment shall be made only if all the requirements are met. Application shall not guarantee appointment, and the Commissioner may consider the number of replacement sticker agents already within a given area compared to the number of registered motor vehicles in such location, and the volume of replacement windshield business done by the applicant in comparison with the cost to the state of setting up and stocking additional agents, and shall determine if added replacement sticker agents are needed or required.

The statutory fee for each inspection certificate (sticker) shall apply to replacement stickers.

RULES FOR REPLACEMENT STICKER AGENTS

Responsibility of Agents:

Any applicant for appointment as a replacement sticker agent shall agree as follows:

1. To act as an agent of the Department in issuing replacement stickers only on a replacement windshield when the original windshield has been destroyed or damaged.
2. To clearly mark replacement stickers with the work "REPLACEMENT" written on the back.

3. To insert the expiration month on the replacement sticker the same as the insert on the regular sticker it replaces.
4. Not to safety inspect the vehicle. The agent is only attesting to the fact a valid sticker was displayed on the original windshield.
5. To obtain replacement stickers only from the Department.
6. To copy all the information off the back of the original sticker onto the replacement, if possible, and write the number of the original sticker it replaces on the stub of the replacement. The agent shall also record the invoice number for the replacement windshield on the stub. The signature, station name and number recorded should be that of the replacement station.
7. To retain a copy of the invoice for the replacement windshield for which a replacement sticker has been issued for a period of one (1) year and make his/her records accessible to any Inspector or other authorized agent of the Commissioner or Law Enforcement Officer.
8. To fully comply with the rules relative to the replacement of stickers.
9. To make certain employees are thoroughly familiar with these rules and have up-to-date copies of them accessible on the premises.
10. To notify the Department of the names of all employees who are authorized to attach replacement stickers and of any changes in these authorized personnel thereafter, and not allow these persons to attach stickers except as provided in these rules.
11. To keep up-to-date, accurate records as requested by the Department, and make them accessible upon request.
12. To attach replacement stickers only on those vehicles whose windshields have been replaced and were found to have a valid sticker attached at the time of replacement.
13. To assume full responsibility for the security of all stickers provided.
14. Replacement stations must secure inspection stickers at all times when not in use, in a manner approved by the department.
15. Failure to comply fully with these rules may result in the suspension or revocation of the replacement agent's certificate of appointment and all replacement sticker privileges, in which case the agent shall forthwith return to the Department his/her certificate of appointment, all unused stickers, and all records pertaining to the issuance of replacement stickers. Failure to comply with this provision may disqualify the agent for re-appointment.

16. When a windshield is replaced and a valid inspection sticker is affixed, that valid inspection sticker shall be removed and destroyed.

REPLACEMENT BY OFFICIAL INSPECTION STATION

If an Official Inspection Station has originally inspected a vehicle and the windshield is subsequently damaged and replaced and the sticker on the old windshield is still valid, upon satisfactory proof the windshield has been replaced, the station will issue a replacement sticker clearly marked "REPLACEMENT" on the back of the sticker with the insert of the replacement sticker the same as the regular sticker which it replaces. The station shall copy all available information off the back of the old sticker onto the replacement sticker. No safety inspection of the vehicle shall be made when issuing a replacement sticker. The station issuing the replacement sticker shall write the number of the sticker replaced on the log of the replacement sticker and record both the original and replacement sticker numbers on the invoice for the windshield repair. The old sticker shall be removed and destroyed. The signature, station name and number recorded should be of the station replacing the sticker. The statutory fee shall apply to all replacement stickers.



GENERAL PROVISIONS

CHANGES: NAME, OWNERSHIP AND LOCATION

1. Any change in name, ownership or in location of any Official Inspection Station cancels the designation of that station, and the Department of Motor Vehicles Inspection Division must be notified immediately in writing.
2. An Inspection Station, upon going out of business, shall immediately return to the Department of Motor Vehicles the certificate of designation with all unused inspection stickers, numbers and complete inspection sticker log sheets on all inspections.

SUPPLIES (STICKERS – NUMERALS)

1. Stations should anticipate the necessity for additional supplies of inspection stickers. If it becomes necessary to request additional stickers, they must be obtained through the Montpelier office by telephone or mail. If someone appears in person to pick up stickers, they will be required to show proof of identification. The statutory fee per sticker must be paid prior to the issuance of any stickers.

2. All Official Inspection Stations are required to maintain the inspection log sheet form provided by the Department. The section of the log sheet pertaining to the book of stickers shall be completed upon receipt of that book of stickers. The information regarding each inspection shall be completed at the time of inspection.
3. A station shall not lend, give, sell or otherwise provide inspection stickers to any other station, nor borrow, purchase or otherwise acquire stickers from any other inspection station.
4. Glass replacement stations may retain the stickers and numerals for replacement during the full year and fleet stations may also retain the stickers and numerals to enable them to coordinate expiration of inspection for their fleet vehicles. When a windshield is replaced and a valid inspection sticker is affixed, that valid inspection sticker shall be removed and destroyed.
5. In order to receive the next year's stickers prior to the beginning of the new inspection year, the Department must be in receipt of the funds required to issue stickers. The station is responsible to have funds in the escrow account or to provide payment to the Department in time for the new stickers to be issued.
6. All inspection records, including invoices for repair and inspection, must be maintained by the Official Inspection Station for a period of three (3) years and made available upon request by an authorized agent of the Commissioner of Motor Vehicles.



DETAILED INSTRUCTIONS: PROCEDURES, REQUIREMENTS, ETC.

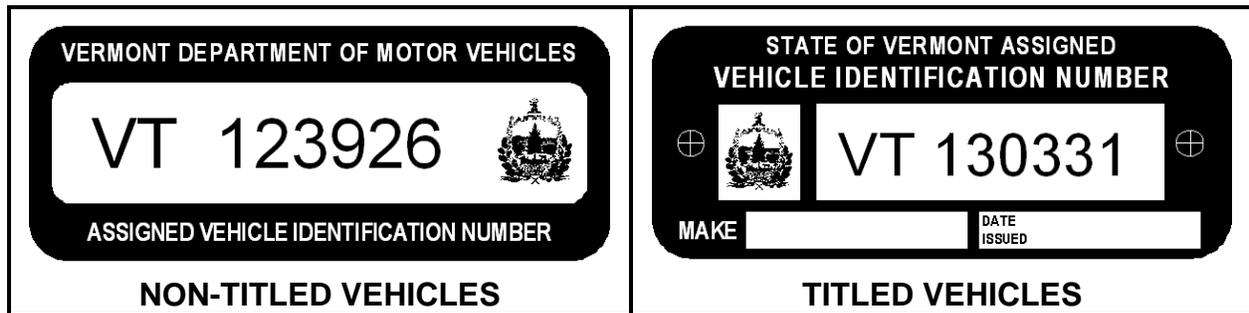
VERIFICATION OF VIN (VEHICLE IDENTIFICATION NUMBER)

1. When any part of the VIN on the registration certificate does not correspond exactly with the VIN attached to the vehicle, the vehicle **CANNOT** be inspected until the following is done:
 - a. Submit the incorrect certificate and the correct VIN.
 - b. Enclose fee for corrected certificate.
2. If the vehicle has no VIN or the VIN has been defaced, destroyed or detached, the owner must apply to the Department of Motor Vehicles, for an assigned Vermont Vehicle Identification Number. No official inspection sticker shall be attached to the

vehicle until the assigned VIN has been presented or attached in the manner prescribed.

3. Assigned Vehicle Identification:

- a. Assigned Number Tags: Must be obtained directly from the Department of Motor Vehicles.



- b. Attachment: Must be made by a Motor Vehicle Inspector or mechanic employed by an Official Inspection Station.

LOST PLATE

Whenever a registration plate has been lost, damaged, worn or faded to the extent that it is not plainly legible, the vehicle cannot be inspected until the following is completed:

1. Collect fee for duplicate plate.
2. Submit fee and request for replacement plate to the Department of Motor Vehicles.

REPLACEMENT FORMS

1. The duplicate registration form (TA-VL-15) can be obtained from the Department of Motor Vehicles via the submission of a Stockroom Order Form. Order forms can be obtained by calling (802) 828-2090.
2. Lost registration plate forms (TA-VD-16) can be obtained from the Department Of Motor Vehicles via the submission of a Stockroom Order Form. Order forms can be obtained by calling (802) 828-2090.

MANDATORY INSURANCE

Vermont is a mandatory insurance state. Refer to Section 1 ~ Registration and Insurance.

AUTOMATED VEHICLE INSPECTION PROGRAM

After a date to be established by the Commissioner, all inspections shall be conducted online to the Automated Vehicle Inspection Program (AVIP) database. No offline inspections will be permitted except as expressly authorized by the Commissioner.

Inspection Stations shall acquire their workstations from the designated vendor or as determined by the Commissioner.

An Inspection Station's workstation computer shall transmit the inspection data required by the Commissioner to the AVIP database.



GENERAL INSPECTION GUIDELINES

Unless statutes or regulations provide otherwise, original factory installed equipment, or equivalent replacement equipment shall be on vehicles. Where such equipment is in an unsafe condition, or does not function properly, it shall be repaired or replaced.

Any condition, part or assembly that fails to comply with the following requirements, or any other condition, part or assembly not specifically mentioned, but in an obviously unsafe condition or which constitutes a hazard to the safe and proper operation of the vehicle, shall be deemed sufficient justification to reject the vehicle for inspection until such condition or hazard has been corrected.

The following items must be thoroughly examined and checked to constitute an official inspection:

1. Body, Sheet Metal and Special School Bus Equipment
2. Brakes
3. Emission Control Systems
4. Exhaust System
5. Flaps and Fenders
6. Frame
7. Fuel System
8. Lighting and Electrical Systems
9. Registration and Insurance
10. Steering, Alignment and Suspension
11. Tires, Wheels and Rims
12. Vehicle Glazing (Glass)

Upon completion of the inspection, complete the inspection record and certificate of inspection and affix the inspection sticker to the school bus.

Schedule of Penalties and Suspension

SCHEDULE OF PENALTIES AND SUSPENSION

VIOLATIONS OF STATE INSPECTION REGULATIONS

DEFINITIONS

For the purposes of this Section, words and terms shall have the following meanings, unless the context clearly indicates otherwise:

- **Certificate of Inspection:** The non-transferable inspection sticker (and accompanying number of expiration month) which is issued by an Inspection Mechanic to a vehicle to certify the vehicle to which it is attached has successfully passed all the state's inspection requirements. All losses of certificates of inspection must be reported to the Department immediately. If for any reason a certificate of inspection (sticker) is voided it must be attached to the corresponding log sheet for the inspection book and returned to the Department along with the rest of the log sheet when the book is used or otherwise returned.
- **Department:** The Department of Motor Vehicles.
- **Hearing:** If an inspection station owner/operator, and/or Certified Inspection Mechanic wishes to contest a warning, administrative penalty or order of suspension he/she shall have a right to a hearing before a hearings examiner of the Transportation Policy and Hearing Section provided the inspection station owner or operator or Certified Inspection Mechanic submits a request for such hearing within fifteen (15) days of the notice, in writing, to the Agency of Transportation, Transportation Policy and Hearing Section, National Life Building, Drawer 33, Montpelier, VT 05633-5001. When a hearing is requested the warning, suspension or the administrative penalty shall be held in abeyance until the decision of the hearing, unless the Commissioner has cause to believe the inspection station or Certified Inspection Mechanic will continue to act in such a manner as to be detrimental to the state or any existing or potential customers, in which case the warning, suspension or administrative penalty shall become effective as indicated in the original order.
- **Inspection Area:** The specifically approved area of an inspection station inside a building in which all vehicle inspections must be conducted, unless prior approval has been obtained from the Department of Motor Vehicles. Trailers may be inspected outside the building. The road test must be conducted outside. The Inspection Area is also the only location at which the certificate of inspection shall be issued and affixed to the vehicle.

- **Inspection Books:** The books containing the certificates of inspection and accompanying log sheet. These books must immediately be returned to the Department when completely used or before the last day of February following the issue of new stickers, unless a fleet or replacement station or when expired or when the station is no longer in business or certified to inspect vehicles.
- **Inspection Fee:** If a fee is charged, it must be approved by the Commissioner and shall be determined by the time actually spent to complete the inspection multiplied by the posted hourly rate or be a posted flat rate fee based upon the average time to conduct a complete inspection. Costs of parts and time for repairs shall be recorded separately.
- **Certified Inspection Mechanic:** Any individual who is at least 18 years of age and has successfully completed the Certified Inspection Mechanic exam is qualified and capable of conducting safety inspections of the various kinds of vehicles and who actually conducts the state inspection of the vehicle for which he/she is qualified. The mechanic signing the inspection log sheet shall have conducted the inspection of the vehicle and be responsible for the road test. If the road test is performed by someone other than the inspecting mechanic, that person must hold a valid operator license in the proper class and/or endorsement for the vehicle being inspected and must sign the inspection log along with the inspecting mechanic. To inspect school buses, a School Bus Mechanic must possess a Commercial Driver's License with a Passenger ("P") Endorsement. Periodic inspections may be performed only by mechanics that have been certified by the Commissioner. An uncertified person employed as an Inspection Mechanic may perform inspections during the first thirty (30) days that he or she is employed by the inspection station, under the direct supervision of the station supervisor, or a certified mechanic.

Individuals age 16 or 17 that have completed an approved vocational school Inspection Mechanic credentialing program may be issued a "provisional" inspection license. Upon being issued a provisional inspection license, these individuals may perform vehicle inspections, except for the vehicle road test (a fully Certified Inspection Mechanic must perform this test). Additionally, their inspection must be approved and signed off by a fully Certified Inspection Mechanic, vouching for their work. The provisional inspection license may be surrendered any time on or after the licensee's 18th birthday in favor of a full certification.

- **Inspection Period:** Shall mean the two (2) month period within which a Certificate of Inspection may be issued. Example: Only a number "2" may be affixed during the period between January 1st and the last day of February; a number "4" between March 1st and April 30th; and so on for each of the six (6) periods.
- **Inspection Record:** The legible information log sheet attached to and including the certificate of inspection. The log sheet, sticker and OBD II form, if applicable must be completely and accurately filled out at inspection time.

- **Inspection Station License:** The certificate of designation issued by the Department to verify the facility is properly equipped and has adequate space and qualified personnel to conduct state inspection of vehicles as stated on the certificate. The license must be conspicuously displayed at the place for which it has been issued. It shall be valid only for the Official Inspection Station in whose name it has been issued and for transacting business only at the designated place.
- **Inspection Station Supervisor:** Any person designated by the inspection station owner to supervise/manage the operation of the respective inspection station.
- **Official Inspection Station:** A government agency owned or leased, or privately owned or leased facility designated and licensed by the Department to conduct state inspections of vehicles as stated on the license certificate.
- **Periodic Inspection Manual:** Those books, pamphlets, or bulletins distributed by the Department containing the rules that govern the action of Official Inspection Stations and Certified Inspection Mechanics to determine whether the motor vehicles are properly equipped and maintained in good mechanical condition.
- **Person:** A natural person, firm, co-partnership, association or corporation that owns the business to which the inspection station license has been issued.
- **Proof of Insurance:** Shall be one of the following:
 - ◆ An insurance identification card.
 - ◆ The declaration page from the policy or a photocopy of that page.
 - ◆ A temporary card or binder, or a photocopy of a binder.
 - ◆ A self-insurance card.
 - ◆ Evidence of a bond issued by a surety company.
- **Registration:** The authority for a vehicle to be operated on a public highway as evidenced by the issuance of an identifying certificate and plate or plates issued by a governmental entity. A temporary registration plate does qualify as a registration.
- **SAE:** The Society of Automotive Engineers International (SAE) is a professional organization for engineering professionals in aerospace, automotive and the commercial vehicle industries. The Society is a standards development organization for the engineering of powered vehicles of all kinds, including cars, trucks, boats, aircraft and others.
- **State Inspection Requirements:** All the rules as described in the Periodic Inspection Manual distributed by the Department, used for the purpose of

determining whether the motor vehicles are properly equipped and maintained in good mechanical condition.

- **Secure Location:** Shall mean a lockable desk, file cabinet, strongbox, safe or other non-portable similar device where all Certificates of Inspection shall be kept safe and secure when in the possession of an Official Inspection Station.
- **Suspend:** To withdraw temporarily by formal action of the Department any license, certification, registration, or privilege issued or granted by the Department. On the effective date, an Inspector shall pick up the following applicable items: any inspection stickers, logs and official inspection certificate from the station or mechanic whose designation has been suspended.
- **Revoke:** To withdraw permanently by formal action of the Department any license, certification, registration, or privilege issued or granted by the Department. On the effective date, an Inspector shall pick up the following applicable items; any inspection stickers, logs and official inspection certificate from the station or mechanic whose designation has been revoked.
- **VIN – Vehicle Identification Number:** A combination of numerals or letters or both which the manufacturer assigns to a vehicle for identification purposes or, in the absence of a manufacturer assigned number, which the Department assigns to a vehicle for identification purposes.
- **Serious Violation:**
 - (1) Three or more violations of Category 1, Category 2, Category 3 or Category 4, or any combination thereof, occurring during the same inspection of a single vehicle;
 - (2) Three or more violations of Category 1, Category 2, Category 3 or Category 4, or any combination thereof, occurring during the inspections conducted by a fleet inspection station during the same inspection period.

CAUSE FOR ADMINISTRATIVE PENALTY AND SUSPENSION

- **Schedule:** The complete operation of an inspection station shall be the responsibility of the owner. Failure to comply with the provisions of this Section will be considered sufficient cause for suspension of any or all Inspection Mechanic or inspection station certificates. Administrative penalties or suspensions may be imposed upon the inspection station or Inspection Mechanic, or both, that had primary responsibility for the violation. All requests for penalties or suspensions will be reviewed and approved by the Commissioner prior to being effectuated. An inspection station owner/operator or Certified Inspection Mechanic to whom an administrative penalty or suspension has been issued will be afforded the

opportunity for a hearing. In addition thereto, violators may be subject to criminal or civil prosecution.

- ◆ **Inspection Station:** After the full term of suspension has been served, inspection privileges will not be restored until an application for re-appointments has been reviewed and the station has been approved by the Department.
- ◆ **Certified Inspection Mechanic:** After the full term of suspension has been served, the Inspection Mechanic certificate shall be restored.
- **Warning:** The Department, or authorized agent of the Commissioner of Motor Vehicles in its discretion, may issue written warnings to the inspection station or Certified Inspection Mechanic for any violation in Category 2 through 5 inclusive. In either case, written documentation and a written acknowledgment of receipt of the warning must be submitted to the Department by the authorized agent of the Commissioner of Motor Vehicles. The warning receipt acknowledgment must be signed by the station owner, Certified Inspection Mechanic, operator or supervisor.
- **Subsequent:** Determination of second and subsequent violations is made on the basis of previous violations in the same category.
- **Multiple Violations:** In the case of multiple violations, considered at one time, the Department will impose separate penalties for each violation as required by schedule. However, in the case of multiple violations considered at one time, the Department may in its discretion, direct that any suspensions be served concurrently.
- **Sale of Business:** If an inspection station is currently suspended is sold or leased to a new owner, an application will be considered provided the suspended parties have no interest whatsoever in the new inspection station.
- **Failure to Pay the Administrative Penalty:** In the case of failure to pay an administrative penalty, the Department of Motor Vehicles shall mail a notice to the Inspection Station or Inspection Mechanic at their last known address notifying the inspection station or Inspection Mechanic failure to pay or otherwise satisfy the administrative penalty within sixty (60) days of the notice will result in suspension of the inspection certificate of the station and/or the mechanic, whichever is appropriate, until the penalty is paid in full or otherwise satisfied. The inspection station or Inspection Mechanic shall be entitled to a hearing if requested within fifteen (15) days.
- **Serious Violation:** The Commissioner may suspend, the certificate of the inspection station or the Inspection Mechanic or both, whichever is deemed appropriate by the Commissioner, in addition to the administrative penalty or penalties set forth in Categories 1 through Category 5, when a serious violation has occurred. Additionally, the Commissioner may revoke the inspection certification

from a mechanic who has been found to be stealing or fraudulently gaining stickers for his/her own use or illegal sale.



ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 1 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1 st Violation	2 nd Violation	3 rd Violation	4 th & Subsequent Violation
a.	Furnish, give, sell or attach a certificate of inspection without a complete inspection of the vehicle.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation
b.	Fraudulent recording of information on any and all inspection records to include certificate of inspection, log sheet and/or OBDII form.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation
c.	Performing or diagnosing unnecessary repairs for the purpose of inspection.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation
d.	Inspecting a vehicle at an unlicensed location.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation
e.	Inspecting an unregistered vehicle and/or a vehicle without approved proof of insurance.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation
f.	Failure of Replacement Sticker Agent to properly replace and affix certificate of inspection as required.	\$300.00	\$400.00 & 30 day suspension	\$500.00 & 6 month suspension	Revocation

- **Note:** Determination of second and subsequent violations is made on the basis of previous violations.

ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 2 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1st Violation	2nd Violation	3rd Violation	4th & Subsequent Violation
a.	Inspection of a vehicle not owned by and registered to the fleet inspection station.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
b.	Inspection by uncertified, unauthorized or suspended mechanic.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
c.	Inspecting a vehicle with missing registration certificate or registration plate or validation sticker(s) or unreadable registration plate.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
d.	Failure to verify VIN and registration information with vehicle or inspection of a vehicle with unreadable or missing VIN plate.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
e.	Faulty or incomplete inspection, inspecting a vehicle with inoperable, illegal or defective equipment.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
f.	Inspection of a vehicle in a facility without the required tools, equipment, space or any of the requirements of the provisions for designation.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
g.	Inspection of a vehicle of which the vehicle was taken on a road test by a mechanic with a suspended operator's license.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension

ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 2 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1 st Violation	2 nd Violation	3 rd Violation	4 th & Subsequent Violation
h.	Failure to return all Department materials to the Department immediately upon revocation, suspension, cancellation or discontinuance of business.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension
i.	Failure to comply with any of the provisions for inspection station designation.	\$120.00	\$220.00	\$300.00 & 30 day suspension	1 year suspension

- **Note:** Determination of second and subsequent violations is made on the basis of previous violations.

ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 3 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1st Violation	2nd Violation	3rd Violation	4th & Subsequent Violation
a.	Failure to produce inspection records or related work orders to the Department, or agent on request.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
b.	Failure to maintain inspection log, or improper, inaccurate or incomplete recording of information on inspection records.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
c.	Failure to assign correct expiration/date month on certificate of inspection.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
d.	Failure to conspicuously display inspection station license, hourly rate or flat fee rate.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
e.	Failure to notify the Department immediately in writing of changes of ownership, name or location affecting an Official Inspection Station.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
f.	Failure to report within two (2) business days of the loss or theft of certificate of inspection to the Department.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension
g.	Failure to immediately notify the Department of Motor Vehicles upon temporary or permanent closing of the inspection station or a change of business hours.	\$65.00	\$120.00	\$200.00 & 30 day suspension	6 month suspension

- **Note:** Determination of second and subsequent violations is made on the basis of previous violations.

ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 4 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1 st Violation	2 nd Violation	3 rd Violation	4 th & Subsequent Violation
a.	Failure to affix certificate of inspection to correct vehicle.	\$25.00	\$30.00	\$65.00	3 month suspension
b.	Loaning certificates of inspection to or borrowing certificates of inspection from another inspection station.	\$25.00	\$30.00	\$65.00	3 month suspension
c.	Failure to return unused inspection stickers before the end of February following the use of the next year's stickers.	\$25.00	\$30.00	\$65.00	3 month suspension

- **Note:** Determination of second and subsequent violations is made on the basis of previous violations.

ADMINISTRATIVE PENALTY AND DURATION OF SUSPENSION					
CATEGORY 5 VIOLATION					
TYPE OF VIOLATION		DURATION OF SUSPENSION			
		1 st Violation	2 nd Violation	3 rd Violation	4 th & Subsequent Violation
a.	Illegible recording of information on any and all inspection records to include certificate of inspection, log sheet and/or OBDII form.	Warning	\$10.00	\$25.00	30 day suspension
b.	Failure of 2 nd mechanic to sign log sheet when primary Inspection Mechanic's operator's license is under suspension or does not hold a valid class or endorsement on driver's license; or holds a provisional inspection license.	Warning	\$10.00	\$25.00	30 day suspension
c.	Failure to maintain and/or update station's Vermont Periodic Inspection Manual.	Warning	\$10.00	\$25.00	30 day suspension

- **Note:** Determination of second and subsequent violations is made on the basis of previous violations.



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Registration and Insurance

SECTION 1 – REGISTRATION AND INSURANCE

The first step in the inspection of a vehicle should be a short review of the registration, plates and insurance certificate.

▪ **Agreement Among Papers:**

Procedure:

Inspect registration certificate, license plates, vehicle description and vehicle identification number or numbers. Compare to determine if there is proper agreement among them.

Reject vehicle if:

1. Vehicle description or identification number is not in agreement with registration certificate.
2. Numbers on license plates are not in agreement with numbers on registration certificate.
3. Registration certificate is lost or missing.
 - **Note:** Vehicle registrations obtained via the Vermont DMV website are valid for a period of 10 days from the date of issue and serve as temporary registrations. These are permissible for inspection purposes.
4. If VIN tag on vehicle's dash area has been removed, tampered with or not visible.
 - **Note:** If the VIN has been removed or tampered with, contact your local Police Department to report it.

▪ **Plate Mounting And Condition:**

Procedure:

1. Inspect license plates to see they are securely mounted and are clean and clearly visible.
2. Ensure license plates are mounted horizontally.
3. Rear plate must be mounted in required position in order to be illuminated by rear plate light.
4. Ensure plates are clearly visible.

5. Ensure rear validation sticker is unobstructed and affixed in the lower right corner of the license plate.

Reject vehicle if:

1. License plates are hanging loosely from their mounting bracket or if the plate or plates are missing. (Refer to the preceding page for detailed instructions.)
2. Either the front or rear plate is missing, covered in a way that inhibits clearly viewing the numbers and letters, has been lost, damaged, worn or faded to the extent that it is not plainly legible, or otherwise not visible.

▪ **Insurance Certificate:**

Procedure:

Inspect for proof of insurance and ensure that the card properly describes the vehicle and owner. Examine the effective and expiration dates to determine if the policy is valid.

Reject vehicle if:

1. No insurance identification card, or
2. No declaration page from the policy or a photocopy of that page, or
3. No temporary card or binder, or a photocopy of a binder, or
4. No self-insurance card, or
5. No evidence of a bond by a surety company.
6. Information on card does not match vehicle and/or owner.
7. Insurance card is not in effect or has expired.



**Tires,
Wheels
and
Rims**

SECTION 2 – TIRES, WHEELS AND RIMS

Refer to the figures for visual aid in determining tire wear. This inspection is visual.

Equipment:

Tread depth-measuring gauge and tire pressure gauge.

Procedure:

1. Inspect for tire wear and proper tire pressure.

a. Tires **without** tread wear indicator:

Reject vehicle if:

Tire is worn so that less than 2/32" depth (for Type II bus) or 4/32" (for Type I bus) remains in any two (2) adjacent major grooves at three (3) locations spaced equally around outside of tire. (Figure 1) Measurements shall not be made where tie bars, humps or fillets are located (4/32" on tires on the front axle).

b. Tires **with** tread wear indicator:

Reject vehicle if:

Tire is worn so that the tread wear indicators contact the road in any two (2) adjacent major tread grooves at three (3) locations spaced equally around outside of tire. (Figure 2)

c. Inspect for cord exposure.

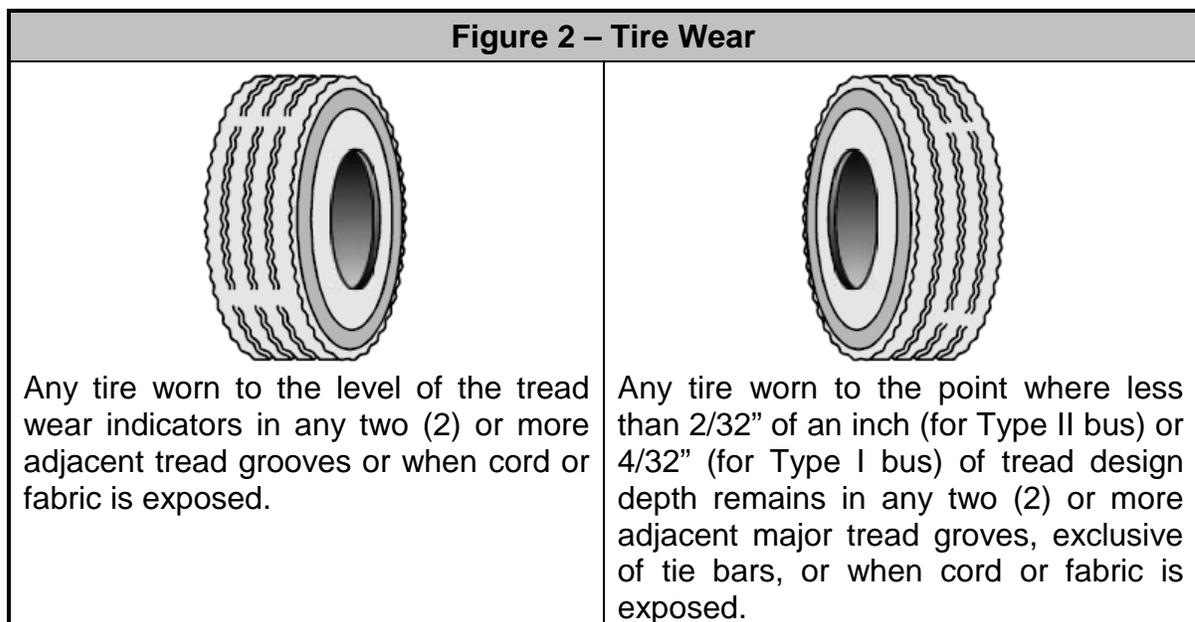
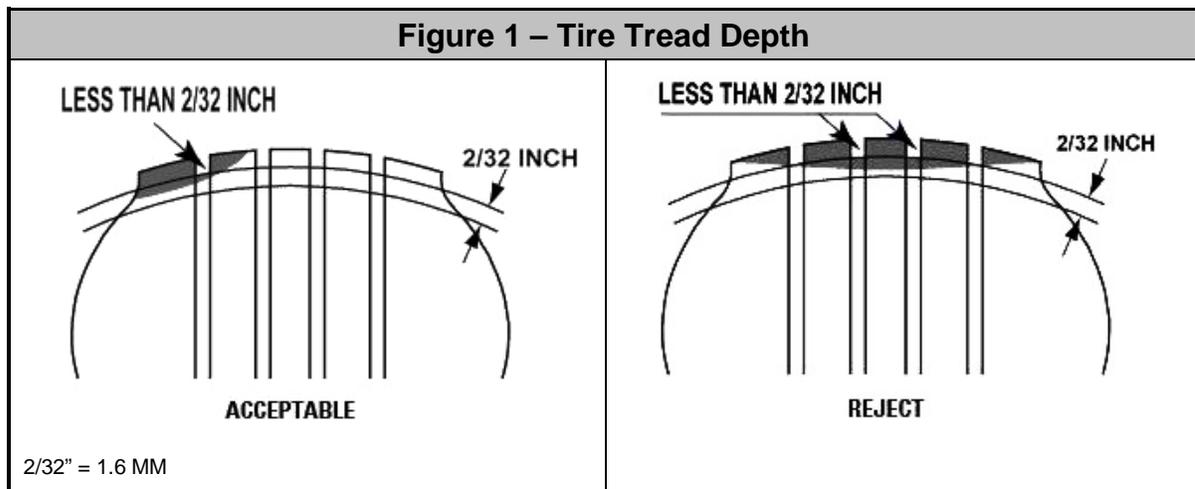
Reject vehicle if:

Tire has a worn spot that exposes the cord through the tread.

d. Inspect for proper air pressure.

Reject vehicle if:

Tire is underinflated.



2. Inspect for regrooved tires.

Procedure:

Visually inspect for regrooved or recut tread.

Reject vehicle if:

Tire has been regrooved or recut below the original grooved depth, except special tires with undertread rubber for this purpose (acceptable only if marked regroovable). (Not permitted on front axle.)

3. Inspect for reclassified tires.

Procedure:

Visually inspect for restricted usage marking on tires. (Reclassified tires.)

Reject vehicle if:

If any tire is marked "FOR FARM USE ONLY", "OFF-HIGHWAY USE ONLY" or "FOR RACING USE ONLY", etc.

4. Inspect for fabric breaks.

Procedure:

Visually inspect tires for boots, blowout patches and exposed or damaged body cords.

Reject vehicle if:

- a. If tire has an un-repaired fabric break or a break which has been repaired with a blowout patch or boot that is visible.
- b. If tire sidewall has damaged body cords.

5. Inspect for tire repairs or recaps.

Procedure:

Visually inspect front wheels for reinforcement repairs and recaps.

Reject vehicle if:

- a. If tire has a reinforcement repair to the cord body. (Allowable on tires in other than front positions on vehicles over 10,000 pounds (GVW).
- b. If recapped tire is used on front axle.

6. Inspect for bulges, knots or separations.

Procedure:

Visually inspect wheels for bulges, knots or separations.

Reject vehicle if:

If tire has visible bulges or knots indicating partial failure or separation of the tire structure.

7. Inspect valve stems.

Procedure:

Inspect for damage or cracks.

Reject vehicle if:

If valve stem is cracked or damaged or shows evidence of wear because of misalignment.

8. Inspect rims and lock rings.

Procedure:

Inspect for improper matching, condition, tightness of nuts and clamps and evidence of slippage.

Reject vehicle if:

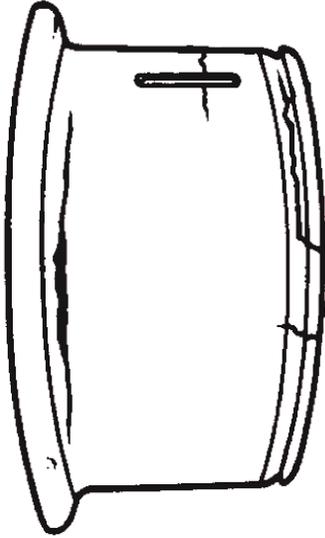
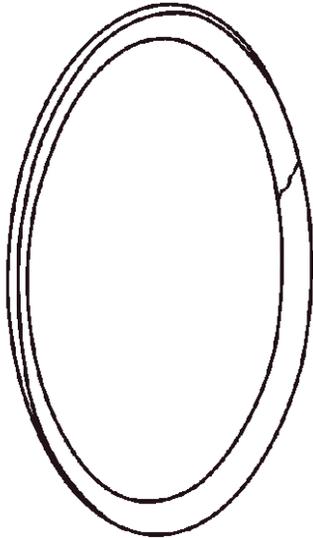
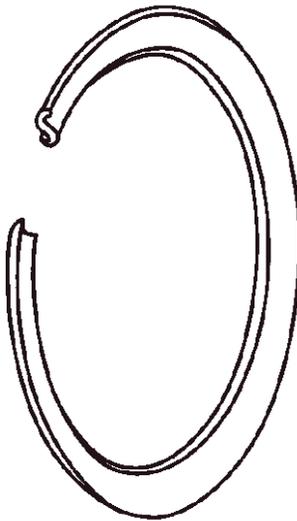
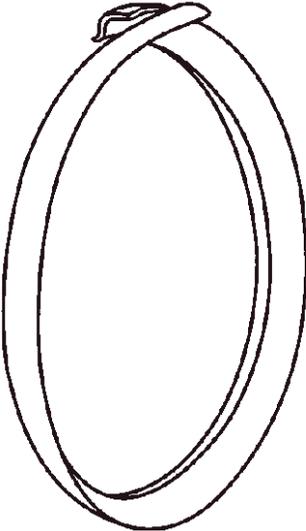
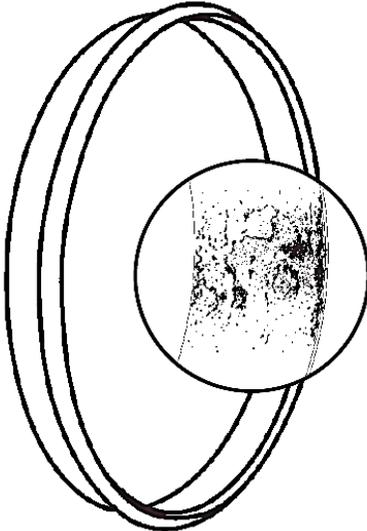
- a. If rims and rings are mismatched.
- b. If ring shows evidence of slippage or excessive rust or damage.
- c. If rims and/or rings are bent, sprung, cracked or otherwise damaged.
- d. If clamps or nuts are loose, damaged or missing. (Figures 3 – 7)

9. Inspect for equal tire size.

Reject vehicle if:

Tires on the same axle are not the same type construction or size.

- **Note:** As a general rule, do not mix different size tires on the same axle. However, it may be permissible to mount tires having different size descriptions (U.S. standard/metric) on the same axle when construction, dimensions and load capacity are compatible. Consult the manufacturer for specific permissible practice.

<p>Figure 3 – Example of Rim Base Cracks</p>	<p>Figure 4 – Example of a Crack Through a Side Ring</p>	<p>Figure 5 – Example of Cracked Split Side Ring</p>
		
<p>Figure 6 – Example of a Sprung Side Ring</p>		<p>Figure 7 – Example of Excessive Rust/Corrosion</p>
		

10. Inspect wheel nuts.

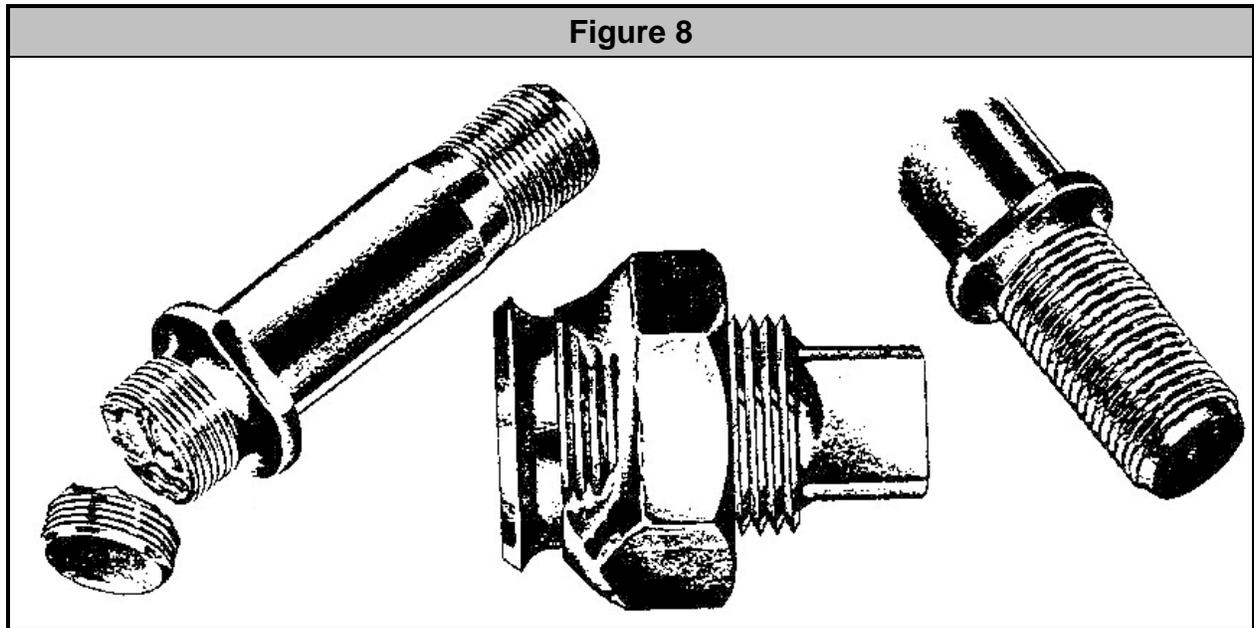
Procedure:

Check studs and/or clamps for tightness, general condition and thread engagement.

Reject vehicle if:

- a. If wheel nuts are loose or have improper thread engagement.

- b. If wheel nuts, studs, and/or clamps are broken, excessively rusted, missing or mismatched. (Figure 8)



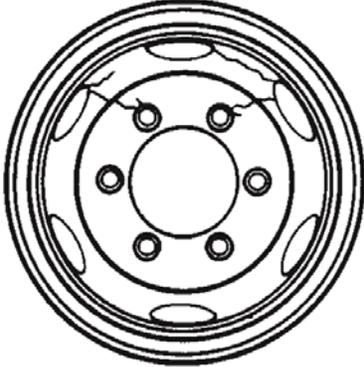
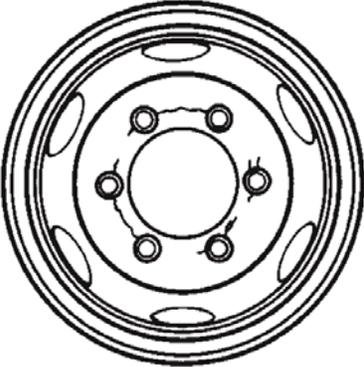
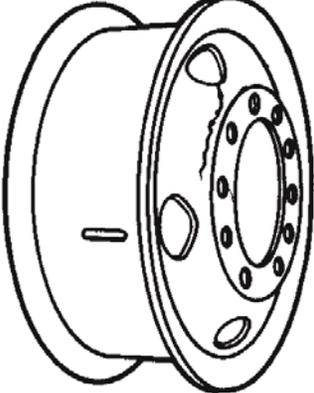
11. Inspect disc wheels.

Procedure:

Check for cracks and elongated stud holes.

Reject vehicle if:

- a. If stud holes are out-of-round.
- b. If there are cracks between the hand holes and/or stud holes in the disc. (Figures 9 – 11)
- c. If disc wheels show signs of welding for repairs of cracks.

Figure 9 – Example of Hand Hole to Hand Hole, Hand Hole to Bolt Hole and Hand Hole to Rim Cracks	Figure 10 – Example of Bolt Hole to Bolt Hole Cracks	Figure 11 - Example of Disc Nave and/or Hand Hole Cracks
		

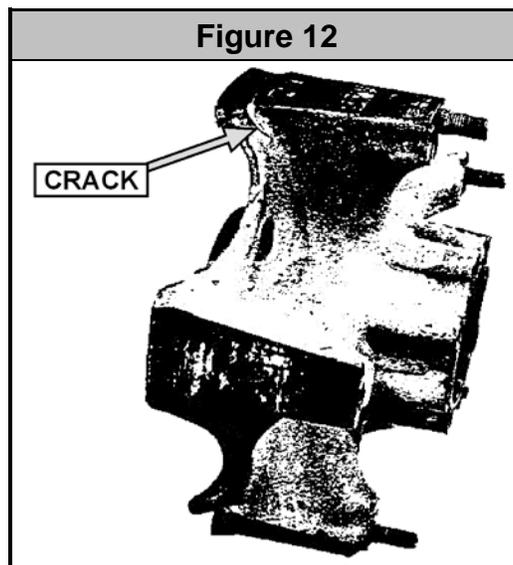
12. Inspect cast wheels.

Procedure:

Inspect for cracks in the casting.

Reject vehicle if:

- a. If the casting is cracked or there is evidence of wear in the clamping area. (Figure 8)
- b. If the casting show signs of welding for repairs of cracks.



13. Inspect wheel hubs and seals.

Procedure:

Check for leaking, contamination, cracks, broken and/or missing parts.

Reject vehicle if:

Hub has leaking, contaminated, cracked, broken and/or missing parts.



Steering, Alignment and Suspension

SECTION 3 – STEERING, ALIGNMENT AND SUSPENSION

The steering system of the vehicle must be inspected to determine if excessive wear, and/or maladjustment of the linkage and/or steering gear exist. On vehicles equipped with power steering, the engine must be running and the fluid level; belt tension and condition must be adequate before testing. (Figure 1)

1. Lash:

Equipment:

- Dial Indicator or (other ball joint gauge)
- Safety Stand
- Floor jack
- Steel Bar (lever)

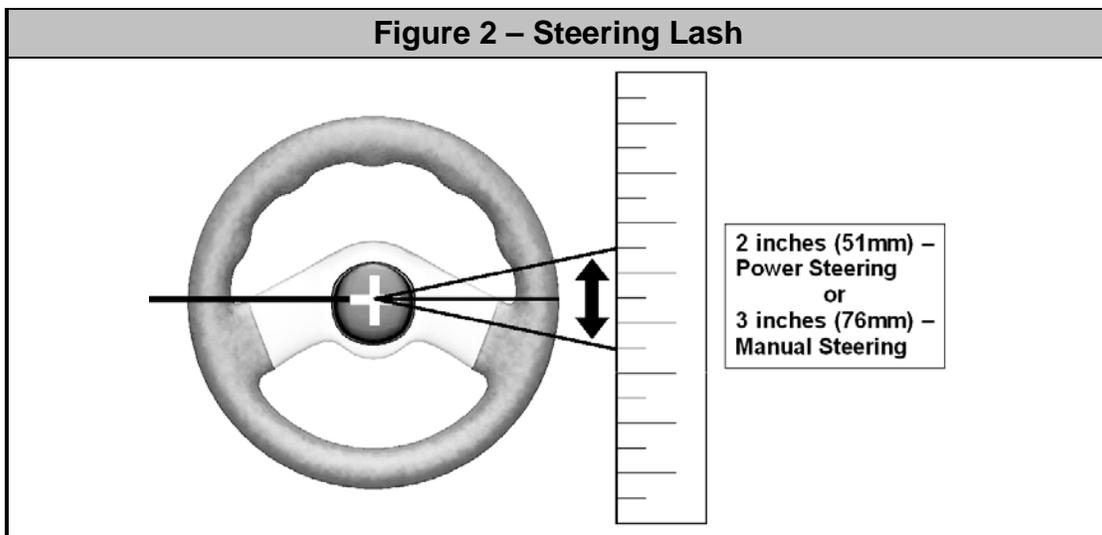
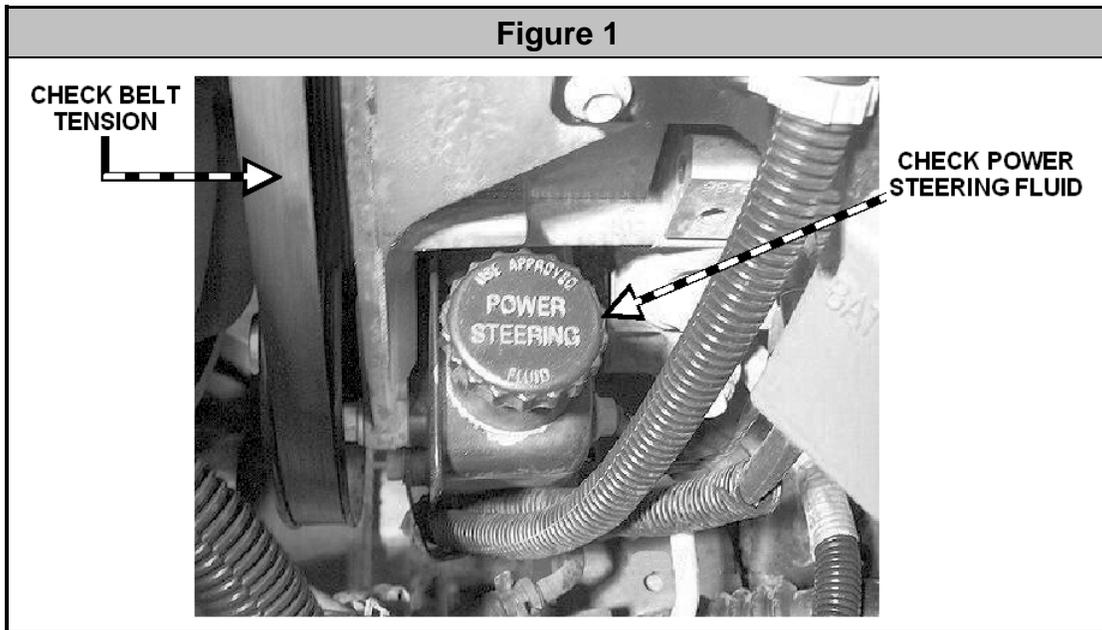
Procedure:

With road wheels in a straight-ahead position, turn steering wheel until the turning motion can be observed at the road wheels. (Figure 2)

Reject vehicle if:

If a total movement greater than shown in the following table is encountered at the steering wheel rim before the front road wheels indicate movement.

Manual Steering		Power Steering	
Steering Wheel Diameter	Lash	Steering Wheel Diameter	Lash
16" or less	2" (5.1 cm)	16" or less	4½" (11.5 cm)
18"	2¼" (5.4 cm)	18"	4¾" (12.0 cm)
19"	2½" (5.4 cm)	19"	5¼" (13.5 cm)
20"	2½" (6.4 cm)	20"	5¼" (13.5 cm)
21"	2¾" (7.0 cm)	21"	5¾" (14.5 cm)
22"	2¾" (7.0 cm)	22"	5¾" (14.5 cm)



2. Travel:

Procedure:

Lift one (1) front wheel off surface. Turn steering wheel through a full right and left turn and feel for binding or jamming conditions.

Reject vehicle if:

If front wheel is incapable of being turned to full right or full left without binding or interference.

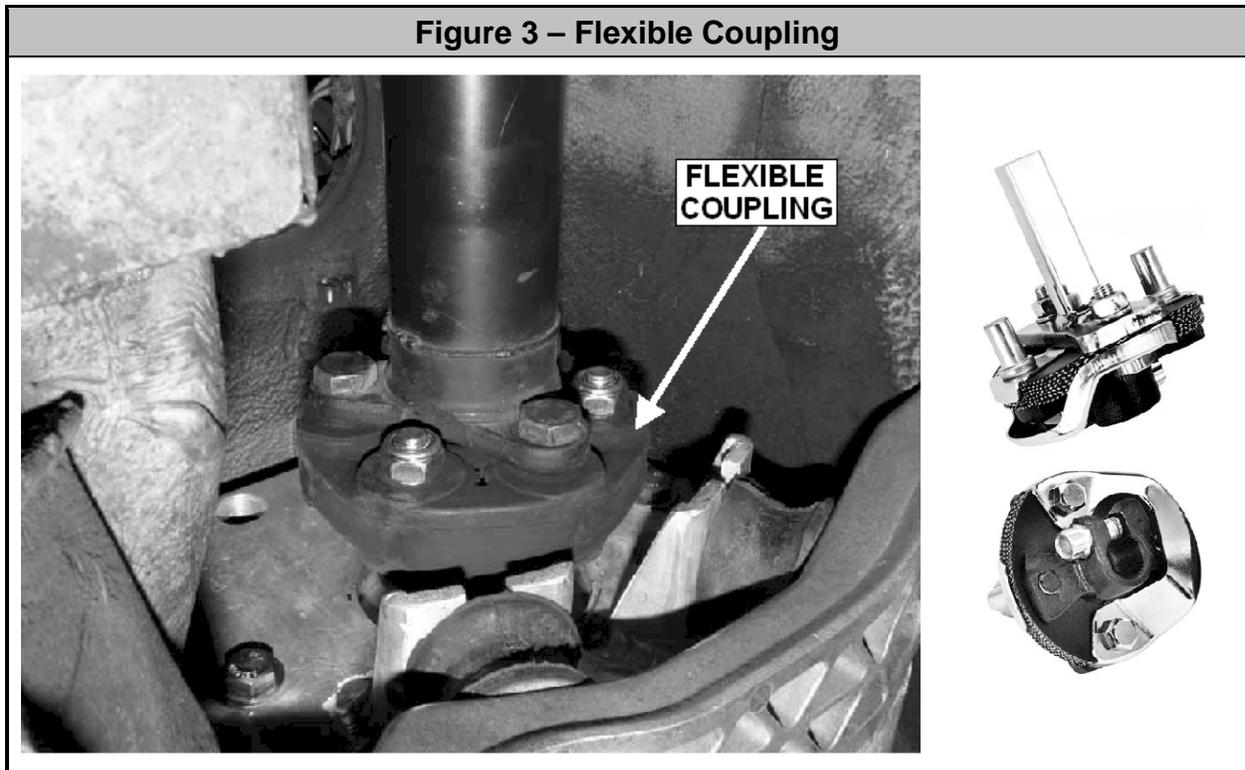
- **NOTE:** On some vehicles there may be a flexible connection in the steering column located just above the steering gear, usually know by names such as “rag joint” or “U joint”.

The energy absorbing steering column may be used on light vehicles, but seldom if ever on medium and heavy vehicles. If present, it should be inspected in the same manner as on a passenger car.

3. Steering column (heavy vehicle):

Procedure:

Inspect flexible coupling in steering column (if the vehicle is so equipped) for excessive misalignment and tightness of clamp bolt or nut. (Figure 3)



Reject vehicle if:

- a. The “rag joint” or “U joint” is badly misaligned. (Figures 4 and 5)
- b. Clamp bolt (nut) is loose or missing.

Figure 4 – “U Joint”

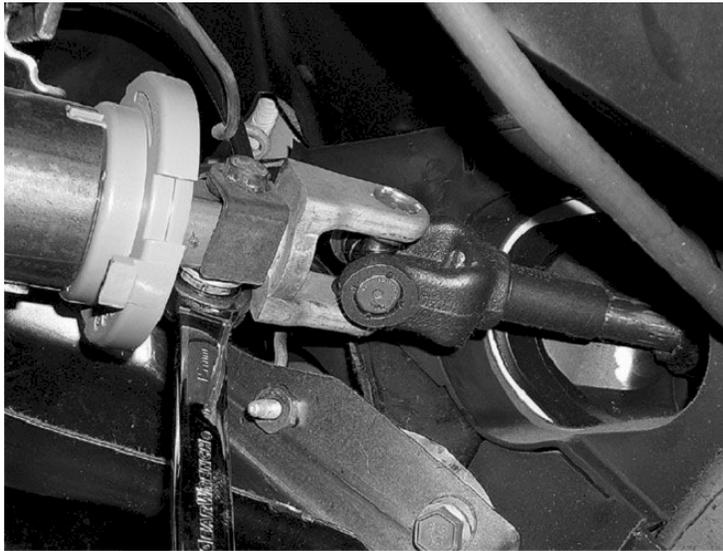
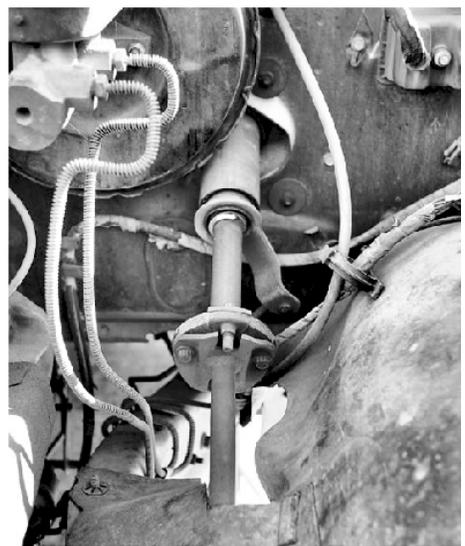


Figure 5 – “Rag Joint”

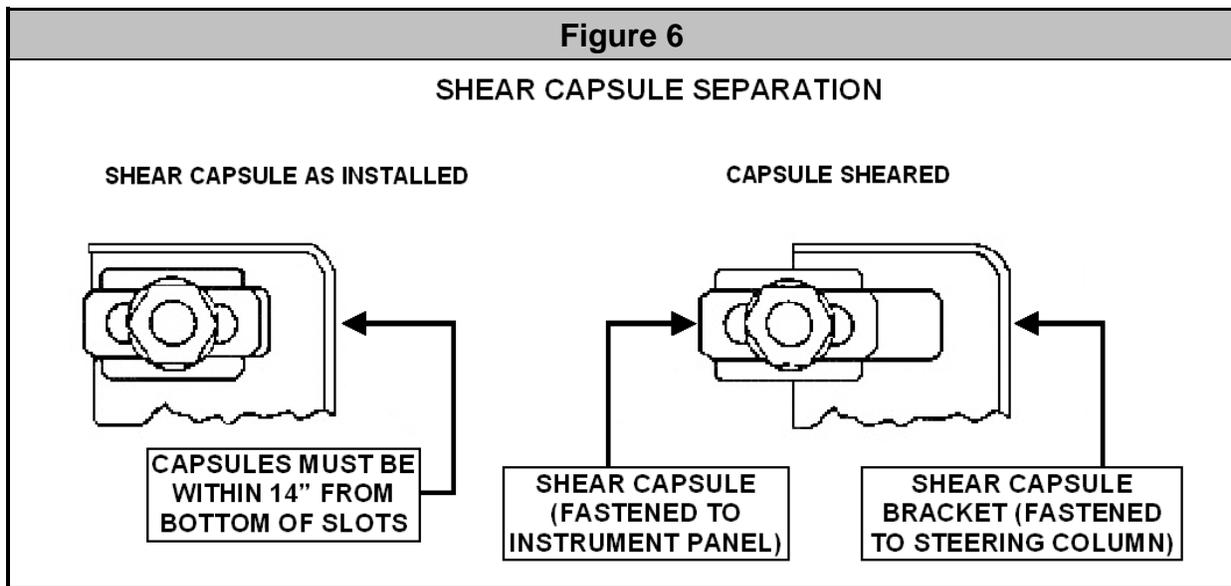


4. Energy absorbing steering column:

Many 1967 and all later model cars have been equipped with an Energy Absorbing Steering Column. This special column was designed to absorb energy by controlling the collapsing of its components. It collapses under impact from either end of the column steering gear end and/or steering wheel end. To determine if the components are capable of functioning as designed, a careful inspection should be performed.

Procedure:

Inside the passenger compartment, inspect for separation of shear capsule from bracket and general “looseness” of wheel and column. (Figure 6)

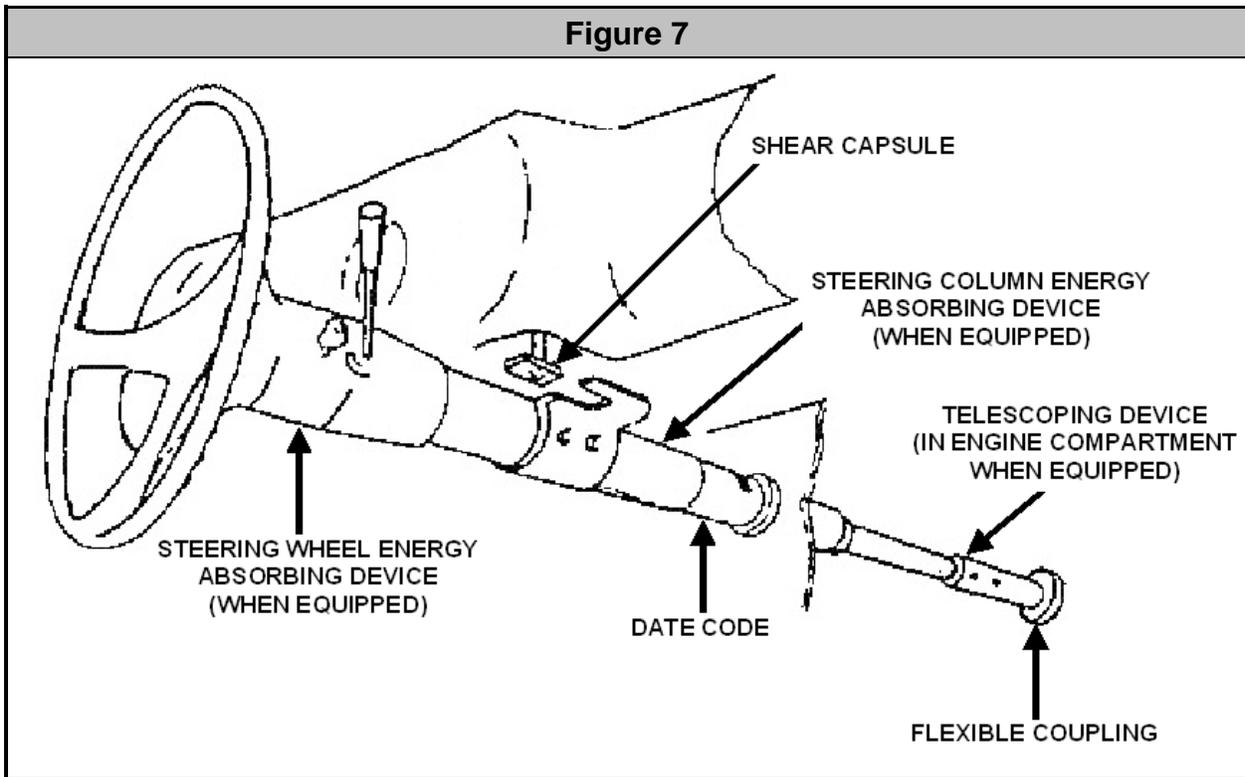


Reject vehicle if:

If shear capsule is separated from bracket, and/or if wheel and column can be moved as a unit.

- **Note:** There are too many variations of the energy-absorbing column's to be practically described in this handbook. It is, therefore, suggested that a representative of the manufacturer be consulted in case of detailed questions. The system may include one (1) or more of the four devices shown in Figure 7 and the simplest to inspect is the shear capsule. Some models, however, do not have shear capsules, in which case the above would not apply.

Figure 7

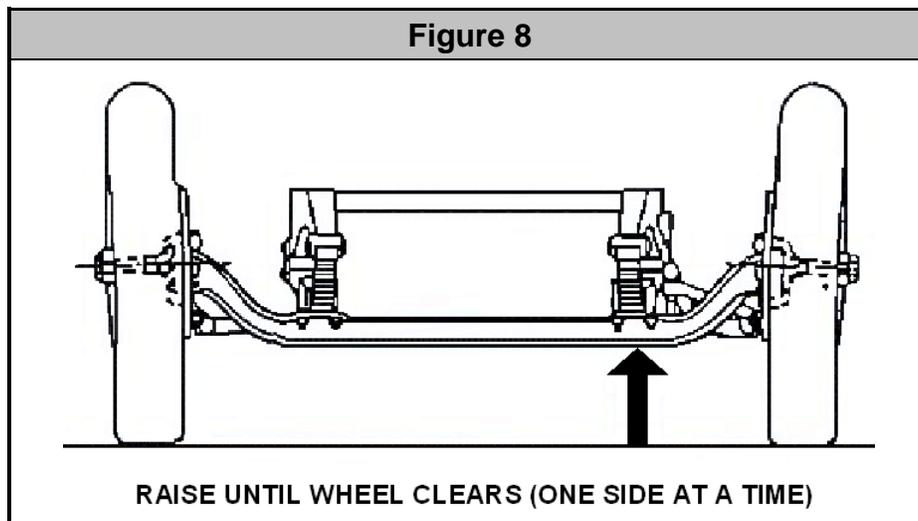


5. Front wheel bearings:

Loose wheel bearings can cause wander, erratic brake action, and noise from interference of parts.

Procedure:

With front end of vehicle lifted properly as in Figure 8, attempt to move wheel relative to the spindle by grasping tire top and bottom or by using a pry bar for leverage. Wheel bearing looseness is determined by relative movement between brake drum or disc and the backing plate or splash shield.



Reject vehicle if:

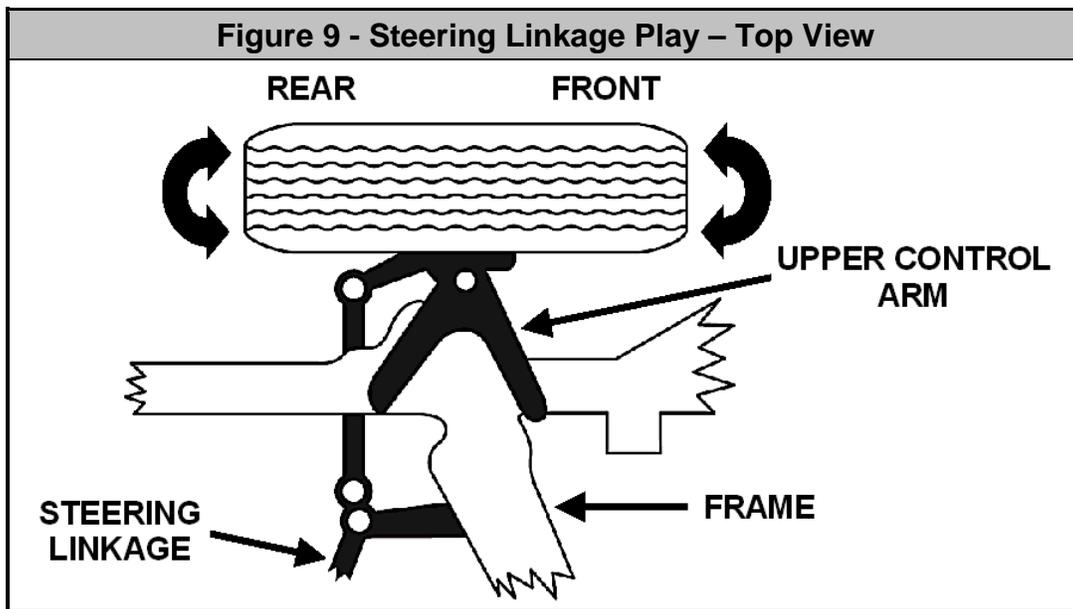
If relative movement between drum and backing plate (disc and splash shield) is more than the following measured at the outer circumference of the tire.

- a. One-eighth of an inch (1/8") (3 mm) for vehicles 10,000 lbs. GVWR or less.
- b. One-quarter of an inch (1/4") (6.4 mm) for vehicles more than 10,000 lbs. GVWR.

6. Steering linkage play:

Procedure:

- a. First eliminate all wheel bearing movement by applying service brake.
- b. With vehicle properly lifted as in Figure 9 and wheels in straight ahead position, grasp front and rear of tire and attempt to move assembly right and left.
- c. Turn wheel from full right to full left and return.
- d. Inspect pitman arm, drag link and tie rods.



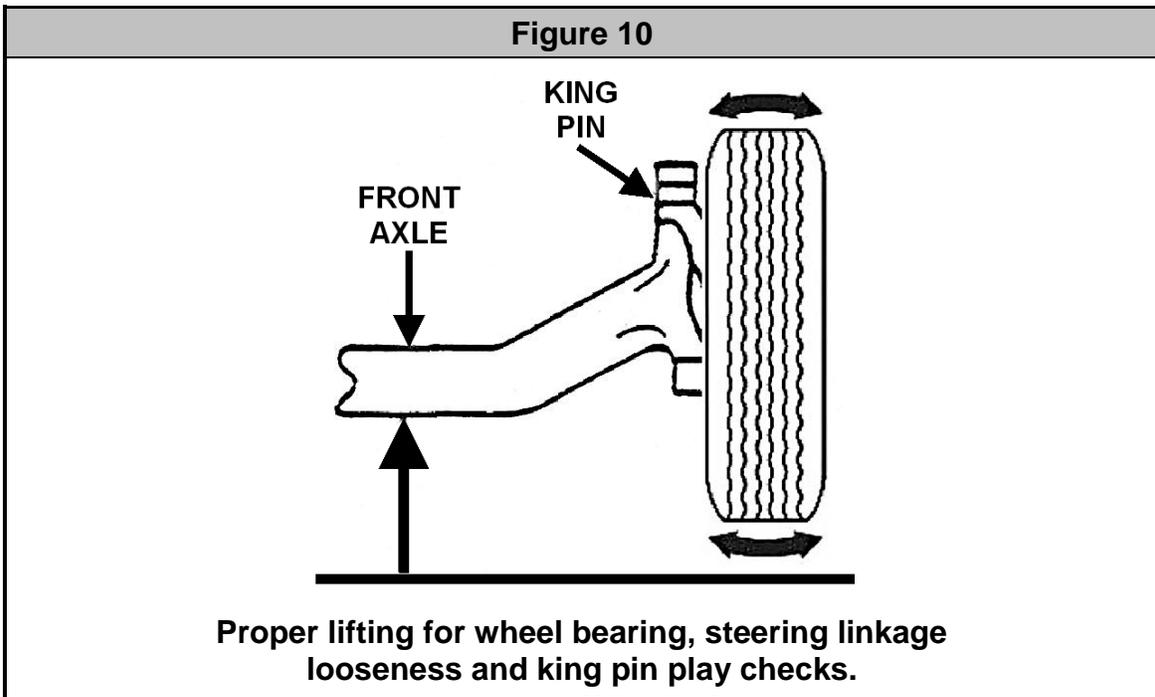
Reject vehicle if:

- a. If linkage, pitman arm, drag link or tie rods are loose or if joints are not secured with center pins or other devices.
- b. If steering stops allow tire to rub on frame, metal or other chassis parts.

7. Kingpin:

Procedure:

- a. Grasp top and bottom of tire (or use pry bar) and attempt to rock in and out to determine king pin looseness as in Figure 10.
- b. Measure the movement at top or bottom of tire at the outer circumference.



Reject vehicle if:

If measured movement at top or bottom of tire is greater than:

Wheel Diameter		
16" or less	–	¼" (6.5mm)
17" to 18"	–	3/8" (9.5mm)
Over 18"	–	½" (13mm)

8. Ball joint wear:

Procedure:

Inspect ball joint(s) per manufacturer's instructions.

Reject vehicle if:

Ball joint wear exceeds manufacturer's specifications.

9. Chassis, springs and attachments:

Procedure:

a. Inspect for broken or sagging suspension springs.

- b. Inspect spring shackles, spring center bolts, “U” bolts, clips and other attaching parts.

Reject vehicle if:

- a. If a broken spring is detected.
- b. If spring attaching parts are loose, badly worn, broken or missing.
- c. If spring shackle contacts frame.

10. Shock absorbers:

Procedure:

Inspect shock absorbers and mountings for oil leakage, condition of bushings and attachments.

Reject vehicle if:

- a. If there is evidence of excessive oil leakage.
- b. If rubber bushings are destroyed or missing.
- c. If mountings are loose, broken or missing.

11. Wheel tracking:

When measuring for tracking, the dimensions must be taken between wheel centers.

Equipment:

Steel measuring tape.

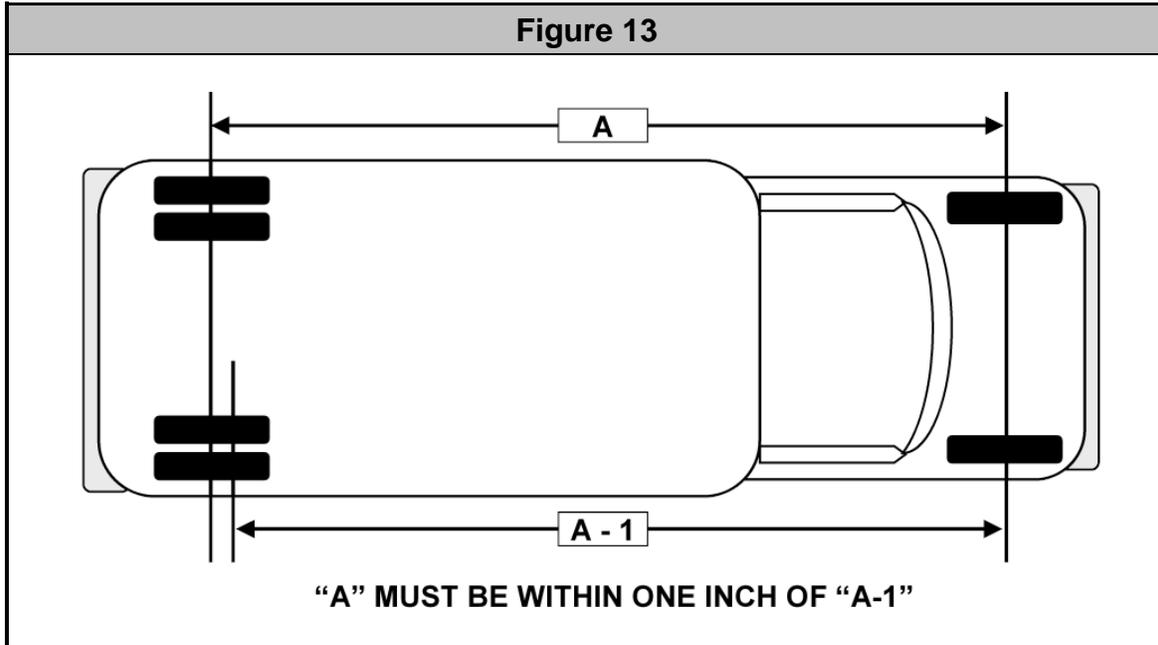
Procedure:

Measure distance between center of front wheels to center of rear wheels. Compare dimensions on right side against those on left. (Figure 13) (“A” must be within one inch [1”] of “A1”).

Reject vehicle if:

- a. If the dimensions between wheel centers on one side differ from similar dimensions on the other side by more than one inch (1”).

- b. If rear axle is obviously misaligned.



12. Power steering:

Procedure:

- a. Inspect power steering belts for proper condition and tension.
- b. Inspect power steering system including gear, hoses, hose connections, cylinders, valves, pump and pump mounting for condition, rubbing and leaks.
- c. Inspect power steering reservoir for fluid level at operating temperature.

Reject vehicle if:

- a. Belts are badly frayed or cracked on the underside of belts.
- b. Hoses or hose connections have been rubbed by moving parts or are leaking.
- c. Cylinders, valves or pump show evidence of leakage.
- d. Pump mounting parts are loose or broken.
- e. If fluid is below proper level.

13. Driveshaft protection:

Any driveshaft extending lengthways under the floor of the passenger compartment of a bus shall be protected by means of at least one (1) guard or bracket at the end of the shaft which is provided with a sliding connection (spline or other such device) to prevent the whipping of the shaft in the event of failure thereof or of any of its component parts. A shaft contained within a torque tube shall not require any such device.

HYME JOINTS – CONTROL ARM ASSEMBLIES

The design of some upper and/or lower control arm assemblies consists of an inner steel sleeve mounted in a rubber bushing on one end of an adjustable or non-adjustable shaft and a ball joint on the other end of the shaft. The bushing style end of the control arm is sometimes referred to as a “Hyme joint”.

Equipment:

Floor jack or lift, rule or gauge.

Procedure:

1. With vehicle lifted properly grasp tire at top and bottom, rock in and out and record movement. There should be no movement or play in the Hyme joint part of the control arm assembly.
2. Consult manufacturer accepted tolerance for ball joint wear.
 - **Caution:** If air suspension vehicles are lifted via body support area, air spring damage may occur if the air suspension switch is not turned off.

Reject vehicle if:

There is any play in the Hyme joint, or the ball joint wear exceeds manufacturer limits.

Illustrated is a typical control arm assembly, made up of a ball joint and Hyme joint connected by an adjustable shaft. Check for deterioration of the rubber which bonds the inner bushing to the control arm on the Hyme joint. If there is zero play in the joint but the rubber bushing is severely deteriorated consider changing the assembly.



CV JOINT / U-JOINTS

Equipment:

Floor jack or lift, rule or gauge.

Procedure:

Check for excessive play in knuckles or U-joints.

- **Note:** Potential problems with CV joints and U-joints can be detected during vehicle test drive.

Reject vehicle if:

CV joints or U-joints are loose enough to cause a dangerous driving condition.



Brakes

SECTION 4 – BRAKES

- **Brake Inspection – Heavy Vehicles:**

Certain items of special interest may be considered by the inspector when evaluating the braking on large vehicles.

- **Safety:**

The vehicle may weigh many tons and emphasis needs to be put upon the safety of the inspector and others when testing the stopping ability of such vehicles. These tests must be conducted with extreme care in order to prevent possible skidding and overturning.

- **Practicality:**

A thorough brake inspection would probably include looking at the inside of the brake assembly, which is relatively easy when checking passenger vehicles. The removal of wheel hubs and drums from large school buses, however, is another matter and usually is impractical at an inspection station. A sensible approach would, therefore, probably not include the removal of a hub and drum from the axle unless strong evidence indicating an unsafe condition inside the brake was present. A thorough check of hydraulic, vacuum or air systems can normally give a fair idea of the general condition of the braking system, especially when augmented by a practical performance demonstration. Wheel removal from large vehicles is not only difficult because of size and weight problems, but is further complicated by the lack of assurance that they can be properly returned to the axle. The “pulling” of wheels for brake inspection on heavy vehicles is, therefore, not recommended except when considered mandatory and then only by a highly qualified mechanic.

ROAD TEST – PERFORMANCE ABILITY OF BRAKES

Brakes should perform as outlined in 23 VSA §1308, which is described below:

Procedure:

1. The service brakes upon any motor truck, truck, and tractor or combination of vehicles shall be adequate to stop such vehicle or vehicles when traveling 20 miles per hour within a distance of 30 feet when upon dry asphalt or concrete pavement surface free from loose material where the grade does not exceed one percent.
2. Under the above conditions, the hand brake shall be adequate to hold such vehicle or vehicles stationary on any grade upon which it is operated.

3. All braking distances specified in this section shall apply to all vehicles mentioned, whether such vehicles are not loaded or are loaded to the maximum capacity permitted.
4. All brakes shall be maintained in good working order and shall be so adjusted as to operate as equally as practicable with respect to the wheels on opposite sides of the vehicle.

Reject vehicle if:

Brakes do not meet any of the above requirements.

EMERGENCY SYSTEM – FUNCTION

- **Note:** On vehicles equipped with spring type emergency braking systems, manual operation of the control valve will also provide an effective parking brake system.

Procedure:

Apply the emergency operating control fully or release air pressure from the spring brake actuators using the manual control valve and then:

1. Observe locking and holding feature of the actuating mechanism.
2. Observe operating mechanism for “bottoming” before brakes are fully applied.
3. Observe if spring brakes apply when control valve is manually operated.
4. Inspect for worn, missing or defective cotter pins, springs, rods, yokes, couplings, or anchor pins and cables.
5. Observe if mechanism releases brakes when release control is operated.
6. Must hold vehicle stationary on any grade upon which it is operated.

Reject vehicle if:

1. Operating mechanism fails to hold brakes in applied position without manual effort.
2. Operating mechanism “bottoms” before brakes are fully applied.
3. Spring brakes fail to apply when control valve is operated.
4. Mechanical parts are missing, broken or badly worn or pull cables are badly worn, stretched, frayed or not operating freely.

5. Brakes do not fully release when release control is operated.
6. If brakes fail to hold vehicle stationary on grade.

BRAKE HOSES AND ASSEMBLIES

Brake Fluid Requirements: The statutes provide that after January 1, 1967, no person may distribute or provide any fluid for use in the hydraulic brake system of a motor vehicle unless it meets the Society of Automotive Engineers Standards of 70 R1, or better, and any container must bear a statement of its classification such as SAE 70 R1, or SAE 70 R3.

Procedure:

1. Brake hoses shall not be mounted so as to contact the vehicle body or chassis. Hoses shall not be cracked, chafed, or flattened. Protective devices such as “rub rings” shall not be considered part of the hose or tubing.
2. Examine visually, inspecting front brake hoses through all wheel positions from full left to full right for conditions indicated.

Reject vehicle if:

1. Wheel cylinders leak.
2. Hoses or tubing leaks or is cracked, chafed, flattened, restricted or is insecurely fastened.

BRAKE ROTORS

If the inspector obtains permission to pull the wheel(s) to more closely inspect the brake assemblies.

Procedure:

1. Check rotor(s) for warping and excessive rust and corrosion.
2. Check thickness of rotor(s) with rotor thickness caliper.
3. Check for crack(s) in rotor friction surfaces.

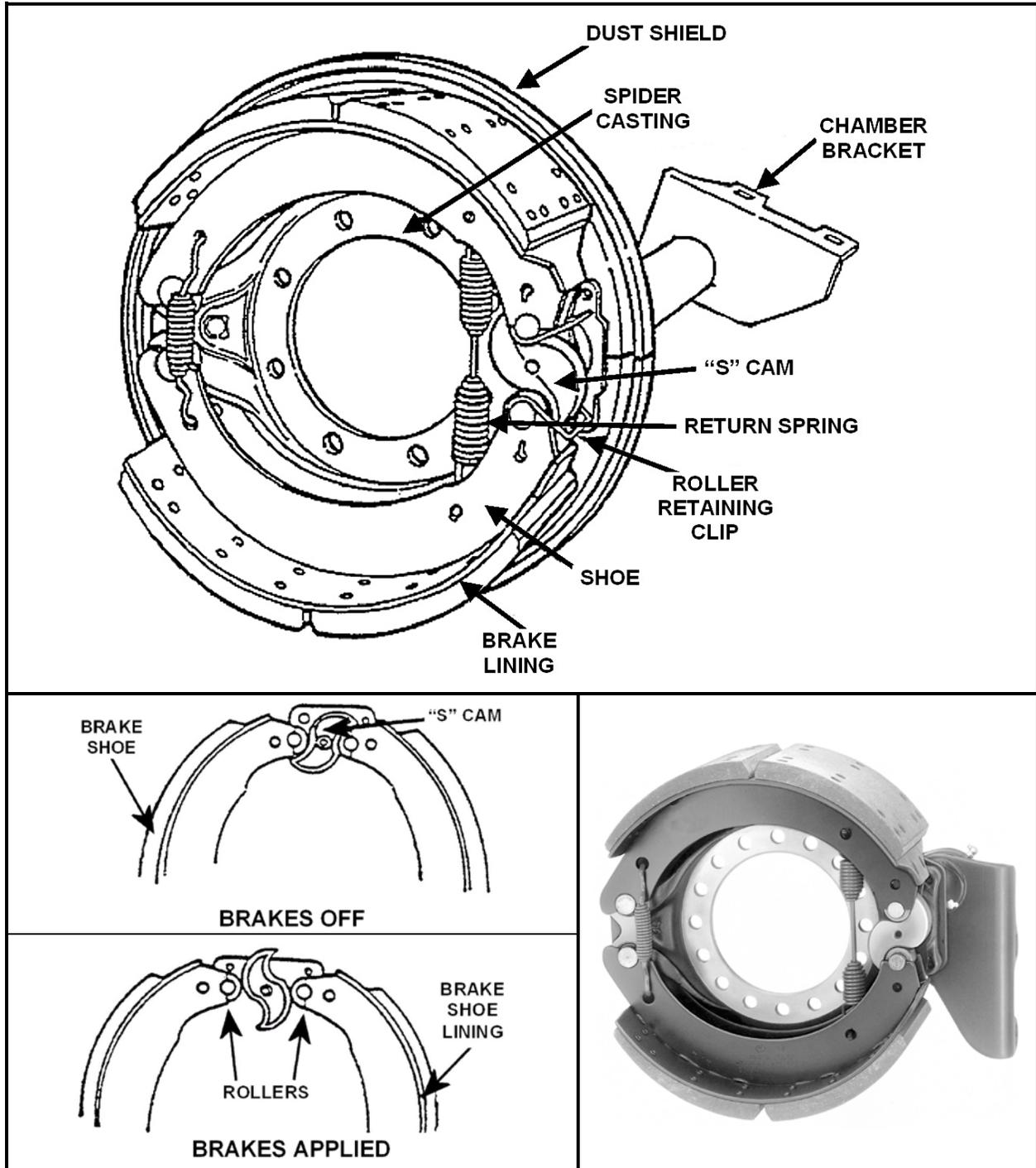
Reject vehicle if:

1. Rotor(s) thickness is less than manufacturer’s listed minimum tolerance.

2. Cooling vanes on vented rotors are corroded or rusted to the point where the rotor collapses when pressure is applied by the brake caliper.
3. Rotor is cracked across more than 75% of the friction surface when the friction surface is measured linearly from the inside diameter to the outside diameter.

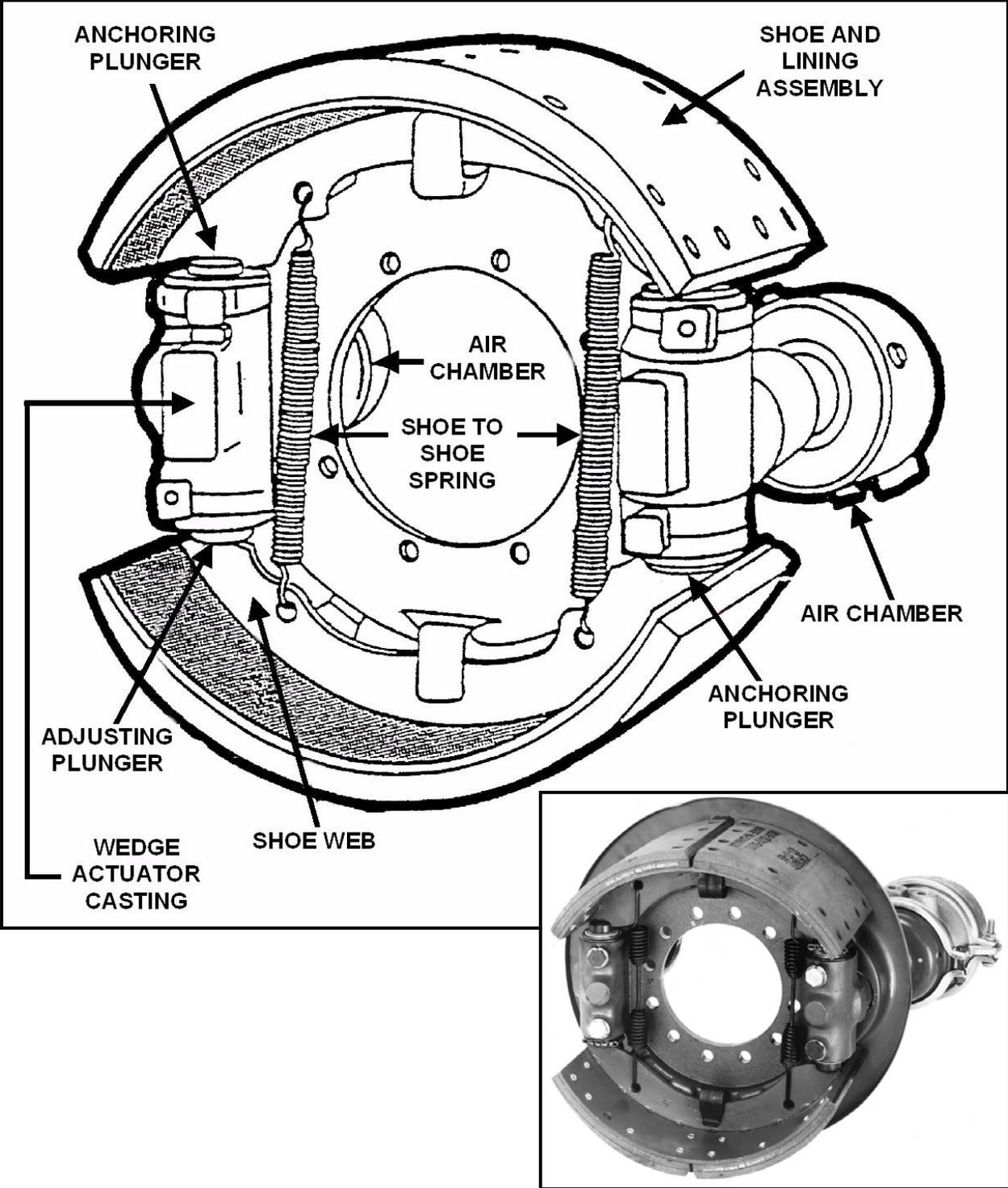
THE "S" CAM BRAKE

Uses an "S" shaped cam to expand the brake shoes against the drum.



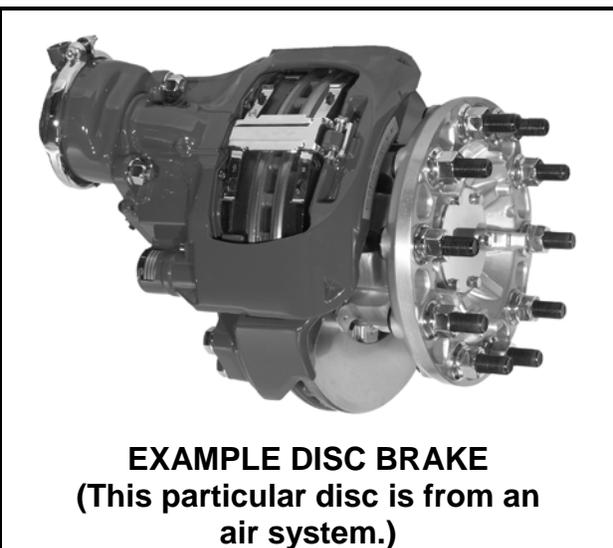
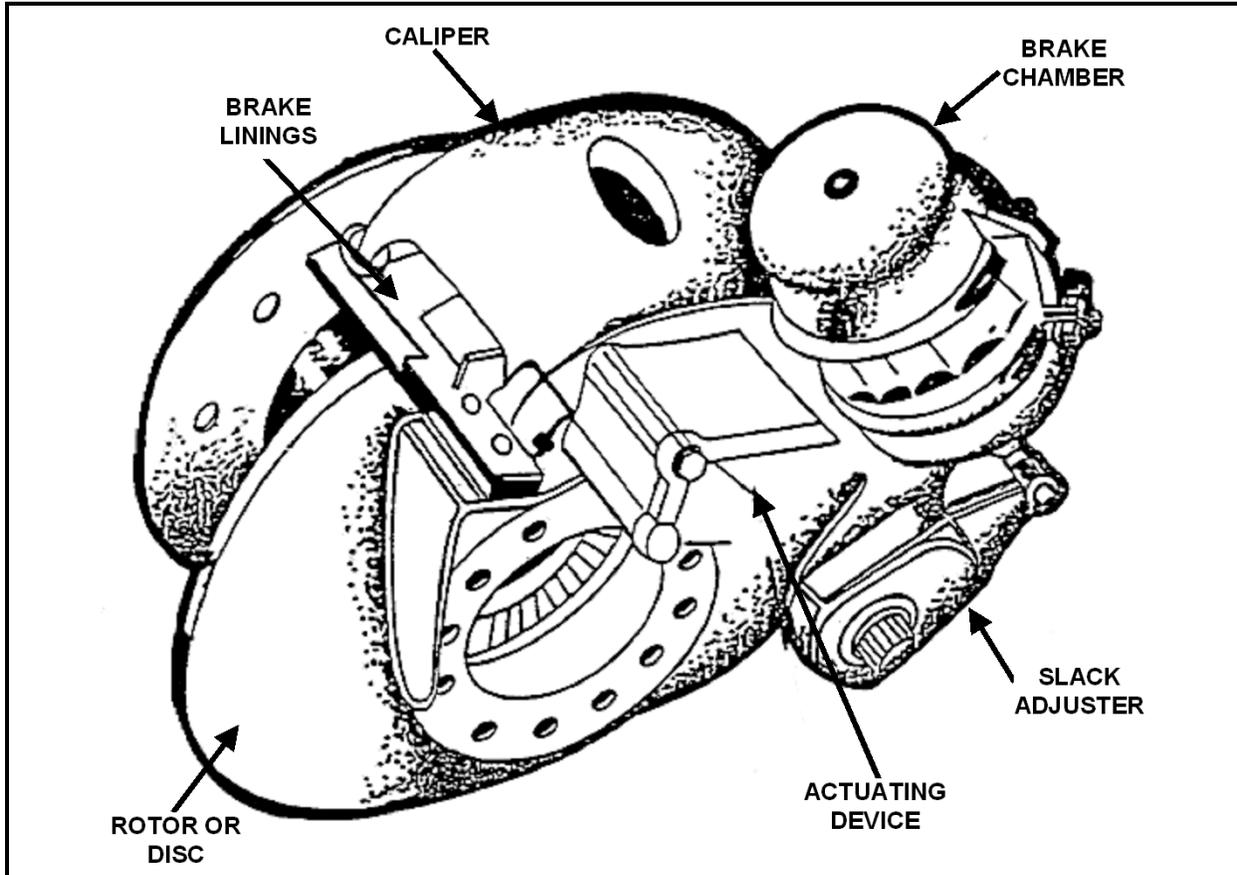
THE WEDGE BRAKE

Uses a wedge forced between two (2) brake shoes to expand the shoes against the drum.



THE DISC BRAKE

Uses two (2) brake pads pinched against a rotating disc or rotor.



- **Note:** Trucks and truck-tractors having three (3) or more axles need not have brakes on front axle on vehicles manufactured prior to July 25, 1980.

HYDRAULIC BRAKES

Procedure:

1. Check master cylinder for fluid level.

Reject vehicle if:

Master cylinder less than one-quarter ($\frac{1}{4}$) full.

- **Note:** Normally to be inspected when readily visible or problems are apparent.

2. Inspect all lines and hoses and wheel areas for visual leaks, worn brake hoses, crimped or restricted lines.

Reject vehicle if:

- a. Seeping or swelling brake hose(s) under application of pressure.
- b. Any visually observed leaking hydraulic fluid in the brake system.
- c. Hydraulic hose(s) chafed through outer cover to fabric layer.
- d. Fluid lines or connections restricted, crimped, cracked or broken.

3. Depress foot pedal and see how far it descends.

Reject vehicle if:

- a. Pedal descends to floor upon first application
- b. No apparent pedal reserve with engine running except by pumping brake

4. Inspect vacuum assisted hydraulic system. Depress pedal hard and while holding it, start engine. If the power unit is working, the pedal should drop appreciably under foot pressure.

Reject vehicle if:

Power assist unit fails to operate.

5. Inspect brake failure lamp or low brake fluid lamp.

Reject vehicle if:

Lamp fails to illuminate during the indicator lamp test sequence; or if the lamp remains illuminated after the lamp test sequence has finished.

BROKEN OR UNSECURED PARTS AND LOOSE CONNECTIONS

Procedure:

Visually inspect brake components at the wheels.

Reject vehicle if:

1. No braking action occurs upon application of the service brakes.
2. There is missing or broken components such as shoes, linings, pads, springs, anchor pins, spiders, cam rollers, push rods and air chamber mounting bolts.
3. Components are loose or insecurely mounted.
4. There is an audible air leak at the brake chamber.
5. Any lining or pad is not firmly attached to the shoe or is saturated with oil, grease or brake fluid.
6. Readjustment limits are as follows:

With engine off and reservoir pressure of eighty (80) to ninety (90) PSI with brakes fully applied.

- a. One (1) brake at one-quarter of an inch ($\frac{1}{4}$ ") or more beyond the readjustment limit. Example: Type 30 clamp type brake chamber push rod measured at two and one-quarter of an inch ($2\frac{1}{4}$ ") would be one (1) defective brake.
- b. Two (2) brakes at the readjustment limit or less than one-quarter of an inch ($\frac{1}{4}$ ") beyond the readjustment limit also equal one (1) defective brake. Example: Clamp type 30 push rods measure:
 - Two (2) at 2-1/8";
 - One (1) at 2-1/8" and one (1) at 2"; or,
 - Two (2) at 2".

Each example would equal one (1) defective brake.

7. Mismatched brake chamber types/sizes are present across an axle.
8. Slack adjusters of mismatched effective lengths are present across an axle.

BRAKE LINING

Procedure:

1. Visually inspect brake lining for excessive wear or missing pieces.
2. Visually inspect brake linings for saturation with oil or grease.

Equipment:

Measuring device.

Reject vehicle if:

1. Vehicle is equipped with air brakes and lining is less than one-quarter of an inch ($\frac{1}{4}$ " thick or if lining is worn to wear indicator (if so marked) measured at the shoe center for drum brakes or less than one-eighth of an inch ($\frac{1}{8}$ " for disc brakes.
2. Vehicle is equipped with hydraulic and/or electric brakes and the lining is one-sixteenth of an inch ($\frac{1}{16}$ " or less in thickness at the shoe center for drum brakes.
3. There is a missing brake(s) on any axle required to have brakes.
4. Any brake lining is saturated with oil or grease.

BRAKE COMPONENTS ON THE STEERING AXLE

Procedure:

Visually examine components, inspect air chambers and slack adjusters.

Equipment:

Measuring device.

Reject vehicle if:

1. There is absence of braking action on any steering axle of any vehicle required to have steering brakes.

2. Air chamber sizes or slack adjuster length are mismatched across any power unit steering axle.
3. The lining thickness is less than three-sixteenths of an inch (3/16") for a shoe with a continuous strip of lining or one-quarter of an inch (1/4") for a shoe with two (2) pads for drum brakes or to wear indicator if lining is so marked, or less than one-eighth of an inch (1/8") for air disc brakes, and one-sixteenth of an inch (1/16") or less for hydraulic disc and electric brakes.

AIR SYSTEM

Procedure:

1. Inspect the complete system for improper air loss.

Reject vehicle if:

An air leak is discovered and the reservoir pressure is not maintained when:

- a. Governor is cut in,
 - b. Reservoir pressure is between eighty (80) and ninety (90) PSI,
 - c. Engine is at idle and service brakes are fully applied.
2. Release sufficient air from the system to cause the low air-warning device to activate.

Reject vehicle if:

The low air warning device is missing, inoperative or does not operate at fifty five (55) PSI and below, or half (1/2) the governor cut out pressure, whichever is less.

3. Inspect air pressure gauge.

Reject vehicle if:

Gauge is missing, inoperable or does not indicate pressure in pounds per square inch.

4. Inspect tractor protection valve(s) (vehicles in combination).
 - a. Release the emergency brakes by pushing in the dash valves.

- b. Break the supply emergency line at the hose couplers between the tractor and the trailer. Air will leak from the tractor side of the line until the pressure in tractors system drops to the twenty (20) to forty-five (45) PSI range.
- c. Depress the service brake.

Reject vehicle if:

- a. Valves are missing or inoperable
 - b. Trailer brakes fail to activate properly
 - c. A loss of air in the tractor system below the twenty (20) to forty-five (45) PSI range indicates a malfunctioning tractor protection valve.
 - d. Air escapes through the service glad hand with the service brake depressed.
5. Inspect air reservoir.

Reject vehicle if:

Mounting bolts are broken, missing or loose (not including defective bushings).

6. Inspect air compressor.

Reject vehicle if:

- a. Mounting bolts are loose.
- b. Pulley is loose, cracked or broken.

7. Visually inspect vacuum brake system.

Reject vehicle if:

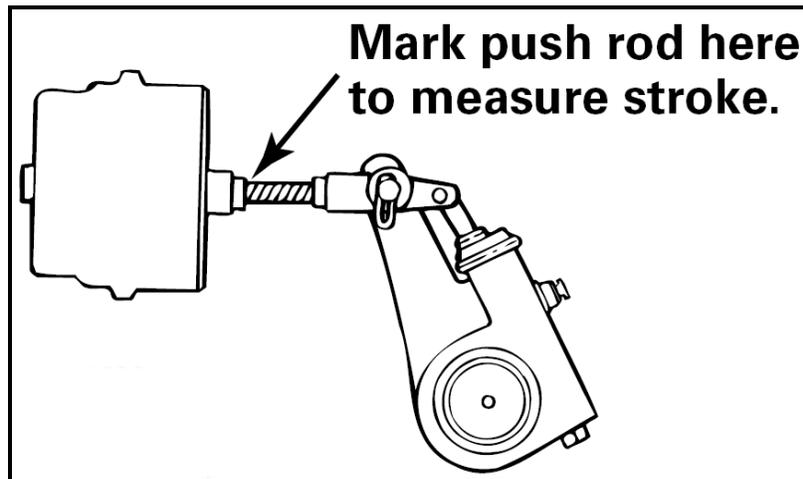
- a. Vacuum reserve is insufficient to permit one (1) full brake application after engine is shut off.
- b. Vacuum hose(s) or line(s) are restricted, chafed through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.
- c. Low vacuum warning device is missing or inoperative.
- d. Vacuum gauge that indicates to the driver the vacuum in inches of mercury available for braking is missing or inoperative.

MEASURING PUSH ROD TRAVEL

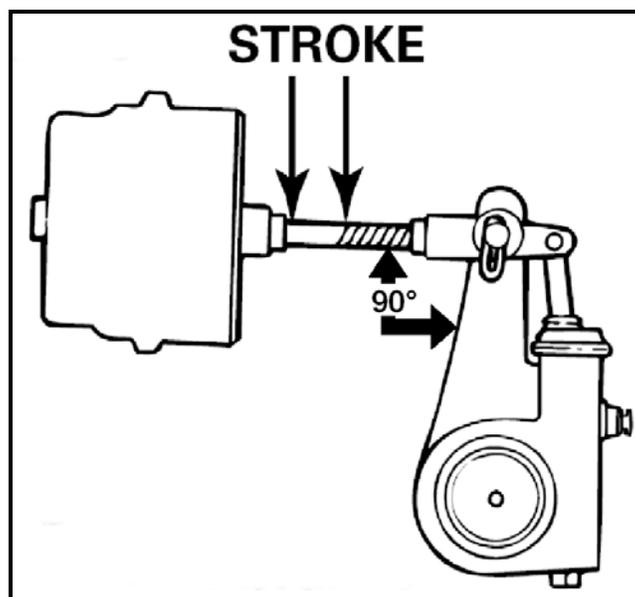
- **Caution:** Faulty brake chambers may explode, especially upon brake application. Maintain a safe distance from chambers at all times, and never position yourself behind the chamber when the driver applies the brakes.

Procedure:

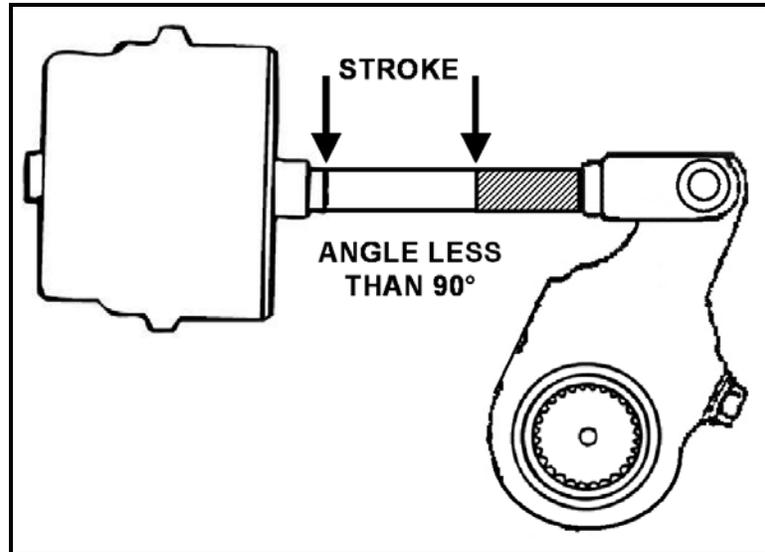
1. With the brakes released, mark the push rod at a point where the push rod exits the brake chamber.



2. While the brakes are applied, measure the distance of push rod travel (the stroke) from the brake chamber to the mark. A ninety-degree (90°) slack/rod angle applies maximum braking force.

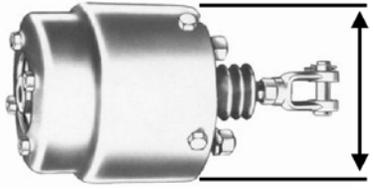


3. When the slack/rod angle goes to the point where the angle is less than ninety degrees (90°):
 - a. Braking force diminishes.
 - b. The push rod may bottom out.
 - c. The brake may need adjustment.



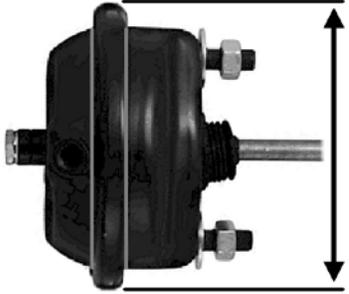
4. Push rod travel must be measured from a fully released position to a fully applied position. Approximately ninety (90) PSI air pressure is required to fully release all the brakes.
5. The type and size of a brake chamber determines the allowable push rod travel specification. Larger chambers result in more allowable push rod travel.
6. Often, the type of brake chamber is marked on the chamber itself. If not, you must measure the diameter to determine the type. To do this, measure from the outside of the clamp, not just the diameter of the chamber. Use the tables below to check the size and type of brake chamber against the distance of the push rod travel.

ROTOCHAMBER TYPE (Diameter in Inches)			
Type	Effective Area (Square In.)	Outside diameter	Maximum stroke at which brakes should be readjusted
9	9"	4-9/32"	1½"
12	12"	4-13/16"	1½"
16	16"	5-13/32"	1-7/8"
20	20"	5-15/16"	1-7/8"
24	24"	6-13/32"	1-7/8"
30	30"	7-1/16"	2¼"
36	36"	7-5/8"	2-5/8"
50	50"	8-7/8"	3"



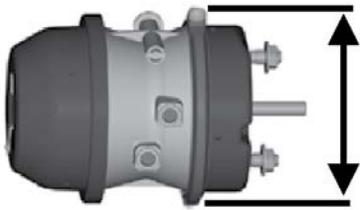
"STANDARD" CLAMP TYPE BRAKE CHAMBER DATA			
Type	Outside Diameter	Rated Stroke	Maximum stroke at which brakes must be readjusted
9	5-1/4"	1.75"	1-3/8"
12	5-11/16"	1.75"	1-3/8"
16	6-3/8"	2.25"	1-3/4"
20	6-25/32"	2.25"	1-3/4"
24	7-7/32"	2.25"	1-3/4"
30	8-3/32"	2.50"	2"
36*	9"	3.00"	2-1/4"

***Note:** If type 36 chamber is used, slack length should be less than 6".



"LONG STROKE" CLAMP TYPE BRAKE CHAMBER DATA			
Type	Outside Diameter	Rated Stroke	Maximum stroke at which brakes must be readjusted
16	6-3/8"	2.50"	2"
20	6-25/32"	2.50"	2"
24	7-7/32"	2.50"	2"
24*	7-7/32"	3.00"	2-1/2"
30*	8-3/32"	3.00"	2-1/2"

***Note:** Identified by square air port bosses.

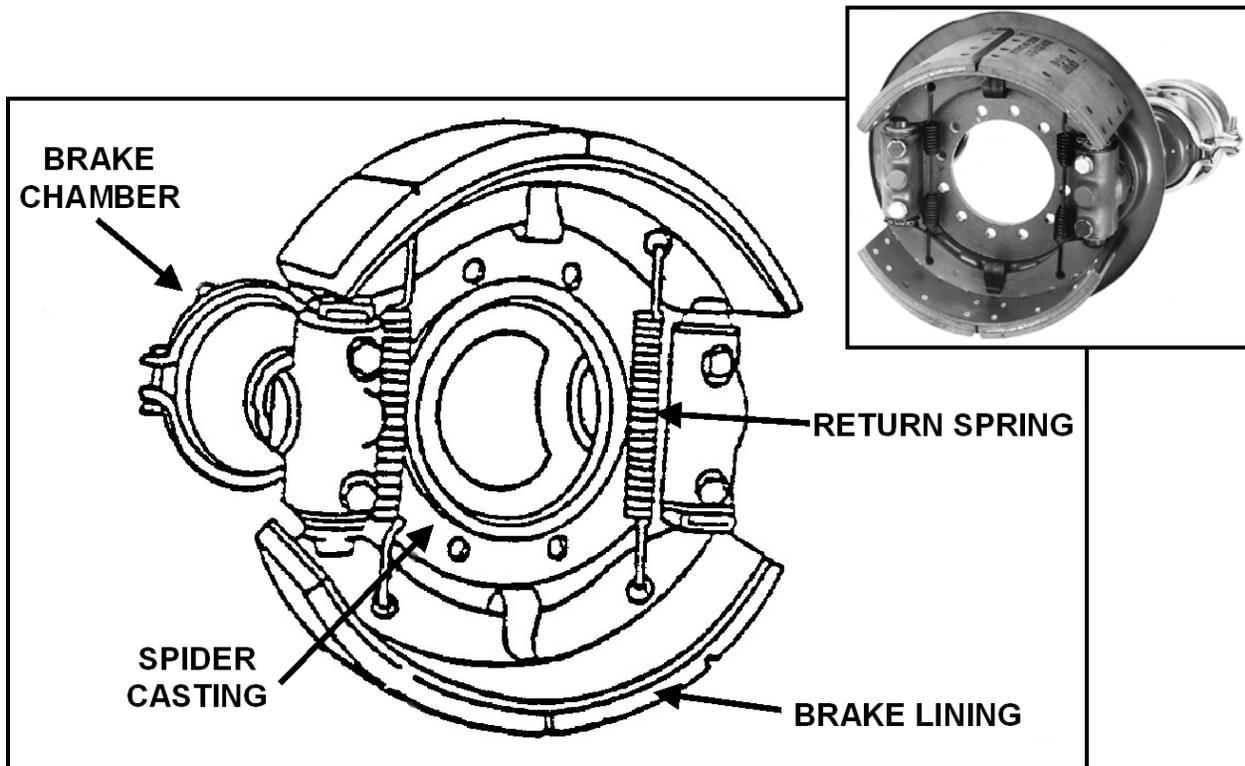


- **Note:** Automatic brake slack adjusters are required on air brake equipped vehicles manufactured on and after October 20, 1994. Replacing or re-adjusting a self-adjusting brake adjuster that exceeds the maximum push rod stroke does not guarantee that the defect is corrected. There may be defects in other components of the foundation brake system.

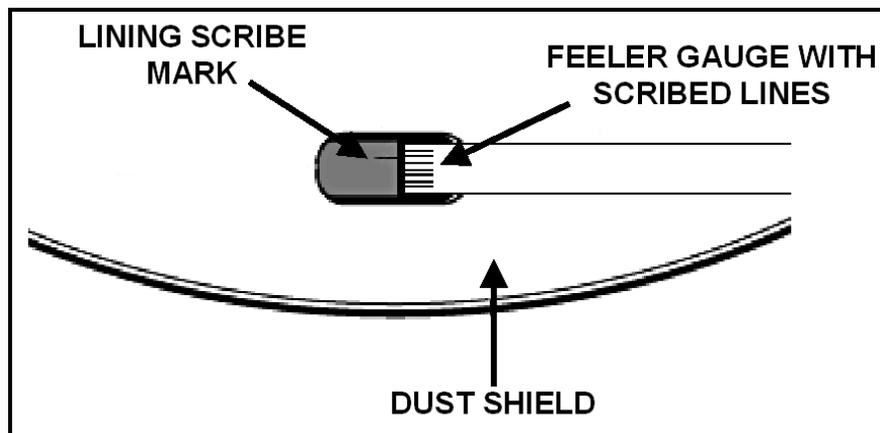
INSPECTING WEDGE BRAKE ADJUSTMENT

Procedure:

1. With the inspection hole cover removed from the brake dust shield, check the adjustment at each wheel visually or using a feeler gauge.

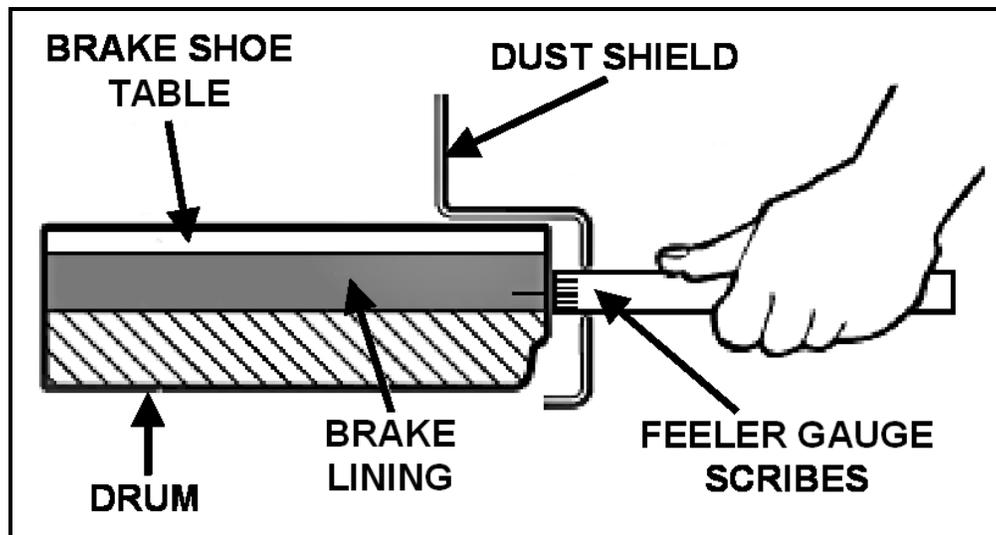


2. With the brakes fully released, inspect this distance from the drum to the brake shoe (lining surface). This distance must not exceed one-sixteenth of an inch ($1/16''$). (If using a feeler gauge, the gap must not exceed .0625).



INSPECTING LINING WITH FEELER GAUGE

If the edge of the lining is not visible, mark the lining and then apply the brakes. When the brake shoe moves, watch the mark or measure the movement with a gauging device. Any brake shoe travel beyond one-sixteenth of an inch (1/16") (.0625) is excessive. Failure of the brake shoes to move is a condition of improper maintenance.



CROSS SECTION OF WEDGE BRAKE MEASUREMENT

Brake shoe contact or non-contact is also indicated by striking the drum with a metal tool. The drum will echo or ring if the shoes are not contacting; if the shoes are contacting the drum, a dull sound will result.

BRAKE DRUMS

Procedure:

1. Visually inspect the brake drums for cracks.
2. Check drum(s) inside diameter with proper measuring tool.

Reject vehicle if:

1. The brake drums are cracked on the friction surface or the crack extends to the open edge or if the outside surface of drum is cracked.
2. The friction surface of the drum is contaminated with oil, grease or brake fluid.

3. Drum inside diameter exceeds manufacturer's listed maximum tolerance.

FAILURE INDICATOR LAMP

The failure indicator lamp is required on all passenger cars manufactured after January 1, 1968 and all other vehicles after January 1, 1975.

Procedure:

Apply parking brake and turn ignition to start, or verify lamp operation by other means indicated by vehicle manufacturer.

Reject vehicle if:

1. If indicator lamp is not operational.
2. If indicator lamp stays lit.
3. If ABS light does not function.
4. If ABS light stays lit.

BRAKE SYSTEM INTEGRITY

Equipment:

Pedal pressure gauge or inspector judgment for measuring the one hundred and twenty five (125) pound force is acceptable.

Procedure:

1. Service brake tests should be conducted on a substantially dry, hard, smooth surface road or area that is free from loose material, oil or grease.
2. The brake system shall demonstrate integrity as indicated by no perceptible decrease in pedal height under one hundred and twenty five (125) pound force applied to the brake pedal or by no illumination of the brake system failure indicator lamp. The brake system shall withstand the application of force to the pedal without failure of any line or other part.
3. With the engine running apply one hundred and twenty five (125) pounds of pressure to the brake pedal and hold for ten (10) seconds.

Reject vehicle if:

1. If and when less than one-fifth (1/5th) of the total available pedal travel remains.
2. If decrease in pedal height or if indicator lamp stays lit.

PARKING BRAKE

An “emergency” brake can also serve as a “parking brake” but a parking brake is not adequate to serve as an emergency brake.

Most large vehicles with hydraulic systems and some large vehicles with air brake systems will have a parking brake located on the propeller shaft. This type of parking brake is usually open and is easily inspected.

Procedure:

1. Set the parking brake firmly to determine the reserve travel of the hand lever or foot pedal.
2. Inspect the band-type parking brake on the propeller (drive) shaft for the presence of oil or grease, condition of lining and tightness.

Reject vehicle if:

1. There is no reserve travel in the pedal.
2. There is oil or grease on the drum or lining.
3. The lining is worn through to the steel band.
4. The lining fails to make proper contact with the drum when brake is applied.

PARKING BRAKE PERFORMANCE

Procedure:

Emergency brake (commonly referred to as parking or hand brake) shall be adequate to hold such vehicle stationary on any grade upon which it is operated.

Reject vehicle if:

If brake fails to hold vehicle stationary on grade.

ANTILOCK BRAKE SYSTEM

Procedure:

Inspection antilock brake system in accordance with the ABS Inspection Procedure.

Reject vehicle if:

ABS, including the ABS malfunction lamp, does not function in accordance with the ABS Inspection Procedure.

ABS Inspection Procedure – U.S. Field Reference Version



Manufacture Date	Truck or Bus with Hydraulic Brakes
Before March 1, 1999	ABS is not required.
On or after March 1, 1999	Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.
Manufacture Date	Truck or Bus with Air Brakes
Before March 1, 1998	ABS is not required.
On or after March 1, 1998	Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.
Manufacture Date	Truck or Bus with Air Brakes Equipped to Tow Another Vehicle with Air Brakes
Before March 1, 1998	ABS is not required.
On or after March 1, 1998	Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.
On or after March 1, 2001	<ul style="list-style-type: none"> ▪ Not connected to any trailer or connected to a trailer manufactured before March 1, 2001: <p>Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.*</p> ▪ Connected to a trailer manufactured on or after March 1, 2001: <p>Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.</p>

Manufacture Date	Truck Tractor with Air Brakes
Before March 1, 1997	ABS is not required.
On or after March 1, 1997	Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.
On or after March 1, 2001	<ul style="list-style-type: none"> ▪ Not connected to any trailer or connected to a trailer manufactured before March 1, 2001: Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.* ▪ Connected to a trailer manufactured on or after March 1, 2001: Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.
Manufacture Date	Trailer with Air Brakes (Including a Trailer Converter Dolly)
Before March 1, 1998	ABS is not required.
On or after March 1, 1998	<ul style="list-style-type: none"> ▪ Connected to a truck or truck tractor manufactured before March 1, 1997. Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS. ▪ Connected to a truck or truck tractor manufactured on or after March 1, 1997. ** Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

Manufacture Date	Continued – Trailer with Air Brakes (Including a Trailer Converter Dolly)
On or after March 1, 2001	<ul style="list-style-type: none"> ▪ Connected to a truck or truck tractor manufactured before March 1, 2001. <p style="margin-left: 40px;">Test in the same manner as trailers manufactured on or after March 1, 1998.</p> ▪ Connected to a truck or truck tractor manufactured on or after March 1, 2001. <p style="margin-left: 40px;">Begin with the ignition key in the “off” position. Turn the ignition key “on”. Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.</p>

* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

** Power to the trailer’s ABS circuit is delivered by a dedicated circuit from the truck tractor.

In the U.S. the following vehicles are exempt from the requirements to have ABS:

- Any trailer that has a width of more than 102.36 inches with extendable equipment in the fully retracted position and is equipped with two short track axles in a line across the width of the trailer.
- Any vehicle equipped with an axle that has a gross axle weight rating (GAWR) of 29,000 pounds or more.
- Any truck or bus that has a speed attainable in 2 miles of not more than 33 mph.
- Any truck that has a speed attainable in 2 miles of not more than 45 mph, an unloaded vehicle weight that is not less than 95 percent of its gross vehicle weight rating (GVWR), and no capacity to carry occupants other than the driver and operating crew.
- Any trailer that has a GVWR of more than 120,000 pounds and whose body conforms to that described in the definition of heavy hauler trailer set forth in S4 of the Federal Motor Carrier Safety Administration regulations; *Heavy hauler trailer* means a trailer which has one or more of the following characteristics, but which is not a container chassis trailer:
 - ♦ Its brake lines are designed to adapt to separation or extension of the vehicle frame, or

- ◆ Its body consists only of a platform whose primary cargo-carrying surface is not more than 40 inches above the ground in an unloaded condition, except that it may include sides that are designed to be easily removable and a permanent "front end structure" as that term is used in §393.106 of the Federal Motor Carrier Safety Administration regulations.
- Any trailer that has an unloaded vehicle weight which is not less than 95 percent of its GVWR.
- Any load divider dolly.



Lighting and Electrical System

SECTION 5 – LIGHTING AND ELECTRICAL SYSTEMS

LAMPS – FUNCTION

School buses have special marking and lighting in order to assure identity. All lamps and reflectors should be of an approved type. LED lights that meet DOT standards are permitted.

Equipment:

If only one inspector is checking, large mirrors may be placed so that all lamps may be observed from driver's position.

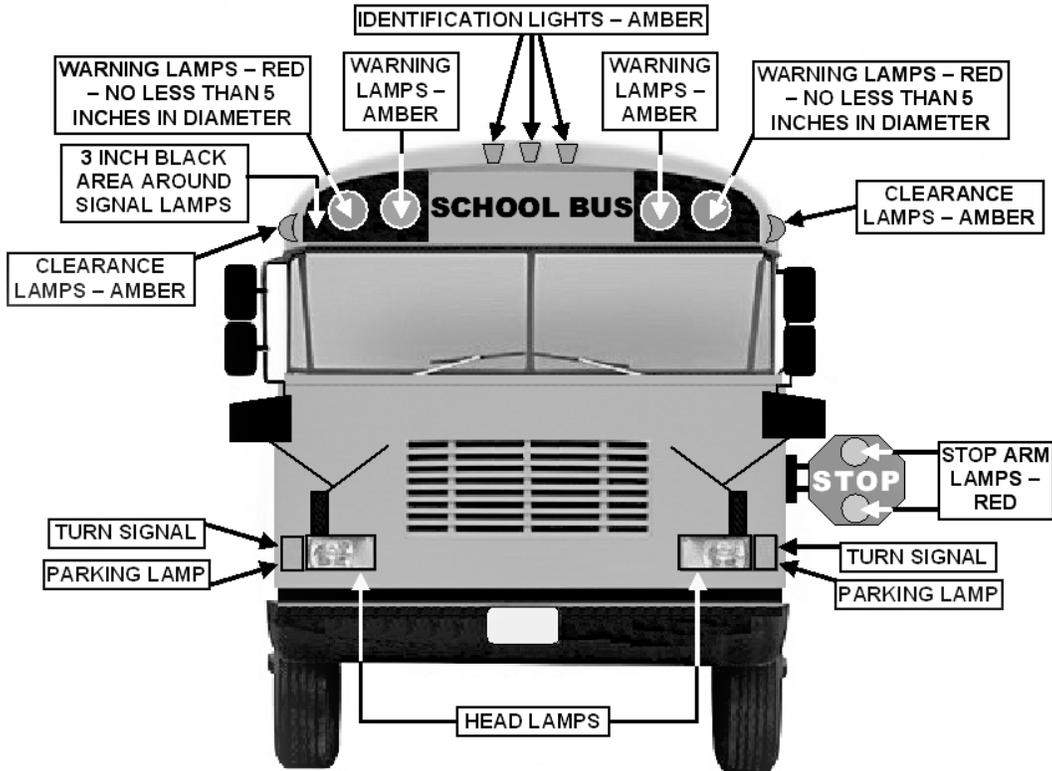
Procedure:

Visual check of lamp function:

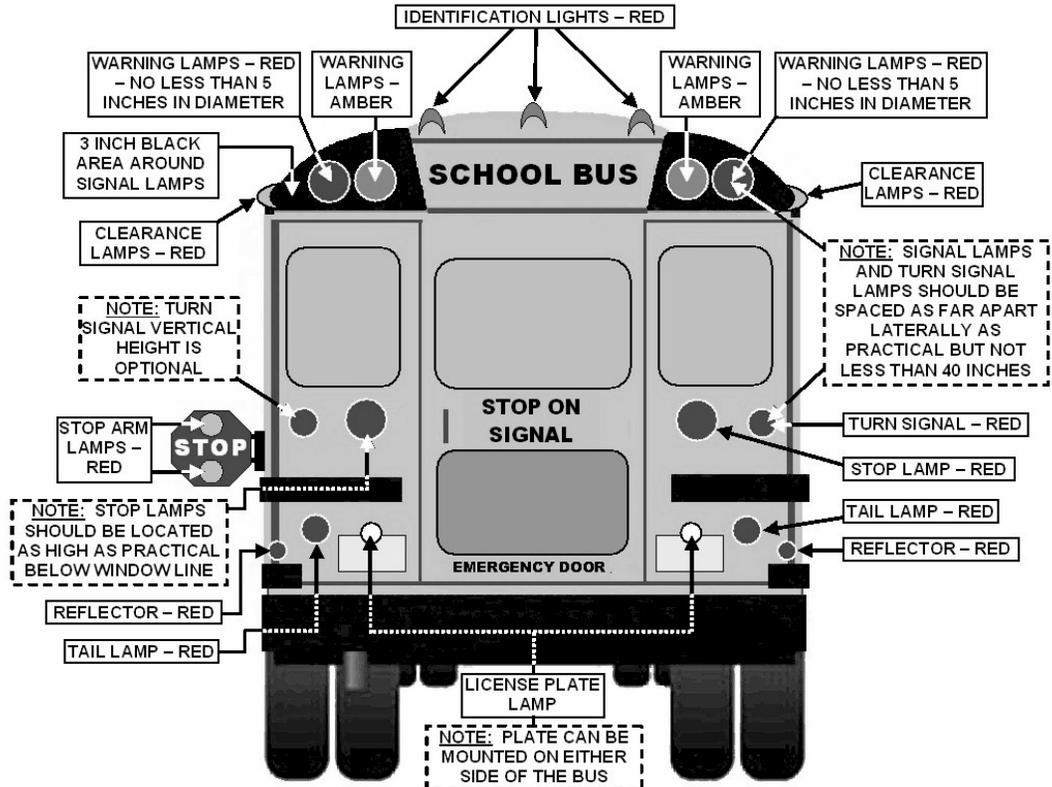
1. Turn on night driving lights and visually check the following:
 - a. Function of turn signal lamps and indicators (telltale) when actuated by the control lever, right and left.
 - b. If vehicle is so equipped, check function of back-up lamps when vehicle is placed in reverse gear.
 - c. Check function of the following:

▪ All interior lights	▪ License plate lamp
▪ Amber flasher lamps	▪ Parking lamps
▪ Brake warning lamps	▪ Red flasher lamps
▪ Clearance lamps	▪ Reflex reflectors
▪ Fog lamps	▪ Side marker lamps
▪ Hazard warning lamps	▪ Steeple light
▪ Headlamps – upper and lower beams	▪ Stop arm lamps
▪ Identification lamps	▪ Stop lamps (apply brake)
▪ Indicator lamps for headlamps	▪ Tail lamps
▪ Indicators for flasher lamps	▪ All others

Front of Bus



Rear of Bus



Reject vehicle if:

1. If any of the above lamps do not light, broken or cracked.

“Eight-light system” shall mean four alternately flashing red signal lamps, two (2) at the front and two (2) at the rear to operate automatically when the school bus is stopped; and four alternately flashing amber signal lamps, two (2) at the front and two (2) at the rear, to be operated by the driver at an appropriate distance before stopping the bus.

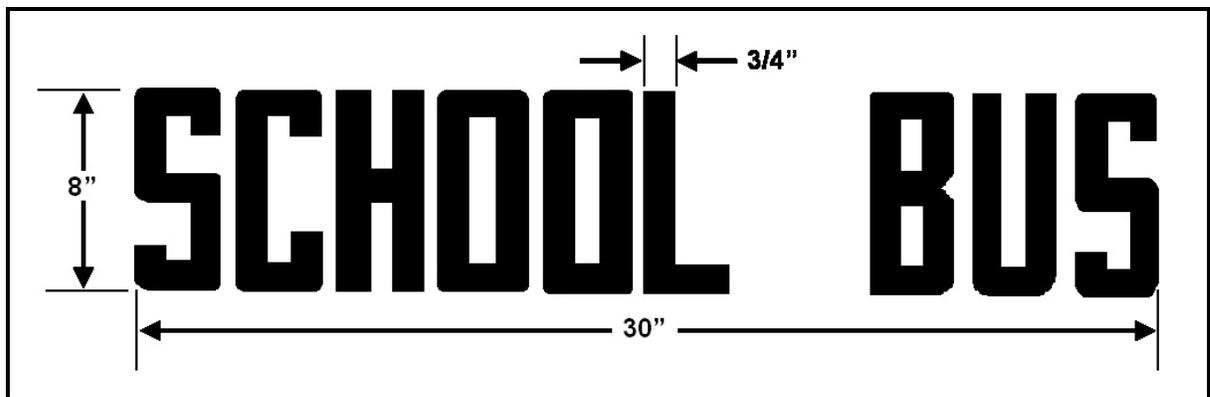
- **Note:** There may be no other colored lights used in the operation of pickup or discharge of pupils. White lights are not permitted.

This system shall be used on all school buses with a manufacturer’s rated seating capacity of greater than ten (10) persons. Required on school buses acquired after July 1, 1976.

Private vehicles carrying fewer than eleven (11) persons, including the operator, for compensation need only display an identification sign as prescribed in 23 V.S.A. §1283(a)(1) of this title, and be equipped with a sign and a simple system of at least two (2) red alternating warning lights.

Type II van school buses may use double faced Class A Type I turn signals at least four inches (4”) in diameter for both the amber and red warning lights. These lights and the school bus sign may be mounted on a portable bar on the top of the vehicle provided they are visible from both the front and rear of the bus.

The “School Bus” sign must be printed in letters not less than eight inches (8”) high by thirty inches (30”) long and the brush strokes must be not less than three-quarters of an inch ($\frac{3}{4}$ ”). The sign must be located between the warning signal lights as high as possible.



2. Any bulb or sealed light beam unit fails to light.

3. Turn signals do not properly indicate right and left when so switched.
4. Red and amber flasher lamps do not alternate properly.
5. Lamp shows color contrary to law.
6. Lamp fails to light the proper filament indicated at switch position.
7. Any lamp or reflector does not direct light properly.
8. Auxiliary equipment is placed on, in, or in front of any lamp (except transparent covers which are part of original manufacturer's equipped headlamps and marked DOT Approved, i.e. after-market tinted lamp covers).
9. Lamp assembly improperly fastened.
10. Lamp has a cracked, broken or missing lens.

PREPARATION

Preparation for headlamp aim and inspection to be done by owner of vehicle prior to inspection. Any one of the items listed below can affect the inspection results causing rejection of the vehicle. To prevent this, these five items should be checked prior to inspection.

Procedure:

Prior to inspection:

1. Remove excessive ice and mud from under fenders.
2. Inflate tires to specified pressure.
3. See that the vehicle contains no load other than the driver in his normal position.
4. Be sure that lenses are clear; check for burned out bulbs and proper beam switching. Replace headlamps with cracked or broken aiming pods.
5. Check suspension. See that vehicle does not lean to one side or the other. Rock the vehicle sideways to free and equalize pressure.

Reject vehicle if:

If any of the first four items are not accomplished to a reasonable degree so that a good inspection would be difficult, the inspector should refuse the vehicle until the preparation is satisfactory.

AIM – MECHANICAL

Vehicles must be located on a level area and loaded as it is normally driven with driver behind wheel.

AIM SCREEN – FOG LAMPS

If a vehicle is equipped with fog lamps, they should be properly aimed. The moveable horizontal and vertical lines on the aiming screen should be located so they cross at the “straight ahead” positions of the center line of each fog lamp, whether symmetrical or non-symmetrical.

Procedure:

With vehicle properly located and loaded (the same as for headlamp aim inspection), switch on the fog lamps and observe the location of the high intensity zone on the screen.

Reject vehicle if:

1. Lamps not mounted securely to prevent excessive vibration, bad wiring, improper ground or bad switch.
2. Inoperative dimmer switch on double filament headlamp.
3. Dimmer switch in an unnatural location.
4. Beam indicator, if installed, is not operational.
5. Any cause listed under lamp function above.
6. Any required reflector, lamp or lens that is turned or inclined so that its light is not properly directed.
7. Any signal lamp, pilot lamp, or operating unit not functioning properly.
8. Any signal-operating unit canceling mechanism not functioning properly.
9. Switches and operating unit not in good condition and functioning properly.
10. Wiring in poor condition, improperly installed or insulated and so located as to incur damage.
11. Any connection that is not secure or shows signs of excessive corrosion.

12. Power source which does not maintain lamps at required brightness for all conditions of operation.

ELECTRICAL SYSTEM

To save time, the inspector should develop his/her own plan or sequence for checking miscellaneous electrical items, many of which can be inspected while looking at other items. This comes with practice.

Procedure:

Inspect electrical system:

1. Horn: Should be securely fastened.
2. Switches: Should all function properly
3. Wiring: Should be well insulated

Reject vehicle if:

1. If horn is:
 - a. Loose
 - b. Fails to function
2. If switches:
 - a. Fail to function
 - b. Turn signal switch fails to cancel (if so designed)
3. If wiring:
 - a. Insulation worn or rubbed bare
 - b. Shows any evidence of burning or short circuiting

The bus chassis and the school bus body are electrically connected through a “main connector” which includes all body wiring circuits. If this connection is not made properly, switches may not match the proper lighting circuits.

Danger: On Gasoline/Ignition Engines – Remove center wire from coil or distributor before checking to be sure the engine does not start with vehicle in a running gear. (On

Delco Remy High Energy Ignition systems, disconnect harness connected at distributor on V6 and V8 engines; disconnect at coil on the inline 4 and 6 cylinder HEI engines).

On Diesel Engines – Apply parking brakes, fully apply service brakes and pull stop out to no-fuel position before checking.

CONNECTIONS – AUTOMATIC TRANSMISSION STARTING

Procedure:

Connections should be tight and secure.

Reject vehicle if:

1. If connections are loose.
2. If connections show signs of excessive corrosion.

Automatic Transmission Only:

Neutral safety starting switch. Determine that starter operates with gear selector in “P” or “N” only.

Reject vehicle if:

If starter operates with gear selector in any gear other than “P” or “N”.

ADDITIONAL LIGHTING INFORMATION

The Commissioner has determined that LED lights meeting DOT approval are permitted.

Reject vehicle if:

If vehicle is equipped with LED lamps, no more than fifty percent (50%) of any one (1) lamp may be inoperable.

LIGHTING TERMS AND DEFINITIONS

- **Asymmetrical Beam (Non-symmetrical):** An asymmetrical beam is one in which both sides are not symmetrical with respect to the median vertical plane of the beam. All lower beams are asymmetrical.

- **Back-up Lamps:** Back-up lamps are lamps used to provide illumination behind the vehicle, and to provide a warning signal when the vehicle is in reverse gear.
- **Clearance Lamps:** (On trucks and buses eighty inches [80"] or more in width.) Lamps which show to the front or rear of a vehicle, mounted on the permanent structure of the vehicle as near as practicable to the upper-left and right extreme edges to indicate overall width and height of the vehicle.
- **Cornering Lamps:** Cornering lamps are steadily burning lamps used when the turn signal system is operating. They provide additional road illumination in the direction of the turn. They are mounted on the side of the vehicle at front and also may be mounted on the side of the vehicle at the rear.
- **Driving Lamps:** An auxiliary lamp or lamps that may be used to supplement the lower beam of the regular headlamps.
- **Eight-Light System:** Eight-light system shall mean four (4) alternately flashing red signal lamps, two (2) at the front and two (2) at the rear to operate automatically when the school bus is stopped; and four (4) alternatively flashing amber signal lamps, two (2) at the front and two (2) at the rear, to be operated by the driver at an appropriate distance before stopping the bus.
- **Emergency Warning Lamps:** Emergency warning lamps are lamps that provide a flashing light to identify an authorized vehicle on an emergency mission. The emergency signal may be either a rotating beacon or pair of alternately or simultaneously flashing lamps.
- **Fog Lamps:** Fog lamps are lamps that may be used with or in lieu of the lower beam headlights to provide illumination under conditions of rain, snow, dust or fog.
- **Halogen Sealed Beam Unit:** An integral and hermetically sealed optional assembly containing a halogen inner bulb.
- **Headlamp Lower Beam:** A distribution of light so directed as to avoid glare in the eyes of oncoming drivers while providing illumination ahead of the vehicle and intended for use in congested areas and on highways when meeting other vehicles within a distance of five hundred feet (500').
- **Headlamp Upper Beam:** A distribution of light intended primarily for distance illumination and for use on the open highway when not meeting other vehicles.
- **Hazard Warning Lamps:** Hazard warning lamps are turn signal lamps that flash simultaneously to warn of the presence of a vehicular hazard.
- **Identification Lamps:** On trucks and buses eighty inches (80") or more in width. Lamps used in groups of three, in a horizontal row, which show to the front or rear or

both, having lamp centers spaced not less than six inches (6”) or more than twelve inches (12”) apart, mounted on the permanent structure as near as practicable to the vertical centerline and the top of the vehicle, to identify certain types of vehicles.

- **Indicator Lamps:** Indicator lamps are visible to the operator of a vehicle that indicate:
 - ♦ Appropriate electrical circuits are in operation.
 - ♦ Malfunction of vehicle performance, and
 - ♦ Requirement for remedial action by the operator of the vehicle.
- **Lane Changer:** A lane changer is a device, usually incorporated in the turn signal switch that will activate the turn signal lamps when held by the driver. It is intended for momentary use for signaling a lane change. When released by the operator, it will return to neutral and deactivate the signal lamp.
- **License Plate Lamps:** License plate lamps are lamps used to illuminate the license plate on the rear of the vehicle.
- **Operating Units or Switches:** Operating units or switches are devices by which the functioning of lamps is controlled.
- **Parking Lamps:** Parking lamps are lamps used to designate the front of a parked vehicle.
- **Passing Lamps (Auxiliary Low Beam):** An auxiliary lamp or lamps that may be used to supplement the low beam of a standard headlamp system. It is not intended for winding roads or congested city areas.
- **Replaceable Bulb Headlamp:** A headlamp unit comprising of one (1) or two (2) replaceable standard light sources (bulb and housing lens/reflector unit).
- **Reflective Devices:** Reflective devices are devices used on vehicles to give an indication to an approaching driver by reflected light from the headlamps of approaching vehicles.
- **SAE Lighting Identification Code:** The SAE lighting identification code is a series of standardized markings for lighting devices which a manufacturer or supplier may use to mark his product to indicate the SAE Lighting Standard or Standards to which the device is designed to conform. The code is not intended to limit the manufacturer or supplier in applying other markings to the devices.

- **School Bus Alternately Flashing Amber Signal Lamps:** Four alternately flashing amber signal lamps, two (2) at the front and two (2) at the rear to be operated by the driver at an appropriate distance before stopping the bus.
- **School Bus Alternatively Flashing Red Signal Lamps:** Lamps mounted at the same horizontal level, intended to identify the vehicle as a school bus and to inform other users of the highway that such vehicle is stopped on the roadway to take on or discharge school children. There shall be two (2) red lamps at the rear of the vehicle and two (2) at the front of the vehicle that shall be controlled by an automatically activated switch, and when activated shall flash alternately.
- **Sealed Beam Headlamp Assembly:** A sealed beam headlamp assembly is a major lighting device used to provide general illumination ahead of the vehicle. It consists of the following:
 - ♦ One (1) or more sealed beam units (bulb assembly)
 - ♦ Means for mounting securely to the vehicle
 - ♦ Means to permit required aim adjustment
- **Sealed Beam Unit:** An integral and hermetically sealed optical assembly with the “Sealed Beam” molded in the lens.
- **Sealed Beam Unit 5¾” Type 1, 1C or 1C1 Round:** A sealed unit 5¾” (146 mm) in diameter having a single filament and providing only an upper beam distribution of light.
- **Sealed Beam Unit 5¾” Type 2, 2C or 2C1 Round:** A sealed unit 5¾” (146mm) in diameter having two (2) filaments, one (1) filament providing the lower beam and one (1) filament providing fill-in light for the upper beam. It is aimed on the lower beam.
- **Sealed Beam Unit 7” Type 2, 2D or 2D1 Round:** A sealed unit 7” (177 mm) in diameter providing an upper and a lower beam. Two (2) similar units are used on a vehicle. This unit is aimed on the lower beam.
- **Sealed Beam Unit 7” (no identifying number on lens) Round:** A sealed unit 7” (177 mm) in diameter providing an upper and lower beam. Two (2) similar units are used on a vehicle. This is an obsolete unit no longer being installed in production. It should be aimed in the upper beam.
- **Sealed Beam Headlamp Type 1A or 1A1 or 1G1 6½” x 4¼” Rectangular (100 x 165 mm):** A sealed unit 6½” x 4¼” (100 x 165 mm) rectangular headlamp having a single filament and providing only an upper beam distribution of light.

- **Sealed Beam Headlamp type 2A or 2A1 or 2G1 6½” x 4¼” Rectangular (100 x 165 mm):** A sealed unit 6½” x 4¼” (100 x 165 mm) rectangular headlamp having two (2) filaments, one (1) filament providing the lower beam and one (1) filament providing fill-in light for the upper beam. It is aimed on the lower beam.
- **Sealed Beam Unit 100 x 165 mm Rectangular Type 2E or 2H1:** A sealed beam unit 100 x 165 mm rectangular have two (2) filaments, one (1) providing the lower beam and one (1) providing the upper beam. It is aimed on lower beam.
- **Sealed Beam Headlamp Type 2B or 2B1 200 mm x 142 mm Rectangular:** A sealed unit 200 mm x 142 mm (about 8” x 5”) rectangular headlamp have two (2) filaments, one (1) filament providing the lower beam and one (1) filament providing the upper beam. It is aimed on the lower beam.
- **Sealed Beam Unit 92 x 150 mm Rectangular Type LF:** A sealed unit rectangular headlamp having a single filament and providing only a lower beam distribution of light.
- **Integral Beam Unit 55 x 135 mm Rectangular Type L:** A sealed unit rectangular headlamp having a single filament and providing lower beam distribution of light and fill-in for upper beam.
- **Integral Beam Unit 55 x 135 mm Rectangular Type U:** A sealed unit rectangular headlamp having a single filament and providing only an upper beam distribution of light.
- **Sealed Beam Unit 92 x 150 mm Rectangular Type UF:** A sealed unit rectangular headlamp having a single filament and providing only an upper beam distribution of light.
- **Side Marker Lamps:** Side marker lamps are lamps on the left and right sides, beamed to the side. They are located near the front and rear on each side and, for vehicles over thirty feet (30’) in length, are also located at the midpoint (intermediate side marker).
- **Standard Replaceable light Source:** An assembly of a headlamp halogen bulb and base for use with replaceable bulb headlamps. The bulb may have one (1) or two (2) filaments providing lower beam, upper beam or both depending on application.
- **Stop Lamps:** Stop lamps are lamps giving a steady warning light to the rear of a vehicle, to indicate the intention of the operator of the vehicle to reduce speed or stop.

- **Symmetrical Beam:** A symmetrical beam is one in which both sides are symmetrical with respect to the median vertical plane of the beam. Lamps having symmetrical beams are:
 - ♦ 5¾" Type 1, 1C or 1C1
 - ♦ 5¾" Type 2, 2C or 2C1 (upper beam filament)
 - ♦ 100 x 165 mm Type 1A or 1A1
 - ♦ 100 x 165 mm Type 2A or 2A1 or 2G1 (upper beam filament)
 - ♦ 100 x 165 mm Type 2E1 or 2H1 (upper beam filament)
 - ♦ All 7" sealed beam units (upper beam filament)
 - ♦ 92 x 150 mm Type UF
 - ♦ Type 2B or 2B1 (upper beam filament)
 - ♦ Replaceable bulb headlamp (upper beam filament)
- **Tail Lamps:** Tail lamps are used to designate the rear of a vehicle.
- **Turn Signal Lamps:** Turn signal lamps are lamps that provide a flashing warning light to indicate the intended direction of the turn.

EQUIPMENT FOR TESTING HEADLAMPS

Headlamp testing equipment is required to be used when headlamps appear to be out of alignment.

All equipment for testing headlamps must comply with the Society of Automotive Engineers Recommended Practice for Headlamp Inspection Equipment.

- Headlamp testing machine.
- Mechanical aimer that can be used with mechanically aimable headlamps.
- Screen twenty-five feet (25') in front of the headlamp.

MECHANICAL AIMER

If a mechanical aimer is used, it shall be in good repair and adjustment, and shall be used according to the manufacturer's instructions and must be calibrated to the slope of the floor on which the vehicle stands.

HEADLAMP TESTING MACHINE

If a headlamp-testing machine is used, it shall give results equivalent to those obtained using the screen procedure below. It shall be in good repair and adjustment, and shall be used in accordance with the manufacturer's instructions. The machine using a photoelectric cell or cells to determine aim should also have a visual screen upon which the beam pattern is projected proportional to its appearance and aim on a screen at twenty-five feet (25'). Such visual screen shall be plainly visible to the operator and should have horizontal and vertical reference lines to permit visual appraisal of the lamp beam.

SCREEN (MUST BE AN APPROVED SCREEN)

If a screen is used, it should be six feet high by twelve feet wide (6' x 12') with a matte white surface well shaded from extraneous light, and properly adjusted to the floor on which the vehicle stands. Provisions may be made for moving the screen so that it can be aligned parallel with the rear axle and so that a horizontal line drawn perpendicularly from the centerline of the screen will pass an equal distance midway between the two (2) headlamps. The screen shall be provided with a fixed vertical centerline.

VISUAL SCREEN METHOD OF HEADLAMP AIMING

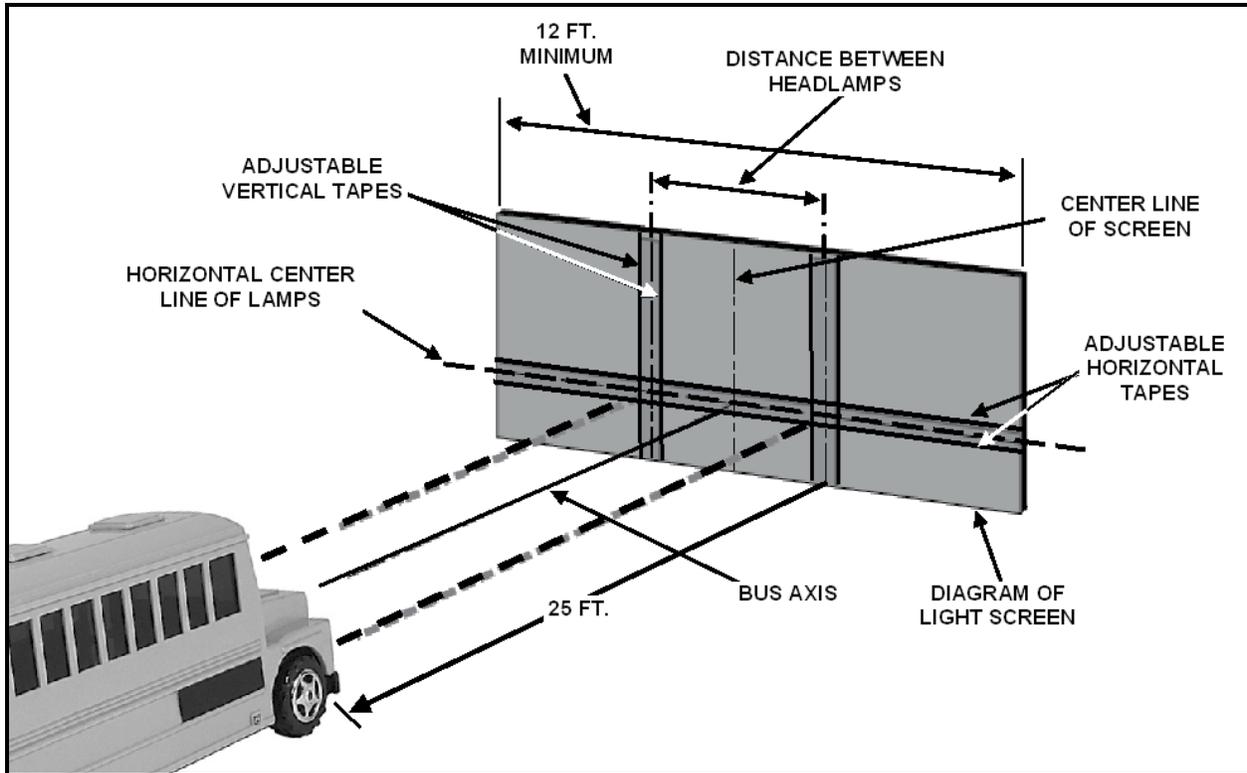
1. Setting up an aiming screen – Aiming area required:

It is desirable to have a specific aiming area in a darkened location. This should be sufficient for the vehicle and an additional twenty-five feet (25') measured from face of lamps to the front of the visual screen. The floor on which the vehicle rests must be flat, and level with the bottom of the screen.

2. Aiming screen:

If a regular commercial aiming screen is not available, the screen may consist of a vertical wall having a clear uninterrupted area approximately six feet (6') high and twelve feet (12') wide. The surface should be finished with a washable non-gloss white paint. Adjustable black tapes should be provided for use as guidelines.

After the aiming screen has been set up in its permanent location, it is necessary to paint a reference line on the floor directly under the lens of the lamps to indicate the proper location of the headlamps when they are being aimed. This reference line should be parallel to the aiming screen, and exactly twenty-five feet (25') from it.



RADIO – AM/FM SPEAKERS

Procedure:

Determine if any speaker is located above, just behind or to the left of the operator. If any speaker is present it must either be removed or made inoperable. This is in concurrence with a recommendation from the National Transportation Safety Board.

Reject vehicle if:

Any speaker that is located in the above area and has not been rendered non operable by either removal or disconnection.



Vehicle Glazing (Glass)

SECTION 6 – VEHICLE GLAZING (GLASS)

Automotive safety glazing is marked with the manufacturer's trademark and letters "AS" followed by a number from 1 through 11. Only AS1 (or AS10 Bullet Resistant) may be used in the windshield. Safety glazing for 1966 and later models also has a glass manufacturer's model number or a DOT code number. Refer to Additional Glazing Information further on in this section.

The word "discoloration" used in this Section refers to anything that impairs the transparency of the glazing.

PROPER MARKINGS

Procedure:

Inspect glass for proper markings.

Reject vehicle if:

1. Improper or unmarked glazing materials are used for specific positions.
2. Non-transparent materials such as plywood, etc. are used to replace glass.

SIDE WINDOWS

Procedure:

Determine whether all full side windows can be opened readily to provide at least a nine-inch by twenty-two inch (9" x 22") emergency opening. Also check closing.

Reject vehicle if:

1. Any side window cannot be readily opened to permit at least a nine inch (9") unobstructed emergency opening.
2. Any side window does not close properly.
3. Emergency buzzer does not function.

STICKERS – TINTING

Procedure:

Inspect all glass for unauthorized material or conditions that obscure driver's vision.

Reject vehicle if:

1. Glazed surfaces contain any stickers not permitted by law or regulation.
2. Unauthorized tinting material has been used. Any after-market tinting material sprayed, pasted, stuck or otherwise applied to the windshield or windows directly to the right or left of the driver.

CRACKS, CHIPS, DISCOLORATION

Procedure:

1. Inspect windshield and all windows for hazardous cracks, chips, sharp edges and discoloration of the laminate.
2. Advise driver if there are signs of the beginning of laminate discoloration.

Reject vehicle if:

1. There are cracks, discoloration or scratches to the front, right, left or rear of the driver which interfere with his/her vision.
2. Any windows are broken or have exposed sharp edges.

EDGING

If vehicle manufactured with banded glass:

Procedure:

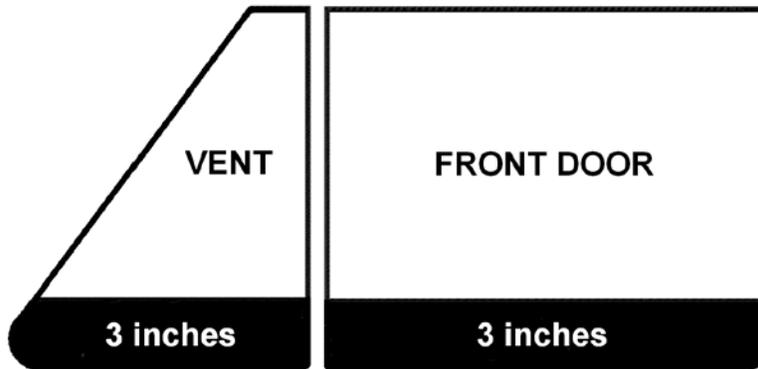
Inspect for unbanded exposed edges of glass.

Reject vehicle if:

1. If any exposed edges of glass are not banded.
2. If banding is loose or broken.

ADDITIONAL GLAZING INFORMATION

GLAZING POSITIONS



Remarks:

- Discoloration permitted as shaded diagram indicates.
- Star chips (stone nicks) larger than one and one-half inch (1½") in diameter at any location in the non-shaped portion of the diagram should not be permitted.
- Any crack or separation that allows one (1) piece of glass to be moved should not be permitted.
- Any exposed edges of glass should be banded.
- In school buses, rear glass should be same quality as side glass.

ADDITIONAL GLAZING INFORMATION

A person shall not operate on a highway in this state a motor vehicle registered in Vermont, manufactured or assembled after January 1, 1936, unless such vehicle is equipped with safety glass, wherever glass is used in doors, windows and windshields. The Commissioner of Motor Vehicles shall suspend the registration of any motor vehicle found to be operating in violation of this Section until the provisions hereof are satisfactorily complied with.

A person shall not paste, stick or paint advertising matter or other things on or over any transparent part of a motor vehicle windshield, vent windows or side windows located immediately to the left and right of the driver, except in a space not over four inches (4") high and twelve inches (12") long in the lower right hand corner of the windshield, or in such spaces as the Commissioner of Motor Vehicles may specify for location of any sticker required by governmental regulation, and further shall not hand any object other than a rear view mirror in back of the windshield of a motor vehicle.

The rear side windows and the back window only may be obstructed, provided the motor vehicle is equipped on each side thereof with a mirror, securely attached thereto and placed in such a position as to afford the driver, while driving, a clear view of the roadway in the rear and on both sides of the motor vehicle and of any vehicle approaching from the rear.

All periodic inspection stickers shall be placed on the INSIDE TOP CENTER OF THE WINDSHIELD. If the windshield is tinted, or is equipped with a plastic strip sunshade, (not more than three inches [3"] high) the inspection sticker shall be centered on the windshield just below the tint edge. On divided windshields, the inspection sticker shall be placed at the top of the windshield, just to the right of the divider strip.

BUS WINDOWS

1. Except as provided in paragraph (3) of this Section a bus manufactured before September 1, 1973, having a seating capacity of more than eight persons shall have, in addition to the area provided by the windshield, adequate means of escape for passengers through windows. The adequacy of such means shall be determined in accordance with the following standards: For each seated passenger space provided, inclusive of the driver there shall be at least sixty-seven (67) square inches of glazing if such glazing is not contained in a push-out window; or at least sixty-seven (67) square inches of free opening resulting from opening of a push-out type window. No area shall be included in this minimum prescribed area unless it will provide an unobstructed opening sufficient to contain an ellipse having a major axis of eighteen inches (18") and a minor axis of thirteen inches (13") or an opening containing two-hundred (200) square inches formed by a rectangle thirteen inches by seventeen and three-quarter inches (13" x 17¾") with a corner arcs of six inch (6") maximum radius. The major axis of the ellipse and the long axis of the rectangle shall make an angle of not more than four hundred fifty-five (455) with the surface on which the un-laden vehicle stands. The area shall be measured either by removal of the glazing if not of the push-out type or of the movable sash if of the push-out type, and it shall be either glazed with laminated safety glass or comply with this Section. No less than forty percent (40%) of such prescribed glazing or opening shall be on one side of any bus.
2. A bus, including a school bus, manufactured after September 1, 1973, having a seating capacity of more than ten (10) persons shall have emergency exits in conformity with Federal Motor Vehicle Safety Standard No. 217, Part 571 of Title 49 CFR.
3. A bus manufactured before September 1, 1973, may conform to Federal Motor Vehicle Safety Standard No. 217, Part 571 of Title 49 CFR, in lieu of conforming to paragraph (b)(1) of this Section.

PUNCH OUT WINDOW REQUIREMENTS

1. Except as provided in paragraph (3) of this Section, every glazed opening in a bus manufactured before September 1, 1973, and having a seating capacity of more than eight person, used to satisfy the requirements of paragraph (1) of the previous Section, if not glazed with laminated safety glass, shall have a frame or sash so designed, constructed, and maintained that it will yield outward to provide the required free opening when subjected to the drop test specified in Test 25 of the American Standard Safety Code referred to in 49 CFR §393.60. The height of drop required to open such push-out windows shall not exceed the height of drop required to break the glass in the same window when glazed with the type of laminated glass specified in Test 25 of the Code. The sash for such windows shall be constructed of

such material and be of such design and construction as to be continuously capable of complying with the above requirement.

2. On a bus manufactured on and after September 1, 1973, having a seating capacity of more than ten (10) persons, each push-out window shall conform to Federal Motor Vehicle Safety Standard No. 217, (§571.217) of Title 49 CFR.
3. A bus manufactured before September 1, 1973, may conform to Federal Motor Vehicle Safety Standard No. 217, (§517.217) of Title 49 CFR in lieu of conforming to paragraph (1) of this Section.

WINDOW MARKINGS

A bus manufactured before September 1, 1973, may mark emergency exits to conform to Federal Motor Vehicle Safety Standard No. 217, (§517.217) of Title 49 CFR in lieu of conforming to 49 CFR §393.63(a).



**Body,
Sheet Metal
and
Special
School Bus
Equipment**

SECTION 7 – BODY, SHEET METAL AND SPECIAL SCHOOL BUS EQUIPMENT

All school buses carrying more than six (6) students must have an outside mirror located on each side of the bus located so as to give an unobstructed view of the road to the rear.

EXTERIOR REARVIEW MIRROR

Procedure:

1. From the driver's position, visually inspect exterior mirrors on both sides for clear and reasonably unobstructed views past left and right rear of bus.
2. Look for correct location, stable mounting, cracks, sharp edges, unnecessary protrusion and ease of adjustment.

Reject vehicle if:

1. Mirrors not mounted on stable support.
2. Mirrors protrude an unnecessary amount beyond line offering satisfactory rear vision.
3. Mirrors obscured by pillars or un-wiped portions of windshield.
4. Mirrors cracked, pitted or clouded to the extent that rear vision is obscured.
5. If mirror is missing.
6. If mirror cannot be adjusted.

INTERIOR REARVIEW MIRROR

Rearview mirror – interior – must be so located as to give the driver clear vision of the interior of the bus.

Procedure:

From the driver's position, visually inspect interior mirror for proper mounting, location, cracks, sharp edges and ease of adjustment.

Reject vehicle if:

1. Mirror is loosely mounted.
2. Mirror does not provide a clear view of highway at least two-hundred feet (200') to the rear.
3. Mirror is cracked, broken, has sharp edges or cannot be cleaned; such that rear vision is obscured.
4. Mirror is very difficult to adjust or will not maintain a set adjustment.
5. Mirror is missing.

CROSSOVER MIRROR

School buses shall be equipped with a system of mirrors, if such a system is necessary to give the seated driver a view of the roadway to each side of the bus, and of the area immediately in front of the front bumper, in accordance with the following procedure:

When a rod, thirty inches (30") long, is placed upright on the ground at any point along a traverse line one foot (1') forward of the forward most point of a school bus, and extending the width of the bus, at least seven and one-half inches (7½") of the length of the rod shall be visible to the driver, either by direct view or by means of an indirect visibility system.

Procedure:

From the driver's position, visually inspect crossover mirror for proper mounting, location, cracks, sharp edges and adjustment.

Reject vehicle if:

If at least seven and one-half inches (7½") of the rod are not visible from the drivers seat.

WINDSHIELD WIPERS

Vehicles produced after January 1, 1969, must be equipped with wiper systems capable of operating at two (2) or more speeds.

A cycle shall consist of blade movement from one extreme of the wiper pattern to the other and return.

Equipment:

Source of clean water and a contact pressure-measuring device (recommended only).

Procedure:

1. Inspect for satisfactory operation. (If vacuum operated, engine must be idling and control full on.)
 - a. Windshield must be free of bugs, oil film or other foreign matter and must be continuously wet when tested.
2. Inspect for damaged, torn or hardened rubber elements of blades.
3. Inspect for damaged metal parts of wiper blades or arms.
4. Inspect for proper contact blades with windshield.
5. Raise arm away from windshield and release. Arm should return to original position and wiper blades should contact the windshield firmly.
6. Recommend replacement if arm fails to meet recommended pressure of one (1) ounce per inch of blade length by more than twenty percent (20%).

Reject vehicle if:

1. Both windshield wipers and/or vehicle headlamp wipers, if equipped, are not operational.
 - a. If the vehicle is equipped with a rear window wiper, this wiper is not required to be operational provided the vehicle is equipped with a securely attached mirror on each side, however, it is a recommended best practice the wiper functions.
2. Wipers do not operate at a speed of at least forty-five (45) cycles per minute, on one (1) of the speed settings.
3. If vehicles produced after January 1, 1969, do not have two (2) or more speed systems.
4. Blades smear or severely streak windshield after five (5) cycles.
5. Blades show signs of physical breakdown of rubber wiping element.
6. Parts of blades or arms are missing or are severely damaged.
7. If arm fails to return to original position or the blade fails to contact the windshield firmly.

WINDSHIELD WASHER

Procedure:

If the vehicle is equipped with a windshield washer system, inspect for proper operation of hand or foot control and an effective amount of fluid delivered to the outside of the windshield.

- **Note:** System must function when temperature is both above and below the freezing point of water.

If fluid level is low, advise driver.

Reject vehicle if:

1. System fails to function.
2. Fluid in system is frozen.
3. System is not capable of cleaning an effective wash area.

PROTRUDING METAL

Body exterior components and sheet metal parts, if damaged and/or dislocated so that they protrude from the vehicle to present a safety hazard to occupants, pedestrians or other vehicles; may be cause for rejection of the vehicle.

Procedure:

Inspect for torn metal parts, moldings, rub rails and rust holes with sharp/jagged edges, which may protrude from vehicle and cause a hazard to occupants or pedestrians.

Reject vehicle if:

1. Torn metal, glass or other loose or discolored parts protrude from the surface of the vehicle causing a safety hazard to pedestrians, cyclists or pupils.
2. Body and/or sheet metal exhibits rust holes with sharp/jagged edges which may cause a hazard to occupants or pedestrians.

BUMPER

Procedure:

Inspect bumpers for hazardous condition or unsafe mounting. Advise driver if bumper is loose.

Reject vehicle if:

If bumper is badly misplaced, loosely attached, broken or torn portion is protruding creating a hazard.

FENDERS

Procedure:

1. Inspect for removal of front or rear fenders.
2. Advise driver that all required items such as tail, stop and turn lamps, etc. must be properly mounted on replacement fenders.

Reject vehicle if:

If any fender has been removed.

SERVICE DOOR

The National Education Association recommends that service door may be split, sedan type or jackknife type with vertical closing edges covered with flexible material to protect children's fingers.

Procedure:

1. From driver's position, inspect function of opening and closing operation.
2. Inspect condition of flexible material on vertical closing edges.

Reject vehicle if:

1. If power or manual opening and closing device shows evidence of binding, jamming, excessive wear or malfunction.

2. If flexible material on vertical closing edges of service door is excessively loose, torn or missing.

EMERGENCY DOOR

Procedure:

1. Inspect for clear passageway to door.
2. Inspect inside and outside quick release mechanism.
3. Check length of stroke on slide bar/cam operated lock.
4. Check function of buzzer indicating door is not fully closed.
5. Check weather strip around door.
6. Check to be sure the emergency door will remain in the locked open position.

Reject vehicle if:

1. If passageway to emergency door is blocked or restricted in any way, too less than twelve inches (12") in width.
2. If door release mechanism fails to function positively when activated, from both inside and outside of bus OR it opens accidentally or too easily.
3. If slide bar has less than one inch (1") stroke length.
4. If buzzer fails to function in driver's compartment when slide bar is moved.
5. If gaskets are torn or missing around doors.
6. If emergency door latch will not keep emergency door in the open position. (For school buses 1990 and newer.)

EMERGENCY ROOF EXITS

Procedure:

1. All emergency exits shall open freely from the closed position, to full open position without restriction or interference.
2. Audible alarm must sound when opened.

3. Lock and vent must function properly.
4. Check for visual damage.

Reject vehicle if:

1. Does not operate or open freely.
2. Alarm does not sound.
3. Any visual damage.

HOOD

Procedure:

1. Open hood and inspect safety catch for proper operation.
2. Close hood and inspect for proper full closure.
3. Manually inspect latch or remote control for proper operation. (If engine is rear mounted, make a similar inspection of engine compartment door.)
4. Advise driver if latches or controls are difficult to operate.
5. Advise driver if excessive pressure is needed to fully close hood.

Reject vehicle if:

1. If hood latch does not securely hold hood in its proper fully closed position.
2. If secondary or safety catch does not function properly.
3. If latch release mechanism, or its parts are broken, missing or badly adjusted so that the hood cannot be opened and closed properly.

FLOOR PAN

Procedure:

1. Inspect floor pan for rusted-out areas or holes, which could permit entry of exhaust gases or will not support occupants properly.
2. Inspect floor covering for cracking, adhesion and sealing.

3. Check exterior of body for rusted out areas or holes.
4. Check body rail under bus for rusted out rails or cracked rails.

Reject vehicle if:

1. If floor pan (or floor) is rusted through sufficiently to cause a hazard to an occupant, or so that exhaust gases could enter the occupant compartment.
2. If floor covering is cracked, curled or worn so that it is not waterproof at the seams, or presents a tripping hazard.
3. If holes are located at a point where student's clothing might become caught or hand could enter.
4. If body rails are rusted out or cracked.

RIVETS AND BOLTS

Procedure:

Inspect entire bus for loose or missing rivets and bolts.

Reject vehicle if:

If there is evidence of excessive strain indicated by several loose or missing body rivets or bolts.

SEATS AND SEAT BELTS

Procedure:

1. Inspect seats to see that they are securely anchored to floor pan.
2. Inspect seats for condition of frames, springs and cover material.
3. Inspect driver's seat belt for frayed, split or torn webbing; malfunctioning buckles; loose or damaged anchorages on floor pan.
4. Inspect seat bottoms to see they are securely anchored to the seat rails.
5. Inspect for torn interior metal trim, etc. which may present a hazard to pupils.
6. Inspect seat belts retractors for proper function.

7. Advise driver if seat belts are on floor or are obviously not being used.

Reject vehicle if:

1. All seat anchor bolts are not securely fastened to floor or are missing.
2. Seat springs are exposed.
3. No seat belt is installed for driver.
4. Seat bottoms are not secured to seat frame.
5. Seat belt webbing is frayed, split or torn.
6. Buckles do not operate properly.
7. Belt anchorages are loose, badly rusted or not fastened to belt.
8. Belt mounting surfaces are badly deformed damaged or rusted.
9. Retractor fails to hold "extended" belt length or fails to roll belt back when disconnected.

SEATING IN CONVERTED BUSES

All vehicles in which the original seating has been modified or added to must comply with the following:

1. All seats must be readily accessible by use of an aisle or door without interference from any other seat or seats.
2. Minimum of thirty-six inches (36") headroom for sitting position above top of un-depressed cushion line of all seats shall be provided.
3. Minimum of twelve inches (12") shall be provided from the top of the un-depressed cushion line to the floor.
4. Seats shall be covered with fire-resistant material.
5. Jump seats or portable seats shall not be used.
6. Seat beside driver, if regular equipment or installed by vehicle manufacturer, may be used for pupil seating. It shall be securely fastened to body and shall be so constructed as not to interfere with pupils entering or leaving vehicles.
7. All seats shall be at least twelve inches (12") overall depth.

8. If forward-facing seats are used, they shall be so placed that distance from center to center measured at top center of backs shall be not less than twenty-six inches (26").
9. If longitudinal seats are used, only two (2) shall be installed against sides of vehicle and distance between front edges of seat cushions shall be at least twenty-four inches (24").

STANCHIONS AND GUARD RAILS

Procedure:

Inspect all stanchions, guard rails, grab handles, etc. for tightness.

Reject vehicle if:

If any looseness is detected, or fastening parts are missing.

SUN VISORS

The National Education Association recommends an interior sun visor for the driver not less than six inches by sixteen inches (6" x 16") in size.

Procedure:

Inspect sun visor for broken, bent or loose parts, which prevent it from being positioned or for visor that will not stay in a set position.

Advise driver if:

1. Visor cannot be positioned to protect driver's eyes from sun.
2. Advise driver if vibration from running engine causes visors to move from set position.

Reject vehicle if:

Driver's vision is obscured.

WINDSHIELD DEFROSTER

Defroster/Defogging should include the clearing of window to driver's left and glass in the service door, as well as the windshield.

Procedure:

1. Inspect for properly functioning windshield defroster, if vehicle is driven under conditions where frost or condensation might collect on the outside or inside of windshield.
2. The device and/or auxiliary fans (etc.) must keep windshield, window at driver's left, and glass in service door clear of fog, front and snow.

Reject vehicle if:

Windshield defroster/defogger fails to heat or function properly.

INTERIOR HEATERS

Procedure:

Inspect heater(s) for capability to maintain inside temperature of fifty degrees Fahrenheit (50° F).

Reject vehicle if:

1. Heater not capable of maintaining interior temperature of 50 F.
2. Heater or heater controls not working.

AUXILIARY FUEL FIRED HEATING SYSTEMS

Procedure:

1. Review manufacturer's recommendations to ensure the heating unit adheres to all recommended installation and maintenance criteria.
2. Ensure the heater unit exhaust is oriented so it is rear facing and slopes continuously downward and away from the heater to allow proper draining. Check the exhaust system carefully for restrictions or any blockage.
3. Ensure the heater unit exhaust port comes at least to the outer edge of the school bus body and is not installed immediately under the fuel tank, the fuel tank filler pipe, or any emergency window.
4. Check all connections, clamps and hoses for leaks, rust, corrosion or other condition, which could cause a malfunction.

5. Test fire the heater looking for black smoke or other indication an emission malfunction has occurred.

Reject vehicle if:

Any of the aforementioned components are malfunctioning. The heater should not be operated until properly serviced.

STEEPLE

Procedure:

Inspect general condition of steeple at service door entrance.

Reject vehicle if:

Step well is blocked, cluttered or surface material is loose.

VENTILATION

Procedure:

Check for function and proper quantity of fresh air under operating conditions.

Reject vehicle if:

System fails to furnish proper quantity of fresh air under operating conditions.

FIRE EXTINGUISHER

In all school buses carrying more than six (6) students, law requires a five (5) pound dry chemical type fire extinguisher, labeled by Underwriters Laboratories, Incorporated.

Procedure:

Inspect for presence of, location and readiness of the fire extinguisher. It must be a dry chemical type.

Reject vehicle if:

1. If it is missing.
2. Is not readily accessible to driver.

3. Is not minimum five (5) pound capacity.
4. Is not dry chemical type.
5. Is not properly charged.

FIRST AID KIT

Procedure:

Inspect for presence of and general condition of a first aid kit approved by the Commissioner of Motor Vehicles.

First Aid Kit shall contain the following at a minimum:

- ¾" x 3" adhesive bandages
- 1" x 2 ½ yards adhesive tape rolls
- 2" bandage compress
- 2" x 6" sterile gauze roller bandages
- 3" bandage compress
- Mouth-to-mouth airway
- Non-sterile triangular bandages approximately 40" x 36" x 54" with two (2) safety pins.
- Pair latex gloves
- Pair plastic gloves
- Rounded end scissors
- Sterile eye pads
- Sterile gauze pads 3" x 3"
- Sterile gauze pads 36" x 36"

These items shall be carried in a durable, dust proof container, plainly marked "FIRST AID KIT" and located in full view in the driver's compartment.

Reject vehicle if:

1. If first aid kit is missing.
2. Does not contain all required items in good condition.
3. Interior of first aid kit is dirty.

BODY FLUID CLEANUP KIT

Procedure:

Inspect for presence of a body fluid cleanup kit.

Reject vehicle if:

If body fluid cleanup kit is missing.

COLORS

Procedure:

Check to ensure school bus is proper color.

- **Note:** The Commissioner has determined that the roof of school buses may be white in color.

Reject vehicle if:

1. Type I:

- a. Designed to transport more than fifteen (15) passengers, must be National School Bus Yellow.

2. Type II:

- a. "Type II School Bus" means a school bus with a manufacturer's rated seating capacity of more than ten (10) and fewer than sixteen (16) passengers, including the operator and must be National School Bus Yellow.
- b. Motor vehicles with a manufacturer's rated seating capacity of fewer than eleven (11) persons, including the operator, which are owned, leased, or hired by a school, or for which services are reimbursed by a school and if used to transport students, shall be considered a Type II school bus for purposes of licensure, and shall display an identification sign as prescribed in subdivision 1283 (a)(1) of this title, and shall be equipped with a simple system of at least two (2) red alternating warning lights.

MECHANICAL STOP EQUIPMENT

Procedure:

1. Check to ensure mechanical stop sign is red in color and properly functions.
2. Check to ensure mechanical stop arm is yellow in color and properly functions.

Reject vehicle if:

Stop sign and/or stop arm are not functioning or are improper color.

RETROREFLECTIVE MATERIAL

- **Note:** This applies to all school buses manufactured after January 31, 2000.

Procedure:

1. Check to ensure the rear of the bus body shall be marked with strips of retroreflective NSBY material to outline the perimeter of the back of the bus using material which conforms with the requirements of FMVSS No. 131, *School Bus Pedestrian Safety Devices*, Table 1. The perimeter marking of rear emergency exits per FMVSS No. 217, *Bus Emergency Exits and Window Retention and Release*. To complete the perimeter marking of the back of the bus, strips of at least 1¾ inch retroreflective NSBY material shall be applied horizontally above the rear windows and above the rear bumper, extending from the rear emergency exit perimeter, marking outward to the left and right rear corners of the bus. Vertical strips shall be applied at the corners connecting these horizontal strips.
2. Sides of the bus body shall be marked with at least 1¾ inch retroreflective NSBY material, extending the length of the bus body and located (vertically) between the floor line and the beltline.

Reject vehicle if:

Retroreflective material is not present or affixed contrary to the above specifications.

HANDRAIL

Equipment:

A thirty six-inch (36") piece of one-eighth of an inch (1/8") cotton drawstring attached to a half-inch (½") hex-nut (three-quarters of an inch [¾"] across the flats). Tie one end of the string through the hex-nut with a simple knot.

Procedure:

1. Drop the weighted end of the drawstring tool into the crevice where the lower end of the handrail is attached to the lower area of the step well.
2. Pull the string steadily toward the outside of the bus through the crevice while standing outside the bus at ground level.

Reject vehicle if:

1. Hex-nut snags in the crevice.

2. Knot comes untied from pressure while snagged in the crevice.
3. Drawstring brakes from pressure while snagged in the crevice.

INTERIOR ITEMS

All items such as trash baskets, wheel chocks, chains, emergency reflectors and first aid kits must be secured to the interior of the bus.

Reject vehicle if:

Any of the above items are not secured to the interior.

BACK-UP ALARM

Inspect if equipped. If not equipped, back-up alarms will be required on all buses as of September 1, 2011.

Procedure:

Check to ensure back-up alarm sounds when vehicle is operated in reverse.

Reject vehicle if:

Alarm fails to sound or if sound is relatively inaudible.

ROAD FLARES AND TRIANGLES

Procedure:

Check to ensure bus is equipped with at least three reflective triangles and/or a minimum of three road flares.

Reject vehicle if:

No flares or triangles are present.



Exhaust System

SECTION 8 – EXHAUST SYSTEM

The exhaust system includes the piping leading from the flange of the exhaust manifold to and including the mufflers, resonators and the tail piping and may include a catalytic converter.

Procedure:

1. Visually examine mufflers, resonators, tail pipes, exhaust pipes and supporting hardware while vehicle is on a lift or over a pit.
2. Rusted or corroded surfaces should be given particular attention. (Holes in the system made by the manufacturer for drainage are not cause for rejection.)
3. Advise driver if there is excessive rust or corrosion.

Exhaust systems on passenger vehicles shall discharge the exhaust fumes at a location to the rear of the vehicle body or direct the exhaust fumes outward from the side of the vehicle body at a location rearward of any operable side windows.

Reject vehicle if:

1. Vehicle has no muffler.
2. There are loose or leaking joints.
3. There are holes caused by corrosion, leaking seams, or patches on muffler, exhaust pipe or tail pipe.
4. Tail pipe end is pinched or crushed which would restrict the exhaust flow.
5. Elements of system are not securely fastened.
6. There is a muffler cutout or similar device that allows excessive noise.
7. If any part of system passes through occupant compartment.
8. Does not discharge exhaust fumes at proper location.
9. Vehicle has no catalytic converter (required if installed as original equipment by manufacturer).



Emission Control System

SECTION 9 – EMISSION CONTROL SYSTEM

Inspection of the Emission Control System will consist of a visual inspection of the Catalytic Converter only.

Catalytic Converter

Procedure:

If the vehicle was originally equipped with a catalytic converter, visually examine for the presence of a properly installed catalytic converter(s) while vehicle is on a lift or over a pit.

Special consideration should be given to the following:

1. Many resonators or mufflers look like catalytic converters. Consult manufacturer's specifications, if necessary, for catalytic converter location.
2. Look beyond the converter heat shield to verify that the converter itself is present.
3. On many imported vehicles, the converter is located close to the engine. It may be necessary to raise the hood to verify the converters presence.
4. Some engines have two (2) converters, one (1) on each pipe of the manifold "Y" pipe, while others have only one (1) converter. Consult manufacturer's specifications.
5. Many "dual-bed" catalytic converters have an air injection tube installed between the beds. This tube must be present and connected for approval.

Reject vehicle if:

1. The catalytic converter is disconnected or removed.
2. When applicable, if the air supply to the converter is disconnected or removed.
 - a. To determine if a vehicle was originally equipped with a catalytic converter:
 - b. Locate the Vehicle Emission Control Information (VECI) label found under the hood. Vehicle built during 1966 – 1970 model years in conformity to U.S. standards may not have this label, but can be easily identified by a Department of Transportation (DOT) doorpost label indicating conformity with Federal Safety Standards. All 1971 and newer cars, light-duty trucks or multipurpose vehicles

are required to have this label placed in the engine compartment. This label, should indicate “Catalyst” if the vehicle was originally equipped with a converter.

- c. If unable to locate the VECI label, consult manufacturer’s specifications.
- d. In some instances, especially in the cases of pickup trucks and vans, it may be necessary to verify the gross vehicle weight rating (GVWR) of the vehicle. The GVWR can be determined by opening the driver’s door and reading the label on the edge of the doorpost.
- e. If it cannot be determined if the vehicle was originally equipped with a catalytic converter, contact the manufacturer for specifications.

FUEL CAP FILLER TEST

As part of Vermont’s effort to maintain clean air standards, before an inspection sticker may be attached to the car, truck or bus a check of the filler cap must be performed.

Procedure:

Visual examination of the fuel cap is required.

Reject vehicle if:

Fuel cap is missing or defective.

ON-BOARD DIAGNOSTIC (OBD II) TEST

Procedure:

Conduct a visual and electronic examination of the on-board diagnostic (OBD) system on all 1996 and newer passenger cars and light duty trucks (8,500 lbs. or less gross vehicle weight rating).

1. Visually examine the instrument panel to determine if the Malfunction Indicator Light (MIL) illuminates when the ignition key is turned to the “Key on, Engine off” position.
2. Connect an acceptable scan tool to the vehicle’s data link connector start the vehicle’s engine, following the scan tool manufacturer’s instructions, determine:
 - a. The vehicle’s readiness status,
 - b. If diagnostic trouble codes (DTCs) are present, and
 - c. MIL status (on or off)

3. Record the results of the OBD inspection on the appropriate form.

Reject vehicle if:

1. It is a 1996 or newer vehicle and the data link connector is missing, has been tampered with or is otherwise inoperable.
2. The MIL does not illuminate when the ignition key is turned to the “Key on, Engine off” position. It is acceptable for the MIL to go out within a few seconds after the ignition key is turned to the “Key on, Engine off” position, but if it does not come on at all, the vehicle must be rejected.
3. DTC’s are present and the MIL status, as indicated by the scan tool, is on. Do not reject the vehicle if DTC’s are present and the MIL status, as indicated by the scan tool, is off. MIL status must be determined with the engine running.
 - **Note:** An “acceptable scan tool” is a scan tool that complies with Society of Automotive Engineers Recommended Practice J1978, or has been approved by the Commissioner of the Department of Motor Vehicles.



Fuel System

SECTION 10 – FUEL SYSTEM

As a part of Vermont's effort to maintain clean air standards, before an inspection sticker may be attached to the car, truck or bus a, check of the filler cap must be performed. Refer to Section 9 ~ Emission Control System.

The fuel system includes the fuel tank, fuel pump and necessary piping to carry the fuel from the tank to the carburetor.

Procedure:

Visually examine the fuel tank support straps, filler tube (rubber, plastic, metal), tube clamps, fuel tank vent hoses or tubes, filler housing drain, overflow tubes and filler cap.

- **Note:** "STANDARD EQUIPMENT" and "PROPERLY EQUIPPED" as applied to a motor vehicle shall include only such motor fuel tank or tanks as are regularly installed by the manufacturer.

Reject vehicle if:

1. Any part of system is not securely fastened.
2. There is vapor or liquid fuel leakage caused by deterioration at any point in the system.
3. Fuel tank filler cap is missing.
4. Fuel tank is an auxiliary or added tank.
5. Fuel hoses or tubes are contacting moving components.



Frame

SECTION 11 – FRAME

The purpose of the inspection is to determine, through visual inspection, whether any defects exist in the frame rails, cross-members and sliding sub-frames (if so equipped).

BASIC FRAME COMPONENTS

- Two frame rails:

The frame rails are the foundation of the vehicles. The engine, transmission, cab, suspensions, etc., are attached to it.

- Cross-members:

Cross-members hold the frame rails the proper distance apart and control rotational and longitudinal motion. They provide protection and support for wires and air lines that cross the vehicle from one side to the other.

INSPECTING THE FRAME – A CHECKLIST

Component	Possible Defects
1. Frame	<ul style="list-style-type: none">Cracked, loose, sagging, broken.Broken or loose bolts or brackets.Accessories loosely bolted to frame.Holes drilled into top or bottom of rail flange, except where specified by the manufacturer.
2. Rear End Protection	Clearance between the bottom of the rear end protection and the ground greater than thirty inches (30") with the vehicle empty and no more than eighteen inches (18") from each side and no more than twenty-four inches (24") forward.

Procedure:

1. Inspect frame members.

Reject vehicle if:

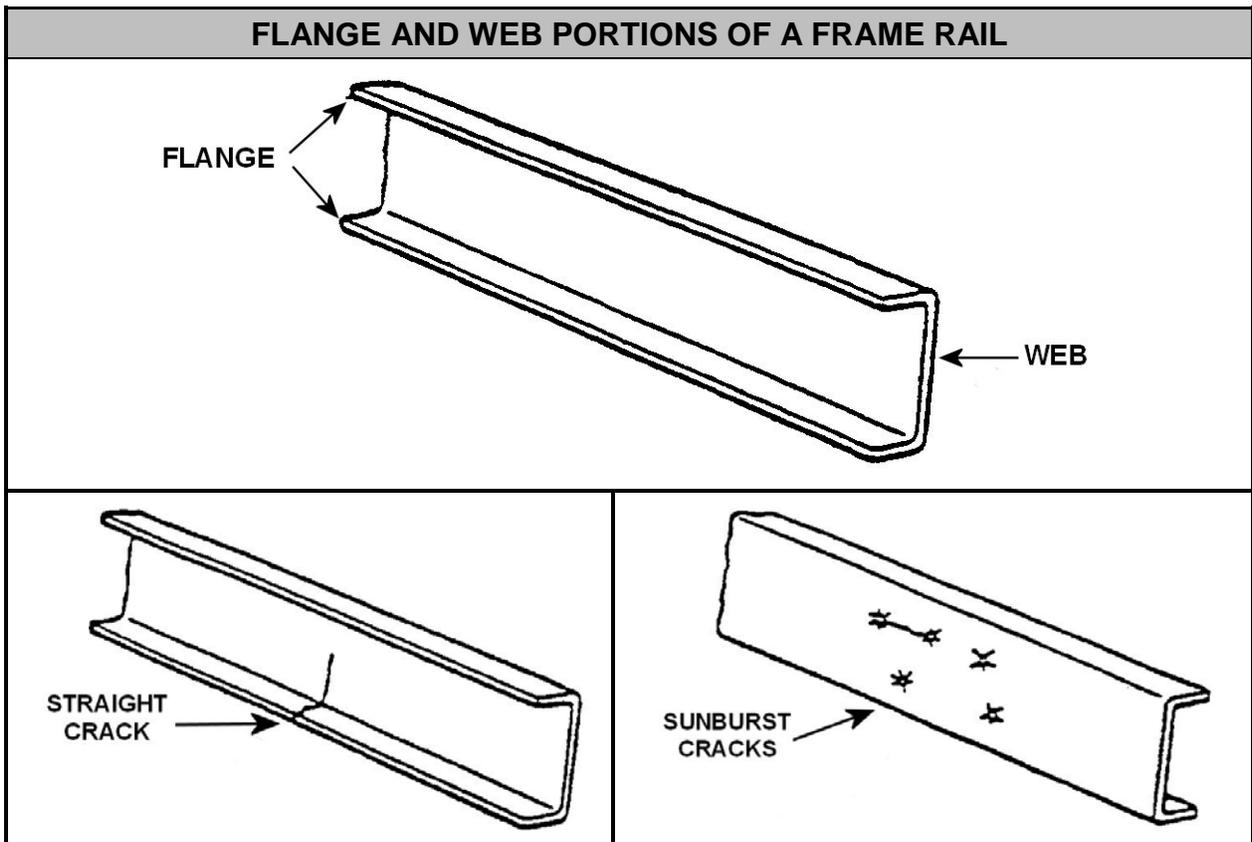
- Any cracked, loose, sagging or broken frame member permitting shifting of the body onto moving parts or other condition indicating an imminent collapse of the frame.

- b. Any cracked, loose or broken frame member adversely affecting support of functional components such as steering gear, fifth wheel, engine, transmission, body parts and suspension.
- c. Any bolts or brackets securing the cab or body to the frame are loose, broken or missing.
- d. Any frame rail flange between the axles is bent, cut or notched, except as specified by the manufacturer.
- e. Any hole drilled in the top or bottom rail flanges, except as specified by the manufacturer.

2. Check tire and wheel clearance.

Reject vehicle if:

Any condition, including loading that causes the body or frame to be in contact with a tire or any part of the wheel assemblies, at the time of inspection.



Flaps and Fenders

SECTION 12 – FLAPS AND FENDERS

MUD FLAPS AND FENDERS

Equipment:

Measuring device.

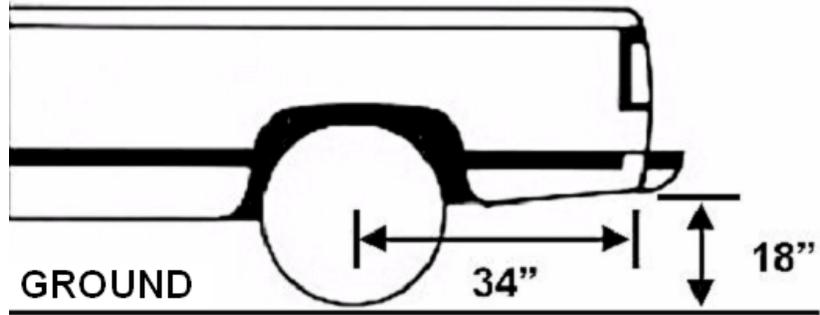
Procedure:

1. Inspect fenders and flaps to determine that they are solidly attached and of substantial material, cover the full width of the tread to prevent throwing dirt, water or other material onto the windshield of vehicles following.
2. If a flap is required, the following standards will be followed:

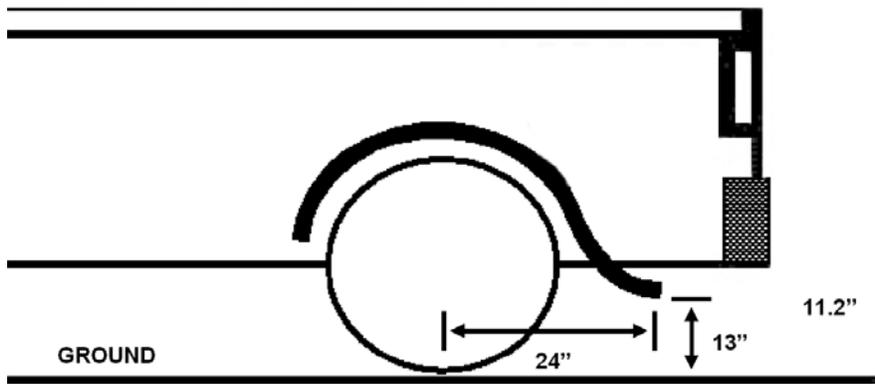
The splash pans stone throw protection device shall extend laterally for at least the width of the tires and shall be composed of material or flexible materials substantial enough to withstand ripping or tearing by ordinary means, and also shall be long enough so that the clearance from the ground to the bottom edge of the device shall be not more than one-half of the distance from the bottom edge of the device to the center line of the rearmost axle of the vehicle. However, the bottom edge of such device need be no closer to the road than six inches (6") when loaded.

Reject vehicle if:

1. Fenders of flaps are not solidly attached.
2. Are not constructed of substantial materials.
3. Are not of sufficient size or are not attached properly.
4. Do not meet the criteria set out in the following pictures.
5. Fenders do not cover the entire tread width.
6. Come into contact with the tire or wheel.



Flaps required, as the distance from rear edge of truck body to the ground is over half ($\frac{1}{2}$) the distance from center of rearmost axle to rear edge of body.



Flaps required, as the distance from rear edge of fender to the ground is over half ($\frac{1}{2}$) the distance from center of rearmost axle to rear edge of fender.



