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43 STATE HOUSE STATION  
AUGUSTA, ME 04333-0043

# MAINE MOTOR VEHICLE



# INSPECTION MANUAL

Revised 1998  
Traffic Division  
20 State House Station  
Augusta, ME 04333-0020  
Tel: (207) 624-8939



**APPLICATION FOR MOTOR VEHICLE INSPECTION MECHANIC/RENEWAL**

PLEASE READ CAREFULLY, INCOMPLETE APPLICATIONS WILL BE RETURNED

Full Name: (Print) \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

City, State, and Zip code: \_\_\_\_\_ SS#: \_\_\_\_\_

HOME TELEPHONE # \_\_\_\_\_ WORK TELEPHONE # \_\_\_\_\_

**APPLICANT MUST BE AT LEAST 18 YEARS OF AGE PRIOR TO DATE OF LICENSING.**

**IF CURRENTLY EMPLOYED BY A CERTIFIED INSPECTION STATION, YOU MUST INCLUDE:**

STATION NAME AND TOWN: \_\_\_\_\_ STATION # \_\_\_\_\_

**YOU MUST ANSWER ALL THREE QUESTIONS BELOW:**

1. Do you have a (VALID) Maine Driver's License? Yes \_\_\_\_\_ No \_\_\_\_\_
2. Have you (EVER) had (ANY) motor vehicle convictions? Yes \_\_\_\_\_ No \_\_\_\_\_ (EVER)
3. Have you (EVER) had (ANY) criminal convictions? Yes \_\_\_\_\_ No \_\_\_\_\_ (EVER)

**IF YOU ANSWERED YES TO QUESTION #2 OR #3, PLEASE EXPLAIN ON BACK**

I am applying to take the examination to inspect the following:

- \_\_\_\_\_(A) Motor vehicles not exceeding a gross weight rating of 10,000 lbs., and woods tractors, except school buses, motorcycles, mopeds, and motor driven cycles.
- \_\_\_\_\_(B) School buses, (MUST HAVE PASSED CLASS "A" AND "D" EXAM TO QUALIFY).
- \_\_\_\_\_(C) Motorcycles, motor driven cycles and mopeds.
- \_\_\_\_\_(D) Motor vehicles with a gross weight rating of 10,001 lbs. or more, vehicles designed to transport more than 15 passengers, vehicles used to transport hazardous materials in quantities required to be placarded, or commercial vehicles with a gross combination weight rating of 10,001 or more, except school buses. (MUST HAVE PASSED CLASS "A" EXAM TO QUALIFY).
- \_\_\_\_\_(E) Any gasoline powered vehicle required to be registered in Cumberland County which is subject to the Enhanced Inspection described in M.R.S.A. Title 29-A Sec. 1751 sub 2-A (Emissions inspection). (MUST HAVE PASSED CLASS "A" EXAM TO QUALIFY).

This application is a request for a RENEWAL of my current mechanic's license which was certified on:

DATE: \_\_\_\_\_ CLASS: \_\_\_\_\_

Have you failed the inspection mechanic's examination before? Yes \_\_\_ No \_\_\_ Date: \_\_\_\_\_

*I certify that the above statements as given by me are true to the bests of my knowledge. State Police have my permission to contact the people necessary to verify my statements on this application. I understand that misstatements on this application shall be cause for denying me the opportunity to take the test to qualify as a certified motor vehicle inspection mechanic, or shall be cause for a hearing concerning suspension of my certificate issued as a result of this application.*

ANY FALSE OR MISSTATED INFORMATION ON THIS APPLICATION MAY PUNISHABLE BY LAW TITLE 17A SECTION 453.

Signature: \_\_\_\_\_

**ALL MECHANICS ARE REQUIRED TO HAVE A CURRENT INSPECTION MANUAL**

APPLICATION FEE: \$1.00 INSPECTION MANUAL FEE: \$5.00

MAIL TO: DEPARTMENT OF PUBLIC SAFETY  
LICENSING AND INSPECTION UNIT  
164 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0164

**PLEASE ALLOW SIXTY(60) DAYS FOR NOTIFICATION TO TAKE THE EXAMINATION.**

**IF YOU FAIL TO APPEAR FOR THE EXAMINATION YOU WILL HAVE TO REAPPLY.**

DO NOT WRITE BELOW THIS LINE

APPLICANT'S SCORE: (passing grade 70) A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_ D \_\_\_\_\_ E \_\_\_\_\_

DATE: \_\_\_\_\_ STATE POLICE OFFICER'S SIGNATURE: \_\_\_\_\_

**INSPECTION STATION APPLICATION**  
**DEPARTMENT OF PUBLIC SAFETY-LICENSING AND INSPECTION UNIT**  
**164 STATE HOUSE STATION**  
**AUGUSTA, MAINE 04333-0164**

\_\_\_\_\_  
(Print Station Name)

\_\_\_\_\_  
(Print Station Address)

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
(Physical Address if Different)

\_\_\_\_\_  
Telephone Number

Type of Business: \_\_\_\_\_ Incorporated \_\_\_\_\_ Self-owned

\_\_\_\_\_ State owned

If Corporation, give name: \_\_\_\_\_

\_\_\_\_\_  
List Hours Open:

1. List your Licensed Inspection Mechanics:

(Name) (Date of Birth) (SSN#)

Do not mail this application until you have a licensed inspection mechanic.

2. How many hours per week will you be open? \_\_\_\_\_  
(Sixteen hours minimum)

3. Do you have a Maine Driver's License? YES NO

4. Have you ever had any Motor Vehicle Convictions?  
YES \_\_\_\_\_ NO \_\_\_\_\_

5. Have you ever had any Criminal Convictions?  
YES \_\_\_\_\_ NO \_\_\_\_\_

6. Indicate class of vehicles being applied for:

\_\_\_ A-Motor vehicles not exceeding a gross weight rating of 10,000 lbs., and homemade farm tractors and woods tractors.

\_\_\_ B-School Buses.

\_\_\_ C-Motorcycles, motor driven cycles and mopeds.

\_\_\_ D-Motor vehicles with a gross weight rating of 10,001 lbs or more.

\_\_\_ E-Any gasoline powered vehicle required to be registered in Cumberland County which is subject to the Enhanced Inspection described in M.R.S.A. Title 29-A Sec. 1751 sub 2-A (Emissions inspection).

AGREEMENT

I, the undersigned, owner or responsible official of the business named, located at the given address, do hereby agree to the following terms regarding the operation of this place of business, if licensed as an official inspection station.

STATION# \_\_\_\_\_

1. The Maine Statutes concerning vehicle inspection and the rules and regulations pertinent thereto, shall be observed and inspections of vehicles performed by personnel employed at this place of business.

2. Should it be determined that I, or those in my employ, have not complied with the vehicle inspection, rules and regulations, it is understood that my license to inspect vehicles in the State of Maine may be suspended or revoked.

3. It is further agreed that if my station license is terminated for any reason, I will surrender all State of Maine Inspection materials to the Maine State Police.

4. The premises described in this application is equipped as required and is ready for inspection.

5. I certify that the above statements as given by me are true to the best of my knowledge. State Police have my permission to contact the people necessary to verify my statements on this application. I understand that misstatements on this application shall be a cause for denying me the opportunity to operate a licensed inspection station, or shall be cause for a hearing concerning suspension of my certificate issued as a result of this application. ANY FALSE OR MISSTATED INFORMATION ON THIS APPLICATION MAY BE PUNISHABLE BY LAW TITLE 17A SECTION 453.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Owner's name: \_\_\_\_\_

Owner's address: \_\_\_\_\_

Home phone: \_\_\_\_\_

Owner's Date of Birth: \_\_\_\_\_

(State Police Use Only)

I find that the applicant is qualified for the following License:

A    B    C    D    T    E

FLEET    PUBLIC

\_\_\_\_\_  
State Police Officer

After inspection on \_\_\_\_\_ the applicant is not ready.

This application is void. Specifically: \_\_\_\_\_

(REPRODUCE AS DESIRED)

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*ADMINISTRATIVE*

*SECTION I*



**DEPARTMENT OF PUBLIC SAFETY  
BUREAU OF STATE POLICE**

Chapter 1 **MOTOR VEHICLE INSPECTION LAWS, RULES AND REGULATIONS**

**SUMMARY:** This chapter contains Rules and Regulations which describe the requirements which must be met before official inspection stations may issue certificates of inspection to each of the four classes of motor vehicles. It contains provisions concerning the qualifications of official Inspection Stations, the sequence of inspection for each class of vehicle, specific requirements relating to brakes, body components, exhaust systems, glazing, mirrors, lights, electrical system, steering, alignment, suspension, tires, wheels and special vehicles and penalties for violations.

Please note that all materials typed in upper case lettering are Maine Statute Law and that which is typed in lower case lettering are rules and regulations adopted by the Bureau of State Police.

1. **ADMINISTRATIVE PROVISIONS**

A. **INSPECTION OF LIMITED USE FARM TRUCKS, FISH TRUCKS, HOME MADE FARM TRACTORS AND WOODS TRACTORS.**

A HOME-MADE FARM TRACTOR WITH MOTOR AND CHASSIS AT LEAST 10 YEARS OLD AND HAVING A BODY CAPACITY OF NOT MORE THAN 1 1/2 CUBIC YARDS USED EXCLUSIVELY FOR AGRICULTURAL PURPOSES SHALL BE REGISTERED FOR A FEE OF \$2.00.

Limited use farm trucks, fish trucks and home-made tractors shall be submitted to a partial inspection consisting of running gear, steering, brakes, exhaust system and lights. Running gear shall mean the wheels, axles, springs and frame of a vehicle. If the vehicle has no windshield, the inspection sticker shall be kept with the registration certificate. Limited use farm trucks are subject to visual tire and wheel inspection as described in Sub-paragraphs b, c, d, e, f, g, h, i, j and k, page 2-30, 2-31. Woods tractors are subject to the same inspection as limited use farm trucks excluding lights.

B. **VEHICLES REGISTERED IN A FOREIGN STATE**

Any vehicle registered in a foreign state may, at the discretion of the owner or operator, be submitted to an official inspection station for the purpose of obtaining a Maine inspection sticker. Upon determination by the inspecting mechanic that the vehicle conforms in all ways to the requirements of the inspection laws,

rules and regulations of the State of Maine, a Maine inspection sticker may be issued and affixed to the vehicle as provided.

C. **RESPONSIBILITIES OF LICENSEE**

The person signing the inspection station application form has obligated himself and the station for which he is signing to comply with the following:

1. Act as a representative of the Maine State Police in the operation of the inspection station of which he is the owner or official in accordance with the law, rules and regulations.
2. Be solely responsible for maintaining in good condition all equipment and supplies issued by the State Police, and shall take particular care to ensure that inspection stickers and order forms assigned to the station are secured under lock and key to guard against loss, damage or theft.
3. Have available during business hours for inspection by a member of the State Police all materials concerning inspection that are required or issued.
4. To conspicuously display, so as to be visible from the highway, the inspection station sign furnished by the State Police except stations that are licensed to perform fleet inspections.
5. To notify the Traffic Division, phone 624-8939, immediately on discovery of any loss or theft of any inspection stickers. Such report shall be followed by a written statement on the form provided, setting forth the facts concerning a loss or theft of stickers, and a copy of such report shall be kept on file by the reporting station.
6. To display the inspection station license, mechanic's license and procedure chart in the area where the public has access during the time of inspection.
7. To ensure that inspection mechanics do not require any unnecessary replacement of parts or assess excessive labor charges.
8. Permit only certified inspection mechanics to do the actual inspection of vehicles and only such vehicles as they may be certified to inspect.
9. Permit inspections to be conducted only on licensed premises and in the building-described in the station license application, except fire apparatus, special mobile equipment, trailers, semi-trailers, and converter dollies.

D. **MANPOWER REQUIREMENTS**

1. A mechanic must be at least 18 years of age and may be certified only after examination by a member of the Maine State Police. A grade of 70% or higher must be obtained on the examination before a license may be issued. If an applicant fails to achieve a passing grade on the exam, a waiting period of 90 days may be required before re-examination.
2. A person desiring to be tested for a license as an inspection mechanic may obtain an application form from the State Police Officer servicing inspection stations in his area, or by writing to: Licensing & Inspection, 164 State House Station, Augusta, Maine 04333-0164.
3. Persons qualifying under this section to take an examination to certify as an inspection mechanic may request examination through-application if not employed in that capacity and any license granted shall be retained by the Department of Public Safety, Licensing & Inspection Division until licensee in writing notifies the Licensing Division of employment that requires an inspection license.
4. Misstatement of fact or any false statement on an application for examination will result in license denial.
5. Licensees of official inspection stations may request examinations of qualified new employees by contacting Department of Public Safety, Licensing Division, 164 State House Station, Augusta, Maine 04333-0164. A fee of \$6.00 shall accompany each application and shall be in the form of a check or money order. Five dollars of the fee will be the cost of an Inspection Manual, each inspection mechanic **must** have is own manual.

E. **TOOL AND EQUIPMENT REQUIREMENTS**

The following is a list of minimum equipment which must be available at Class A, B and D official inspection stations for use by an inspecting mechanic:

1. Ball Joint Gauge, dial indicator type, with frame attaching device
2. Brake Drum Micrometer or Caliper
3. Gauges suitable for measuring brake linings and pads

4. Headlight Testing Device (capable of checking the aim of all headlight systems, including aerodynamic headlight systems. If mechanical aimers are used, instructions for use must be available)
5. Jack or Lift (capable of lifting the vehicle by use of outer edge of lower control arm)
6. Portable Lights
7. Professional edition repair manual (domestic, imported, and truck) up to date to current year (Motors, Chiltons, Mitchell's etc.) or an electronic equivalent for all vehicles inspected.
8. Tire Tread Depth Gauge
9. Tire Pressure Gauge
10. Tire guide listing standard and optional tire sizes for various makes and models of automobiles and light trucks.
11. Additional equipment for Class E Stations:
  - a. A gas cap pressure testing device approved by the Department of Environmental Protection
  - b. An On-Board Diagnostics II Scan Tool capable of retrieving required error codes from all Class E vehicles

F. **WAIVER OF HEARING**

A licensed inspection mechanic or station licensee may waive his right to a hearing, as described in Title 5, Chapter 375, by voluntarily surrendering his license. The license shall be invalid for up to a six month period from the date of the surrender, at the end of which time the license will be returned and remain in full force until its normal expiration. If the license expires during the invalid period, the licensee must follow the normal procedure in applying for a license renewal.

G. **REFUSALS FOR VEHICLES FAILING INSPECTION**

1. In the event a vehicle fails to pass an inspection, the "Refusal" card may be completed by the inspection mechanic.
2. The top half of the card, with all spaces filled out (except "Date Defect Corrected," "Sticker issued # \_\_\_\_\_" and "Insp."), shall be given to the operator of the vehicle refused with instructions to mail to the address

on the reverse side of the card when the vehicle defect has been corrected and the last three items filled in.

3. The bottom of the card shall be mailed weekly to the address on the reverse side of the card.
4. An inspection station shall not refuse to issue an inspection sticker if the vehicle meets all requirements.
5. If a vehicle fails to pass inspection because of a mechanical defect that requires a measurement, such as ball joints, tires, brake components, etc., the refusal card if issued, shall state the excess of prescribed tolerances. In the case of ball joints, state whether the measurement of the refused ball joint is vertical or horizontal movement.

#### H. CERTIFICATE OF INSPECTION

1. Ordering

The following colored forms will be used when ordering stickers:

White - Motor Vehicle  
Blue - Trailer

Green - Motorcycle  
Yellow - School Bus

Checks or money orders received which are not accompanied by the Inspection Sticker Order Form or other written request will be Promptly returned.

The stub sheet shall be forwarded to the Department of Public Safety, Licensing Division, 164 State House Station, Augusta, ME 04333-0164, no later than 30 days after issuing the last sticker on each sheet. No additional stickers will be issued unless the record indicates that the station has returned, or is returning at the time of reorder, the stub sheets of previously issued stickers. Inspection Stations should order at least a three month supply of stickers per order.

#### I. USE

1. The inspecting mechanic shall write legibly the information required on the stub and the reverse of the inspection sticker. In the space opposite "Inspector's Signature," the inspecting mechanic will enter his name as he usually signs it. When the sticker is issued, the inspecting mechanic will remove the numerical block indicating the month during which the sticker expires before attaching the sticker to the windshield. When an inspection sticker is issued to a farm vehicle that is for limited use, write or print the word "**partial**" in the margin of the corresponding sticker stub.



2. Inspection stickers shall expire one year from the last day of the month in which issued. The motorcycle inspection sticker shall remain with the registration of the vehicle at all times.

**EXAMPLE - CLASS A, C, D AND E (TO INCLUDE MOPEDS AND TRAILERS):**

A sticker issued during January of 1986 would expire at midnight on January 31st, 1987. The month issued and the month of expiration will be the same, therefore, the inspecting mechanic shall remove the #1 block for all stickers issued during the month of January.

Issuance after December 31 of stickers provided for use during the prior calendar year shall be considered as a violation of the rules and regulations by the Official Station to which the stickers were sold.

3. **SCHOOL BUS** inspection stickers shall be ordered as described in paragraph H for use during February and August of each year. In the case of stickers issued in August, the #2 block shall be removed, and stickers issued in February, the #8 block shall be removed.

A stub is not provided with a school bus sticker; however, two (2) Report of School Bus Inspection sheets will be provided for each sticker ordered and shall be completed by the inspecting mechanic. The reporting sheets shall be placed inside the bus and shall be presented at the time of the Maine State Police inspection.

4. **TRAILER** inspection stickers are bound in sheets of twenty (20) inspection stickers with a corresponding stub sheet attached. The trailer inspection sticker has an adhesive backing. When issued, the sticker should be placed on the lower left lateral side of the trailer.

**J. CLASSES OF VEHICLES**

Every license issued to an inspection station or certificate issued to an inspection mechanic shall designate the types of vehicles which may be inspected by the holder of the license. Such designation letters shall correspond with the following and entitle the holder to inspect those classes of vehicles such letter designation represents.

1. **Class A** - Motor vehicles not exceeding a gross weight rating of 10,000 lbs., and homemade farm tractors and woods tractors.
2. **Class B** - School Buses.

3. **Class C-** Motorcycles, motor driven cycles and mopeds.
4. **Class D -** Motor vehicles with a gross weight rating of 10,001 lbs. or more, vehicles designed to transport more than 15 passengers, vehicles used to transport hazardous materials in quantities required to be placarded, or commercial vehicles with a gross combination weight rating of 10,001 lbs or more, except school buses. Intrastate farm registered trucks (non-limited use) and non-commercial vehicles such as motor homes and public works trucks shall be subject to a full inspection according to Section 2 of the inspection manual. The fee for such inspection is \$6.00 until January 1, 1999 when it shall be \$6.50, and \$9.50 for gasoline powered vehicles in Cumberland County. A farm registered truck operated interstate must obtain a commercial vehicle inspection in accordance with Section 5 of the inspection manual, such inspection will be performed at the posted labor rate of the Inspection Station.
5. **Class E** Any gasoline powered vehicle required to be registered in Cumberland County which is subject to the Enhanced Inspection described in M.R.S.A. Title 29-A Sec. 1751 sub 2-A (Emissions inspection). Does not include: Farm tractors, antique autos, island vehicles, limited use farm trucks and fish trucks subject to a partial inspection, motorcycle, motorized bicycle or tricycle, homemade woods tractor, farm tractor or special mobile equipment.

K. **SEQUENCE OF INSPECTION**

1. **SEQUENCE OF INSPECTION** (for cars, non-commercial trucks and buses)
  - a. Verify validity of registration and display of registration plates. Determine if the vehicle is registered in Cumberland County. If the Inspection Station and Mechanic are not licensed for Class E vehicles, do not proceed but refer the owner to the appropriate Inspection Station. No fee will be collected for a terminated inspection.
 

**Note:** A vehicle may be inspected when bearing a temporary plate or a transit plate.
  - b. Check vehicle serial or V.I.N. against registration certificate.
  - c. **IMPORTANT:** CHECK SUFFICIENCY OF SERVICE AND EMERGENCY BRAKES FIRST.

- d. Inspect the following:
  - I. Brakes
  - II. windshield
  - III. Horn
  - IV. Rearview mirror
  - V. Window glass
  - VI. Seat Belts (1966 and subsequent models)
  - VII. Steering mechanism
  - VIII. Suspension system
  - IX. Wheels and axles (including alignment)
  - X. Exhaust system
  - XI. Tires
  - XII. Headlights, including aim specifications
  - XIII. Tail lights
  - XIV. Registration plates and rear plate lighting
  - XV. Directional lights
  - XVI. Rear reflector
  - XVII. Body elements and sheet metal for hazardous conditions
  - XVIII. Splash guards (as required on trucks)
  - XIX. Catalytic converter on 1983 and subsequent models
  - XX. Fuel pipe restrictor on 1983 and subsequent models
- e. Record odometer reading.
- f. Record inspection on sticker receipt. **Note:** Record complete VIN
- g. Remove old sticker and affix new sticker.
- h. Note Item b in Sequence of Inspection (Class A, B, and C)
  - I. Inspect registration certificate for validation, vehicle description and vehicle identification number or numbers. If the registration certificate is not valid, refuse vehicle inspection. If V.I.N. is incorrect, complete MV-141, continue the inspection and mail form MV-141 to: Bureau of Motor Vehicles, 29 State House Station, Augusta, ME 04333-0029.

2. **SEQUENCE OF INSPECTION - MOTORCYCLES**

The following order is to be followed in the inspection of motorcycles:

- a. Verify validation of registration
- b. Check vehicle serial of V.I.N. against registration certificate.
- c. Inspect the following:
  - I. Service brake
  - II. Horn
  - III. Rearview mirror
  - IV. Steering mechanism
  - V. Suspension system and drive chain or shaft
  - VI. wheels and axles (including alignment)
  - VII. Exhaust system
  - VIII. Tires
  - IX. Headlights
  - X. Taillights
  - XI. Registration plate and rear plate lighting
  - XII. Directional lights
  - XIII. Rear reflector
  - XIV. Body elements and sheet metal for hazardous conditions

3. **TOOLS AND EQUIPMENT REQUIREMENTS (Motorcycle Stations)**

- a. The following is a list of minimum tools, equipment and parts which must be available at official motorcycle inspection stations for use by an inspecting mechanic:
  - I. Jack or lift (capable of lifting front or rear of motorcycle)
  - II. Portable lights
  - III. Tire pressure gauge
  - IV. Tire depth gauge calibrated in 1/32 inches
  - V. Gauges for measuring brake linings and pads
  - VI. Screen or light meter for aiming headlights

L. **REPLACEMENT STICKERS**

- I. **Replacement Sticker Agents:** The management of any firm engaged in glass replacement as the primary source of income and desiring to act as a representative of the State Police for the issuance of replacement inspection stickers shall make application for the appointment to the Department of Public Safety, Licensing Division along with a fee of \$1.00. Application forms may be obtained by writing to the Department of Public Safety, Licensing Division, 164 State House Station, Augusta, ME 04333-0164. The Director of the State Police Traffic Division shall determine whether or not a firm will issue replacement stickers.
- II. **Responsibility of Agents:-** Any owner or operator of an establishment applying for appointment as a replacement sticker agent shall pledge to do the following:
- a. Act as an agent of the Maine State Police in issuing replacement stickers only on a replacement windshield when the original sticker has been destroyed or damaged to the point where it cannot be transferred to the new windshield.
  - b. Replacement stickers shall be clearly marked with the word "Replacement" written on the back of the sticker.
  - c. The cutout on the replacement sticker shall be the same as the regular inspection sticker it replaces, to denote the month during which the original sticker was issued.
  - d. There shall be no safety inspection of the vehicle when issuing a replacement sticker, since the agent is simply attesting to the fact that a valid sticker was displayed on the original windshield.
  - e. Replacement stickers shall be purchased from the Maine State Police Traffic Division at a cost of \$20.00 per sheet, effective with 1999/2000 inspection stickers the cost shall be \$30.00, and the charge for issuance of a replacement sticker by an agent shall not exceed \$1.00 or \$1.50 after January 1, 1999.
  - f. The agent shall copy all information off the back of the original sticker onto the replacement sticker, except that he will place both his station number and the old station number to the new replacement sticker. He shall record the old station number and the old sticker number on the stub of the replacement sticker and attach the sticker being removed to the back of the stub sheet of the replacement sticker being issued.

- g. The stub sheet shall be forwarded to the Department of Public Safety, Licensing Division no later than 30 days after issuing the last sticker on each sheet.
- h. The agent shall agree to fully comply with all rules and regulations of Maine State Police relative to the replacement of stickers and have available during business hours, all records concerning inspection to be made available to any Maine State Police officer.
- i. The agent shall make certain he and his employees are thoroughly familiar with all applicable rules and regulations.
- j. Replacement stickers to be affixed only on a windshield located at the place of business that has been authorized by the Maine State Police.
- k. Keep up-to-date, accurate records as requested by the Director of the Traffic Division.
- l. Attach replacement stickers only on those vehicles whose windshields have been replaced by his employees and were found to have a valid inspection sticker attached at the time of replacement.
- m. Assume full responsibility for the security of all inspection stickers in his possession and to see they are secured under lock and key to guard against loss, damage, or theft.
- n. To notify the Traffic Division, phone 624-8939, immediately on discovery of any loss of any inspection stickers.

III. **Suspension or Revocation of Privileges:** If in the opinion of the inspection officer a flagrant violation has been committed by a station, then that will constitute grounds for immediate suspension for a period of up to six months for the first offense. A second flagrant violation will be grounds for complete revocation of license. A hearing will be scheduled with the Chief of the Maine State Police or his designee if requested in writing within 30 days from date of suspension. The suspension or revocation will remain in effect pending appeal or hearing.

IV. Laws, Rules and Regulations which pertain to regular Maine Motor Vehicle Inspection Stations shall also apply to glass replacement stations if applicable.

## Inspection of Class E Vehicles

Gasoline Powered Vehicles required to be registered in Cumberland County

In addition to the requirements of Section 2 of the Inspection Manual, the following shall apply to Class E vehicles.

Beginning January 1, 1999 the fuel cap on 1974 and subsequent models of gasoline powered vehicles will be subject to a pressure test. The inspecting mechanic will utilize a gas cap pressure testing device that has been approved by the Commissioner of the Department of Environmental Protection. The inspecting mechanic will follow the manufacturer's instructions when employing the gas cap pressure testing device. The fee for this test shall be \$9.50.

Beginning January 1, 2000 the on-board diagnostics (OBD) system on 1996 and subsequent models of gasoline powered vehicles will be inspected in accordance with the following procedure:

### ON-BOARD DIAGNOSTICS SYSTEM TEST (EFFECTIVE 01/01/00)

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.

1. Connect an acceptable scan tool to the vehicle's data link connector.
2. 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.
3. Start the vehicle's engine, and 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)
4. Turn off vehicle ignition, then disconnect scan tool.

Effective January 1, 2000 through December 31, 2000, any vehicle that does not pass the OBD test may still receive an inspection sticker, provided the vehicle meets all other inspection requirements. During this period, advise the owner/operator of the need to have the necessary service or repair done to the vehicle, and provide them with the OBD Fact Sheet. The

owner/operator must also be informed that the vehicle must be serviced or repaired in order to meet the requirements for this emissions inspection prior to the next inspection on or after January 1, 2001.

Reject vehicle if: (Effective January 1, 2001)

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 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. DTCs are present and the MIL status, as indicated by the scan tool, is **on**. Do not reject the vehicle if DTCs are present and the MIL status, as indicated by the scan tool, is off. MIL status must be determined with the engine running.
4. A vehicle shall be considered not ready for testing if no DTCs are present, MIL not commanded to be illuminated and the monitors are not complete. The station shall provide information to the vehicle owner on how to make the vehicle ready for testing. The vehicle shall return after self correction. An additional inspection fee may be charged for a retest.

### **Equipment:**

An "acceptable scan tool" is a scan tool which complies with the Society of Automotive Engineers (SAE) Recommended Practice J1978 and J1979, or has been approved by the Commissioner of the Department of Environmental Protection.

The fee for this test shall be \$12.50. A vehicle, which fails the OBD test and meets all other inspection requirements, shall not be denied an inspection sticker until January 1, 2001.

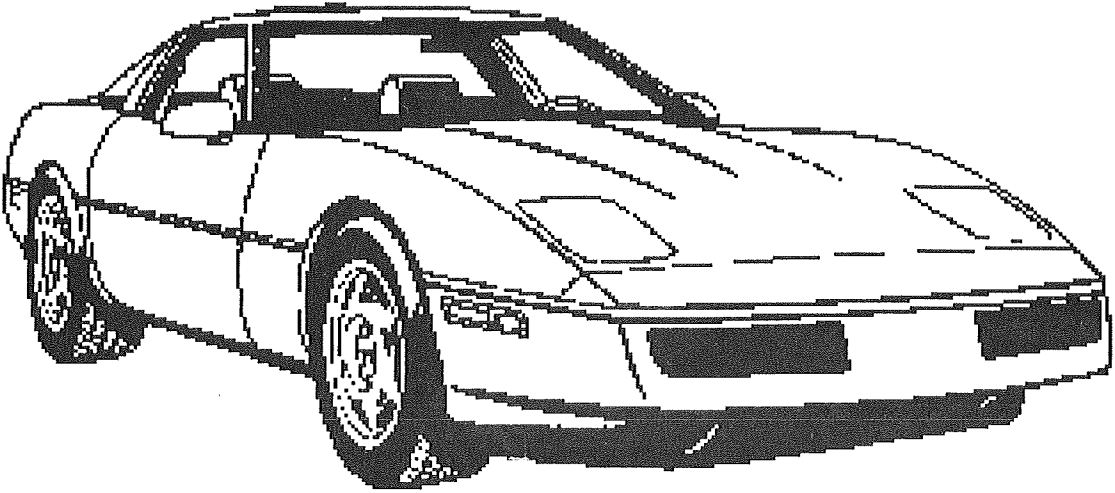
A vehicle which passes a Class E inspection shall receive a distinctive inspection sticker indicating compliance with the Enhanced Inspection Program. A Cumberland County registered vehicle not subject to Enhanced Inspection (either a 1973 or older vehicle or not gasoline powered) shall receive the distinctive Enhance Inspection Sticker, the fee for such vehicles shall be \$6.50.

**NOTE:** The age of the vehicle is determined by the year of the chassis. Installing an older engine in a vehicle is a violation of the Federal Clean Air Act.



Class E inspection stations must also be licensed for Class A vehicles and must employ an inspection mechanic licensed for both Class A and Class E vehicles. In addition to the equipment listed for Class A, B, and D inspection stations a Class E station must obtain an approved gas cap pressure testing device by January 1, 1999 and an OBD II scan tool by January 1, 2000.

# SECTION 2



# MOTOR VEHICLE INSPECTIONS



## 2. INSPECTION PROCEDURE STANDARDS

### A. BRAKES - TESTING AND VISUAL INSPECTION PROCEDURES

#### 1. DEFINITIONS

- a. **Service Brake System** is a brake system used for retarding, stopping and controlling the vehicle under normal operating conditions.
- b. **Parking Brake System** is a brake system used to hold and maintain a vehicle in a stationary position. (A positive mechanical means is employed to hold the brake applied when the vehicle is unattended.)  
**NOTE:** A micro-lock, so called, is not considered an adequate parking brake.
- c. **Pedal Reserve**, as applied to hydraulic, mechanical or power-assisted hydraulic brakes, is the amount of total pedal travel left in reserve when the pedal is depressed to the brake-applied position.

**Note:** Wheel and drums are not required to be removed from the vehicle being inspected to determine the condition of drums and linings unless, after driving the vehicle into the garage bay, the inspecting mechanic feels that something is definitely wrong with the brakes and advises the customer that the vehicle cannot be passed. Then, at the customer's request and with the clear understanding by the customer that pulling wheels and/or drums is not part of the inspection and will be considered as labor charge, the same as repairing any part of the vehicle, the inspection mechanic may remove the wheels and/or drums to show the customer why, according to regulations, the vehicle will not pass inspection.

#### 2. VEHICLE TESTS (Class A and B Vehicles)

- a. **Brake Hydraulic System**. Testing in a standing position. The inspector should be able to apply a moderate foot force (40-60 pounds in non-powered systems and 15-20 pounds in power-assisted systems) and maintain pedal height.
- b. **Pedal Reserve**. Test vehicle in a standing position. With the brake pedal depressed under moderate foot force (40-60 pounds in non-powered systems and 15-20 pounds in power assisted systems) there should be a minimum of approximately 1/3 of the available pedal travel remaining. Check power assisted systems with the engine running.

I. **Reject Vehicle if:**

(AA) Less than 1/3 of the total available pedal travel remains when pedal is depressed under moderate foot force.

C. **Service Brake and Transmission Test.** Test vehicle by driving vehicle into the service area. observe whether vehicle comes to a smooth stop without pulling to the left or right. Test the vehicle's transmission forward and reverse gears as well as the park position in automatic transmission to ensure proper working order.

I. **Reject Vehicle If:**

(AA) If the vehicle fails to stop smoothly and/or pulls to the left or right.

(BB) Vehicles that are not equipped with brakes on all axles.

(CC) The forward or reverse gears or the park position are inoperative.

(DD) Any warning light of on-board diagnostics indicates a malfunction with any equipment required to be inspected, such as brakes or supplemental restraint systems. All on-board diagnostics malfunction lights for any equipment required to be inspected must work properly. The light should illuminate when the ignition key is in the on position with the engine not running, and go out after the engine is started.

II. Every truck, tractor or truck tractor shall be equipped with adequate brakes acting on all wheels of all axles, except that:

(AA) ANY TRUCK, TRACTOR OR TRUCK TRACTOR HAVING 3 OR MORE AXLES NEED NOT HAVE BRAKES ON THE FRONT WHEELS IF MANUFACTURED PRIOR TO AUGUST 1, 1980, EXCEPT WHEN ANY SUCH VEHICLE IS EQUIPPED WITH 2 OR MORE STEERABLE AXLES, THE WHEELS OF 1 SUCH AXLE NEED NOT BE EQUIPPED WITH BRAKES.

(BB) ANY VEHICLE MEETING BRAKE REQUIREMENTS OF THE MOTOR CARRIER SAFETY REGULATIONS OR THE U.S. DEPARTMENT OF TRANSPORTATION SHALL BE CONSIDERED ADEQUATE.

d. **Parking Brake Performance**

I. **Reject Vehicle If:**

(AA) Parking brake fails to hold vehicle upon testing and/or actuator stroke has a reserve of less than 1/3 of the actuator stroke.

(BB) Three-wheeled Class C vehicles are not equipped with a parking brake.

II. **Parking Brake - Inspection Procedure Class B vehicles.**

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

III. **Reject Vehicle If:**

(AA) There is no reserve travel in the lever (pedal).

(BB) There is oil or grease on the drum or lining.

(CC) The lining is worn through to the steel band.

(DD) The lining fails to make proper contact with the drum when the brake is applied.

3. **VISUAL INSPECTION OF INTERNAL MECHANISM**

a. **Brake Linings and Disc Brake Pads**

I. **Visual Inspection Procedure:**

If, in the inspecting mechanic's judgment it is necessary, and with the customer's knowledge and consent, remove the minimum of 1 front and 1 rear wheel drum. If the lining is bonded, measure the lining thickness. If the lining is wire backed, observe if wire is showing in the friction surface. If the lining is riveted, measure thickness of lining above the rivets and inspect for loose or missing rivets. For any type of lining,

inspect for broken or loose linings and contamination of friction surfaces.

II. **Reject Vehicle If:**

- (AA) The thinnest point is less than 1/32 inch.
- (BB) Any rivets are loose or missing
- (CC) Lining is worn to within 1/32 inch of any rivet head.
- (DD) Wire backing is visible on the friction surface.
- (EE) Lining is broken or not firmly and completely attached to shoe.
- (FF) Cracked to a depth in excess of 50% of lining thickness.
- (GG) Lining friction surface is contaminated with oil, brake fluid or grease.
- (HH) Lining wear is-extremely uneven.

b. **Bolted Linings** - Class B Vehicles and Class A Trucks:

Measure lining thickness of center of shoe and inspect for loose or missing bolts.

I. **Reject Vehicle If:**

- (AA) Any fastening parts are loose or missing.
- (BB) Lining is worn to less than 5/16 inch at the center of shoe.

c. **Brake Drums - Brake Discs**

I. **Visual Inspection Procedure:** Inspect the condition of drum friction surface for substantial cracks extending to the open edge of the drum. (Short hair-line heat cracks should not be considered.)

Inspect for cracks on the outside of the drum.

Inspect for mechanical damage.

Inspect for contaminated friction surface.

Measure inside diameter of drum, thickness of disc.

II. **Reject Vehicle If:**

- (AA) There are substantial cracks on the friction surface extending to open edge.
- (BB) There are external cracks.
- (CC) There is evidence of mechanical damage other than wear.
- (DD) Friction surface is contaminated with oil, grease or brake fluid.
- (EE) Inside drum diameter is greater than the maximum diameter stamped on the drum. For unmarked drums, maximum diameter is usually .09011 (2.3mm) greater than standard drum diameter.
- (FF) Thickness of a disc is less than the minimum thickness stamped on the disc.

d. **Hydraulic System**

I. **Visual Inspection Procedures:**

- (AA) Inspect wheel cylinders for leakage. DO NOT DISTURB DUST BOOT.
- (BB) Inspect hydraulic hoses and tubes for leaks, cracks, chafing, flattened or restricted sections and improper support.
- (CC) Inspect master cylinder for leakage and fluid level. (Be sure no dirt gets into reservoir when cover is removed and that the gasket is serviceable).
- (DD) Inspect brake tubing for excessive rust.



II. **Reject Vehicle If:**

- (AA) Master Cylinder leaks.
- (BB) The fluid level is more than 1/4 inch below the lowest edge of any filler opening.
- (CC) The gasket is torn or missing.
- (DD) Wheel cylinders leak.
- (EE) Hoses or tubings leak, or are cracked, chafed, flattened, restricted or are insecurely fastened.
- (FF) Brake tubing is rusted to the point that failure is likely.

III. **Note:** Any replacement of hydraulic brake lines must be made with automotive rated tubing that meets the appropriate SAE standards. This safety tubing must be double-lap flared at the ends in order to produce a strong leakproof joint.

e. **Vacuum System for Power-Braked Vehicles**

I. **Inspection Procedure:**

Visually inspect system for collapsed, broken, badly chafed and improperly supported hoses and tubes, and loose or broken hose clamps.

II. **Reject Vehicle If:**

- (AA) Hoses or tubes are leaking or collapsed, broken, excessively rusted, badly chafed, improperly supported or loose because of broken clamps.
- (BB) Has insufficient vacuum reserve to permit one full brake application after engine is shut off.
- (CC) Has vacuum hose(s) or line(s) restricted, abraded (chafed) through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.
- (DD) Lacks an operative low-vacuum warning device as required.  
**NOTE:** Not applicable to vehicles manufactured prior to 1973.

(EE) Air cleaners clogged, preventing proper intake of air.

f. **Air Systems, Vehicles Equipped With**

I. **Air Pressure governor, Inspection Procedure:**

With the trailer(s) line uncoupled (if applicable) and tires chocked, fully charge the system to its maximum capacity, observe the gauge pressure, and determine if the governor has "cut-out." With the engine running, make a series of brake applications and observe the gauge pressure when the governor "cuts-in."

II. **Reject Vehicle If:**

(AA) Governor does not "cut-out." (Pressure released at pressure relief valve.)

(BB) Governor "cut-out" pressure is higher than 135 PSI.

III. **Air Pressure Build-up Time, Inspection Procedure:**

With the trailer(s) uncoupled (if applicable) and tires chocked, fully charge the system to governor cut-out pressure. Make one full brake application and note air pressure reading on gauge. Continue to reduce the air pressure by moderate brake applications to at least 10 PSI below the governor cut-in pressure. Release the brake and run the engine at the manufacturers maximum recommended rpm and determine the time required to increase the air pressure from the level achieved after one brake application to the governor cut-out pressure.

IV. **Reject Vehicle If:**

(AA) The time required to build pressure from the level after one brake application to governor cut-out pressure is more than 30 seconds.

V. **Air Pressure Warning Device, Inspection Procedure:**

With the air system fully charged, reduce the air pressure by moderate brake applications or by opening the drain cocks on the system. Observe the pressure at which the visual or audible warning device comes on.

VI. **Reject Vehicle If:**

- (AA) Vehicle air pressure gauge does not function properly.
- (BB) Air pressure warning device does not activate before pressure is lowered to 55 PSI or 1/2 of the governor cut out pressure, whichever is less.
- (CC) Air pressure warning device does not continuously operate below activation pressure.

VII. **Air Pressure Leakage, Inspection Procedure:**

With the air system fully charged and trailer lines connected (if applicable), stop the engine and with the brakes released, observe the pressure drop in one minute. After determining the pressure loss with the brakes released, make a full brake application and observe the pressure drop for one minute while the brakes are fully applied (engine off).

VIII. **Reject Vehicle If:**

- (AA) Leakage rate with brakes released in one minute exceeds: 2 PSI for single vehicles.
- (BB) Leakage rate with full brake application in one minute exceeds 3 PSI for single vehicles.

IX. **Air Pressure Reserve, Inspection Procedure:**

With the air system fully charged, stop the engine and note the air pressure. Make one full brake application and then observe the pressure drop.

X. **Reject Vehicle If:**

- (AA) Pressure drop is more than 20% of the first reading before the brakes are applied.

XI. **Air Brake Parts, Reject Vehicle If:**

- (AA) Air compressor mounting has loose, broken or missing bolts or other attaching parts.

- (BB) Air tank(s) mounting device such as straps, brackets or other hardware is broken, missing or loose.
- (CC) Flexible brake hoses are cracked, cut, burned, chafed, swollen in size or hardened so that they crack or break when bent.
- (DD) Rigid brake lines are cracked, broken, crimped, flattened or restricted, chafed or improperly retained.
- (EE) Any brake line or hose is in contact with any part of the exhaust system.
- (FF) There is any audible leakage in the air brake system.
- (GG) Air intake cleaner (for compressor) is clogged enough to prevent proper air intake.
- (HH) Air compressor drive belts are worn, frayed or loose.
- (II) Air compressor pulleys are bent or damaged so as to cause belt loss.
- (JJ) Hoses improperly repaired (such as a splice made by sliding two hose ends over a piece of tubing and clamping the hose to the tube).

g.

**Mechanical Linkage**

**I. Visual Inspection Procedure:**

- (AA) Inspect for worn pins and missing or defective cotter pins.
- (BB) Inspect for weak, broken or missing springs and worn cables, clevises, couplings rods and anchor pins.
- (CC) Inspect for frozen, rusted or inoperative connections.
- (DD) Check pedal shaft and bearings for high friction wear and misalignment.

- (EE) Check restriction of shoe movement at backing plate and for bind between brake shoes and anchor pins.

II. **Reject Vehicle If:**

- (AA) Mechanical parts are missing, broken or badly worn.
- (BB) There is high friction in pedal and linkage or in brake components.
- (CC) Brake operating levers are improperly positioned or misaligned.

B. **BODY COMPONENTS**

In general, body exterior components and sheet metal parts, protruding from the vehicle to present a safety hazard to occupants, pedestrians, cyclists or other vehicles shall be cause for rejection of the vehicle.

1. **DEFINITIONS**

- a. **Passenger Compartment:** The passenger compartment of a motor vehicle shall mean an enclosed interior area of a vehicle that is designed or used for the seating or carrying of the driver and/or passengers, separated from the engine and trunk compartments.
- b. **Floor Pan:** The floor pan of a motor vehicle shall mean the area from the fire wall to and including the trunk compartment.
- c. **Trunk Compartment:** The trunk compartment of a motor vehicle shall mean an enclosed area separated from the passenger compartment by a solid barrier and not designed or used for the conveyance of passengers.

- I. **NOTE:** Surface rust is not a cause for rejection. Exterior sheet metal directly surrounding and leading to the trunk and passenger compartment that has holes caused by damage or rust shall be rejected. Pickup trucks with caps installed over the body, if specifically designed at all for the carrying of passengers, shall be subject to this section and the area enclosed by such a cap shall be considered as a passenger compartment. Other exterior sheet metal components (fenders, quarter and side panels) are subject to rejection if these parts are loose or insecure from the body as a result of damage, rust or missing parts.

2. **Reject Vehicle If:**

- a. Missing bumper, if the vehicle was originally equipped with bumpers, bumpers are not securely attached or the area protected by the original bumper has been reduced by shortening the bumpers.

I. **Metal.** must be of apparent equal strength and protect the same general width at the same location, front or rear as original equipment.

II. **Wood.** If wood is used, it must be fastened securely to the vehicle and be of the hard wood variety, no less than 1 1/2" thick and no less than 5 1/2" wide and cover the same area as protected by the original bumper.

- b. Front or rear fenders that have been removed must be replaced.<sup>1</sup> If the replacement of a front or rear fender removes a required lighting device, reinstallation or replacement of such devices must be provided.

**NOTE:** Whenever a wheel and tire are installed on a motor vehicle that permits the tire tread to extend beyond the natural fender configuration, those fenders shall be modified or extended to provide coverage of the exposed tire tread.

- c. Doors with inoperative latches, hinges, broken or missing parts, wired shut or secured.

- d. Rocker panels or floor pans are rusted through or that will permit passage of exhaust fumes and gases into the trunk or passenger compartment.

I. **NOTE:** If the floor pan has any holes or is rusted away at any point, it shall be repaired with materials of equal strength securely fastened. The patch shall be sealed so as to prevent the possibility of fumes and gases entering the trunk or passenger compartment.

All replacement repairs on any motor vehicle shall be made with the same strength of material as the original and welded or riveted and sealed so as to prevent exhaust fumes or gases from entering the trunk or passenger compartment.

- e. Gas tank improperly secured to body or chassis, cap is missing on filler tank or fuel lines are leaking, fuel evaporation system hoses are broken or not connected or the gas tank is not of the type originally manufactured as

such for motor vehicles. Any gas or fuel leak anywhere in the fuel delivery system is grounds for rejection.

- f. Fuel line is rusted to the point that failure is likely.
- g. Fuel tank filler, vent and drain openings that are not located outside the passenger or trunk area and those not equipped with fuel pipe restrictors on 1983 and subsequent models.
- h. Seats which are not properly secured to the floor, or adjusting mechanism slips out of set position, or fails to function properly, or which have springs or parts protruding. Replacement seats must have been originally designed for motor vehicles. Seat belts that are not installed in 1966 and subsequent models and retractable seatbelts not functional in 1980 and subsequent models. Seat belts must be completely functional and be free from cuts and excessive fraying.
- i. Bodies of the unit construction type, if rusted to the extent that there is danger of a vital part failure.
- j. Chassis frame is broken or rusted at any point to a degree where structural weakness is probable.
- k. Hood latch mechanism fails to operate properly. Checking procedure: Manually attempt to open fully closed hood without disengaging catch. open hood to safety catch and inspect for full and proper engagement. Close hood with minimum force necessary to give apparent full closure from a visual inspection, then manually check again to determine whether hood can be opened without disengaging catch.
- l. The trunk compartment is not properly sealed and secured so as to prevent suction of exhaust fumes or gases into the trunk.
- m. Automotive batteries installed in the passenger compartment other than those originally installed by the manufacturer.
- n. Battery is not secured by a hold down or if the battery tray is rusted to the point of non-support.
- o. Automotive batteries originally installed by the manufacturer in the passenger compartment that are not secured and equipped with a protective covering to prevent injury and/or contact by any person.
- p. Splash guards. Required on vehicles registered for over 6,000 pounds, except that dumped trucks while working on construction projects, truck

tractors when not hauling a trailer or semi trailer, fire department vehicles, vehicle equipped with fenders, or motor vehicles with stake bodies which extend not less than six feet beyond the rear axle and which are registered as farm trucks need not be equipped with splash guards.

- q. If a vehicle was equipped with an airbag restraint system that has deployed, the airbag must be replaced.
- r. Vehicle leaks oil to such an extent or in such a location as to constitute a fire hazard.

C. **REGISTRATION NUMBER PLATES**

1. **Reject Vehicle If:**

- a. EACH VEHICLE DOES NOT HAVE A NUMBER PLATE ATTACHED TO THE FRONT AND ONE ATTACHED TO THE REAR, BOTH CLEARLY VISIBLE AND LEGIBLE. EXCEPTION: ONLY ONE DEALER OR TRANSIT PLATE IS REQUIRED TO BE DISPLAYED ON THE REAR AND ONLY ONE PLATE ON THE FRONT OF TRUCK TRACTORS.
- b. NUMBER PLATES ARE NOT DISPLAYED HORIZONTALLY.
- c. Any covering or discoloration which affects the original color of registration plates or reduces the visibility of registration plates shall be cause for rejection.

I. **NOTE:** IF ANY NUMBER PLATE IS LOST OR HAS BECOME MUTILATED OR ILLEGIBLE, A TEMPORARY NUMBER PLATE BEARING THE REGISTRATION NUMBER SHALL BE DISPLAYED AS NEARLY AS POSSIBLE IN THE POSITION OCCUPIED BY SUCH MUTILATED OR ILLEGIBLE PLATE. **NOTE:** The vehicle owner must have a receipt from the Bureau of Motor Vehicles showing that a replacement registration plate has been ordered..

II. **MOTORCYCLES:** IN THE CASE OF MOTORCYCLES OR MOTOR DRIVEN CYCLES, NO NUMBER PLATE SHALL BE ATTACHED TO THE FRONT OF SAID MOTORCYCLE OR MOTOR DRIVEN CYCLE.



D. EXHAUST SYSTEM

The exhaust system shall include the exhaust manifold the piping leading from the flange at the exhaust manifold to and including the mufflers, tail piping and catalytic converter (if required to be installed). The exhaust system should be examined visually while the vehicle is over a pit or on a hoist or jacked up sufficiently to allow proper examination. **Note:** A hoist or pit is strongly recommended and may be required after January 1, 2001. Rusted or corroded surfaces should be given special attention.

1. Reject Vehicle If:

- a. There are loose or leaking joints in the exhaust system, holes, leaking seams or loose interior baffles, or if the system has been repaired with a jacket, patch or in any other manner. Small holes obviously made by the manufacturer to provide drainage are not cause for rejection.
- b. The exhaust system elements are not fastened securely by use of hangers or clamps.
- c. Any part of the exhaust system passes through the passenger compartment.
- d. Flexible tubing has been used to replace any part of the exhaust system unless such tubing was factory installed as original equipment.
- e. The exhaust system does not discharge completely to the side or rear of the enclosed portion of the body of the vehicle.
- f. Vehicle is not equipped with a muffler or mufflers that are effective in reducing noise.

**NOTE:** "MUFFLER" MEANS A DEVICE CONSISTING OF A SERIES OF CHAMBERS OR BAFFLE PLATES OR ANOTHER MECHANICAL DESIGN FOR RECEIVING EXHAUST GAS FROM AN INTERNAL COMBUSTION ENGINE AND REDUCING NOISE. The muffler may not be louder than that which was originally installed on the vehicle by the manufacturer, see Title 29-A section 1912 (white pages in back of manual).

- g. Vehicle not equipped with a catalytic converter on 1983 and subsequent models.

## E. VEHICLE GLAZING - WINDSHIELD, SIDE AND REAR WINDOWS

1. **CHECK ALL SAFETY GLAZING MATERIALS** for the manufacturer's trademark and the words "American Standard" or the letters. "AS" followed by a number indicating the position in the vehicle in which the material may be used. (Reference - American Standard Safety Code Z26.1 - 1969 "Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways.")
2. Glass marked AS1 must be used in windshields and also may be used in any other location on the vehicle. AS2 glass may be used in any location except windshields.
  - a. ALL REPLACEMENT OF GLASS PARTITIONS, DOORS, WINDOWS OR WINDSHIELDS ON ANY VEHICLE SHALL BE MADE WITH SAFETY GLASS AS DEFINED IN M.R.S.A., TITLE 29, SEC. 1369. -
  - b. REPAIR OF WINDSHIELDS SHALL BE ALLOWED IF IT DOES NOT IMPAIR THE VISION IN THE CRITICAL VISION AREA.
    - I. The clear outline of repaired damage is not considered an impairment of vision.
    - II. A properly repaired damage shall be clear, refracting light in the same manner as the windshield and free of any cosmetic blemishes that extend beyond the allowable width.

**Cosmetic blemishes are:** Visible dirt, visible air bubbles which appear as black or silver spots, visible cracks with a discernible thickness which appear as black or silver lines, cloudiness of the laminate.
  - c. **Reject Vehicle If:**
    - I. VEHICLE IS NOT EQUIPPED WITH APPROVED SAFETY GLASS WHEREVER GLASS IS USED IN DOORS, WINDOWS AND WINDSHIELDS, IF THE VEHICLE IS ONE MANUFACTURED AFTER DECEMBER, 31, 1937.
    - II. Glass has been removed, if manufactured with glass windshield or windows.
3. Check windshield and all windows for cracks, sharp edges and discoloration.

a. **Reject Vehicle if:**

- I. Cloudiness extends more than 1 inch from the top or sides or more than 4 inches from the bottom edge of the windshield.
- II. Cloudiness (divided windshield), extends more than ½ inch on either side of the divider strip.

4. **CRITICAL VISION AREA:** That area of the windshield covered by the normal sweep of all except the lower 4 inches of properly adjusted wiper blades, utilizing factory installed blades or equivalent replacement.

a. **Reject Vehicle If:**

- I. Any unrepaired bull's eye fracture, star fracture, stone bruise, crack or chip within the critical vision area that measures more than ½ inch at its extreme edge or any repaired damage that has cosmetic blemishes extending beyond these perimeters.
- II. Any unrepaired crack is more than 4 inches long, or, any repaired crack that has cosmetic blemishes as to give it the appearance of being unrepaired, if it is in any location other than the area in which cloudiness is permitted.
- III. Windshield wiper scratches, mars or marks more than 4 inches long and 1/8 inch wide.
- IV. Any vehicle presented for inspection without a windshield if it was originally equipped with a windshield at the manufacturer, except limited use farm and fish vehicles, home made tractors and woods tractors.

5. Check Windshield and all windows for unauthorized material or conditions which obscure driver's view.

a. **Reject Vehicle If:**

- I. Any window is composed of, covered by or treated with any material which is reflective.
- II. The front windshield has any tint other than the sunshield strip which must extend no more than 4 inches from the top of the windshield unless that tint is part of a factory installed original equipment windshield installed in accordance with FMVSS 205.

- III. Any vehicle in which the side windows or rear window is composed of, covered by or treated with any material which has a light transmission of less than 50%.
- IV. The owner of the vehicle cannot provide the inspecting mechanic with a certificate of compliance approved by the Bureau of State Police that states that any window tinting material meets the minimum standards for light transmittance (50% of visible light).

**NOTE:** Any window tinting material which is installed on a motor vehicle which fails to meet the glass tinting standards must be removed.

**NOTE:** Multipurpose vehicles, such as a Blazer, Jimmy, Cherokee, Suburban, vans, etc. equipped with tinted glass on rear side windows and rear windows will be exempt from this provision: See section 1916 in back of manual.

6. **SIDE WINDOWS & REAR WINDOWS- REJECT VEHICLE IF:**

- a. Any cloudiness or defect that would constitute an obstruction to the driver's vision.
- b. Both left and right front window mechanism shall be in working order.
- c. Approval shall be refused for any glass which is broken or shattered so as to obstruct the vision of the operator or endanger the occupants of the vehicle.

F. **WINDSHIELD WIPERS**

1. **Reject Vehicle If:**

- a. Vehicle is not equipped with an adequate wiper or wipers. (If vehicle was provided with 2 wipers as standard factory equipment, both must be in working order). If a rear window wiper is present, it must be in working order.
- b. Any wiper does not operate freely or at a reasonable speed.
- c. Any wiper blade has dead or worn rubber or if metal makes contact with the windshield.

- d. Driver cannot reach and operate freely a hand wiper (if vehicle is not equipped with automatic wipers).
- e. The wiper blade length is less than 7 inches.

G. **REAR VIEW MIRRORS**

1. **Reject Vehicle If:**

- a. Vehicle must be equipped with all factory original rear view mirrors or their equivalent replacement.
- b. Mirror is not mounted securely to prevent swinging and excessive vibration.
- c. Mirror does not give the driver a view of the road 200 feet to the rear.
- d. Reflecting surface is peeled, tarnished or broken, unless the vehicle is equipped with another mirror that is adequate.

H. **SUNVISOR**

1. **Reject Vehicle If:**

- a. Vehicle is not equipped with a sunvisor on the driver's side.
- b. If the sunvisor cannot be maintained in the proper positions.

I. **LIGHTING AND ELECTRICAL**

**FOREWORD**

Sealed-beam headlamps have been standard equipment on all U.S. built vehicles since 1940. All round sealed beams are classified as either Type 1 or Type 2. Rectangular (6 1/4" x 4 1/2") sealed beams are classified as either Type 1A or Type 2A- Rectangular (5 1/2" x 8") are classified as Type 2B sealed beams. Type 1 and 1A units have high beams only; type 2, 2A and 2B units have both high and low beams.

The original 7" sealed beam, similarly, was equipped with 2 filaments. This lamp can be identified by the absence of "2" on the lens. It was designed to be inspected and aimed on the upper beam.

1. **GENERAL LAMP INSPECTION LIMITS**

General lamp inspection includes reflex reflectors and the following types of lamps: Head, tail, stop, license, clearance, signal, marker, side marker and fog/driving lights. Any original equipment light or its equivalent replacement must be present and functioning.

a. **Reject Vehicle If:**

- I. Any bulb in any lamp required by law or regulation which fails to function properly.
- II. Any improperly connected circuit which does not light the proper filaments for the different switch positions.
- III. A broken or missing lens.

**NOTE:** Minor cracks in the outer lens of a replaceable halogen bulb headlight assembly are acceptable as long as no moisture or dirt can enter the assembly. Repairs using the Novus or similar technology are permitted.

- IV. A headlamp with dirt or moisture inside, any obvious discoloration, contamination or reflector deterioration.
- V. A lamp which is not securely fastened to the vehicle.
- VI. A lamp showing a beam of color contrary to law or regulation.
- VII. Any lens required by law or regulation is covered by any device which reduces the amount of light transmitted or reduces the area of illumination of a lens by any amount. (includes tinted, louvered, or mesh covers)
- VIII. Beam indicator lamps which do not indicate the proper beam to the driver. Headlamps must work on both high and low beam.
- IX. Any lamp or lens which is turned or inclined so that its light is not properly directed.
- X. A broken, missing lens or reflex reflector.
- XI. Headlamps located less than 22 or more than 54 inches above the level surface upon which the vehicle stands except snow plows.

- XII. The backup lights fail to function when the vehicle is placed in reverse gear.
- XIII. The backup lights remain on when the vehicle is in any gear other than reverse.

2. **LAMP INSPECTION AND AIMING - VISUAL METHOD (SCREEN)**

- a. Headlamp aiming by the screen method requires a level area in a darkened location, sufficient for the vehicle and an additional 25 feet from lamps to the screen. (See Appendix)
  - I. Headlamps marked Type 1 are inspected and aimed on the upper beam.
  - II. Headlamps marked Type 2 are inspected and aimed on the lower beam.
  - III. Headlamps that exceed 150,000 candlepower are to be rejected. Quartz halogen lamps that are within the power limits will be marked "DOT."
  - IV. Aim Inspection Limits for Type I Sealed Beams or UF replaceable bulb type.
    - (AA) Vertical Aim Inspection - Reject vehicle if the center of the high intensity zone is more than 4 inches above or below the horizontal line.
    - (BB) Horizontal Aim Inspection - Reject vehicle if the center of the high intensity zone is more than 4 inches left or 4 inches right of straight ahead.
  - V. Aim Inspection Limits for Type 2 Sealed Beams or LF replaceable type.
    - (AA) Vertical Aim Inspection - Reject vehicle if the top edge of the high intensity zone is more than 4 inches above or below the horizontal line.
    - (BB) Horizontal Aim Inspection - Reject vehicle if the left edge of the high intensity zone is more than 4 inches right or left of straight ahead.

b. **Lamp Inspection and Aiming - Mechanical Method**

I. Type 1 or UF

(AA) **Vertical Aim - Approval shall be refused if** graduation is higher than 4 inches up or lower than 4 inches down.

(BB) **Lateral Aim - Approval shall be refused if** graduation is more than 4 inches to the right or left of straight ahead.

II. Type 2 or LF

(AA) **Vertical Aim - Approval shall be refused if** graduation is higher than 4 inches up or lower than 4 inches down.

(BB) **Lateral Aim - Approval shall be refused if** graduation is more than 4 inches to the right or to the left.

3. **TURN SIGNAL SYSTEM**

a. If any vehicle is provided with turn signals as standard factory equipment, those signals must be in operating condition before a sticker is issued.

b. **Reject Vehicle If:**

I. **Signal Lamp:**

(AA) Lens is not white to amber to the front, red to amber to the rear, or if the lens is broken.

(BB) Wiring is shoddy or electrical connections are poor.

(CC) Lamp housing is not securely fastened.

(DD) Proper signals do not go on with each throw of the switch.

(EE) Any vehicle is so constructed or loaded as to prevent the operator from making a hand and arm signal if such vehicle is not equipped with an approved type of signaling device.



II. **Operating Unit:**

(AA) Not functioning properly.

(BB) Self-cancelling mechanism not functioning properly.

III. **Stop Lamps**

(AA) Lamps do not go on with slight pressure on the brake pedal.

(BB) Lamps do not emit a red light.

(CC) Lens is broken.

(DD) Lamp housing is not securely fastened.

IV. **Note:** In the event that a tail or stop light lens is broken to the extent that light shows through at the time of inspection, the vehicle owner shall either replace that defective part or place an order through a selling agent and be able to show proof at the request of an inspection mechanic, or any police officer that the part is on order and that either a percentage or full price has been paid before an inspection sticker shall be issued.

4. **WIRING AND SWITCHES**

a. **Reject Vehicle If:**

I. Switches are not in good condition and not functioning properly.

II. Wiring in poor condition, improperly installed and so located as to incur damage.

III. Any connection is not tight or shows signs of excessive corrosion.

5. REAR LAMPS, LICENSE PLATE LAMPS AND REAR LAMP COMBINATIONS

a. Reject Vehicle If:

- I. TAIL LIGHT BULBS DO NOT PRODUCE SUFFICIENT LIGHT SO AS TO BE VISIBLE FROM A DISTANCE OF 100 FEET TO THE REAR.
- II. ALL TAIL LIGHTS DO NOT PRODUCE A RED LIGHT, or are broken, missing, discolored, or do not fit properly.

NOTE: Temporary repairs with red tape are not acceptable.

- III. LAMPS ARE NOT SECURELY MOUNTED IN THE CENTER OR TO THE LEFT OF THE AXIS or do not produce a steady light to the rear with brakes applied.
- IV. LICENSE PLATE LIGHT BULBS DO NOT PRODUCE SUFFICIENT STEADY WHITE LIGHT TO ILLUMINATE THE ENTIRE REAR LICENSE PLATE FROM A DISTANCE OF 50 FEET TO THE REAR.
- V. Lamp Housing is not securely fastened.
- VI. All tail and rear plate lights do not operate properly in all switch positions.
- VII. Any after market lighting device is installed around or near the license plate, including illuminated license plate frames, neon lights, blinking lights or any light other than the factory original license plate light or its equivalent replacement.

6. REFLECTORS

a. Reject Vehicle If:

- I. VEHICLE IS NOT EQUIPPED WITH AT LEAST ONE ADEQUATE REFLECTOR SECURELY ATTACHED TO THE REAR THEREOF. (MAY BE PART OF THE REAR LAMP.)
- II. REFLECTORS DO NOT HAVE RED LENSES or if lenses are broken.

III. NOT ADEQUATE TO REFLECT AT NIGHT ON AN UNLIGHTED HIGHWAY FOR AT LEAST 200 FEET FROM THE LAWFUL HIGH BEAMED HEADLIGHT OF A VEHICLE APPROACHING FROM THE REAR.

7. HORNS

a. Reject Vehicle If:

- I. Vehicle is not equipped with a horn, securely fastened to the vehicle, properly wired to an actuating device which is in good working order and easily accessible to the operator.

J. STEERING, ALIGNMENT AND SUSPENSION

1. DEFINITIONS

- a. Steering Linkage includes the following components: Steering wheel and shaft, rack and pinion, steering box, pitman arm, idler arm, center link, tie rods and steering knuckle.
- b. Suspension Systems include the following: Solid, tandem or I-beam axles, upper and lower control arms, ball joints or king pins, leaf, coil, air or torsion bar springs, spring hangers and shackles, U-bolts, radius arms, caster struts, trailing arms, equalizer beam assemblies, beam assemblies, torque rods, stabilizer bars, tracking bars and all related bushings, shock absorbers, washers and attaching components including the frame and cross members.
- c. Items listed in paragraphs a and b above are subject to inspection and must meet the standards set forth in this section. For more technical information concerning steering and suspensions that is not provided herein, the inspection mechanic shall refer to the repair or service manuals that include the vehicle to be inspected.
- d. Tie Rod End Inspection And Testing: Tie rods should be tested by the "dry park" method. Leave the weight of the vehicle on its suspension. Have a helper rock the steering wheel back and forth, while the inspection mechanic watches for any play or movement in the steering linkage. One man shops can still use this method by having the vehicle owner rock the steering wheel. Leaving the weight on the wheels and suspension creates resistance that makes the play in the linkage more visible.

Rack and pinion inner tie rod looseness can be felt by use of the “dry park” method. Pinch the bellows while a helper is rocking the steering wheel. If the rack has hard plastic bellows that can not be squeezed, then lift the vehicle and rock each wheel back and forth to inspect for looseness.

Idler and pitman arms can also be inspected by the “dry park” method. Consult the appropriate repair manual for manufacture’s tolerances.

**Reject Vehicle If:**

- I. There is any looseness or play in a tie rod end
- II. Rubber boots on a tie rod end are torn.
- III. Tie rod adjusting sleeve is bent cracked or stripped.
- IV. There is power steering fluid inside the boots of an inner rack and pinion tie rod end.
- V. Tie rod ends bind and do not rotate normally through the proper range.
- VI. Movement of any steering component in excess of the manufacturer’s specifications.

**NOTE:** On Ford systems with rubber bonded socket tie rod ends (RBS), replacement tire rods may be either RBS or conventional **but they can not be mixed.** Separation of the rubber bonding from the stud is grounds for rejection.

**NOTE:** Tie rods shall not be tested for excessive play by squeezing them with pliers or other mechanical means. Use hand pressure only to test for looseness in an up and down direction. Excessive force can cause the pre-load spring inside the tie rod socket to compress, giving a false impression of looseness.

2. **STEERING - LASH - TRAVEL**

- a. The steering system must be inspected to determine if excessive wear and/or maladjustment of the linkage and/or steering gear exists. Vehicle must be on a smooth, dry, level surface. on vehicles equipped

with power steering, the engine must be running and the fluid level, belt tension and condition must be adequate before testing.

- I. **Inspection Procedure:** With road wheels in straight ahead position, turn steering wheel until the turning motion can be observed at the road wheels.

Align a reference mark on steering wheel with mark on ruler and slowly turn in opposite direction until front wheel motion is again detected. Measure lash at steering wheel.

II. **Reject Vehicle If:**

- a. Rack and pinion boots are torn or if power steering fluid is leaking from the rack and pinion.
- b. Any binding in the steering linkage is detected or a total movement greater than shown in the following table is encountered at the steering wheel rim before the front road wheels indicate movement:

STEERING LASH - FREE PLAY VALUES

Steering Wheel Diameter (inches)	Lash (included)
15 or less.....	1 3/4
16.....	2
18.....	2 1/4
20.....	2 1/2
22.....	2 3/4

- a. **Inspection Procedure:** When the front spring is supported on the lower control arm, the vehicle must be hoisted from the cross member or frame. When the front spring is supported by the upper control arm, the vehicle must be hoisted at the lower control arm. (See Appendix 1, Figure 2).

With the front end lifted properly and wheels in the straight ahead position, grasp front and rear of tire and attempt to turn assembly right and left. Record movement of extreme front or rear of tire. On power steering equipped vehicles, the engine must be running while checking steering linkage play. Eliminate all wheel bearing movement by applying service brake either with assistance from another person or by a mechanical brake holder.

- I. **Reject Vehicle If:** Measurement is found to be in excess of the following table:

<b><u>Wheel Diameter</u></b>	<b><u>Play in Excess of</u></b>
16 inches or less	1/4 inch
17 and 18 inches	3/8 inch
Over 18 inches	1/2 inch

(measurement to be taken at a point on tire tread)

4. **KING PINS**

- a. **Inspection Procedure:** With the front end lifted from axle, measure movement at the top or bottom of tire at the outer circumference. Eliminate all wheel bearing movement by applying service brake either with assistance from another person or by a mechanical brake holder.

- I. **Reject Vehicle If:** Measured movement at top or bottom of the tire is greater than:

<b><u>ROAD WHEEL SIZE</u></b>	<b><u>PLAY IN EXCESS OF</u></b>
16 inches or less	1/4 inch
17 to 18 inches	3/8 inch
Over 18 inches	1/2 inch

5. **BALL JOINTS**

- a. Inspection of ball joints on models prior to 1973 must be conducted with joints unloaded. Beginning with some 1973 models, however, some manufacturers provide a wear indicating ball joint to facilitate inspection, in which case a visual inspection is made with joints loaded.

I. **Inspection Procedure - Vehicles without wear indicators**

Hoist the vehicle by the lower control arm when the spring is supported by the lower control arm, or hoist the vehicle by the frame when the spring is supported by the upper control arm. (See Figure 1, Appendix 1.)

- (AA) **Vertical Movement:** Position a pry bar under the tire and with a lifting motion sufficient to overcome the weight of the wheel assembly, move wheel up and down and observe movement shown on dial indicator.

- (BB) **Horizontal Movement:** Grasp the tire and wheel assembly at the top and bottom. Move in and out to detect looseness.

b. **Reject Vehicle If:**

The movement of the load carrying and/or non loading carrying ball joints exceed the manufacturer's tolerances. (See Appendix or appropriate repair manual for Tables)

c. **Inspection Procedure - Vehicles with wear indicating ball joints:**

Support vehicle with ball joints in a loaded condition. Wipe the grease fitting and boss free of dirt and grease. If the grease fitting boss is flush or inside the cover surface, refuse the vehicle inspection. (See Appendix, Figure 3.)

d. **Reject Vehicle If:**

"Ball Joint Kits" have been installed on any vehicle.

e. **Replacement of Steering and Suspension Parts**

All replacement of steering and suspension parts shall be made in accordance with the manufacturer's instructions.

f. **Springs - Torsion Bars - Shocks - Bushings**

I. **Reject Vehicle If:**

- (AA) Leaf springs have loose or broken leaves.
- (BB) Coil springs are broken, insecurely mounted or extended by spacers or blocks.
- (CC) There are loose, missing, broken or worn spring shackles or hangars, Unbolts or spring clips.
- (DD) The stabilizer bar, caster struts, trailing arms are loose, bent or broken.
- (EE) The control arms, radius rods, equalizer beam assemblies, beam assemblies, torque rods, struts or steering arm are loose, broken or bent.
- (FF) Rubber bushings are missing, split, badly deteriorated or badly extruded from suspension joints.

- (GG) Shock absorbers have excessive leakage (normal seepage is not cause for rejection) or have loose or broken mountings, worn, missing or defective bushings.
- (HH) Note: Shock absorbers in satisfactory condition should not exceed two cycles of free rocking motion.
- (II) Suspension mounting brackets on the vehicle frame are crooked or broken.
- (JJ) Torsion bars, on vehicles that are equipped, are broken or improperly adjusted.
- (KK) The rear axle is bent or not in proper alignment with the longitudinal axis, as determined by visual inspection.
- (LL) Any part of the steering linkage or components have been modified so as to effect the proper steering of the vehicle.
- (MM) The front or rear suspension has been altered or modified to raise or lower the front end or rear end by the use of blocks, spring shackle extension or the improper use of air shocks, spacers or other similar devices.
- (NN) Drive shaft universal joints or constant velocity joints show excessive wear or play. CV boots are torn or cracked to the extent that CV joints are contaminated with dirt, salt, or water.

g. **Inspection of "Fifth Wheels"**

- I. Determine if any attaching bolts, bushings, mounts or jaw assemblies have any cracks, excessive wear points, looseness or any other condition that may render the fifth wheel assembly unsafe. Replacement parts must be of the type specified by the manufacturer.



h. **Inspection and Alignment of the Energy**

Absorbing Steering Column (All 1967 and later passenger cars.)

I. **Steering Column Inspection**

To determine if the energy absorbing steering column components are functioning as designed or if repairs are required, a close inspection should be made. An inspection is called for in all cases where damage is evident or whenever the vehicle is being repaired due to a front end collision.

Whenever a force has been exerted on the steering wheel or steering column, or its components, inspection should also be made. If damage is evident, the affected parts must be replaced.

The inspection procedure for the various steering column components on all 1967 and later passenger vehicles is as follows:

(AA) **Column Support Bracket**

Damage in this area will be indicated by separation of the mounting capsules from the bracket. The bracket will have moved forward toward engine compartment and will usually result in collapsing of the mesh section of the steering column.

(BB) Inspect mesh section of column for bulged sections and/or bends.

II. **Air Bag Inspection**

**Reject Vehicle If:**

(AA) Any diagnostic light or malfunction code indicates the air bag is not functioning properly, or if any diagnostic light fails to illuminate with the ignition key in the on position with the engine not running.

(BB) Any deployed air bag has not been properly replaced with a functioning replacement.

(CC) Any air bag has been disconnected. If a disconnect switch, other than factory original, has been installed **the owner must have a bona fide letter of authorization from the National Highway Traffic Safety Administration. Upon sale or trade of a vehicle equipped with an airbag disconnect switch that is not factory**

**original to a person not in possession of a letter of authorization from the National Highway Traffic Safety Administration, the vehicle must be restored to its original configuration.**

K. **TIRES AND WHEELS**

1. **METHOD OF MEASURING TREAD DEPTH:**

Tire tread depth shall be measured by a tread depth gauge which shall be of a type calibrated in 1/32 inch. Readings shall be taken in 2 adjacent major grooves at 2 points in each of the grooves not closer than 15 inches. Readings for a tire which has the tread design running across the tire or for a siped tire, where such tread design is permitted, shall be taken at or near the center of the tire at 2 points of the circumference not closer than 15 inches.

2. **TREAD DEPTH REQUIREMENTS**

No tire may be deemed to be in safe operating condition if such tire is worn to the point where less than 2/32 inch of tread design remains at all 4 points at which gauge readings are obtained.

3. **Reject Vehicle If:**

- a. Any tire is worn to the point where less than 2/32 inch tread design remains at all 4 points at which gauge readings are obtained, or where any part of the ply or cord construction is exposed.
- b. Any tire has any bump, bulge or knot.
- c. Any tire has tread cuts or snags in excess of 1 inch in any direction and deep enough to expose the body cords.
- d. Any tire has been re-grooved or re-cut below the **original** tread design depth, except special tires which have extra under-tread rubber for this purpose and are marked "regrooveable".
- e. Any tire has sidewalls damaged to the extent that the body cords are damaged. Tire repairs made by use of a tire plug only are grounds for rejection. A tire puncture may be repaired by the use of a plug and a vulcanizing patch applied to the inside of the tire. **Note:** The tire must be removed from the rim for repair and the casing inspected for damage.

- f. There is a mismatch in nominal size, construction and profile between tires on the same axle, or a major deviation from the size as recommended by the manufacturer (e.g., as indicated on the glove box placard on 1968 and later passenger cars) are causes for rejection. Any vehicle with an anti-lock brake system may only be equipped with tires recommended by the manufacturer.  
**Note:** Serious handling problems are likely to occur if tires of different speed ratings are mixed on a vehicle. Although not recommended, if radial and bias ply tires must be mixed on a vehicle, the radials should go on the rear.
- g. Any tire has tread that extends beyond the fender. Unless equipped with adequate fender flares.
- h. Equipped with studded tires in violation of law. (May not be used May 1 to October 1)
- i. A front wheel drive vehicle is equipped with studded snow tires only on the front axle (should have four studded tires).
- j. The wheels are loose or there are missing or defective bolts, nuts or lugs.
- j. A wheel is bent, loose, cracked, damaged or has defective rim or wheel flanges.
- k. Any tire or tires are marked "off highway use only" or "for racing use only."
- l. Parts shall be so designed and installed that nuts shall be fully engaged.

4. **ADDITIONAL REQUIREMENTS FOR CLASS C VEHICLES WITH TWO WHEELS**

- a. **Reject Vehicle If:**
  - 1. Tires and wheels are not manufactured for two wheeled motor vehicles.
  - 2. Any wheel spokes are loose, broken, bent or missing.
  - 3. Front axle support pad bolts or locks are loose or missing.

L

**REQUIREMENTS FOR INSPECTION OF SPECIAL MOBILE EQUIPMENT; FLEET STATIONS**

1. Special mobile equipment must be registered in accordance with M.R.S.A. Title 29-A section 513. SPECIAL MOBILE EQUIPMENT MEANS A SELF-PROPELLED DEVICE OPERATED OVER THE HIGHWAYS THAT IS NOT DESIGNED OR USED PRIMARILY FOR THE TRANSPORTATION OF PERSONS OR PROPERTY, INCLUDING, BUT NOT LIMITED TO, ROAD CONSTRUCTION OR MAINTENANCE MACHINERY, DITCH-DIGGING APPARATUS, STONE CRUSHERS, AIR COMPRESSORS, POWER SHOVELS, CRANES, GRADERS, ROLLERS, TRUCKS USED ONLY TO PLOW SNOW AND CARRY SAND AS BALLAST, WELL DRILLERS AND WOOD-SAWING EQUIPMENT USED FOR HIRE OR SIMILAR TYPES OF EQUIPMENT. SPECIAL MOBILE EQUIPMENT THAT MAKES FREQUENT MOVEMENT OVER PUBLIC WAYS, INCLUDING BUT NOT LIMITED TO, WELL DRILLERS OR AIR COMPRESSORS, IS CONSIDERED CLASS A EQUIPMENT. ALL OTHER SPECIAL MOBILE EQUIPMENT MAY BE CONSIDERED CLASS A OR CLASS B EQUIPMENT AT THE OPTION OF THE REGISTRANT.
2. The owner of any vehicle registered as special mobile equipment must obtain a permit to move over ways or bridges in accordance with M.R.S.A. Title 29-A section 2382, if such vehicle is in excess of legal width, length or height or if such vehicle weighs in excess of 10 tons. This permit must be obtained from the Secretary of State (287-8630) or local authority maintaining the way or bridge.
3. The Chief of the Maine State Police is authorized to make necessary rules and regulations concerning the inspection of special mobile equipment by M.R.S.A., Title 29-A section 1769.
  - a. Special mobile equipment shall be inspected to determine the adequacy of the following:
    - I. Brake and lights
    - II. Steering
    - III. Tires, wheels and drive line(s)
    - IV. Engine and exhaust system
    - V. Hydraulic and cable controls
    - VI. Any other mechanical parts or body components that may affect the safe operation of such equipment.

- b. Special mobile equipment shall be inspected annually. Rollers, pavers and bulldozers operated on tracks are exempt from annual inspection.
- c. Such equipment shall be inspected before being operated over a public way, whether or not an over-limit permit is required.
- d. An owner, for the purpose of these rules and regulations governing the inspection of special mobile equipment, is defined as an individual, corporation or partnership holding title to a vehicle or having exclusive right to the use of and maintenance responsibility for the same under contract or lease.
- e. An owner may inspect his own equipment so long as he is approved by the Chief of the Maine State Police for that purpose and licensed as a fleet inspection station. The Chief of the Maine State Police, in licensing an owner as a fleet inspection station, shall take into consideration his experience in maintaining, repairing and servicing such equipment and the physical facilities available for conducting such an inspection.

If any owner is aggrieved by a decision of the Chief of the Maine State Police denying approval as a fleet inspection station for the purpose of inspecting special mobile equipment, he may, within 30 days thereafter, appeal to the Chief of the State Police by filing a complaint in, accordance with M.R.S.A., Title 5, Part 18.

- f. Once the special mobile equipment has been inspected and found to comply in every respect with the law and these rules and regulations, M.R.S.A., Title 29-A, section 1758 provides that an official inspection sticker shall be placed in the lower left-hand corner of the windshield in the center of the windshield back of the rear view mirror. If the vehicle is not normally equipped with a windshield, the certificate of inspection shall be kept with the registration certificate of the vehicle. The owner or operator of said vehicle shall produce the certificate of inspection upon demand of any police officer.
- g. The owner or a mechanic in his employ or both must apply to and be approved by the Chief of the Maine State Police as a certified inspection mechanic before the owner may be approved as a fleet inspection station.

- h. Any owner, who is not licensed as a fleet inspection station, may have his equipment inspected by requesting a certified inspection mechanic from any official inspection station, and in the case of Class D special mobile equipment, from any licensed Class D inspection station to conduct such inspections at the owner's place of business, or at a place where such special mobile equipment is located. The owner making such request shall be responsible for the reimbursement of any expenses incurred by the certified mechanic as a result of time and travel involved.
- i. The fee of \$6.00 for each inspection performed shall be assessed. After January 1, 1999 the fee shall be \$6.50. This sum shall not include labor or materials used in correction of faults in equipment.
- j. An owner, as defined in paragraph (d), or a qualified employee of said owner, may provide technical assistance to the inspection mechanic in those cases where such mechanic is brought in to perform an inspection.
- k. Those vehicles registered as special mobile equipment which are of such size and weight that they do not require a permit as provided by M.R.S.A., Title 29-A section 2382, may be taken to any official inspection station for the purpose of submitting to inspection. If such equipment does not display a valid inspection sticker, a permit to allow operation of an uninspected motor vehicle shall be obtained as provided by M.R.S.A., Title 29-A, section 1759.

M. **INSPECTION OF REBUILT MOTOR VEHICLES**

In addition to the requirements and procedures prescribed for the inspection of Class A vehicle in Section 2 of this manual, to which rebuilt motor vehicles are subject, the following specifications on equipment shall be subject to inspection.

1. **GLAZING** - The windshield must be of sufficient height and width to afford ample protection to the operator and passengers of said motor vehicle, and allow a clear undistorted view directly ahead and to the right and left of the axis of such vehicle. The windshield must also be of approved safety glass as prescribed by the Commissioner of Transportation.

If the body of a motor vehicle was originally constructed to provide no doors and/or rear windows, they need not be part of the required equipment.

2. **EXHAUST SYSTEM** - The exhaust system of a rebuilt motor vehicle must be equivalent to the original equipment standards for that engine.

3. **BODY COMPONENTS**

- a. **Bumpers** - Motor vehicles originally manufactured with a bumper shall be required to be equipped with same. A replacement bumper shall be constructed of material of equal strength as original and give the same protection that the original equipment bumper afforded.
- b. **Fenders** - Motor vehicles must be equipped with fenders or fender and extensions to provide coverage of exposed tire tread.
- c. **Floor Pan** - A floor pan must be in sound condition and completely free of cracks, holes, open seams, etc., which would allow exhaust fumes to enter the passenger's or operator's compartment.
- d. **Gas Tank** - Gas tanks must be the type originally manufactured as such for motor vehicles.
- e. **Rear Engine Driven Vehicles** - Rear engine driven vehicles must have metal or fiberglass shrouds covering exposed exhaust pipes and drive belts.

4. **ALL OTHER PARTS OF THE VEHICLE MUST COMPLY WITH THE RULES AND REGULATIONS GOVERNING MOTOR VEHICLE INSPECTION.-**

N. **INSPECTION OF STREET RODS**

In addition to the requirements and procedures prescribed for the inspection of Class A vehicles in Section 2 of this manual, to which Street Rods are subject, the following additional information is included as per Title 29-A, section 457.

1. Body must have been manufactured prior to 1949 or be a replica of a pre-1949. (May have modifications.) Fenders and bumpers are not required.
2. Engine must be front mounted. (May be located at the rear if vehicle was originally manufactured with rear engine.)
3. Street Rods registered as such under Title 29, M.R.S.A., SS 114 are subject to an annual inspection. These vehicles will display specially marked registration plates and the owner shall display the certificate of verification issued by the Maine State Police or proof of the successful completion of a safety inspection approved by the National Street Rod Association if requested by a licensed inspection mechanic prior to subsequent inspection.

## **INSPECTION STANDARDS AND PROCEDURES FOR ALTERED VEHICLES**

### **ALL ALTERED VEHICLES MUST PASS A REGULAR MOTOR VEHICLE INSPECTION**

#### **Definitions:**

**"ALTERED VEHICLE"** means a motor vehicle with a gross vehicle weight rating of 10,000 pounds or less which is modified so that the distance from the ground to the lowermost point on any part of the frame or body is different from the manufacturer's specifications, unless that difference is caused by the use of tires which are no more than 2 sizes larger than the manufacturer's recommended size, the installation of a heavy duty suspension including shock absorbers and overload springs or normal wear of the suspension system which does not affect control of the vehicle.

**"ORIGINAL EQUIPMENT"**: means any item of motor vehicle equipment, inclusive of tires which were installed in or on a motor vehicle or available by option for the particular vehicle from the original manufacturer at the time of its delivery to the first purchaser.

#### **Special cases:**

Where a motor vehicle is assembled using components of several vehicles, particular attention must be given to the quality of workmanship and the integrity of the vehicle components.

If there is any doubt as to the strength and safety of such a vehicle **NO INSPECTION STICKER SHALL BE ISSUED**. Frame height limits will be based upon the GVWR of the vehicle providing the majority of the running gear components. Heavy duty springs will not be considered to increase the GVWR over the manufacturer's original rating. Door height limits will be based upon standards established for the vehicle providing the majority of the running gear.

#### **Measurements:**

All measurements for the bottom of the drivers door will be made on a level surface with the vehicle unladen and all the tires inflated to the manufacturer's recommended tire pressure. The door shall be in the original manufactured location. Vehicles manufactured without doors shall be measured from the lowest point on the floor panel directly below the operator's position.



Maximum frame end heights established by Title 29-A, section 1920, will remain in effect. Measurements will be taken when the vehicle is parked on a flat level surface, unladen, with the tires inflated to the recommended pressure. Measurements will be to the bottom edge of the original manufacturer's frame rail, at the end, near where the bumper brackets attach. Any frame components or sub-frames added to a vehicle after original manufacture will be disregarded for frame height requirements.

All measurements are in inches

	FRONT	REAR
Automobile	22	22
Vehicles 4,500 lbs. and under GVWR	24	26
Vehicles 4,501 lbs. to 7,500 lbs. GVWR	27	29
Vehicles 7,501 lbs. to 10,000 lbs. GVWR	28	30

Minimum frame height: 10 inches or factory original height, whichever is lower.

#### METHODS OF LIFTING VEHICLE:

Oversized tires are permitted provided that they do not come in contact with any portion of the body, steering or frame components during normal operation and all tread surfaces are covered by fenders or fender flares.

Suspension lifts are permitted provided that they are manufactured by an after market manufacturer, designed for the make and model vehicle on which it is installed and installed according to the manufacturer's recommendations. (i.e. if the lift kit manufacturer recommends a dropped pitman arm, then it must be used.) No lift kit which utilizes lift blocks between the leaf springs and the axles or uses spring shackle extensions may be installed on any vehicle. Only original equipment blocks are permitted. If a vehicle was originally manufactured with the leaf springs mounted beneath the axles, the springs may not be mounted above the axles.

Body lifts are permitted provided that they are manufactured by an after market manufacturer, designed for the make and model vehicle on which they are installed, and installed according to the manufacturer's

recommendations. Body lifts may not use more than a three (3) inch spacer and may not raise the body more than four (4) inches above the frame when all components are installed.

**VEHICLES PROHIBITED FROM BEING LIFTED:**

**Any vehicle equipped with any anti-lock brake system MAY NOT BE ALTERED** . Tires used on vehicles equipped with anti-lock brakes must be within the range recommended by the manufacturer for that vehicle. An anti-lock brake system may not be removed or disabled.

**SPECIAL ATTENTION:**

Special attention should be given to any component that will be stressed by the alteration of the vehicle.

1. tie rod ends
2. spring ends
3. drag links
4. idler arms
5. emergency brake cables
6. brake lines and hoses
7. wheel bearings
8. brakes
9. shock absorbers

**CAUSE FOR REFUSAL:**

VEHICLES NOT MEETING DOOR OR FRAME END HEIGHT REQUIREMENTS.

VEHICLES EXCEEDING DOOR HEIGHT LIMIT BY ONE (1) FULL INCH OR MORE

VEHICLES WITH LIFT BLOCKS ( EXCEPT THOSE THAT WERE ORIGINAL EQUIPMENT.)

VEHICLES WITH SPRING SHACKLE EXTENSIONS.

VEHICLES WHICH FAIL TO MEET ANY OTHER STANDARD LISTED IN SECTION 2 OF THE INSPECTION MANUAL (except tire size limits)

<u>VEHICLE DESCRIPTION</u>	<u>YEAR</u>	<u>MAXIMUM ALTERED VEHICLE DOOR HEIGHT</u>
<b>GM</b>		
GEO TRACKER	1989	22
S-10 MINI BLAZER	1983-1989	22
S-10 MINI PU SHORT BED	1983-1989	22
S-10 MINI PU LONG BED	1983-1989	22
S-10 MINI PU EXTENDED CAB	1986-1989	22
BLAZER FULL SIZE	1973-1989	28
PU FULL SIZE 6 FT BED	1973-1987	28
PU FULL SIZE 8 FT BED	1973-1987	29
3/4 TON FULL SIZE	1973-1987	31
SUBURBAN/CARRY ALL	1973-1989	29
PU FULL SIZE 6 FT BED	1988-1989	27
PU FULL SIZE 8 FT BED	1988-1989	27
PU FULL SIZE EXTENDED CAB	1988-1989	27
<b>FORD</b>		
BRONCO II	1984-1989	25
RANGER MINI PU SHORT BED	1983-1989	25
RANGER MINI PU LONG BED	1983-1989	25
RANGER MINI PU EXTENDED CAB	1985-1989	25
BRONCO FULL SIZE	1978-1979	28
BRONCO FULL SIZE	1980-1989	28
F150 PU FULL SIZE 6 FT BED	1978-1989	28
F150 PU FULL SIZE 8 FT BED	1978-1989	28
F150 PU FULL SIZE SUPER CAB	1978-1989	28
F250 PU FULL SIZE 8 FT BED	1980-1989	31
F250 PU FULL SIZE SUPER CAB	1980-1989	31
F350 PU FULL SIZE 8 FT BED	1980-1989	31
F350 PU FULL SIZE SUPER CAB	1980-1989	31
<b>DODGE</b>		
RAIDER	1987-1989	25
POWER RAM 50 MINI-PU SHORT BED	1983-1989	24
POWER RAM 50 MINI-PU LONG BED	1983-1989	24
DAKOTA PU SHORT BED	1987-1989	24
DAKOTA PU LONG BED	1987-1989	24
RAM CHARGER	1974-1989	28

PU FULL SIZE 6 FT BED	1974-1989	28
PU FULL SIZE 8 FT BED	1974-1989	28

### **JEEP**

CJ7	1976-1986	31
WRANGLER	1987-1989	30
SCRAMBLER	1981-1985	31
MID-SIZED CHEROKEE/WAGONEER	1984-1989	26
MID-SIZED COMM. PU SHORT BED	1986-1989	26
MID-SIZED COMM. PU LONG BED	1986-1989	26
FULL SIZE CHEROKEE/WAGONEER	1969-1989	25
FULL SIZE PU SHORT BED	1969-1987	27
FULL SIZE PU LONG BED	1969-1987	27

### **INTERNATIONAL HARVESTER**

SCOUT	1975-1980	24
TRAVELER & TERRA PU	1975-1980	24

### **TOYOTA**

LANDCRUISER 2 DOOR	1972-1984	27
LANDCRUISER 4 DOOR	1981-1989	27
4RUNNER	1984-1989	27
PU SHORT BED	1979-1989	27
PU LONG BED	1979-1984	27
PU LONG BED & EXTRA CAB	1985-1989	27

### **NISSAN/DATSUN**

PU SHORT BED	1978-1986	26
PU LONG BED & KING CAB	1978-1986	26
PATHFINDER	1987-1989	26
HARD BODY SHORT BED	1987-1989	26
HARD BODY LONG BED	1987-1989	26

### **MITSUBISHI**

MONTERO 2 DR	1983-1989	24
MONTERO 4 DR	1989	24
PU SHORT BED	1983-1989	24
PU LONG BED	1983-1989	24

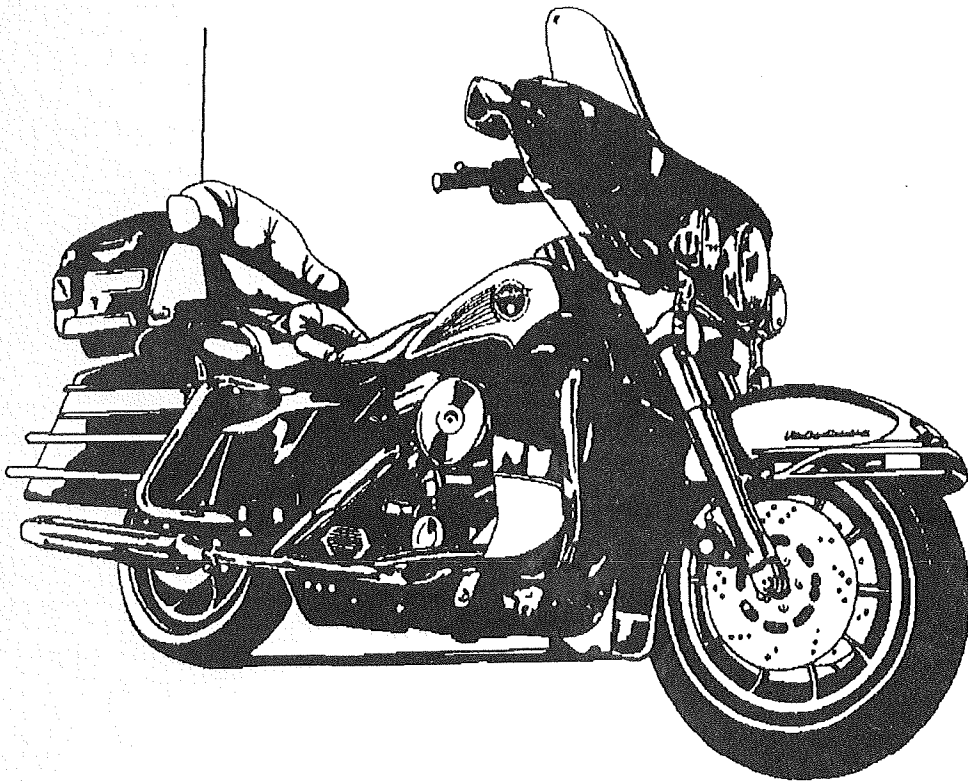
## ISUZU

TROOPER 2 DR	1989	23
TROOPER II 2DR	1983-1988	24
TROOPER II 4DR	1983-1989	24
PU SHORT BED	1983-1989	24
PU LONG BED	1983-1989	24
PU EXTENDED CAB	1988-1989	24

## SUZUKI

SIDEKICK	1989	22
SAMURAI	1985-1989	23

# SECTION 3



# MOTORCYCLE INSPECTIONS



## INSPECTION PROCEDURE AND STANDARDS FOR MOTORCYCLES

This section of the inspection manual contains procedures which shall be followed when inspecting motorcycles, 2 and 3 wheeled, motor driven cycles, mopeds and autocycles. The term motorcycle as used throughout this manual shall mean either motorcycle, motor driven cycle, moped, or autocycle unless otherwise specified.

An autocycle is an enclosed motorcycle, originally manufactured as such and is designed to have no more than three wheels in contact with the ground at one time. An autocycle shall meet all of the requirements of a motorcycle, except where otherwise noted. In addition, an autocycle must be equipped with safety belts for all passengers, a roll bar, a windshield equipped with a wiper and a steering wheel.

### A. BRAKES - TESTS AND VISUAL INSPECTION PROCEDURES

#### 1. DEFINITIONS

- a. **Service Brake** is a split brake system or two independently actuated brake systems which is the primary system for retarding, stopping and controlling the vehicle.
- b. **Pedal Reserve**, as applied to hydraulic, mechanical or power-assisted hydraulic brakes, is the amount of total pedal travel left in reserve when the pedal is depressed to the brake applied position.
- c. **Parking Brake System** (Required on 3-wheeled vehicles and autocycles) is a brake system used to hold and maintain a vehicle in a stationary position. (A positive mechanical means is employed to hold the brake applied when the vehicle is unattended.) (A motorcycle with a sidecar attached is not considered a 3-wheel vehicle for the purpose of this section.)
  - I. Wheels are NOT to be removed from the vehicle being inspected to determine the condition of drums and linings unless, after driving the vehicle into the garage bay, the inspecting mechanic feels that something is definitely wrong with the brakes and advises the customer that the vehicle cannot be passed. Then at the customer's request and with the clear understanding by the customer that pulling wheels is NOT part of the inspection and will be considered as labor charge, the same as re airng any other part of the vehicle, the inspection mechanic may remove the wheels and show the customer why, according to regulations, the vehicle will



not pass inspection. Motorcycles shall be equipped with brakes on all wheels.

Autocycles shall be equipped with brakes on the two main wheels. Whenever an inspection mechanic feels that a road test of the motorcycle is necessary to ascertain braking efficiency or safe handling characteristics, a road test may be completed before an inspection sticker is issued.

## 2. Vehicle Tests

- a. Brake Hydraulic System. Test vehicle in a standing position. The inspector should be able to maintain brake pedal or hand lever reserve under moderate force (40-60 lbs.) for one minute.

### I. Reject Vehicle If:

Brake reserve cannot be maintained for one minute.

- b. Pedal Reserve-Hydraulic Systems: Test vehicle in a standing position with the brake pedal or hand lever depressed under moderate force (40-60 lbs.). There should be a minimum of approximately 1/3 of the total available pedal or hand lever travel remaining.

### I. Reject Vehicle If:

Less than approximately 1/3 of the total available pedal or brake lever travel remains when pedal is depressed under moderate force.

- c. Service Brake Test: Test vehicle on substantially level, dry, smooth, hard surfaced road or area that is free of loose material, oil or grease. Using the service brake only, the stopping ability of the vehicle should be tested. Brake tests on the open highways must be at a speed of 20 mph with the cycle stopping safely within a distance of 30 feet.

## 3. VISUAL INSPECTION OF INTERNAL MECHANISM

### a. BRAKE LININGS AND DISC BRAKE PADS

- I. Visual Inspection Procedure: If, in the inspecting mechanics judgment it is necessary, and with the customer's knowledge and consent, remove the minimum of one front and one rear wheel drum. If the lining is bonded, measure the lining thickness. If the lining is

wire-backed, observe if wire is showing in the friction surface. If lining is riveted, measure thickness of lining above the rivets and inspect for loose or missing rivets. For any type lining, inspect for broken or loose linings and contamination of friction surfaces.

II. **Reject Vehicle If:**

- (AA) Thickness of bonded brake linings, when measured at the thinnest point, less than 1/32 inch.
- (BB) Wire in wire-backed lining visible in friction surface.
- (CC) Riveted linings worn to within 1/32 inch of the rivet head.
- (DD) Rivet loose or missing, or lining not securely fastened to shoe. -
- (EE) Lining broken or loose. Circumferential cracks in bonded linings shall not be cause for rejection if the linings are not loose from the brake shoes.
- (FF) Lining friction surface obviously contaminated with foreign material to the extent it would make the brake operate in an unsafe manner.
- (GG) Linings are worn beyond replacement indicators.

b. **Brake Drums - Brake Discs**

I. **Visual Inspection Procedure:**

Inspect brake contact surfaces for contamination or cracks.

II. **Reject Vehicle If:**

- (AA) Brake drums or discs contaminated to the extent that they would make the brake operate in an unsafe manner.
- (BB) Brake drums or discs with external cracks or substantial cracks on the friction surface which reach an edge of the bore. Also, any mechanical damage to the friction surface other than wear.

- (CC) Brake drums or discs are re-machined beyond manufacturer's specifications.

C. **Hydraulic System**

I. **Visual Inspection Procedure:**

- (AA) Check master cylinder for leakage. Also, check fluid level in reservoir chamber.
- (BB) Inspect wheel cylinder for leaks at connections, bleed screws and dust boots.
- (CC) Inspect hydraulic hoses, tubes and connections for leaks, cracks, chafing, flattened or restricted sections. Insure that all components are securely attached.

II. **Reject Vehicle If:**

- (AA) Fluid level in master cylinder reservoir is below  $\frac{3}{4}$  full.
- (BB) Leak at master cylinder or wheel cylinders.
- (CC) Hydraulic hoses, tubing, or connections leaking, chafed, restricted, crimped, cracked or broken.

d. **Mechanical Linkage**

I. **Visual Inspection Procedure:**

- (AA) Inspect for worn pins and missing or defective cotter pins.
- (BB) Inspect for weak, broken, or missing springs, worn cables, clevises, couplings or anchor pins.
- (CC) Inspect for frozen, rusted or inoperative connections, missing spring clips or defective grease retainers.
- (DD) Check pedal shaft and bearings for high friction, wear and misalignment.

II. **Reject Vehicle If:**

- (AA) Mechanical parts are missing, broken or badly worn.
- (BB) High friction in pedal, lever and/or linkage in brake components.
- (CC) Brake operating levers improperly positioned or misaligned.
- (DD) Any brake cable with more than one strand of the cable broken, cut or missing.
- (EE) Any portion of the brake hand lever is broken or missing.
- (FF) Any cam-operating lever has been repositioned on the shaft as a means of avoiding replacement of a worn cam, shoe, or lining.
- (GG) The brake adjuster is not equipped with a locking mechanism.
- (HH) Brake cables are routed so as to become pinched between the fork and frame.
- (II) Any modification which makes the brake pedal or lever inaccessible for adequate leverage or safe operation.

**Note:** Any brake assembly which has been modified or replaced must be equal to the manufacturer's specifications for the specific motorcycle on which it is installed.

e. **Parking Brake System**

I. **Reject Vehicle If:**

Three wheeled motorcycle or autocycle is not equipped with a parking brake in working condition.

B. **BODY COMPONENTS**

In general, body exterior elements, fiberglass and sheet metal parts are subject to refusal if a condition is present which is hazardous to occupants, pedestrians or other vehicles.

1. **Reject Vehicle If:**

- a. Fenders, exterior sheet metal and moldings have broken, sharp edges or abnormal protrusion extending beyond normal vehicle extremities to a degree that would be hazardous to any person likely to come in contact with it. Crash bars without sharp protrusions are excepted.
- b. Front or rear fenders have been removed or if the vehicle is not so equipped. If replacement of a front or rear fender removes a required lighting device, reinstallation or replacement of such device must be provided.
  - I. All fenders shall cover the width of the tire and a minimum of 1/4 of a wheel circumference positioned as to protect the operator and any passenger.
- c. Gas tank is improperly secured to body or chassis, or if cap is missing on filler, tank or lines are leaking or tank is not vented.
- d. It is not equipped with a securely fastened chain guard or other similar device.
- e. Gas lines are in direct contact with the engine.
- f. Any attaching brackets, clamps, bolts, braces or other similar fastening devices are loose, broken or other than in safe condition.

C. **SEATS**

1. **Reject Vehicle If:**

- a. Seats are not installed.
- b. Seats are not properly secured to the vehicle or have springs or parts protruding which might constitute a hazard to passenger.
- c. Foot rests for each designated seating position are not provided (except autcycles).

## D. FRAME

### 1. Reject Vehicle If:

- a. Any part of the frame has been removed so as to weaken the original structure.
- b. Welds or joints show any cracks or fatigue breaks.
- c. The frame is bent out of alignment.

NOTE: Applicable to all motorcycles.

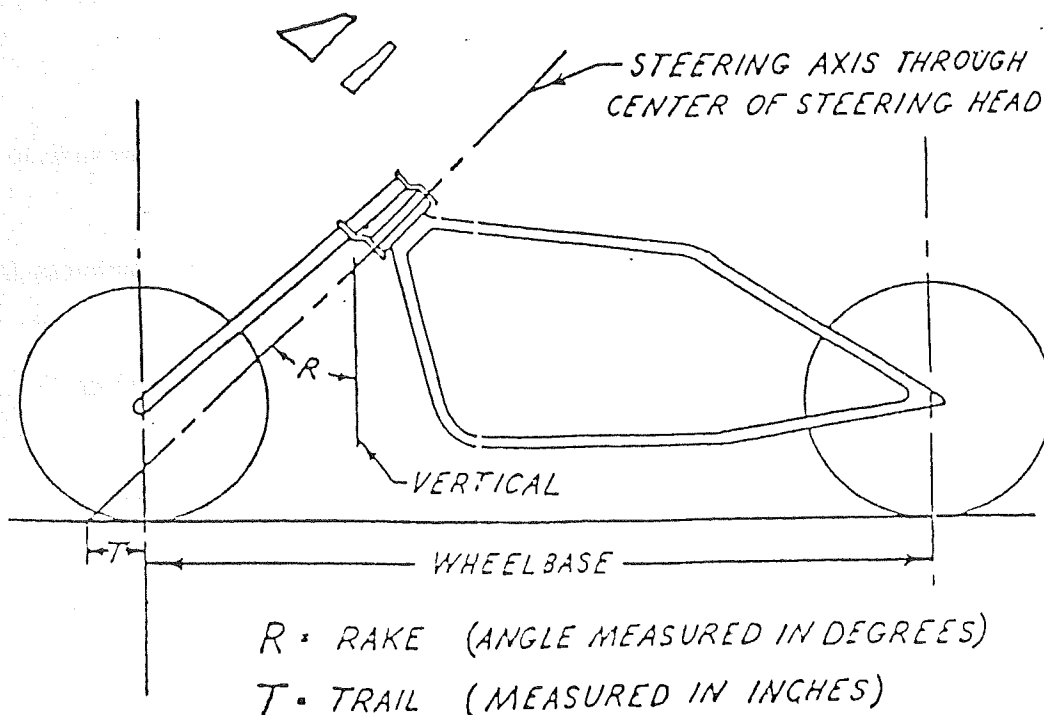
### 2. Reject Vehicle If:

The motorcycle fails to meet the following specifications in relationship to front wheel geometry:

- a. MAXIMUM: Rake: 45 degrees  
Trail: 14 inches positive
- b. MINIMUM: Rake: 20 degrees  
Trail: 2 inches positive\*

\*Not applicable to 3-wheeled bikes.

### MOTORCYCLE FRONT END GEOMETRY



E. **FRONT FORK**

1. **Reject Vehicle If:**

- a. Any of the fork components are loose or show any perceptible wear.
- b. Fork slugs, so-called, have been installed.
  - I. The length of the original fork may be extended by replacing the original tubes with longer tubes, not to exceed 16 inches and/or exceed rake and trail limits.
  - II. Springer type front forks are acceptable if the extended length does not exceed 18 inches beyond original design.
  - III. Custom made motorcycles must conform in all respects to the requirements set forth in this manual.

F. **STEERING, ALIGNMENT AND SUSPENSION**

1. **Visual Inspection:**

After placing the vehicle on the center stand, check swing arm bearing, steering head bearings, wheel axle bearings and wheel runout.

a. **Reject Vehicle If:**

- I. Swing arm bearings are found to be loose or worn so as to affect safe handling of the vehicle.
- II. Steering head bearing has perceptible play or roughness or the front fork binds when turned right or left.
- III. There is perceptible play in front or rear axle bearings or bushings.
- IV. There is more than 3/8" run-out in wheel alignment.

2. **Suspension**

Inspection of the suspension system is made to ensure that there are no worn or damaged parts.

a. **Reject Vehicle If:**

- I. Suspension springs are broken, worn or loose.
- II. Shock absorbers are loose, worn, leaking or have been removed.
- III. Shock absorbers have been removed and replaced with a solid connection.
- IV. Hard tail frame is not of a type manufactured completely as a hard tail. (Bolt on- weld on type not acceptable. \*Not applicable to 3-wheeled motorcycles.)

3. **Handlebars** (MRSA, Title 29-A, 2062)

This subsection does not apply to an auticycle equipped with a steering-wheel.

NO PERSON SHALL OPERATE ON THE HIGHWAY ANY MOTORCYCLE OR MOTOR DRIVEN CYCLE EQUIPPED WITH HANDLEBARS WHOSE HANDGRIPS ARE HIGHER THAN SHOULDER LEVEL OF THE DRIVER OF THE MOTORCYCLE.

a. **Reject Vehicle If:**

- I. Handlebars are loose, bent or cracked in any welds or bends or that have once broken and have been welded or brazed.

**NOTE:** Any replacement handlebars must be of the same gauge steel and strength as the original equipment.

- II. Bicycle handlebars have been substituted for original equipment.
- III. Handlebars can be moved up or down by applying manual force other than movement in the shock absorbing mounts of the handlebar supports.
- IV. There is not at least 18 inches separation between the handlebar grips.



- V. Check accelerator, clutch and brake cables for excessive slack.

G. **EXHAUST SYSTEM**

1. The exhaust system includes the exhaust manifold, the piping leading from the flange at the exhaust manifold to and including the mufflers and tail piping. The exhaust system shall be examined visually. Rusted or corroded surfaces should be given special attention.

a. **Reject Vehicle If:**

- I. There are loose or leaking joints in the exhaust system, holes, leaking seams or loose interior baffles. Mufflers may be repaired with a jacket or patch that is welded or brazed securely in place. Small holes obviously made by the manufacturer to provide drainage are not cause for rejection.
- II. The exhaust system elements are not fastened securely by use of hangars or clamps.
- III. Flexible tubing has been used to replace any part of the exhaust system unless such tubing was factory installed as original equipment.
- IV. The exhaust system is less than furnished as original equipment.
- V. The vehicle is not equipped with a muffler.
- VI. Muffler shield has been removed.
- VII. Baffles or spark arrestors have been removed from the muffler.
- VIII. Motorcycle is equipped with "drag pipes"

Note: Muffler, definition

Title 29A section 101 para. 45

"MUFFLER" SHALL MEAN A DEVICE  
CONSISTING OF A SERIES OF CHAMBERS  
OR BAFFLE PLATES OR OTHER MECHANIC

DESIGN FOR THE PURPOSE OF RECEIVING  
EXHAUST GAS FROM AN INTERNAL COMBUSTION  
ENGINE AND EFFECTIVE IN REDUCING NOISE.

- (AA) Baffles inserted in the exhaust pipe do not constitute a muffler. The muffler and exhaust pipe may be welded together.

H. **LIGHTING AND ELECTRICAL**

1. Maine statutes requires that all motorcycles shall have mounted on the front thereof at least one headlamp located at a height measured from the center of the headlamp of not more than 54 inches or less than 22 inches from the level surface on which the vehicle stands. One lamp shall be mounted on the rear of such vehicle capable of displaying a red light visible for a distance of at least 100 feet behind. The rear registration plate shall be illuminated with a white light so as to be visible for a distance of at least 50 feet.

a. **General Lamp Inspection Limits**

General lamp inspection includes reflex reflectors and the following types of lamps: Head, tail, stop, license, signal, and fog.

I. **Reject Vehicle If:**

- (AA) Any bulb in any lamp required by law or regulation which fails to function properly.
- (BB) Any improperly connected circuit does not light the proper filaments for the different switch positions.
- (CC) There are broken or missing lenses.
- (DD) A lens is rotated, upside down, wrong side out or is otherwise incorrectly installed.
- (EE) A headlamp that has dirt or moisture inside, any obvious discoloration, contamination or reflector deterioration.
- (FF) Any lamp is not securely fastened to the vehicle.
- (GG) Any lamp shows a beam of color contrary to law or regulation.

- (HH) Any lens required by law or regulation is covered by any device which reduces the amount of light transmitted or reduces the area of illumination of a lens by any amount. (includes tinted, louvered, or mesh covers)
- (II) Beam indicator lamps, if equipped do not indicate the proper beam to driver or do not function properly.
- (JJ) Any lamp or lens is turned or inclined so that the light is not properly functioning.
- (KK) There are broken or missing reflex reflectors.
- (LL) If the vehicle is not equipped with a headlamp containing both upper and lower beam filaments; except that any motorcycle with 5 horsepower or less manufactured on or after January 1, 1969, may be equipped with either a single or multiple beam headlight.
- (MM) Vehicle is not equipped with an electrical energy storage source to provide lighting of a constant intensity if originally manufactured with such source.

**NOTE:** Headlight modulating devices are permitted for daylight use if no less than 17% power is applied to the headlight at the low point of the modulating cycle. Must meet USDOT specifications. Headlight flashers or “wig-wags” are not permitted.

b. **General Headlamp Testing Requirements - Preparation for Aiming**

Before checking beam aim, the inspector shall:

- I. See that all tires are properly inflated.
- II. See that there is no unusual load on the vehicle other than the driver in the seat.
- III. Clean lenses, check for bulb burn-out and proper beam switching.
- IV. See that light output is well towards normal new lamp value.
- V. Position motorcycle vertically.

c. **Lamp Inspection and Aiming - Visual Method**

All of the following values are based upon a 12 1/2 foot test distance.

I. All headlamps are to be inspected and aimed on the upper beam.

II. **Aim Inspection Limits for Upper Beam**

After measuring the height from the floor to the headlamp center, adjust the horizontal line on the chart to the corresponding height.

d. **Vertical Aim Inspection - Reject Vehicle If:**

The center of the high intensity zone is higher than the horizontal line or more than 4 inches below.

e. **Lateral Aim Inspection - Reject Vehicle If:**

The center of the high intensity zone is more than 6 inches right or 6 inches to the left of the vertical line.

I. Two front headlamps may be mounted on motorcycles. If installed, they shall be mounted on the vertical center line, symmetrically disposed, located not less than 22 inches above a level surface, nor more than 54 inches above a level surface. All measurements shall be from the center of the headlamp.

II. Motorcycles manufactured after 1974 are not equipped with turn signals that are in operating condition.

f. **Reject Vehicle If:**

I. **Signal Lamp**

(AA) Lens is not white or amber to the front, or red to amber to the rear or if lens is broken.

(BB) Wiring is shoddy or electrical connections are poor.

(CC) Proper signals do not go on with each throw of the switch.

(DD) Lamp housing is not securely fastened or aim is incorrect.

II. **Operating Unit:**

(AA) Not functioning properly.

(BB) Cannot be operated without removing hand from handlebar.

III. **Stop Lamps:**

(AA) Lamps do not go on with slight pressure on the brake pedal or front brake lever (if so equipped).

(BB) Lamps do not emit a red light.

(CC) Lens is broken.

(DD) Lamp housing is not securely fastened or if aim is incorrect.

g. **Wiring and Switches**

I. **Reject Vehicle If:**

(AA) Switches are not in good condition and not functioning properly.

(BB) Wiring is in poor condition, improperly installed or so located as to incur damage.

(CC) Any connection is not tight or shows sign of excessive corrosion.

h. **Rear Lamps, License Plate Lamps and Rear Lamp Combinations**

I. **Reject Vehicle If:**

(AA) Tail light bulbs do not produce sufficient light so as to be visible from a distance of 100 feet to the rear.

(BB) All tail lights do not produce a red light, or are broken, missing, discolored or do not fit properly.

(CC) Lamps are not securely mounted in the center or to the left of the axis or do not produce a steady light to the rear with brakes applied.

- (DD) License plate light bulbs do not produce sufficient steady white light to illuminate the entire rear license plate from a distance of 50 feet to the rear. Any after market lighting device is installed around or near the license plate, including illuminated license plate frames, neon lights, blinking lights or any light other than the factory original license plate light or its equivalent replacement.
- (EE) Lamp housing is not secure or if aim is incorrect.
- (FF) Tail and rear plate light do not operate properly in all positions.
- (GG) Rear plate is not mounted on rear-most portion of rear fender or frame.
- (HH) The light assemblies must be mounted on the rear most part of the rear fender or frame. Frame mounted tail lamps shall not extend beyond the outer extremities of the body components. In no event may lighting devices or components extend beyond the crash bars, if installed.

i. **Reflectors**

I. **Reject Vehicle If:**

- (AA) Vehicle is not equipped with at least one adequate reflector securely attached to the rear thereof. (May be part of the rear lamp.)
- (BB) Reflectors do not have red lenses or if lenses are cracked or broken.
- (CC) Not adequate to reflect at night on an unlighted highway for at least 200 feet the lawful high beamed headlight of a vehicle approaching from the rear.

j. **Horns**

I. **Reject Vehicle If:**

- (AA) Vehicle is not equipped with a horn, securely fastened and properly wired to an actuating device. The actuating device must be in good working order and easily accessible to the operator without removing the hand from the handlebar

grips. The accessibility requirement does not apply to an auticycle equipped with a steering wheel.

I. **REAR VIEW MIRROR**

1. **Reject Vehicle If:**

- a. Vehicle is not equipped with a rear view mirror.
- b. Mirror is not mounted securely to prevent swinging and excessive vibration.
- c. Mirror does not give the driver a view of the road 200 feet to the rear.
- d. Reflecting surface is peeled or tarnished unless equipped with another mirror that is adequate.
- e. The mirror is of other than a round, oval, square or rectangular design.
- f. The mirror does not have a minimum of 10 square inches of reflective surface.

J. **TIRES AND WHEELS**

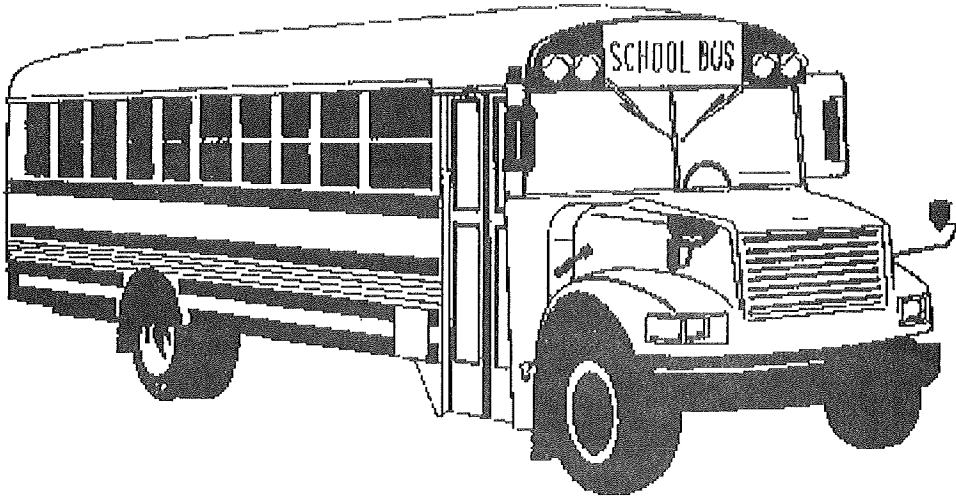
Tires and wheels shall be inspected as outlined in the procedures for Class A vehicles, Section 2 of this manual, pages 2-28 thru 2-30.

K. **AUTOCYCLES**

1. **Reject Autocycle If:**

- a. Seat belts are not installed and functional for each seat.
- b. Autocycle is not equipped with roll bar.
- c. Autocycle is not equipped with steering wheel.
- d. Autocycle is not equipped with windshield with at least one wiper.

# SECTION 4



# SCHOOL BUS INSPECTIONS





4. **SCHOOL BUS INSPECTION** (MRSA, Title 29-A)

2301. **DEFINITIONS**

AS USED IN THIS SUBCHAPTER, UNLESS THE CONTEXT OTHERWISE INDICATES, THE FOLLOWING TERMS HAVE THE FOLLOWING MEANINGS.

1. **PRIVATE SCHOOL.** "PRIVATE SCHOOL" HAS THE SAME MEANING AS IN TITLE 20-A, SECTION 1, SUBSECTION 22.
2. **PRIVATE SCHOOL ACTIVITY BUS.** "PRIVATE SCHOOL ACTIVITY BUS" MEANS A PRIVATELY OWNED MOTOR VEHICLE WITH A CARRYING CAPACITY OF 10 TO 15 PASSENGERS THAT IS NOT OPERATED WITH PUBLIC FUNDS AND THAT IS USED BY A PRIVATE SCHOOL TO TRANSPORT STUDENTS OTHER THAN TO AND FROM HOME AND SCHOOL.
3. **SCHOOL.** "SCHOOL," AS USED IN THIS SUBCHAPTER, MEANS AN INSTITUTION OR FACILITY FOR THE TEACHING OF CHILDREN OR FOR THE CUSTODIAL CARE OF CHILDREN, WHETHER PUBLIC OR PRIVATE, WHICH IS REGULARLY ATTENDED BY SUCH CHILDREN.
4. **SCHOOL-AGE PERSON.** "SCHOOL-AGE PERSONS" MEANS ALL CHILDREN UP TO THE AGE OF 18 YEARS AND PERSON 18 YEARS AND OLDER WHO ARE ENROLLED IN A STATE-APPROVED PROGRAM OF PRIMARY OR SECONDARY EDUCATION, AS DEFINED IN TITLE 20-A.
5. **SCHOOL BUS.** "SCHOOL BUS" MEANS A MOTOR VEHICLE WITH A CARRYING CAPACITY OF 10 OR MORE PASSENGERS USED TO TRANSPORT CHILDREN AS APPROVED BY SCHOOL AUTHORITIES TO AND FROM SCHOOL, SCHOOL ACTIVITIES, MUNICIPALLY OPERATED ACTIVITIES OR ACTIVITIES OF A NONPROFIT CORPORATION OR ASSOCIATION. IT DOES NOT INCLUDE A PRIVATE MOTOR VEHICLE USED TO TRANSPORT MEMBERS OF THE OWNER'S HOUSEHOLD, OR A PRIVATE SCHOOL ACTIVITY BUS.

2302. **SCHOOL BUS MARKINGS; LIGHTS; MIRRORS**

1. **IDENTIFICATION. EACH SCHOOL BUS:**

- A. MUST BE IDENTIFIED WITH THE WORDS, "SCHOOL BUS":
  - (1) PRINTED IN LETTERS NOT LESS THAN 8 INCHES HIGH; AND
  - (2) LOCATED BETWEEN THE WARNING SIGNAL LAMPS AS HIGH AS POSSIBLE WITHOUT IMPAIRING FRONT AND REAR VISIBILITY OF THE LETTERING;
- B. MUST HAVE NO OTHER LETTERING ON THE FRONT OR REAR, EXCEPT LETTERING NOT MORE THAN 4 INCHES HIGH INDICATING AN EMERGENCY EXIT AND A BUS NUMBER;
- C. MUST BE PAINTED NATIONAL SCHOOL BUS GLOSSY YELLOW, EXCEPT THAT THE HOOD MAY BE LUSTERLESS BLACK;
- D. MUST HAVE BUMPERS OF GLOSSY BLACK UNLESS PAINTING IS IMPRACTICABLE THROUGH USE OF RUBBER, REFLECTIVE MATERIAL OR OTHER DEVICES;
- E. MUST BE EQUIPPED WITH A SYSTEM OF SIGNAL LIGHTS THAT CONFORM TO SCHOOL BUS REQUIREMENTS APPROVED BY THE COMMISSIONER OF EDUCATION;
- F. MUST BE EQUIPPED WITH A SYSTEM OF MIRRORS THAT GIVE THE SEATED OPERATOR A VIEW OF THE WAY TO EACH SIDE OF THE BUS, AND OF THE AREA IMMEDIATELY IN FRONT OF THE FRONT BUMPER;
- G. MAY BE EQUIPPED WITH A SYSTEM OF STOP ARMS TO BE OPERATED ONLY WITH THE RED SIGNAL LIGHTS; AND

- H. MAY BE EQUIPPED WITH REFLECTIVE STRIPS OF NATIONAL SCHOOL BUS YELLOW.
2. **SMALLER BUSES.** A SCHOOL BUS WITH A CARRYING CAPACITY OF 20 OR FEWER PASSENGERS IS REQUIRED TO COMPLY ONLY WITH THE REQUIREMENTS OF SUBSECTION 1, PARAGRAPHS C, D AND F.
  3. **OTHER PURPOSES.** A SCHOOL BUS PERMANENTLY CONVERTED WHOLLY TO OTHER PURPOSES MUST BE PAINTED A COLOR OTHER THAN NATIONAL SCHOOL BUS GLOSSY YELLOW AND HAVE THE WORDS "SCHOOL BUS," SCHOOL BUS SIGNAL LIGHTS AND STOP ARMS REMOVED.
  4. **OTHER PASSENGERS.** A SCHOOL BUS OPERATED ON A PUBLIC WAY AND TRANSPORTING PASSENGERS WHO DO NOT INCLUDE SCHOOL-AGE PERSONS MUST HAVE THE WORDS "SCHOOL BUS" REMOVED OR CONCEALED AND THE SCHOOL BUS SIGNAL LAMPS MAY NOT BE OPERABLE.
  5. **APPLICATION.** A VEHICLE OPERATED ON A PUBLIC WAY DISPLAYING THE WORDS "SCHOOL BUS" OR WITH THE EQUIPMENT REQUIRED BY THIS SECTION MAY ONLY BE USED TO TRANSPORT SCHOOL-AGE PERSONS, AS DEFINED IN SECTION 2301.

**2304. SCHOOL BUS SEATING; DOORS ; STANDING PROHIBITED**

1. **SEATING.** A SCHOOL BUS MUST MEET THE FOLLOWING SEATING REQUIREMENTS.
  - A. THE MANUFACTURER'S SPECIFIED SEATING CAPACITY IS DETERMINED BY DIVIDING THE LINEAR WIDTH OF EACH SEAT BY 13 AND THEN ROUNDING THE QUOTIENT DOWN TO THE NEAREST WHOLE NUMBER.
  - B. THE MAXIMUM SEATING CAPACITY MUST BE THE FOLLOWING PERCENTAGES OF THE MANUFACTURER'S SPECIFIED SEATING CAPACITY:
    - (1) GRADES 9 TO 12, 85%;
    - (2) GRADES KINDERGARTEN TO 12, 95%;

- (3) GRADES KINDERGARTEN TO 8, 100%; OR
  - (4) IF AT LEAST 15 INCHES OF SEAT WIDTH PER STUDENT, 100%.
- C. THERE MAY NOT BE AUXILIARY SEATING ACCOMMODATIONS SUCH AS TEMPORARY OR JUMP SEATS.
  - D. SEATS MUST FACE THE FRONT OF THE BUS AND BE DIVIDED BY A CENTER AISLE AT LEAST 12 INCHES WIDE.
  - E. SEATING CAPACITY MUST BE DISPLAYED IN A MANNER PRESCRIBED BY THE COMMISSIONER OF EDUCATION.
2. **DOORS.** A SCHOOL BUS MUST BE EQUIPPED WITH AT LEAST 2 DOORS AS FOLLOWS:
- A. ONE DOOR ON THE RIGHT SIDE NEAR THE FRONT FOR ORDINARY EXITS AND ENTRANCES; AND
  - B. A 2ND DOOR LOCATED IN THE CENTER OF THE REAR OR IF THE ENGINE MAKES THAT IMPOSSIBLE, ON THE LEFT SIDE IN THE CENTER OR TO THE REAR OF CENTER. THE 2ND DOOR MUST BE FREE OF OBSTRUCTION, CLEARLY MARKED AS AN EMERGENCY EXIT, AND CONSTRUCTED TO OPEN FROM INSIDE AND OUTSIDE.
3. **STANDING PASSENGERS.** THE OPERATOR OF A SCHOOL BUS MAY NOT PERMIT ANY PASSENGERS TO STAND WHEN THE BUS IS IN MOTION ON A PUBLIC WAY.
4. **SAFETY SEAT BELTS.** THE OPERATOR AND PASSENGERS IN SCHOOL BUSES EQUIPPED WITH SAFETY SEAT BELTS SHALL WEAR THOSE BELTS WHEN THE VEHICLE IS IN MOTION.

**2305. SCHOOL BUS CONSTRUCTION; FIRE EXTINGUISHER**

1. **ACCESS.** A SCHOOL BUS MUST BE CONSTRUCTED TO PERMIT THE OPERATOR ACCESS TO THE PASSENGER COMPARTMENT WITHOUT LEAVING THE VEHICLE.
2. **EXHAUST PIPE.** THE EXHAUST PIPE MUST BE ENTIRELY OUTSIDE THE PASSENGER COMPARTMENT OF A SCHOOL BUS.
3. **FUEL TANK FILLER, VENT, DRAIN OPENINGS.** THE FUEL TANK FILLER, VENT AND DRAIN OPENINGS MUST BE OUTSIDE THE SCHOOL BUS BODY.
4. **FIRE EXTINGUISHER.** A SCHOOL BUS MUST HAVE AT LEAST ONE DRY CHEMICAL FIRE EXTINGUISHER:
  - A. OF AT LEAST 2 1/2 POUND CAPACITY;
  - B. MOUNTED IN AUTOMOTIVE TYPE MANUFACTURER'S EXTINGUISHER BRACKET;
  - C. LOCATED IN THE OPERATOR'S COMPARTMENT IN FULL VIEW OF AND READILY ACCESSIBLE TO THE OPERATOR; AND
  - D. HAVING AN UNDERWRITERS' LABORATORIES RATING OF NOT LESS THAN 10-B: C.

**2307. SCHOOL BUS INSPECTION**

1. **BIENNIAL INSPECTION.** NOTWITHSTANDING CHAPTER 15, A SCHOOL BUS MUST BE INSPECTED BY AN OFFICIAL INSPECTION STATION DESIGNATED BY THE CHIEF OF THE STATE POLICE AS A SCHOOL BUS INSPECTION STATION, DURING EACH AUGUST AND FEBRUARY.
2. **ADDITIONAL INSPECTION.** IN ADDITION TO INSPECTION UNDER SUBSECTION 1, BETWEEN SEPTEMBER 1ST AND NOVEMBER 30TH AND BETWEEN MARCH 1ST AND MAY 31ST A SCHOOL BUS INSPECTION MUST BE CONDUCTED BY THE STATE POLICE.
3. **OTHER DATES.** A SCHOOL BUS REQUIRING INSPECTION DURING A MONTH OTHER THAN AUGUST AND

FEBRUARY THAT SATISFIES THE INSPECTION REQUIREMENTS MUST BE ISSUED THE SCHOOL BUS INSPECTION STICKER THAT EXPIRES THE NEXT AUGUST OR FEBRUARY, WHICHEVER IS EARLIER.

4. **FEE.** THE OPERATOR OF AN OFFICIAL SCHOOL BUS INSPECTION STATION IS ENTITLED TO A FEE OF \$8 FOR EACH SCHOOL BUS INSPECTED. THE FEE DOES NOT INCLUDE LABOR OR MATERIAL USED IN CORRECTION OF FAULTS.

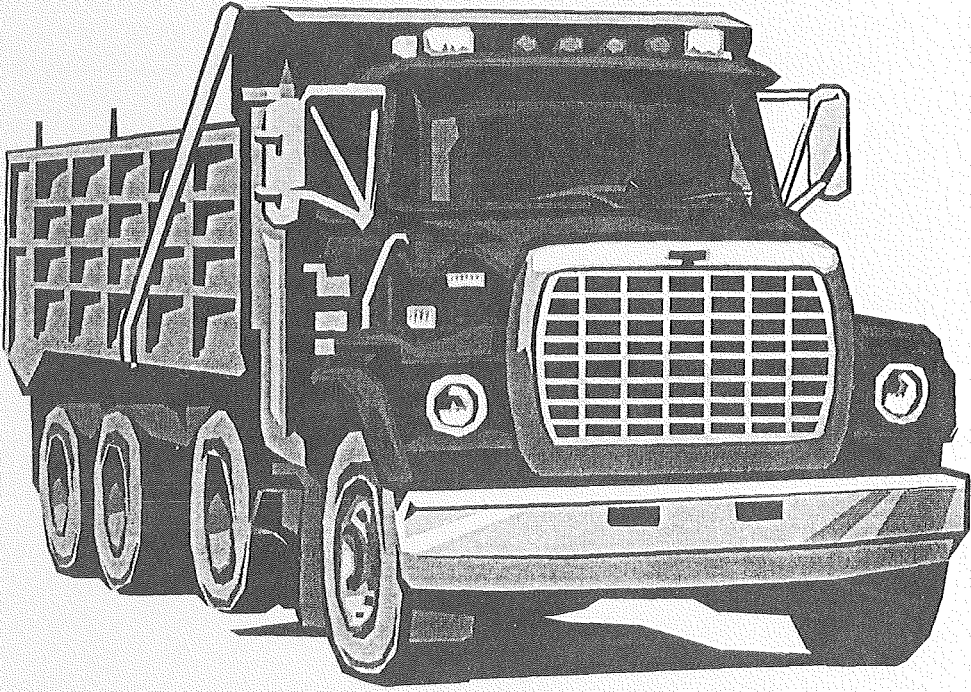
Any school bus inspected by the State Police in accordance with Sec. 2307 that is found to have a defect listed in the out-of-service criteria of the North American Standards of the Commercial Vehicle Safety Alliance shall be placed out of service by the State Police and shall not be operated until all out-of-service defects are corrected.

Any school bus inspected by the State Police in accordance with section 2017 that is found not to be in compliance with rules promulgated by the Department of Education under section 2307 shall fail such inspection and may have any inspection sticker removed.

#### 2309. **EXEMPTIONS FROM SUBCHAPTER**

A VEHICLE WITH A CARRYING CAPACITY OF 20 OR FEWER PASSENGERS USED TO TRANSPORT CHILDREN TO DAY CARE OR HEAD START FACILITIES IS EXEMPT FROM THIS SUBCHAPTER.

# SECTION 5



# COMMERCIAL VEHICLE INSPECTIONS





## **COMMERCIAL VEHICLE INSPECTION**

### **Minimum Inspection Standards**

Commercial Vehicle means any self-propelled or towed vehicle used on public highways in interstate or intrastate commerce to transport passengers or property when:

- (a) The vehicle has a gross vehicle weight rating or gross combination weight rating or gross weight of 10,001 or more pounds; or
- (b) The vehicle is designed to transport more than 15 passengers, including the driver; or
- (c) The vehicle is used in the transportation of hazardous material in a quantity requiring placarding under regulations issued by the Secretary of Transportation under the Hazardous Materials Transportation Act (49 U.S.C. App 1801-1813).

**Note:** This applies to trucks, buses, trailers, semi trailers, and converter dollies that meet this description.

The inspecting mechanic should first verify the registration and V.I.N. of the vehicle before starting the inspection.

A vehicle does not pass an inspection if it has one of the following defects or deficiencies:

#### **I. Brake System.**

##### **A. Service Brakes**

1. Absence of braking action on any axle required to have brakes (such as missing brakes or brake shoe(s) failing to move upon application of a wedge, S-cam, cam, or disc brake).
2. Missing or broken mechanical components including: shoes, lining, pads, springs, anchor pins, spiders, cam rollers, push- rods, and air chamber mounting bolts.
3. Loose brake components including air chambers, spiders, and cam shaft support brackets.
4. Audible air leak at brake chamber (Example: ruptured diaphragm, loose chamber clamp, etc.).

5. Readjustment limits. The maximum stroke at which brakes should be readjusted is given below. Any brake 1/4" or more past the readjustment limit or any two brakes less than 1/4" beyond the readjustment limit shall be cause for rejection. Stroke shall be measured with engine off and reservoir pressure of 80 to 90 psi with brakes fully applied.

#### BOLT TYPE BRAKE-CHAMBER DATA

Type	Effective area (sq-in).	outside dia. (in.)	Maximum stroke at which brakes should be readjusted
A.....	12	6 15/16	1 3/8
B.....	24	9 3/16	1 3/4
C.....	16	8 1/16	1 3/4
D.....	6	5 1/4	1 1/4
E.....	9	6 3/16	1 3/8
F.....	36	11	2 1/4
G.....	30	9 7/8	2

#### ROTOCHAMBER DATA

Type	Effective area (sq. in.)	outside dia. (in.)	Maximum stroke at which brakes should be readjusted
9.....	9	4 9/32	1 1/2
12.....	12	4 13/16	1 1/2
16.....	16	5 13/32	2
20.....	20	5 15/16	2
24.....	24	6 13/32	2
30.....	30	7 1/16	2 1/4
36.....	36	7 5/8	2 3/4
50.....	50	8 7/8	3

## CLAMP TYPE BRAKE CHAMBER DATA

Type	Effective area (sq. in.)	outside dia (in.)	Maximum stroke at which brakes should be readjusted
6.....	6	4 1/5	1 1/4
9.....	9	5 1/4	1 3/8
12.....	12	5 11/16	1 3/8
16.....	16	6 3/8	1 3/4
20.....	20	6 25/32	1 3/4
24.....	24	7 7/32	*1 3/4
30.....	30	8 3/32	2
36.....	36	9	2 1/4

\* (2" for long stroke design).

Wedge Brake Data. - Movement of the scribe mark on the lining shall not exceed 1/16 inch.

6. Brake linings or pads.
  - a. Lining or pad is not firmly attached to the shoe:
  - b. Saturated with oil, grease, or brake fluid; or
  - c. Non-steering axles: lining with a thickness less than 1/4 inch at the shoe center for air drum brakes, 1/16 inch or less at the shoe center for hydraulic and electric drum brakes, and less than 1/8 inch for air disc brakes.
  - d. Steering axles: lining with a thickness less than 1/4 inch at the shoe center for drum brakes, less than 1/8 inch for air disc brakes and 1/16 inch or less for hydraulic disc and electric brakes.
7. Missing brake on any axle required to have brakes.
8. Mismatch across any power unit steering axle of:
  - a. Air Chamber sizes.
  - b. Slack adjuster length.

- B. **Parking brake system.** No brakes on the vehicle or combination are applied upon actuation of the parking brake control, including drive line hand controlled parking brakes.
  
- C. **Brake drum or rotors**
  - 1. With any external crack or cracks that open upon brake application (do not confuse short hairline heat check cracks with flexural cracks).
  - 2. Any portion of the drum or rotor missing or in danger of falling away.
  
- D. **Brake Hose**
  - 1. Hose with any damage extending through the outer reinforcement ply. (Rubber impregnated fabric cover is not a reinforcement ply). (Thermoplastic nylon may have braid reinforcement or color difference between cover and inner tube. Exposure of second color is cause for rejection.
  - 2. Bulge or swelling when air pressure is applied.
  - 3. Any audible leaks.
  - 4. Hoses improperly repaired (such as a splice made by sliding two hose ends over a piece of tubing and clamping the hose to the tube).
  - 5. Air hose cracked, broken or crimped.
  
- E. **Brake Tubing**
  - 1. Any audible leak
  - 2. Tubing cracked, damaged by heat, broken or crimped.
  
- F. **Low Pressure Warning Device** missing inoperative, or does not operate at 55 psi and below, or 1/2 the governor cut-out pressure, whichever is less.
  
- G. **Tractor Protection Valve.** Inoperative or missing tractor protection valve(s) on power unit.
  
- H. **Air Compressor.**
  - 1. Compressor drive belts in condition of impending or probable failure.
  - 2. Loose compressor mounting bolts.

3. Cracked, broken or loose pulley.
4. Cracked or broken mounting brackets, braces, or adapters.

I. **Electric Brakes**

1. Absence of braking action on any wheel required to have brakes.
2. Missing or inoperable breakaway braking device.

J. **Hydraulic Brakes. (Including Power Assist Over Hydraulic and Engine Drive Hydraulic Booster).**

1. Master cylinder less than 1/4 full.
2. No pedal reserve with engine running except by pumping pedal.
3. Power assist unit fails to operate.
4. Seeping or swelling brake hose(s) under application of pressure.
5. Missing or inoperative check valve.
6. Has any visually observed leaking hydraulic fluid in the brake system.
7. Has hydraulic hose(s) abraded (chafed) through outer cover-to-fabric layer.
8. Fluid lines or connections leaking, restricted, crimped, cracked or broken..
9. Brake failure or low fluid warning light on and/or inoperative.

K. **Vacuum Systems.** Any vacuum system which:

1. Has insufficient vacuum reserve to permit one full brake application after engine is shut off.
2. Has vacuum hose(s) or line(s) restricted, abraded (chafed) through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.
3. Lacks an operative low-vacuum warning device as required.

## Coupling devices.

### A. Fifth Wheels.

1. Mounting to frame.
  - a. Any fasteners missing or ineffective.
  - b. Any movement between mounting components.
  - c. Any mounting angle iron cracked or broken.
2. Mounting plates and pivot brackets.
  - a. Any fasteners missing or ineffective.
  - b. Any welds or parent metal cracked.
  - c. More than 3/8 inch horizontal movement between pivot bracket pin and bracket.
  - d. Pivot bracket pin missing or not secured.
3. Sliders.
  - a. Any latching fasteners missing or ineffective.
  - b. Any fore or aft stop missing or not securely attached.
  - c. Movement more than 3/8 inch between slider bracket and slider base.
  - d. Any slider component cracked in parent metal or weld.
4. Lower coupler.
  - a. Horizontal movement between the upper and lower fifth wheel halves exceeds 1/2 inch.
  - b. Operating handle not in closed or locked position.
  - c. Kingpin not properly engaged.
  - d. Separation between upper and lower coupler allowing light to show through from side to side.

- e. Cracks in the fifth wheel plate.

**Exceptions:** Cracks in fifth wheel approach ramps and casting shrinkage cracks in the ribs of the body of a cast fifth wheel.

- f. Locking mechanism parts missing, broken, or deformed to the extent the kingpin is not securely held.

**Pintle Hooks.**

- 1. Mounting to frame.
  - a. Any missing or ineffective fasteners (a fastener is not considered missing if there is an empty hole in the device but no corresponding hole in the frame or vice versa).
  - b. Mounting surface cracks extending from point of attachment (e.g., cracks in the frame at mounting bolt holes).
  - c. Loose mounting.
  - d. Frame cross member providing pintle hook attachment cracked.
- 2. Integrity.
  - a. Cracks anywhere in pintle hook assembly.
  - b. Any welded repairs to the pintle hook.
  - c. Any part of the horn section reduced by more than 20%.
  - d. Latch insecure.

**C. Drawbar/Towbar Eye.**

- 1. Mounting.
  - a. Any cracks in attachment welds.
  - b. Any missing or ineffective fasteners.



2. Integrity.
  - a. Any cracks.
  - b. Any part of the eye reduced by more than 20%.

**D. Drawbar/Towbar Tongue.**

1. Slider (power or manual).
  - a. Ineffective latching mechanism.
  - b. Missing or ineffective stop.
  - c. Movement of more than 1/4 inch between slider and housing.
  - d. Any leaking, air or hydraulic cylinders, hoses, or chambers (other than slight oil weeping normal with hydraulic seals).
2. Integrity.
  - a. Any cracks.
  - b. Movement of 1/4 inch between subframe and drawbar at point of attachment.

**E. Safety Devices.**

1. Safety devices missing.
2. Unattached or incapable of secure attachment.
3. Chains and hooks.
  - a. Worn to the extent of a measurable reduction in link cross section.
  - b. Improper repairs including welding, wire, small bolts, rope and tape.

4. Cable.
  - a. Kinked or broken cable strands.
  - b. Improper clamps or clamping.

**F. Saddle-Mounts.**

1. Method of attachment.
  - a. Any missing or ineffective fasteners.
  - b. Loose mountings.
  - c. Any cracks or breaks in a stress or load bearing member.
  - d. Horizontal movement between upper and lower saddle-mount halves exceeds 1/4 inch.

**III. Exhaust System.**

- A. Any exhaust system determined to be leaking at a point forward of or directly below the driver/sleeper compartment.
- B. A bus exhaust system leaking or discharging to the atmosphere:
  1. Gasoline powered-excess of 6 inches forward of the rearmost part of the bus.
  2. Other than gasoline powered-in excess of 15 inches forward of the rearmost part of the bus.
  3. Other than gasoline powered-forward of a door or window designed to be opened. (exception: Emergency exits).
- C. No part of the exhaust system of any motor vehicle shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

IV. **Fuel System.**

- A. A fuel system with a visible leak at any point.
- B. A fuel tank filler cap missing.
- C. A fuel tank not securely attached to the motor vehicle by reason of loose, broken or missing mounting bolts or brackets (some fuel tanks use springs or rubber bushings to permit movement).

V. **Lighting Devices.** All lighting devices and reflectors required by law shall be present and operable.

A. **GENERAL LAMP INSPECTION LIMITS**

General lamp inspection includes reflex reflectors and the following types of lamps: Head, tail, stop, backing, plate, clearance, signal, marker, side marker, and fog/driving lights.

I. **Reject Vehicle If:**

- a. Any bulb in any lamp required by law or regulation which fails to function properly.
- b. Any improperly connected circuit which does not light the proper filaments for the different switch positions.
- c. A broken or missing lens.
- d. A headlamp with dirt or moisture inside, any obvious discoloration, contamination or reflector deterioration.
- e. A lamp which is not securely fastened to the vehicle.
- f. A lamp showing a beam of color contrary to law or regulation.
- g. Any headlamp lens which is partially covered by any material which reduces the light output of the lamp.
- h. Beam indicator lamps which do not indicate the proper beam to the driver.
- i. Any lamp or lens which is turned or inclined so that its light is not properly directed.

- j. A broken, missing lens or reflex reflector.
- k. Headlamps located less than 22 or more than 54 inches above the level surface upon which the vehicle stands except snow plows.

2. **LAMP INSPECTION AND AIMING -(VISUAL METHOD SCREEN)**

Headlamp aiming by the screen method requires a level area in a darkened location, sufficient for the vehicle and an additional 25 feet from lamps to the screen.

(See Appendix)

- a. Headlamps and aimed marked Type 1 are inspected on the upper beam.
- b. Headlamps and aimed marked Type 2 are inspected on the lower beam
- c. Headlamps that exceed 150,000 candlepower are to be rejected. Quartz halogen lamps that are within the power limits will be marked "DOT" or "SAE."
- d. Aim Inspection Limits for Type 1 Scaled Beams.
  - (1) Vertical Aim Inspection - Reject vehicle if the center of the high intensity zone is more than 4 inches above or below the horizontal line.
  - (2) Horizontal Aim Inspection -Reject vehicle if the center of the high intensity zone is more than 4 inches left or 4 inches right of straight ahead.
- e. Aim Inspection Limits for Type 2 Scaled Beams.
  - (1) Vertical Aim Inspection -Reject vehicle if the top edge of the high intensity zone is more than four inches above the horizontal line or more than 4 inches below horizontal.
  - (2) Horizontal Aim Inspection -Reject vehicle if the left edge of the high intensity zone is more than 4 inches right or left of the vertical line.

3. **Lamp Inspection and Aiming Mechanical Method.**

a. **Type 1**

- (1) **Vertical Aim** - Approval shall be refused if graduation is higher than 4 inches up or lower than 4 inches down.
- (2) **Lateral Aim** - Approval shall be refused if graduation is more than 4 inches to the right or left of straight ahead.

b. **Type 2**

- (1) **Vertical Aim** - Approval shall be refused if graduation is higher than 4 inches up or lower than 4 inches down.
- (2) **Lateral Aim** - Approval shall be refused if the graduation is more than 4 inches to the right or left.

B. **TURN SIGNAL SYSTEM**

1. If any vehicle is provided with turn signals as standard factory equipment, those signals must be in operating condition before a sticker is issued.

2. **Reject Vehicle If:**

a. **Signal Lamp:**

- (1) Lens is not white or amber to the front, red to amber to the rear or if the lens is broken.
- (2) Wiring is shoddy or electrical connections are poor.
- (3) Lamp housing is not securely fastened.
- (4) Proper signals do not go on with each throw of the switch.
- (5) Any vehicle is so constructed or loaded as to prevent the operator from making a hand and arm signal if such vehicle is not equipped with an approved type of signaling device.

b. **Operating Unit:**

- (1) Not functioning properly.
- (2) Self-cancelling mechanism not functioning properly.

c. **Stop Lamps:**

- (1) Lamps do not go on with slight pressure on the brake pedal.
- (2) Lamps do not emit a red light.
- (3) Lens is broken.
- (4) Lamp housing is not securely fastened.

**Note:** In the event that a tail or stop light lens is broken to the extent that light shows through at the time of inspection, the vehicle owner shall either replace that defective part or place an order through a selling agent and be able to show proof at the request of an inspection mechanic, or any police officer that the part is on order and that either a percentage or full price has been paid before an inspection sticker shall be issued.

C. **WIRING AND SWITCHES**

1. **Reject Vehicle If:**

- a. Switches are not in good condition and not functioning properly.
- b. Wiring in poor condition, improperly installed and so located as to incur damage.
- c. Any connection is not tight or shows signs of excessive corrosion.

D. REAR LAMPS, LICENSE PLATE LAMPS AND REAR LAMP COMBINATIONS

1. Reject Vehicle If:

- a. TAIL LIGHT BULBS DO NOT PRODUCE SUFFICIENT LIGHT SO AS TO BE VISIBLE FROM A DISTANCE OF 100 FEET TO THE REAR.
- b. ALL TAIL LIGHTS DO NOT PRODUCE A RED LIGHT, or are broken, missing, discolored, or do not fit properly.
- c. LAMPS ARE NOT SECURELY MOUNTED IN THE CENTER OR TO THE LEFT OF THE AXIS or do not produce a steady light to the rear with brakes applied.
- d. LICENSE PLATE LIGHT BULBS DO NOT PRODUCE SUFFICIENT STEADY WHITE LIGHT TO ILLUMINATE THE ENTIRE REAR LICENSE PLATE FROM A DISTANCE OF 50 FEET TO THE REAR.
- e. Lamp Housing is not securely fastened.
- f. All tail and rear plate lights do not operate properly in all switch positions.

E. REFLECTORS

1. Reject Vehicle If:

- a. VEHICLE IS NOT EQUIPPED WITH AT LEAST ONE ADEQUATE REFLECTOR SECURELY ATTACHED TO THE REAR THEREOF. (MAY BE PART OF THE REAR LAMP.)
- b. REFLECTORS DO NOT HAVE RED LENSES or if lenses are broken.
- c. NOT ADEQUATE TO REFLECT AT NIGHT ON AN UNLIGHTED HIGHWAY FOR AT LEAST 200 FEET FROM THE LAWFUL HIGH BEAMED HEADLIGHT OF A VEHICLE APPROACHING FROM THE REAR.

**VI. Safe Loading.**

- A. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway.
- B. Protection Against Shifting Cargo-Any vehicle without a front-end structure or equivalent device as required.

**VII. Steering Mechanism.**

- A. Steering Wheel Free Play (on vehicles equipped with power steering the engine must be running).

Steering wheel diameter	Manual steering system	Power system
16".....	2"	4 1/2"
18".....	2 1/4"	4 3/4"
20".....	2 1/2"	5 1/4"
22".....	2 3/4"	5 3/4"

- B. **Steering Column.**

- 1. Any absence or looseness of U-bolt(s) or positioning part(s).
- 2. Worn, faulty or obviously repair welded universal joint(s).
- 3. Steering wheel not properly secured.

- C. **Front Axle Beam and All Steering Components Other Than Steering Column.**

- 1. Any crack(s).
- 2. Any obvious welded repair(s).

- D. **Steering Gear Box.**

- 1. Any mounting bolt(s) loose or missing.
- 2. Any crack(s) in gear box or mounting brackets.

- E. **Pitman Arm.** Any looseness of the pitman arm on the steering gear output shaft.



F. **Power Steering.** Auxiliary power assist cylinder loose.

G. **Ball and Socket Joints.**

1. Any movement under steering load of a stud nut.
2. Any motion, other than rotational, between any linkage member and its attachment point of more than 1/8 inch.

H. **Tie Rods and Drag Links.**

1. Loose clamp(s) or clamp bolt(s) on tie rods or drag links.
2. Any looseness in any threaded joint.

I. **Nuts.** Nut(s) loose or missing on tie rods, pitman arm, drag link, steering arm or tie rod arm.

J. **Steering System.** Any modification or other condition that interferes with free movement of any steering component.

VIII. **Suspension.**

A. Any U-bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position. (After a turn, lateral axle displacement is normal with some suspensions. Forward or rearward operation in a straight line will cause the axle to return to alignment).

B. **Spring Assembly.**

1. Any leaves in a leaf spring assembly broken or missing.
2. Any broken main leaf in a leaf spring assembly. (Includes assembly with more than one main spring).
3. Coil spring broken.
4. Rubber spring missing.
5. One or more leaves displaced in a manner that could result in contact with a tire, rim, brake drum or frame.

6. Broken torsion bar spring in a torsion bar suspension.
7. Deflated air suspension, i.e., system failure, leak, etc.

**C. Torque, Radius or Tracking Components:**

Any part of a torque, radius or tracking component assembly or any part used for attaching the same to the vehicle frame or axle that is cracked, loose, broken or missing. (Does not apply to loose bushings in torque or track rods.)

**IX. Frame.**

**A. Frame Members.**

1. Any cracked, broken, loose, or sagging frame member.
2. Any loose or missing fasteners including fasteners attaching functional component such as engine, transmission, steering gear, suspension, body parts, and fifth wheel.

**B. Tire and Wheel Clearance.** Any condition, including loading, that causes the body or frame to be in contact with a tire or any part of the wheel assemblies.

**C. Adjustable Axle Assemblies (Sliding Subframes).** Adjustable axle assembly with locking pins missing or not engaged..

**X. Tires.**

**A. Any tire on any steering axle of a power unit:**

1. With less than 4/32 inch tread when measured at any point on a major tread groove.
2. Has body ply or belt material exposed through the tread or sidewall.
3. Has any tread or sidewall separation.
4. Has a cut where the ply or belt material is exposed.
5. Labeled "Not for Highway Use" or displaying other marking which would exclude use on steering axle.

6. A tube-type radial tire without radial tube stem markings. These markings include a red band around the tube stem, the word "radial" embossed in metal stems, or the word "radial" molded in rubber stems.
7. Mixing bias and radial tires on the same axle.
8. Tire flap protrudes through valve slot in rim and touches stem.
9. Regrooved tire except motor vehicles used solely in urban or suburban service - see exception in 393.75(e). (No truck or truck tractor shall be operated with regrooved tires on the front wheels which have a load carrying capacity equal to or greater than that of 8.25-20 8 ply)
10. Boot, blowout patch or other ply repair.
11. Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
12. Tire is flat or has noticeable (e.g., can be heard or felt) leak.
13. Any bus equipped with recapped or retreaded tire(s).
14. So mounted or inflated that it comes in contact with any part of the vehicle.

**B. All tires other than those found on the steering axle of a power unit:**

1. Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
2. Tire is flat or has noticeable (e.g., can be heard or felt) leak.
3. Has body ply or belt material exposed through the tread or sidewall.
4. Has any tread or sidewall separation.
5. Has a cut where ply or belt material is exposed.

6. So mounted or inflated that it comes in contact with any part of the vehicle. (This includes a tire that contacts its mate.)
7. Is marked "Not for highway use" or otherwise marked and having like meaning.
8. With less than 2/32 inch tread when measured at any point on a major tread groove.

XI. **Wheels and Rims.**

- A. **Lock or Slide Ring.** Bent, broken, cracked, improperly seated, sprung or mismatched ring(s).
- B. **Wheels and rims.** Cracked or broken or has elongated bolt holes.
- C. **Fasteners (both spoke and disc wheels).** Any loose, missing, broken, cracked, stripped or otherwise ineffective fasteners. Parts shall be so designed and installed that nuts shall be fully engaged..
- D. **Welds.**
  1. Any cracks in welds attaching disc wheel disc to rim.
  2. Any crack in welds attaching tubeless demountable rim to adapter.
  3. Any welded repair on aluminum wheel(s) on a steering axle.
  4. Any welded repair other than disc to rim attachment on steel disc wheel(s) mounted on the steering axle.

XII. **VEHICLE GLAZING - WINDSHIELD, SIDE AND REAR WINDOWS**

- A. **CHECK ALL SAFETY GLAZING MATERIALS** for the manufacturer's trademark and the words "American Standard" or the letters "AS" followed by a number indicating the position in the vehicle in which the material may be used. (Reference American Standard Safety Code Z26.1-1969 "Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways.")
- B. Glass marked AS1 must be used in windshields and may also be used in any other location on the vehicle. AS2 glass may be used in any location except windshields.

1. ALL REPLACEMENT OF GLASS PARTITIONS, DOORS, WINDOWS OR WINDSHIELDS ON ANY VEHICLE SHALL BE MADE WITH SAFETY GLASS AS DEFINED IN M.R.S.A., TITLE 29, SEC. 1369.
  2. REPAIR OF WINDSHIELDS SHALL BE ALLOWED IF IT DOES NOT IMPAIR THE VISION IN THE CRITICAL VISION AREA. See section 2 for specific information on the repair of windshields.
  3. **Reject Vehicle If:**
    - a. VEHICLE IS NOT EQUIPPED WITH APPROVED SAFETY GLASS WHEREVER GLASS IS USED IN DOORS, WINDOWS AND WINDSHIELDS, IF THE VEHICLE IS ONE MANUFACTURED AFTER DECEMBER 31, 1937.
    - b. Glass has been removed, if manufactured with glass windshield or windows.
- C. Check windshield and all windows for cracks, sharp edges and discoloration.
1. **Reject Vehicle If:**
    - a. Cloudiness extends more than 1 inch from the top or sides or more than 4 inches from the bottom edge of the windshield.
    - b. Cloudiness (divided windshield). extends more than 1/2 inch on either side of the divider strip.
- D. **CRITICAL VISION AREA:** That area of the windshield covered by the normal sweep of all except the lower 4 inches of properly adjusted wiper blades, utilizing factory installed or equivalent replacement.

1. **Reject Vehicle If:**

- a. Any bull's-eye fracture, star fracture, stone bruise, crack or chip within the critical vision area that measures more than 1/2 inch at its extreme edge.
- b. Any crack is more than 4 inches long if it is in any location other than the area in which cloudiness is permitted.
- c. Windshield wiper scratches, mars or marks more than 4 inches long and 1/8 inch wide.
- d. Any vehicle presented for inspection without a windshield if it was originally equipped with a windshield at the manufacturer, except limited use farm and fish vehicles, home made tractors and woods tractors.

E. Check windshield and all windows for unauthorized material or conditions which obscure driver's view.

1. **Reject Vehicle If:**

- a. The windshield or any window adjacent to a passenger seat is covered or coated with any material or substance which changes the clear color and/or impairs two way vision.

**NOTE:** **Exceptions:** Motor vehicles that are equipped with factory installed tinted glass (windshields and replacements marked AS1 or all other windows and replacements marked AS-2 or AS-3), or a colored transparent sunshield strip extending not more that 4 inches from the top of windshield.

F. **SIDE WINDOWS**

1. **Reject Vehicle If:**

- a. Any cloudiness or defect that would constitute an obstruction to the driver's vision.
- b. Both left and right front window mechanism are not in working order.

**G. REAR WINDOWS.**

**1. Reject Vehicle If:**

- a. Rear windows are covered or coated with any material or substance which changes the clear color or unless adequate vision (minimum of 200 feet) is provided to the rear by proper outside mirrors located on the driver's side and passenger side.
- b. Approval shall be refused for any glass which is broken or shattered so as to obstruct the vision of the operator or endanger the occupants of the vehicle.

**XIII. WINDSHIELD WIPERS**

**A. Reject Vehicle If:**

1. Vehicle is not equipped with an adequate wiper or wipers. (If vehicle was provided with 2 wipers as standard factory equipment, both must be in working order).
2. Any wiper does not operate freely or at a reasonable speed.
3. Any wiper blade has dead or worn rubber or if metal makes contact with the windshield.
4. Driver cannot reach and operate freely a hand wiper (if-vehicle is not equipped with automatic wipers).
5. The wiper blade length is less than 7 inches.

**XIV. REAR VIEW MIRRORS**

**A. Reject Vehicle If:**

1. Vehicle is not equipped with rear view mirrors.
2. Mirror is not mounted securely to prevent swinging and excessive vibration.
3. Mirror does not give the driver a view of the road 200 feet to the rear.

4. Reflecting surface is peeled, tarnished or broken, unless the vehicle is equipped with another mirror that is adequate.

XV. **SUNVISOR**

A. **Reject Vehicle If:**

1. Vehicle is not equipped with a sunvisor on the driver's side.
2. If the sunvisor cannot be maintained in the proper positions.



## PERIODIC INSPECTION RECORD KEEPING REQUIREMENTS

1. The qualified inspector performing the inspection shall prepare a report which:
  - a. Identifies the individual performing the inspection, including the individual's printed or typed name and signature.
  - b. Identifies the registered owner of the vehicle.
  - c. Identifies the motor carrier operating the vehicle, if other than the registered owner.
  - d. Identifies the date and location of the inspection.
  - e. Identifies the license plate number and vehicle identification number of the vehicle being inspected.
  - f. Identifies the vehicle components inspected and describes the results of the inspection, including the identification of those components not meeting the minimum standards set forth in this subchapter and
  - g. Certifies the accuracy and completeness of the inspection as complying with all the requirements of this section.
2. The original or a copy of the inspection report shall also be retained by the motor carrier under whose control the vehicle operates for 30 consecutive days or more, for a period of 14 months. The inspection report shall be retained where the vehicle maintenance records are kept. A copy shall be retained by the inspection station and a third copy shall be provided which may be kept with the vehicle.

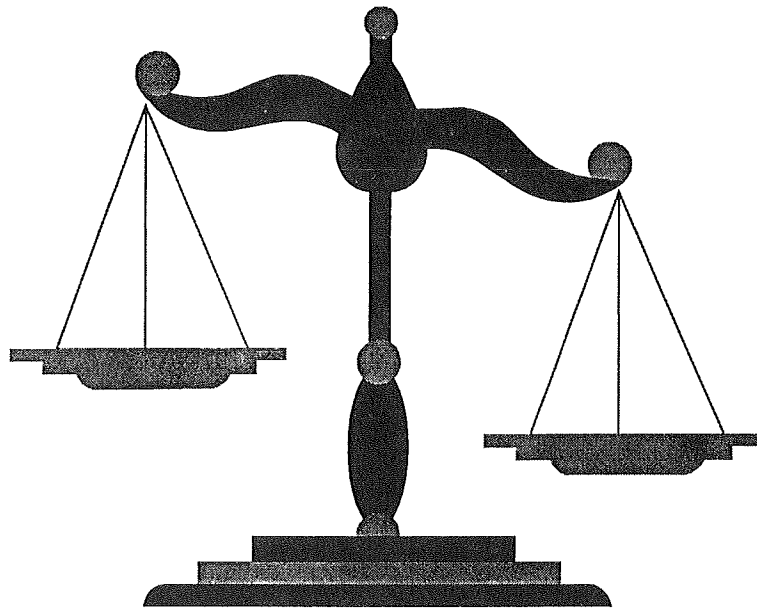
## FEE

1. The fee for a commercial vehicle inspection shall be the standard labor rate for the garage performing the inspection. That labor rate must be posted in a conspicuous location in the garage.,

## OUT OF DOORS INSPECTION

1. Trailers, semi-trailers, and converters dollies may be inspected out-of-doors. However, a power unit or air compressor must be available to charge the brake system. An electrical source must be available to check lighting.

**RELATING TO  
MOTOR VEHICLE  
INSPECTIONS**



**LAWS**



L A W S R E L A T I N G T O  
M O T O R V E H I C L E I N S P E C T I O N

CHAPTER 15

MOTOR VEHICLE EXAMINATIONS AND INSPECTIONS

1751. **Motor Vehicle Inspection.**

1. **Inspection Required.** Except as provided in this chapter or section 2307, subsection 1, a motor vehicle required to be registered in this State must have an annual inspection. A person may have a motor vehicle inspected more frequently.
2. **Equipment Subject to Inspection.** The following equipment is subject to inspection:
  - A. Body components;
  - B. Brakes;
  - C. Exhaust system;
  - D. Glazing;
  - E. Horn;
  - F. Lights and directional signals;
  - G. Rearview mirrors;
  - H. Reflectors;
  - I. Running gear;
  - J. Safety seat belts in 1966 and subsequent models;
  - K. Steering mechanism;
  - L. Tires;
  - M. Windshield wipers;
  - N. Catalytic converters on 1983 and subsequent models;

- O. Filler neck restriction on 1983 and subsequent models.
- 2-A. **Enhanced Inspection.** Beginning January 1, 1999, a motor vehicle that is required to be registered in Cumberland County and that is subject to inspection pursuant to subsection 1, must have an annual enhanced inspection. The following equipment is subject to inspection:
- A. Equipment subject to inspection pursuant to subsection 2;
  - B. The fuel tank cap on 1974 and subsequent models of gasoline-powered vehicles; and
  - C. The on-board diagnostic system on 1996 and subsequent models.

A motor vehicle that is not required to be registered in Cumberland County may have an enhanced inspection under this subsection.

3. **Inspection fee.** The inspection fee is as follows:
- A. Before January 1, 1999, the fee is \$6;
  - B. Beginning January 1, 1999, the fee for an inspection under subsection 2 is \$6.50;
  - C. From January 1, 1999 to December 31, 1999, the fee for an enhanced inspection under subsection 2-A is \$9.50; and
  - D. Beginning January 1, 2000, the fee for an enhanced inspection under subsection 2-A is \$9.50 for each inspection performed on pre-1996 models and \$12.50 for each inspection performed on 1996 and subsequent models.

The inspection fee is payable whether the vehicle passes inspection or not.

4. **Implementation.** The enhanced inspection required by subsection 2-A must be implemented as follows.
- A. The fuel tank cap is subject to inspection beginning January 1, 1999.
  - B. The on-board diagnostic system is subject to inspection beginning January 1, 2000. A motor vehicle may not fail inspection for failure to meet the inspection standard for the on-board diagnostic system until January 1, 2001.

## 1752. Motor Vehicles Exempt from Inspection

The following are exempt from inspection:

1. **Registered in another state.** A motor vehicle owned and registered in another state and displaying a valid certificate of inspection from another state or a federally approved commercial vehicle inspection program;
2. **Farm tractors.** A farm tractor;
3. **Antique autos.** An antique auto registered under section 457;
4. **Farm truck.** A farm truck that:
  - A. Is operated within a 20-mile radius from the main entrance of the farm where the vehicle is customarily kept;
  - B. Has a partial annual inspection of the running gear, steering mechanism, brakes, exhaust system and lights; and tires under section 1917, subsection 3; and
  - C. Bears the name of the municipality in which the excise tax is paid in 4-inch letters on the left door of the cab;
5. **Island vehicles.** A motor vehicle that is:
  - A. Used for the conveyance of passengers;
  - B. Registered for a fee of \$2 under section 501, subsection 2; and
  - C. Operated exclusively on an island having no roads maintained or supported by the State;
6. **Motorized bicycle or tricycle.** A motorized bicycle or tricycle;
7. **Fish truck.** A fish truck that:
  - A. Is operated within a 20-mile radius of the municipality where excise tax on the truck is paid;
  - B. Has a partial annual inspection consisting of the running gear, steering mechanism, brakes, exhaust system and lights; and
  - C. Bears the name of the municipality in which the excise tax is paid in 4-inch letters on the left door of the cab;

8. **Woods tractor.** A converted motor vehicle used as a tractor solely for logging purposes that:
  - A. Is registered as a tractor pursuant to section 509 or exempt from registration pursuant to section 510;
  - B. Is operated only during daylight hours, only within a 10-mile radius of the premises where the tractor is customarily kept and only between those premises and:
    - (1) A wood lot used for logging purposes by the owner; and
    - (2) A filling station or garage for fuel or repairs; and
  - C. Has a partial annual inspection of running gear, steering mechanism, brakes and exhaust system and tires under section 1917, subsection 3; and
9. **Registered in this State.** A motor vehicle registered in this State displaying a valid certificate of inspection from another state or a federally approved commercial vehicle inspection program until its normal expiration.

### 1753. **Inspection of Commercial Vehicles, Trailers and Semi trailers**

1. **Inspection required.** Except as provided in subsection 4, a commercial motor vehicle that is required to be registered in this State, is used in intrastate or interstate commerce and that has a gross vehicle weight or gross vehicle weight rating greater than 10,000 pounds, including the gross vehicle weight rating or gross weight of any trailer or semi trailer, must be inspected annually. A trailer or semi trailer used with a commercial vehicle required to be inspected must also be inspected.
2. **Scope of inspection.** The Chief of the State Police shall adopt rules for the inspection required by subsection 1 that meet the requirements of 49 code of the Federal Regulations, Section 396.17.
3. **Fee.** The fee for an inspection under this section is based on the inspector's normal hourly labor charge and is due whether or not the vehicle passes inspection. A licensed inspection station shall post the hourly labor charge in a conspicuous place.

4. **Vehicles exempt from annual inspection.** The following vehicles are exempt from the requirements of this section:
  - A. When used exclusively in intrastate commerce, a trailer or semi trailer with a gross vehicle weight, including any load, that does not exceed 3,000 pounds;
  - B. When used exclusively in intrastate commerce, a semi trailer designed and used exclusively for dispensing cable from reels attached to the semi trailer, commonly called a reel trailer, and any semi trailer designed and used exclusively to support the ends of poles being transported, commonly called a pole dolly, when the gross weight of the semi trailer and load does not exceed 12,000 pounds;
  - C. Any mobile home, empty storage trailer, or empty storage semi trailer displaying a trailer transit plate in accordance with section 954, subsections 4 and 5;
  - D. A farm truck or a fish truck exempted under section 1752; and
  - E. A trailer or semi trailer displaying a valid certificate of inspection from another state or a federally approved commercial vehicle inspection program until the normal expiration of its certificate of inspection.
5. **Proof of inspection.** Proof of inspection must be shown either by a report that certifies that the inspection satisfies the requirements of this section or by an inspection sticker placed on the vehicle. If proof is shown by a report, the report must be produced on the demand of a law enforcement officer.

#### 1754. **Inspection by Dealers and Transporters**

1. **Inspection standards.** A holder of a dealer license or a transporter registration certificate may permit a vehicle to be operated on a public way only if the vehicle:
  - A. Meets inspection standards;
  - B. Is owned by the dealer or holder of the transporter registration certificate and is operated by the owner or the owner's employee for the sole purpose of traveling to a body repair establishment and is mechanically safe but requires body repairs;



- C. Is sold or transferred to another person, meets inspection standards and displays a valid certificate of inspection issued within 60 days of the sale or transfer; or
- D. If operated by a dealer or holder of a transporter registration certificate, is operated only from a point of purchase to the licensee's place of business. For the purposes of this paragraph, "point of purchase" includes, but is not limited to, an auto auction, distribution center or another licensed vehicle dealer.

This subsection does not allow the operation of an unsafe motor vehicle on a public way.

- 2. **Remove prior certificate.** If the vehicle bears a prior inspection certificate, that certificate must be removed.
- 3. **Violations.** The provisions of this subsection apply to violations of this section.
  - A. A violation of this section is a traffic infraction for which a penalty of not more than \$1,000 for each violation may be assessed.
  - B. A violation of this section is also a violation of the provisions governing unfair trade practice under Title 5, chapter 10.
  - C. It is not a defense to this section that the dealer or holder did not know that the vehicle did not meet inspection standards or required a certificate.

#### 1755. **Inspection of Fire Trucks**

A fire chief, or a municipal official of a municipality without a fire chief, may contract with a licensed inspection station for a licensed inspection mechanic to perform an inspection at the location where fire trucks are customarily kept.

#### 1756. **Inspection Standard.**

- 1. **Inspection standards.** Equipment subject to inspection must:
  - A. Be in good working order;
  - B. Be safely attached or secured to the chassis or body of the vehicle;
  - C. Be mechanically safe;

- D. Not pose a hazard to the occupant of the vehicle or to the general public; and
  - E. Meet the standards set forth in rules adopted by the Chief of the State Police.
2. **Inspection standard for catalytic converter.** Notwithstanding the inspection standards of subsection 1, a catalytic converter subject to the inspection required by section 1751, subsection 2, paragraph N must meet the rules promulgated by the Chief of the State Police and must be safely attached or secured to the chassis or body of the vehicle.
  3. **Windows.** In addition to the standards set forth in subsection 1, windows must meet the standards of sections 1915 and 1916.
  4. **Fenders.** Except as provided by section 1953, subsection 2, paragraph E, a motor vehicle other than a street rod must be equipped with fenders and extension. When a wheel and tire are installed that permit the tire tread to extend beyond the natural fender configuration, the fenders must be modified or extended to cover the exposed tire tread.
  5. **Safety Seat Belts.** On 1980 and subsequent models, safety seat belts must be inspected to ensure that:
    - A. The motor vehicle has the proper number for that make and model; and
    - B. Each belt shall be fully functional.
  6. **Inspection standard for fuel tank cap.** Notwithstanding the inspection standards of subsection 1, a fuel tank cap subject to the inspection required by section 1751, subsection 2-A, paragraph B must meet the standards in rules adopted by the Chief of the State Police. The Chief of the State Police shall adopt rules to establish procedures and standards for a fuel tank cap pressure test.
  7. **Inspection standard for on-board diagnostic system.** Notwithstanding the inspection standards of subsection 1, an on-board diagnostic system subject to the inspection required by section 1751, subsection 2-A, paragraph C must meet the standards in rules adopted by the Chief of the State Police. The Chief of the State Police shall adopt rules that meet the requirements of 40 Code of Federal Regulations, Part 85 for on-board diagnostic test procedures, standards and equipment.

### 1757. **Standard for Rejection for Nonfunctioning equipment**

A motor vehicle must be rejected for violation of the inspection standard for equipment if any equipment described in section 1751, subsection 2 does not function sufficiently for the safety for the general public or is loose and not securely attached to the vehicle.

### 1758. **Issuance of Sticker; Placement on Vehicle**

1. **Windshield placement.** If a motor vehicle meets the inspection standard, an official inspection sticker must be placed in the lower left-hand corner of the windshield or in the center of the windshield in back of the rearview mirror.
2. **Without windshield.** If the vehicle is not normally equipped with a windshield, the certificate of inspection must be kept with the registration certificate of the vehicle.

### 1759. **Temporary Permits and Warnings**

1. **Issuance.** A law enforcement officer or employee of the Bureau of Motor Vehicles designated by the Secretary of State may issue a permit allowing operation of an uninspected vehicle to an inspection station for inspection.
2. **Reconstructable vehicle.** This section does not apply to reconstructable motor vehicles as defined in Title 10, 1471.
3. **Warning.** The owner or operator of a vehicle operated with an expired inspection sticker during the first month immediately after expiration may not be issued a summons to court but may only be issued a warning. This warning must state that the vehicle must be inspected within 2 business days. Failure to comply with a warning is a violation punishable in accordance with section 1768.

### 1760. **Examination and Impoundment of Vehicles**

1. **Examination for compliance.** A law enforcement officer in uniform may stop and examine a motor vehicle to determine whether the vehicle's equipment complies with the requirements of section 1756.
2. **Scope of inspection.** The officer may demand and inspect the driver's license, the certificate of registration, permits and the identification numbers of the motor vehicle.

3. **Probable cause for inspection.** A law enforcement officer may require the operator to proceed to an official inspection station and submit the vehicle to an inspection and tests as may be appropriate on reasonable grounds to believe that:
  - A. A vehicle is unsafe or not equipped as required by law; or
  - B. The vehicle's equipment does not conform to the inspection standard.

#### 1761. **Certified Inspection Mechanics**

1. **Performance of inspection.** No person other than a holder of an inspection mechanic certificate may perform an inspection or issue or sign a certificate of inspection.
2. **Requirements for inspection mechanic certification.** To receive an inspection mechanic certificate, an applicant must:
  - A. Pass a written or oral examination that is designed to test knowledge of motor vehicle inspection and the method of inspecting and testing motor vehicle equipment; and
  - B. Be a person of honesty, integrity and reliability.
3. **Examination fee.** Applicants for inspection mechanic certification must pay to the Chief of the State Police a fee of \$1 for an application for examination or for renewal of a certificate.
4. **Term of certification.** An inspection mechanic certificate is valid for a period of 5 years from the date of issue.
5. **Renewal.** An examination is not required if application for a renewal is made within one year of expiration.
6. **Remission of certificate.** If the holder of an inspection mechanic certificate no longer performs inspections, the certificate must be remitted immediately to the Chief of the State Police.
7. **Notification of change in place of employment.** Prior to inspecting vehicles for a new employer, the holder of an inspection mechanic certificate shall notify the Chief of the State Police of a change of place of employment.

8. **Testing in parking area.** Notwithstanding sections 1251, 1252 and 1253, a certified inspection mechanic who has a valid operator's license of any class may operate a motor vehicle in a parking area adjacent to an official inspection station for the purpose of testing equipment as required by the rules adopted pursuant to this chapter.

#### 1762. **Official Inspection Stations**

1. **Licensing of official inspection stations.** The Chief of the State Police may license garages as part-time or full-time official inspection stations.
2. **Requirements.** To qualify as an official inspection station, a garage must meet the following requirements and the rules adopted by the Chief of the State Police.
  - A. The buildings must be structurally sound with a level floor and sufficient width and length for inspections.
  - B. Doors must be of sufficient size to accommodate the class of vehicle indicated in the station license.
  - C. The station must be equipped with a screen or chart and other equipment approved by the Chief of the State Police to test lights and other motor vehicle equipment subject to inspection.
  - D. The station must employ a certified inspection mechanic.
  - E. The station must perform vehicle inspections while it is open to the general public.
  - F. A full-time inspection station must be open to the general public for 35 hours or more per week. A part-time inspection station must be open to the general public for at least 16 but less than 35 hours per week.
3. **Examination of premises and operator of garage.** Before a license is granted, the premises must be examined and the operator of the garage investigated as to reliability and fitness.
4. **Term of license.** The license is valid for 2 years from January 1st of the year of issue.

5. **License not transferable.** A license may not be assigned or transferred or used at other than a designated location.
6. **Posting of license on premises.** A license must be posted in a conspicuous place at the designated location.
7. **Hearing; appeals.** If a person is aggrieved by the decision of the Chief of the State Police in refusing approval, that person may, within 30 days of notification of refusal to license, request a hearing before the Chief of the State Police. After the hearing, if an applicant is aggrieved by the final action of the chief, the applicant may appeal the decision in accordance with Title 5, Part 18.
8. **Enhanced inspection station.** Beginning January 1, 1999, official inspection stations located in Cumberland County shall offer enhanced inspections pursuant to section 1751, subsection 2-A and may not offer inspections pursuant to section 1751, subsection 2. Official inspection stations located outside of Cumberland County may offer inspections under section 1751, subsections 2 and 2-A. An inspection station that offers enhanced inspections shall employ an inspection mechanic certified to perform enhanced inspections.

### 1763. **Suspension or Revocation of License or Inspection Mechanic Certificate**

Notwithstanding Title 5, section 10003, a State Police officer may immediately suspend or revoke the license issued to any official inspection station or the inspection mechanic certificate issued to any inspecting mechanic for a violation of this chapter or the rules promulgated pursuant to section 1769. The penalty for a first offense is a license suspension for a period of 6 months. The penalty for a 2nd or subsequent offense is a license suspension for a period of one year or license revocation.

Pursuant to Title 5, chapter 375, the Chief of the State Police or the chief's designee shall schedule a hearing, if requested by the owner of an official inspection station, an employee of that station or the inspection mechanic, to review the suspension or revocation. The suspension or revocation remains in effect pending the final agency decision and during any appeal of that decision.

As a prerequisite to reinstatement following a license suspension or revocation, the Chief of the State Police may require an inspection mechanic to satisfactorily complete the inspection mechanic examination provided for in section 1761, subsection 2.

#### 1764. **Fleet Inspection Stations**

1. **License by Chief of the State Police.** The Chief of the State Police may license fleet inspection stations to inspect 10 or more vehicles registered in the name of a single owner.
2. **Requirements.** To qualify as a fleet inspection station, a station must:
  - A. Meet the standards of section 1762, subsection 2, paragraphs A, B and C; and
  - B. Have at least 10 vehicles registered in the name of the fleet inspection station owner or be under contract to the owner of the fleet of vehicles for exclusive maintenance.
3. **Limit to fleet vehicles.** Fleet station inspections are limited exclusively to fleet vehicles.
4. **Employment of certified inspection mechanics.** A fleet inspection station must employ a sufficient number of certified inspection mechanics to inspect every vehicle in the fleet annually.

A certified inspection mechanic may inspect fleets of vehicles at the fleet station, if proper inspection equipment is available.

Fleet vehicles must be inspected by a certified inspection mechanic who may issue and sign inspection certificates.

#### 1765. **Out-of-Doors Inspections**

A certified inspection mechanic may inspect a vehicle out-of-doors if:

1. **Class of vehicles.** The vehicle conforms to the class of vehicle that the inspection station license authorized for inspection; and
2. **Altered vehicles.** Alterations or additions to the basic design or structure of the vehicle not produced by the original manufacturer prevent the vehicle from entering inside the inspection station.

#### 1766. **Inspection Stickers**

1. **Stickers remain property of State.** Inspection stickers and materials issued to inspection station by the Chief of the State Police remain the property of the State.

2. **Stock of stickers.** An inspection station must stock a sufficient number of stickers to meet all demands. The stickers must be made of a material and quality of adhesive prescribed by the Chief of the State Police.

**NOTE:** *The following version of subsection 3 is effective until January 1, 1999.  
(PL 1997, ch. 786, subsection 6 and 14)*

3. **Fee.** Stickers are furnished by the Chief of the State Police at \$1 each.

**NOTE:** *The following version of subsection 3 takes effect on January 1, 1999  
(PL 1997, ch. 786, subsection 6 and 14)*

3. **Fee.** Stickers are furnished by the Chief of the State Police at \$1.50 each.

4. **Statement of intent to hire a certified mechanic.** If a station is disqualified by the loss of a certified mechanic, the owner shall, within 5 working days, return all stickers to the Chief of the State Police.

The owner may file a statement of intent to hire a certified inspection mechanic within 14 working days, in which case the Chief of the State Police shall hold the returned stickers for the licensee.

If a statement of intent is not filed, returned stickers may be reissued.

5. **Return or refund of unused stickers.** Within 20 working days of the calendar year or the suspension, revocation or termination of an inspection license, unused or expired stickers must be returned to the Chief of the State Police and the purchase price refunded or exchanged for current year stickers. Refunds or exchanges may only be made for full sheets of unused stickers.
6. **Return of inspection materials.** Upon suspension, revocation or termination of an inspection license, the station owner or manager shall return all inspection materials to the Chief of the State Police, who shall issue a receipt for the returned materials.

#### 1767. **Disposition of Fees**

The revenues generated by this chapter must be credited to the General Highway Fund.



## 1768. Unlawful Acts

1. **Display of fictitious certificate.** A person commits a Class E crime if that person displays or permits to be displayed on a vehicle a certificate of inspection knowing the certificate to be fictitious or issued to another vehicle or issued without an inspection having been made.
2. **Use of counterfeit certificate of inspection.** A person commits a Class E crime if the person makes, possesses, issues or knowingly uses an imitation or counterfeit of an official certificate of inspection or a certificate of inspection that was not issued by an official inspection station in accordance with law.
3. **Misrepresentation of vehicle inspection station.** A person commits a Class E crime if that person represents a place as an official inspection station and the station is not operating under a valid license.
4. **Issuance of certificate for substandard vehicle.** A person commits a Class E crime if that person knowingly causes an official inspection sticker to be attached to a vehicle that does not conform to the inspection standard.
5. **Operation of defective vehicle.** A person commits a Class E crime if that person operates a vehicle on a public way with equipment on the vehicle that does not conform to the standards of this subchapter.
6. **Alteration after inspection.** A person commits a Class E crime if that person alters equipment after inspection so that the equipment does not conform to the standards of this subchapter.
7. **Operation of vehicle without certificate of inspection.** An owner or operator of a vehicle required to be inspected commits a traffic infraction if that person operates that vehicle or permits that vehicle to be operated without displaying a current and valid certificate of inspection or producing the certificate on demand of a police officer.

## 1769. Rules

1. **Scope.** The chief of the State Police may adopt rules:
  - A. For the administration and enforcement of this chapter;
  - B. To designate periods of time during which owners of vehicles must display or produce a certificate of inspection; and

- C. Concerning the inspection of registered special mobile equipment not ordinarily operated over the highway.
- 2. **Review of rules by Legislature.** The joint standing committee of the Legislature having jurisdiction over transportation matters shall review the rules prior to adoption.

1770. **Penalties**

- 1. **General penalty.** Notwithstanding Title 17-A, and unless otherwise specified, a violation of this chapter is a Class E crime, punishable by a fine of not less than \$25 nor more than \$500 or by imprisonment for not more than 30 days, or by both.
- 2. **Traffic infraction.** A violation of the rules adopted by the Chief of the State Police pertaining to this subchapter is a traffic infraction subject to a forfeiture of not less than \$25 nor more than \$250.

CHAPTER 17  
EQUIPMENT  
SUBCHAPTER I  
GENERAL PROVISIONS

1901. **General Restriction**

A person may not use, sell or equip a vehicle with a lens, muffler, reflector, lighting device, window-tinting material or other after-market equipment contrary to this Title or contrary to the rules of the Chief of the State Police.

1902. **Brakes**

1. **General rule.** A motor vehicle must have adequate brakes in good working order that are sufficient to control the vehicle.
2. **Specific standards.** Brakes must be adjusted so as to stop:
  - A. A 2-wheel brake vehicle, within a distance of 45 feet, from a speed of 20 miles per hour;
  - B. A 4-wheel brake vehicle, within 30 feet, from a speed of 20 miles per hour; or
  - C. A motorcycle or motor-driven cycle, within 30 feet, from a speed of 20 miles per hour.
3. **Parking brakes.** A vehicle, except a 2-wheel motorcycle or 2 wheel motor-driven cycle, must be equipped with parking brakes adequate to hold the vehicle on any grade on which it is operated, under all conditions of loading, on a surface free from snow, ice or loose material. Parking brakes:
  - A. Must be capable of being applied by the driver's muscular effort, spring action or equivalent means;
  - B. May be operated with assistance of the service brakes or other source of power, provided that failure of the service brake actuation system or other power assisting mechanism does not prevent the parking brakes from being applied;
  - C. Must be designed so that, once applied, they remain applied with the required effectiveness despite leakage or exhaustion of any source of energy;

- D. May share the same brake drums, brake shoes and lining assemblies, brake shoe anchors and mechanical brake shoe actuation mechanisms associated with the wheel brake assemblies used for service brakes; and
- E. If the means of applying the parking and service brakes are connected, must be constructed so that failure of one part does not leave the vehicle without operative brakes.

4. **Trucks; specific requirements.** A truck, truck tractor, trailer or semi trailer must be equipped with adequate brakes acting on all wheels of all axles, except that the following need not meet this requirement:

- A. A trailer or semi trailer not exceeding a gross weight of 3,000 pounds;
- B. A vehicle towed by use of a wrecker;
- C. A vehicle meeting braking requirements of the motor carrier safety regulations of the United States Department of Transportation;
- D. A semi trailer with a gross weight of semi trailer and load not to exceed 12,000 pounds, designed and used exclusively:
  - (1) For the dispensing of cable from attached reels, commonly called reel trailers; or
  - (2) To support the end of poles while being transported, commonly called pole dollies; and
- E. A dolly axle, so-called, on a farm truck transporting agricultural products and supplies.

A dolly axle may not be considered in determining the gross weight or axle limits permitted on the vehicle.

A 2-axle or 3-axle farm truck equipped with a dolly axle is considered a 2-axle or 3-axle vehicle.

5. **Multiple axles.** If equipped with 3 or more axles, a truck, tractor or truck tractor manufactured prior to August 1, 1980 need not have brakes on the front wheels; if the vehicle is equipped with 2 or more steerable axles, the wheels of one such axle need not have brakes.

6. **Rules.** The Chief of the State Police may adopt rules governing the sufficiency and adjustment of brakes.

#### 1903. **Adequate Signaling Device**

A motor vehicle must have a suitable and adequate horn or other device for signaling. A signaling device or horn may not be unnecessarily sounded.

#### 1904. **Headlights**

1. **General rule.** A motor vehicle must be equipped with headlights of sufficient power and so adjusted and operated as to enable the operator to proceed with safety under all ordinary conditions of highway and weather.
2. **Location of headlights.** On a motor vehicle, a headlight must be located at a height, measured from the center of the headlight, of not more than 54 inches nor less than 22 inches above the level surface on which the vehicle stands. Headlights on snow plows may be at a height greater than 54 inches.
3. **White light.** Headlights must be equipped with lenses or reflectors that emit only white light.
4. **Number of headlights.** A motor vehicle must have mounted on the front at least 2 headlights, one on each side. A motorcycle or motor-driven cycle must have one mounted headlight.
5. **Requirements.** The following requirements apply to a headlight.
  - A. If the vehicle is mechanically constructed so that it is limited to less than 15 miles per hour, it must have headlights capable of furnishing sufficient candlepower to render any substantial object clearly discernible on a level way at least 50 feet directly ahead and at the same time at least 7 feet to the right of the axis of the vehicle for a distance of at least 25 feet.
  - B. If the vehicle is mechanically constructed so that it can exceed 15 miles per hour, it must have headlights capable of furnishing sufficient candlepower to render any substantial object clearly discernible on a level way at least 200 feet directly ahead and at the same time at least 7 feet to the right of the axis of the vehicle for a distance of at least 100 feet.

- C. A headlight capable of furnishing more than 4 candlepower, if equipped with a reflector, may not be used unless the headlight is designed, equipped or mounted so that no portion of the beam of light, when projected 75 feet or more ahead, rises above a plane of 42 inches higher than and parallel with the level surface on which the vehicle stands.
  - D. The top of a main beam of light may not be higher than the headlight center.
  - E. An electric bulb or other lighting device of a greater capacity than 32 candlepower may not be used, except for the standard equipment sealed beam unit.
  - F. A headlight may not project the top of a main beam, at a distance of 25 feet ahead of the vehicle, on an approximately level stretch of highway, onto the body of a person or an object, at a height greater than that of the center of the front light from the highway.
- 6. **Motorcycle.** A motorcycle or motor-driven cycle that does not have an adequate beam for headlights is restricted to daytime operation.
  - 7. **Exception for farm tractors.** This section does not apply to unregistered farm tractors.

#### 1905. Rear Lights

- 1. **Requirement.** Except as provided in subsection 3, a motor vehicle with 3 or more wheels must have on the rear 2 lights, one on each side of the axis, each capable of displaying a red light visible for a distance of at least 100 feet behind the vehicle.
- 2. **Vehicles used in conjunction.** When a vehicle is used in conjunction with another vehicle, only the last must carry the lights.
- 3. **Vehicles manufactured with on rear light.** If a vehicle was manufactured with only a single rear light, that light is sufficient if the light complies with the visibility requirement and is in the center or to the left of the vehicle's axis.
- 4. **Exception for farm tractors.** This section does not apply to unregistered farm tractors.

## 1905-A. Turn Signal

1. **Requirement.** Except as provided in subsection 3, a motor vehicle, trailer or semi trailer must be equipped with electric flashing turn signal lamps. A motor vehicle must emit white or amber light from the turn signals to the front of the vehicle and a motor vehicle, trailer or semi trailer must emit amber or red light from the turn signals to the rear of the vehicle.
2. **Vehicles physically connected.** When a vehicle that is being operated is physically connected to another vehicle, only the last vehicle must carry turn signals to the rear.
3. **Vehicles manufactured without turn signals.** Automobiles and trucks less than 80 inches in width, manufactured or assembled prior to January 1, 1953 need not be equipped with electric turn signal lamps.
4. **Exception for farm tractors.** This section does not apply to unregistered farm tractors.

## 1906. Clearance Lights

A vehicle 7 feet or more in width must have a green or amber light attached to the extreme left of the front, adjusted to indicate the extreme left lateral extension of the vehicle or load and at least one red light on the extreme left lateral extension of the vehicle or load on the rear.

A vehicle with a closed body 8 feet or more in height must display 2 green or amber lights attached to the extreme left of the front of its body, one at the top and the other at the bottom. The vehicle must also display at least one red light on the extreme upper left lateral extension of its body.

Body width lights and height lights must be visible not less than 200 feet in the direction towards which the vehicle is proceeding or facing.

In place of body width lights and height lights, a vehicle may be equipped with an adequate reflector conforming as to color and location to the requirements for the light.

This section does not apply to unregistered farm tractors.

#### 1907. **Rear Reflectors**

A vehicle must be equipped with at least one adequate reflector securely attached to the rear. The reflector:

1. **Part of rear light.** May be a part of the rear light;
2. **Color.** Must be red; and
3. **Reflection.** Must be designed, located and maintained to reflect at night on an unlighted highway, from at least 200 feet, the lawful undimmed headlights of a vehicle approaching from the rear.
4. **Exception for unregistered farm tractors.** This section does not apply to unregistered farm tractors.

#### 1908. **Location of Rear Lights, Reflectors and Signal Lamps**

On a vehicle 7 feet wide or wider, all rear lights, reflectors and signal lights must be within 12 inches of the extreme extension of the vehicle. On flat-body dump trucks, rear lights and signal lamps may be mounted on the rear of the frame. This section does not apply to unregistered farm tractors or to trailers with rear lights, reflectors and signal lights installed by the commercial manufacturer.

#### 1909. **Registration Lamp**

A vehicle must have a white light capable of illuminating the rear registration plate so that the characters on the plate are visible for a distance of at least 50 feet. This section does not apply to unregistered farm tractors.

#### 1910. **Rules Governing Lights on Vehicles**

The Chief of the State Police may adopt rules governing the adjustment, use and operation of lights on vehicles.

#### 1911. **Hydraulic Brake Fluid**

1. **Definition.** "Hydraulic brake fluid" means the liquid medium through which force is transmitted to the brakes in the hydraulic brake system of a vehicle.
2. **Requirement.** Hydraulic brake fluid must be distributed and serviced with due regard for the safety of the occupants of the vehicle and the public.



3. **Rules.** The Commissioner of Public Safety may adopt rules establishing standards and specifications for hydraulic brake fluid that must correlate with and, so far as practicable, conform to current standards and specifications of the Society of Automotive Engineers applicable to the fluid.
4. **Prohibition.** A person may not distribute, have for sale, offer for sale, sell or service a vehicle with hydraulic brake fluid unless that fluid complies with the requirements of this section.

#### 1912. Mufflers

1. **Mufflers required.** A person may not operate a motor vehicle unless that vehicle is equipped with an adequate muffler properly maintained to prevent excessive or unusual noise.
2. **Cutouts prohibited.** Except as provided in subsection 5, a muffler or exhaust system may not be equipped with a cutout, bypass or similar device.
3. **Amplification prohibited.** A person may not operate a motor vehicle with an exhaust system that has been modified to amplify or increase the noise emitted by the motor above that emitted by the muffler originally installed on the vehicle.
4. **Exhaust system fastened to engine.** The entire exhaust system must be complete, without leakage and securely fastened to the engine block and frame.
5. **Racing meets.** Notwithstanding subsection 2, an owner or operator of a motor vehicle used occasionally in racing meets may obtain a permit from the Secretary of State for installing a cutout, bypass, or similar device on the exhaust system of that motor vehicle.

The cutout, bypass or similar modification must be kept closed and inoperative while the vehicle is on a public way.

The permit must be in the vehicle at all times while on a public way.

The Secretary of State shall determine the eligibility of all applicants for a permit.

The permit fee is \$1 for the registration year.

### 1913. Mirrors

1. **Mirrors required.** A person may not operate on a public way a vehicle so constructed, equipped, loaded or used that the operator is prevented from having a constantly free and unobstructed view of the way immediately to the rear, unless there is attached a mirror or reflector placed and adjusted to afford the operator a clear, reflected view of the highway to the rear of the vehicle for a distance of at least 200 feet.
2. **Temporary mirrors.** When a vehicle is operated without a trailer or semi trailer, temporary outside rearview mirrors must be removed or otherwise adjusted so as not to extend beyond the width of the automobile.
3. **Motorcycles.** A motorcycle or motor-driven cycle must be equipped with a rear view mirror mounted and adjusted to afford the operator a clear, reflected view of the highway in the rear for a distance of at least 200 feet.

### 1914. Safety Seat Belts

1. **Safety seat belts required.** A person may not buy, sell, lease, trade or transfer from or to a resident at retail a model year 1966 or later motor vehicle, unless that vehicle is equipped with safety seat belts installed for use in the left and right front seats.

### 1915. Windows

1. **Safety glass.** A motor vehicle must be equipped with safety glass wherever glass is used in partitions, doors, windows or windshields.

“Safety glass” means a product composed of glass or of other materials, manufactured, fabricated or treated to prevent shattering and flying of broken glass.

The Commissioner of Public Safety may maintain a list of the approved types of glass.

Replacements of glass partitions, doors, windows or windshields must be made with safety glass.

2. **Window repairs.** When a window, other than the windshield, is broken, the operator may repair the window by temporarily replacing it with an opaque substance until there is a reasonable opportunity for replacement.

1916. **Reflective and tinted glass**

1. **Windows to be unobscured.** A person may not operate a motor vehicle and an inspection mechanic may not issue a certificate of inspection for a motor vehicle, if:
  - A. Any window is composed of, covered by or treated with any material that is reflective;
  - B. The front windshield is composed of, covered by or treated with a material that reduces the light transmittance through the window more than the original installation window or an original replacement window;
  - C. A side window or rear window is composed of, covered by or treated with a material that has a light transmittance of less than 50%; or
  - D. A front windshield, front door window or window at either end of a rear passenger seat does not contain 2-way glass that provides the occupants with a clear view of the road and a person outside the vehicle with a clear view of the occupants and the interior of the vehicle.
  
2. **Exceptions.** The following exceptions apply.
  - A. The provisions of subsection 1 do not apply to:
    - (1) A certificate or other paper required or allowed by law to be displayed;
    - (2) The label attached to a window showing the price, estimated mileage and other federally mandated information commonly known as the manufacturer's suggested retail price label;
    - (3) Sun-screening or window tinting material along a 4-inch strip at the top of the windshield; or
    - (4) Motor vehicles for which the Chief of the State Police has granted an exception because the health of the owner or a person who usually occupies the vehicle is adversely affected by sunlight. The Chief of the State Police may, upon proper application, provide the owner of a motor vehicle with a certificate of exemption that must be displayed upon the request of a law enforcement officer.

B. The provisions of subsection 1, paragraphs C and D, do not apply to side windows behind the operator's seat or the rear window of the following motor vehicles, provided that the vehicle is equipped with 2 outside rear view mirrors, one on each side, adjusted so that the operator has a clear view of the highway behind the vehicle;

- (1) A bus that transports passengers for hire
- (2) A motor vehicle used to transport human remains by a funeral establishment, as described in Title 32, section 1501, or by a medical examiner, appointed pursuant to Title 22, sections 3022 or 3023;
- (3) A limousine that regularly transports passengers for hire and has a carrying capacity of more than 6 passengers and whose owner is required to obtain an operating permit pursuant to section 552; and
- (4) A multi-purpose vehicle.

C. The provisions of subsection 1, paragraphs C and D, do not apply to side windows behind the operator's seat or the rear window of a motor vehicle that is equipped with original installation windows or original replacement windows, originally installed or replaced in conformance with Federal Motor Vehicle Safety Standard 205, except that any such window with a light transmittance of less than 70% may not be covered by or treated with any material that further reduces the light transmittance.

2-A. **Definition.** For the purposes of this section a “multi-purpose vehicle” means a motor vehicle designed to carry 10 or fewer persons that is constructed by the manufacturer on a truck chassis or that is constructed with special features for occasional off-road operation and allowed unlimited tinting by the manufacturer. “Multi-purpose vehicle” includes vans, pick-ups and recreational vehicles but does not include station wagons, passenger car sedans and those vehicles restricted by the Federal Motor Vehicle Safety Standards.

3. **Light Transmittance certificate.** The owner or operator of a motor vehicle with tinted windows that are not replaced in accordance with Federal Motor Vehicle Safety Standard 205 or windows covered by or treated with tinting material shall acquire a light transmittance certificate and shall show the certificate to the inspection mechanic at the time of inspection.

A person who, for compensation, installs tinted replacement windows or window tinting materials may issue a certificate for a motor vehicle that complies with the light transmittance standards and shall ensure compliance and issue a certificate for a vehicle on which that person has installed the tinted window or tinting material.

Upon request, the Bureau of State Police shall provide light transmittance certificates to persons who, for compensation, install tinted replacement windows or window-tinting materials. Light transmittance certificates provided by the Bureau of State Police to installers in accordance with this subsection remain the property of the State.

An installer who is adjudicated of a violation of this section or files an answer of "not contested" to a summons for a violation of this section shall return all unissued light transmittance certificates to the Bureau of State Police within 10 days of adjudication or of filing the answer. The Bureau of State Police may not provide that installer with light transmittance certificates for a period of 6 months after the date of adjudication or filing an answer of "not contested."

4. **Violations. A person may not:**

- A. Install a replacement window in or window-tinting material on a motor vehicle that does not meet the standards of subsections 1 and 2;
- B. Fail to issue a certificate as required by subsection 3, after installing for compensation a tinted replacement window or window-tinting material;
- C. Alter the window-tinting materials after a certificate has been issued pursuant to subsection 3 and then display the certificate as proof that the windows meet the standards of subsection 1 or 2;
- D. Display or permit to be displayed any light transmittance certificate, knowing the certificate to be fictitious or issued to another vehicle or issued without the motor vehicle meeting the standards of subsections 1 and 2;
- E. Knowingly cause a light transmittance certificate to be issued for a motor vehicle that does not meet the standards of subsection 1 or 2;
- F. Operate or cause the operation of a motor vehicle that does not meet the requirements of this section; or

- G. Fail to return all unissued light transmittance certificates to the Bureau of State Police in accordance with subsection 3.
- 5. **Presumption.** If the operator of a motor vehicle with a tinted replacement window or window-tinting material installed fails to produce a certificate as required by subsection 3 on the request of a law enforcement officer, it is presumed that the vehicle does not meet the requirements of this section.
- 6. **Penalty.** Any person who is adjudicated of a violation of this section commits a traffic infraction that must be punished by a forfeiture of not less than \$100.
- 7. **Rules.** The Chief of the State Police may adopt rules to implement and administer this section and to collect reasonable fees for that administration.

## 1917. Tires

- 1. **Definitions.** As used in this section, unless the context otherwise indicates, the following terms have the following meanings.
  - A. “Tread depth” means the amount of tread design on the tire. “Tread depth” includes original, retread and recap tread design and, in respect to a special mileage commercial tire, recut, regrooved and siped tread design.
  - B. “Special mileage commercial tire” means a tire manufactured with an extra layer of rubber between the cord body and original tread design, which extra layer is designed for the purpose of recutting or regrooving, and which tire is specifically labeled as a “special mileage commercial tire.”
- 2. **Safe tires required.** A motor vehicle may not be operated on a public way unless it is equipped with tires in safe operating condition. A tire mounted on a motor vehicle is not considered to be in safe operating condition unless it meets the visual and tread depth requirements set forth in subsections 3 and 4.
- 3. **Visual requirements.** A tire is not in safe operating condition if that tire has:
  - A. A fabric break or a cut in excess of one inch in any direction as measured on the outside of the tire and deep enough to reach the body cords;
  - B. A temporary repair by the use of blowout patches or boots;

- C. A bump, bulge or knot related to separation or partial failure of the tire structure;
  - D. A portion of the ply or cord structure exposed; or
  - E. Sidewalls damaged to the extent that the body cords are damaged.
4. **Tread depth.** A tire is not in safe operating condition if it is worn to the point where less than 2/32 inch of tread design remains at all points at which gauge readings are required. Tread depth must be measured as follows.
- A. Tire tread depth must be measured by a tread depth gauge that is calibrated in 1/32 inch.
  - B. Readings must be taken in 2 adjacent major tread grooves at 2 points in each of the grooves not closer than 15 inches.
  - C. Readings for a tire that has the tread design running across the tire or for a siped tire must be taken at or near the center of the tire at 2 points of the circumference not closer than 15 inches.
5. **Exceptions.** A farm vehicle used exclusively for agricultural purposes, including, but not limited to, a self-propelled combine, self-propelled corn and hay harvesting machine or tractor used exclusively for agricultural purposes, is exempt from this section.

#### 1918. **Regrooved Tires**

A person commits a Class E crime if that person distributes, has for sale, offers for sale, sells or uses on a motor vehicle a pneumatic tire that has been regrooved below the original tread depth, unless that tire was originally manufactured with extra under tread material.

#### 1919. **Studded Tires**

From the first day of May to the first day of October, a person may not operate a vehicle with tires having metal studs, wires, spikes or other metal protruding from the tire tread.

The Commissioner of Transportation may extend the use period or, in a special case, grant a permit covering stated periods of time for the use of studded tires for other periods. The fee for such permits may not be less than \$3 nor more than \$15, as determined by the commissioner. The permit must be carried in some easily accessible place in or about the vehicle.

This section does not apply to fire department vehicles or school buses during the months school is in regular session.

#### 1920. **Vehicle Frame Height**

1. **Minimum and maximum frame end heights.** A motor vehicle may not be operated on a public way or receive a certificate of inspection with a frame end height of less than 10 inches or a maximum frame end height base on the manufacturer's gross vehicle weight rating that is greater than:
  - A. For an automobile, 22 inches in the front and rear;
  - B. For a vehicle of 4,500 pounds and less, 24 inches in the front and 26 inches in the rear;
  - C. For a vehicle of 4,501 pounds to 7,500, 27 inches in the front and 29 inches in the rear; and
  - D. For a vehicle 7,501 pounds to 10,000 pounds, 28 inches in the front and 30 inches in the rear.

Measurements must be taken from a level surface to the lowest point on the frame.

2. **Modification.** A vehicle may not be modified to cause, under normal operation, the vehicle body or chassis to come into contact with the ground, expose the fuel tank to damage from collision or cause the wheels to come in contact with the body.
3. **Suspension.** An original suspension system may not be disconnected. This section does not prohibit the installation of heavy duty equipment, including shock absorbers and overload springs, or prohibit a person from operating on a public way a motor vehicle with normal wear of the suspension system if normal wear does not affect control of the vehicle.

#### 1921. **Television Prohibited from Vehicles**

A person may not operate a motor vehicle equipped with a television viewer, screen or other means of visually receiving a television broadcast that is visible to the operator. This section does not apply to a law enforcement officer using a video camera or other video equipment for law enforcement purposes.



## 1922. Advertisements on Motor Vehicle

1. **Prohibition.** Except as provided in this section, an owner or operator may not operate on a public way a motor vehicle to which is affixed an illuminated advertisement.
2. **Display rules.** For purposes of vehicle identification, in addition to the provisions of section 1951, a motor truck, truck tractor or semi trailer may display an illuminated sign in accordance with rules adopted by the Commissioner of Public Safety according to the Maine Administrative Procedure Act.
3. **Standards.** Among other standards determined by the Commissioner of Public Safety to be necessary to protect the welfare and safety of the general public, an illuminated sign:
  - A. Must bear the name of the owner of the vehicle, the lessee of the vehicle or the person for which the operator is transporting property or goods; and
  - B. May identify the cargo in transit.
4. **Location of sign.** An illuminated sign may only be displayed as follows:
  - A. On truck tractors, on the wind deflector on the roof of the truck tractor;
  - B. On a semi trailer, on the front portion of the semi trailer; and
  - C. On a truck, on the front portion of the storage compartment above and behind the cab.
5. **Lights prohibited.** An illuminated sign may not be lighted by a flashing, blinking or neon light.
6. **Form, size and light of sign.** An illuminated sign must be in a form, size and light so as not to distract or impair the vision of the operator of another motor vehicle.
7. **Exception.** This section does not apply to the illuminated name and telephone number identification affixed to vehicles for the conveyance of passengers.

SUBCHAPTER II  
TRUCKS

1951. **Name of Owner or Lessee Displayed**

A truck tractor owner or operator shall display on both sides of the truck tractor the name of the owner or lessee in letters not less than 2 ½ inches in height.

1952. **Flares; Emergency Signals**

1. **Carry flares.** A truck or truck tractor with a registration for operation with gross vehicle weight in excess of 10,000 pounds must be equipped with 2 red flags, 3 flares and 3 red lanterns or red emergency reflectors. A vehicle transporting inflammable liquids or gas in bulk may not carry flares.
2. **Disabled vehicle.** When a truck or truck tractor with a registration for operation with gross vehicle weight in excess of 10,000 pounds is disabled on a public way, the operator shall, during the time that lights are required to be illuminated, place emergency signals as follows:
  - A. One flare or lantern or red emergency reflector in the center of the lane of traffic occupied by the disabled motor vehicle not less than 100 feet from the vehicle in the direction of traffic approaching in that lane;
  - B. One flare or lantern or red emergency reflector not less than 100 feet from the vehicle in the center of the same lane in the opposite direction; and
  - C. One flare or lantern or red emergency reflector at the traffic side of the vehicle not closer than 10 feet from the front or rear.

When lights are not required to be illuminated, red flags must be used, except that no flag is required to be placed at the side of the vehicle.

1953. **Splash Guards**

1. **Required.** A truck, truck tractor, trailer and semi trailer must be equipped with suitable guards that will effectively reduce the spray or splash of mud, water or slush caused by the rear wheels.
2. **Exception.** Splash guards are not required for:
  - A. A truck with registered gross vehicle weight of 6,000 pounds or less;

- B. A dump truck:
  - (1) While being operated on construction or reconstruction projects in a construction area established by the Department of Transportation; and
  - (2) On a public way between the project and a pit or quarry where materials are being obtained when the pit or quarry is within 7 miles of the construction area;
- C. A truck tractor when not hauling a trailer or semi trailer;
- D. A fire department vehicle;
- E. A motor vehicle equipped with fenders; or
- F. A truck with a stake body that extends not less than 6 feet beyond the rear axle and that is registered under section 505.

#### 2111. Air Pollution Control Systems

1. **Definition.** For the purpose of this section, “air pollution control system” means a device or element of design installed on or in a motor vehicle or engine to comply with pollutant emission restrictions established by federal law.
2. **Prohibition.** A person commits a Class E crime if that person operates a motor vehicle, except for an antique auto, a motor vehicle using liquefied petroleum gas as engine fuel or a farm tractor on a public way if any operational element of the air pollution control system of that vehicle has been removed, dismantled or otherwise rendered inoperative.
3. **Suspension.** If a person is convicted of violating this section, the clerk of the court shall furnish to the Secretary of State an attested copy of the judgment of conviction. On receipt of that copy, the Secretary of State shall suspend the registration of the vehicle in violation.

The suspension may be appealed as provided in section 2485.

Unless otherwise ordered by the Superior Court on appeal, the suspension remains in effect until the Secretary of State has received notice from an official inspection station that the air pollution control system of that vehicle is in good working order.

### 2113. **Visible Emissions**

1. **Prohibition.** A person may not operate a gasoline-powered motor vehicle on a public way if the motor vehicle emits visible smoke, other than water vapor, in the exhaust emissions for a period in excess of 5 consecutive seconds.
2. **Violation; penalty.** A violation of this section is a traffic infraction for which a forfeiture not to exceed \$100 may be adjudged. A person against whom enforcement action has been taken for a violation of subsection 1 may not be adjudicated to have committed a subsequent violation of subsection 1 unless 24 hours have elapsed between the date and time of the first violation indicated on the Violation and Summons Complaint and the subsequent violation.

### 2114. **Diesel-Powered Motor Vehicle Emission Opacity Testing Program**

1. **Program established.** The diesel-powered Motor Vehicle Emission Opacity Testing Program, referred to in this section as the “program,” is established within the Department of environmental Protection. The Department of Environmental Protection shall administer the program in cooperation with the Department of Public Safety.
2. **Diesel-Powered Motor Vehicle.** As used in this section, “diesel-powered motor vehicle” refers only to diesel-powered motor vehicles that have a gross vehicle weight rating of 26,001 or more pounds and that are used in commerce. “Diesel-powered motor vehicle” does not include a truck registered as a farm truck.
3. **Testing and repair requirement.** A person who causes operation of a diesel-powered motor vehicle shall comply with the requirements of the program, including emission opacity standards and testing and repair requirements.

Only diesel-powered motor vehicles identified by certified inspectors as potential violators of the program’s emission opacity standards are subject to testing under this section. Inspectors must be certified pursuant to the procedures for certification specified in 40 Code of Federal Regulations, Part 60, Appendix A, Method 9.

4. **Standards and procedures.** The Commissioner of Environmental Protection shall establish standards and procedures to implement the program. The standards and procedures must include the following:

- A. Emission opacity standards for diesel-powered motor vehicles that are consistent with emission opacity standards for diesel-powered motor vehicles recommended by an interstate association of air quality control divisions in the northeast states;
  - B. Standards and procedures, including testing methods and standards for test equipment, for safe and effective roadside testing of diesel-powered motor vehicles that operate on public ways of the State for the purpose of enforcing compliance with emission opacity standards;
  - C. Standards and procedures for the administration and enforcement of the program. The rules may establish reciprocity agreements with other states that recognize enforcement actions related to diesel-powered motor vehicle testing programs in other states; and
  - D. Repair requirements and standards and procedures for certification of repairs.
5. **Educational program.** A person who causes operation of a diesel-powered motor vehicle that does not comply with the program's emission opacity standards must be given educational materials by the Department of Environmental Protection regarding the environmental and other benefits of a vehicle that is in compliance with the standards set forth in subsection 4.
6. **Implementation.** The Department of Environmental Protection shall implement the program no later than 7 days following the effective date of this section. An operator of a diesel-powered motor vehicle that does not comply with the program's emission opacity standards is not subject to penalties.

As used in this section, "opacity" means the degree of light-obscuring capability of emissions of visible air contaminants expressed as a percentage. Complete obscuration must be expressed as 100% opacity.

This section is repealed June 30, 1999.

## **ADDITIONAL INFORMATION HEADLAMP AIMING**

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

### **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 shown below. It shall be in good repair and adjustment, and shall be used in accordance with the manufacturer's instructions. The machine using a photo-electric 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 25 feet. 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.

### **Headlamp Aiming by the Screen Method**

First locate the vehicle so that it is square with the screen and with the front of the headlamps directly over a reference line which has been painted on the floor.

Next locate the center line on the aiming screen so that it is in line with the center of the vehicle. This can be done as shown below by sighting through the center of the rear window of the vehicle and over the hood ornament - have vehicle moved until it is in alignment with these two points. If there is no center hood ornament, mark the center of the front and rear windows with narrow strips of masking tape. Use these "sights" to locate the center line of the aiming screen directly in line with the vertical axis.

### **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 25 feet measured from face of lamps to the front of the visual screen.

The floor on which the car rests must be flat, and level with the bottom of the screen. If the floor is not level, compensate.

## Aiming Screen

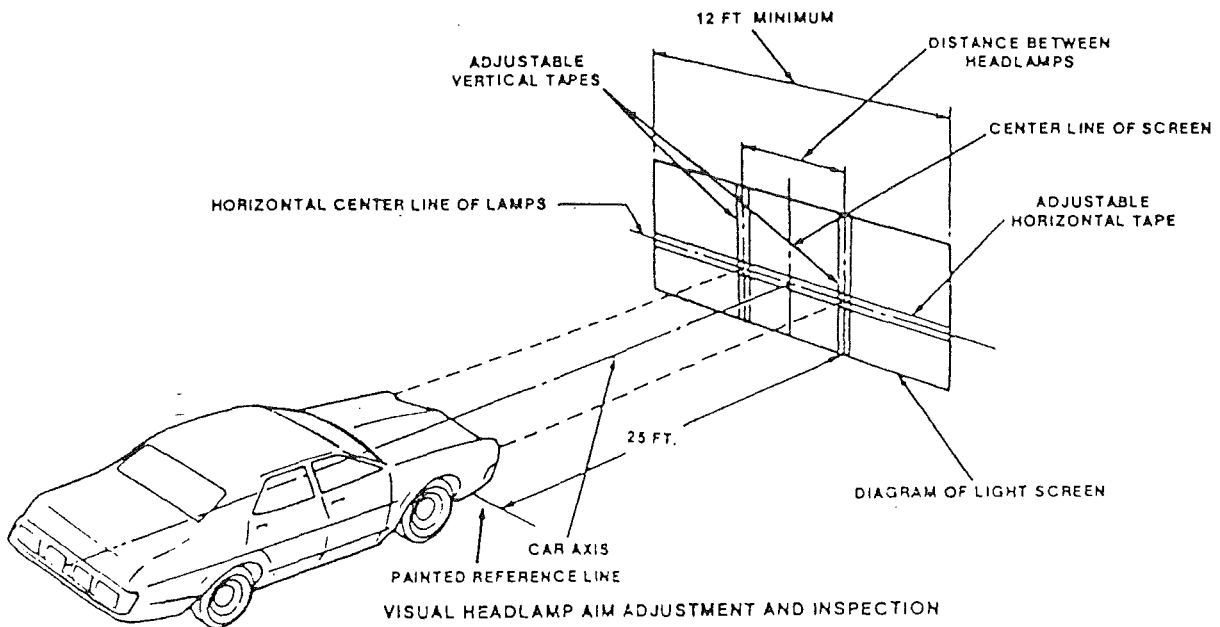
If a screen is used, it should be 5' high x 12' wide with a matte white surface well shaded from extraneous light, and properly adjusted to the floor on which the vehicle stands. Provisions may be made for moving the screen so that it can be aligned parallel with the rear axle and so that a horizontal line drawn perpendicularly from the centerline of the screen will pass an equal distance midway between the two headlamps.

The screen shall be provided with a fixed vertical centerline, two laterally adjustable vertical tapes, and one vertically adjustable horizontal tape.

If a regular commercial aiming screen is not available, the screen may consist of a vertical wall having a clear uninterrupted area approximately 6 feet high and 12 feet wide.

The surface should be finished with a washable non-gloss white paint.

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.



APPENDIX 5