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CHAPTER FOUR
INSPECTION PROCEDURES
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04.05.00 INSPECTION ITEMS FOR VEHICLE CLASSES.

05.01 INSPECT EVERY PASSENGER CAR AND MOTOR HOME UNDER 80 INCHES WIDE FOR:

*Check for evidence of Financial Responsibility/CNG tank expiration (if equipped) and/or documentation.

1. Horn

2. Windshield Wipers

3. Mirror

4. Steering

5. Seat Belts

6. Brakes (system) (Parking – beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Exhaust System

10. Exhaust Emissions System (beginning with 1968 models)

11. Beam Indicator (beginning with 1948 models)

12. Tail Lamps (2); (1) if 1959 or earlier

13. Stop Lamps (3); including the Center High Mount Stop Lamp (1986 and newer passenger cars); (2) if 1960 thru 1985; (1) if 1959 model or earlier

14. License Plate Lamp (1)

15. Rear Red Reflectors (2)

16. Turn Signal Lamps (beginning with 1960 models)

17. Head Lamps (2)

18. Motor, Serial, or Vehicle Identification Number

19. Inspect for applied window tinting or coating

20. Gas Caps on gasoline powered vehicles 2 thru 24 years old

05.02 INSPECT EVERY PICKUP, PANEL, OR TRUCK UNDER 80 INCHES WIDE FOR:

* Check for evidence of Financial Responsibility/CNG tan expiration (if equipped) and/or documentation.

1. Horn

2. Windshield Wipers

3. Mirror

4. Steering

5. Seat Belts

6. Brakes (system) parking – (beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Safety Guards of Flaps (if four tires or at least two super single tires on the rearmost axle)

10. Exhaust System

11 Exhaust Emissions System (beginning with 1968 models)

12. Beam Indicator (beginning with 1948 models)

13. Tail Lamps (2); (1) if 1959 model or earlier

14. Stop Lamps (3); including the Center High Mount Stop Lamp (1994 and newer); (2) if 1960 thru 1993; (1) if 1959 model or earlier

15. License Plate Lamp (1)

16. Rear Red Reflectors (2)

17. Turn Signal Lamps (beginning with 1960)

18. Head Lamps (2)

19. Motor, Serial, or Vehicle Identification Number

20. Inspect for applied window tinting or coating

21. Gas caps on gasoline powered vehicles 2 thru 24 model years old

05.03 INSPECT EVERY TRUCK 80 INCHES OR MORE IN OVERALL WIDTH FOR:

1. Horn

2. Windhsield Wipers

3. Mirror

4. Steering

5. Seat Belts

6. Brake system (Parking – beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Safety Guards or Flaps (if four tires or at least two super single tires on the rearmost axle

10. Exhaust System

11.Exhaust Emissions System (beginning with 1968 models)

12. Beam Indicator (beginning with 1948 models)

13. Tail Lamps (2); (1) if 1959 model or earlier

14. Stop Lamps (2); (1) if 1959 model or earlier

15. License Plate Lamp (1)

16. Rear Red Reflectors (2)

17. Turn Signal Lamps

18. Clearance Lamps

19. Side marker Lamps

20. Side Reflectors

21. Head Lamps (2)

22. Motor, Serial or Vehicle Identification Number

23. Inspect for applied window tinting or coating

24 Gas caps on gasoline powered vehicle 2 thru 24 model years old

Overall width is determined by measuring from the widest part on one side to the widest part on the other side of the vehicle. In some vehicles this may be the dual wheels which would be considered as part of the width. So not include an outside mirror or mirrors in determining overall width.

05.04 INSPECT EVERY TRUCK-TRACTOR FOR:

*Check for evidence of Financial Responsibility/CNG tank expiration (if equipped) and/or documentation.

1. Horn

2. Windshield Wipers

3. Mirror

4. Steering

5. Seat Belts

6. Brakes (system) Parking – (beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Exhaust System

10. Exhaust Emissions System (beginning with 1968 models)

11. Beam Indicator (beginning with 1948 models)

12. Tail Lamps (2); (1) if 1959 model or earlier

13. Stop Lamps (2); (1) if 1959 model or earlier

14. Rear Red Reflectors (2)

15. Turn Signal Lamps

16. Clearance Lamps (2)

17. Head Lamps (2)

18. Motor, Serial or Vehicle Identification Number

19. Inspect for applied window tinting or coating

20. Gas caps on gasoline powered vehicles 2 thru 24 model years old

21. License Plate Lamp (required if the truck-tractor has a rear license plate)

Definition of a Truck-Tractor. Every motor vehicle designed and used primarily for drawing other vehicles and not so constructed as to carry a load other than a part of the weight of the vehicle and load so drawn.

05.05 INSPECT EVERY BUS (EXCEPT SCHOOL BUS), OR MOTOR HOME OVER 80 INCHES WIDE FOR:

*Check for evidence of Financial Responsibility/CNG tank expiration (if equipped) and/or documentation

1. Horn

2. Windshield Wipers

3. Mirror

4. Steering

5. Seat Belt

6. Brakes (system) Parking – (beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Exhaust System

10. Exhaust Emissions System (beginning with 1968 models)

11. Beam Indicator (beginning with 1948 models)

12. Tail Lamps (2)

13. Stop Lamps (2)

14. License Plate Lamp (1)

15. Rear Red Reflectors (2)

16. Turn Signal Lamps

17. Clearance Lamps

18. Side Marker Lamps

19. Side Reflectors

20. Head Lamps (2)

21. Motor, Serial, or Vehicle Identification Number

22. Inspect for applied window tinting

23. Gas caps on gasoline powered vehicles 2 thru 24 model years old

05.06 INSPECT ALL TRAILERS, SEMITRAILERS, POLE TRAILERS, OR MOBILE HOMES EXCEEDING 4,500 POUNDS ACTUAL GROSS WEIGHT OR REGISTERED WEIGHT (SEE DESCRIPTION BELOW) FOR:

*Check for evidence of Financial Responsibility on towing vehicle.

1. Brakes (system) (If gross weight exceeds 4,500 pounds)

2. Tires

3. Wheel Assembly

4. Safety Guards or Flaps (if four tires or at least two super single tires on the rearmost axle)

5. Tail Lamps (2)

6. Stop Lamps (2)

7. License Plate Lamp

8. Rear Red Reflectors (2)

9. Turn Signal Lamps

10. Clearance Lamps

11. Side Marker Lamps

12. Side Reflectors

13. Side Marker Lamps

14. Motor, Serial or Vehicle Identification Number

NOTE: On House moving Dollies and Converter Dollies, the items of inspection are:

a. Brakes (on converter dollies only)
b. Tires
c. Wheel Assembly
d. Coupling Devices (on convertor dollies)
e. Reflector, rear, red (2), one on each side
f. Tail Lamps, rear, red (2), one on each side
g. Stop Lamps, rear red (2), one on each side

Gross Weight means the weight of the trailer plus the weight of the load; and **registered weight** is the amount of gross weight the vehicle is licensed to carry. If a trailer has an empty weight of 3.000 lbs. and is being used to carry 2,000 lbs., of weight, the trailer's gross weight would be 5,000 lbs. thus requiring a vehicle inspection report.

05.07 Inspect Every Auto Cycle for:

*Check for evidence of Financial Responsibility

1. Horn

2. Mirror

3. Steering

4. Brakes (system)

5. Tires

6. Wheel Assembly

7. Exhaust System

8. Tail Lamps (1)

9. Stop Lamp (1)

10. License Plate Lamp

11. Rear Red Reflector (1)

12. Head Lamp

13. Motor, Serial or Vehicle Identification Number

14. Steering Wheel

Definitions:

"Autocycle" means a motor vehicle other than a tractor that is:

(1) Designed to have when propelled not more than three wheels on the ground;
(2) Equipped with a steering wheel
(3) Equipped with seating that does not require the operator to straddle or sit astride the seat; and
(4) Manufactured and certified to comply with federal safety requirements for a motorcycle.

05.08 Inspect Every Motorcycle and Motor-Driven Cycle for:

*Check for evidence of Financial Responsibility.

1. Horn

2. Mirror

3. Steering

4. Brakes (system)

5. Tires

6. Wheel Assembly

7. Exhaust System

8. Tail lamps (1)

9. Stop Lamp (1)

10. License Plate Lamp

11. Rear Red Reflector (1)

12. Head Lamp (1)

13. Motor, Serial or Vehicle Identification Number

Definitions:

Motorcycle: Every motor vehicle having a saddle for the use of the rider and designed to propel itself with not more than three wheels in contact with the ground but excluding a tractor.

Motor-Driven Cycle: Every Motorcycle with a motor which has an engine piston displacement of not more than 250cc.

05.09 Inspect Every Moped For:

*Check for evidence of Financial Responsibility

1. Brake

2. Head Lamp

3. Rear Reflector

4. Rear Lamp

Definition of a Moped:

Moped means a motor-driven cycle whose speed attainable is one mile is not more than 30 mph and that produces not more than two-brake horsepower. If an internal combustion engine is used, the displacement may not exceed 50cc and the power drive system may not require the operator to shift gears.

05.10 Inspect Every School Bus For:

*Check for evidence of Financial Responsibility – unless government owned. CNG tank expiration (if equipped) and/or documentation.

1. Horn

2. Windshield Wipers

3. Mirror

4. Steering

5. Seat Belts (driver only)

6. Brakes (system) Parking – (beginning with 1960 models)

7. Tires

8. Wheel Assembly

9. Exhaust System

10. Exhaust Emissions System (beginning with 1968 models)

11. Beam Indicator (beginning with 1948 models)

12. Tail Lamps (2)

13. Stop Lamps (2)

14. License Plate Lamp

15. Rear Red Reflectors (2)

16. Turn Signal Lamps

17. Clearance Lamps

18. Side Marker Lamps

19. Side Reflectors

20. Red Warning Lamps (2front – 2 rear – alternately flashing)

a. School bus RED signal lamps mounted as high and as widely spaced laterally as practicable, which should be capable of displaying to the front, two alternately flashing RED lights located at the same level AND to the rear, two alternately flashing RED light located at the same level. These lights should have sufficient intensity to be visible at 500 feet in normal sunlight. These lamps are intended to identify a vehicle as a school bus and to inform other users of the highway that such vehicle is stopped on the highway to take on or discharge school children. Some school buses may be equipped with 8 warning signal lamps, 4 red and 4 amber, working in an automatic integrated system. This system of alternately flashing warning lamps will be accepted provided it has 2 red lamps on the front and 2 red lamps on the rear.

21. Signs ("SCHOOL BUS" 8 inches in height on front and rear of the bus)

22. Fire Extinguisher (one quart chemical and conveniently located for immediate use)

23. Head Lamps (2)

24. Exterior Crossover Mirror (Convex)

a. One or more exterior (crossover) mirror of convex design mounted at or near the front of the school bus and adjustable to give the driver, at all times when seated in the driver's seat, a clear view of the ground or roadway immediately ahead of the front bumper and beside the front wheels of the school bus. Crossover mirror(s) is required on all school buses no matter what the design of the bus.

25. Motor, Serial, or Vehicle Identification Number

26. Gas caps on gasoline powered vehicles 2 thru 24 model years old

27. Inspect for applied window tinting

Definition of a School Bus:

Every motor vehicle that complies with the color and identification requirements set forth in the most recent edition of standards as produced and sponsored by the National Commission of Safety Education of the National Education

Association, Washington, D.C., and being used to transport children to or from school or in connection with school activities, not including bused operated by common carriers in urban transportation of schoolchildren.

Inspect School Bused For and Reject If:

1. All equipment required by size, weight, or class of the vehicle does not meet requirements.
2. "School Bus" signs are not present, readable, and of proper height.
3. Fire extinguisher is not of required capacity, proper type, or in good condition and properly located.
4. School bus RED signal lamps are not present, properly working, and in good condition.
5. Crossover mirror mounting is loose or will not adjust to different positions or will not hold firm after adjustment.
6. Crossover mirror offers unsafe interference with driver's forward vision or hides wither front turn signal from view of oncoming driver.
7. Crossover mirror's reflective surface is cracked, broken, peeled, or tarnished, or has sharp edges.

04.10.00 PRIOR TO INSPECTION.

A. The owner or operator of a vehicle shall present evidence of Financial Responsibility to the inspection station in one of the following ways:

1. A liability insurance policy, or a copy of the policy, in at least the minimum amounts required by law.

2. A standard proof of liability insurance form for personal vehicles promulgated by the Texas Department of Insurance and issued by a liability insurer that included (**Commercial Fleet Insurance Policies do not have to contain (d) or (f)**):

a. the name of the insurer;
b. the insurance policy number
c. the policy period (dates of coverage must be 30 day minimum);
d. the name and address of each insured person;
e. the policy limit or a statement that the coverage of the policy complies with at least the minimum amounts of liability insurance required by the Act; and
f. the make and model of each covered vehicle.

3. An insurance binder that confirms that the owner and/or operator is in compliance. This would include temporary insurance cards issued by insurance companies until the permanent card is sent to the policyholder. These temporary cards should have a start/end date, policy number, vehicle information, and are usually valid for 30 days.

4. A copy of a certificate issued by the Department of Public Safety that shows that the vehicle is covered by self-insurance.

5. A certificate (or copy) issued by the State Comptroller that shows that the owner of the vehicle has on deposit with the treasurer money or securities in at least the amount required by law.

6. A certificate (or copy of certificate) issued by the Department of Public Safety that shows that the vehicle is a vehicle for which a bond is on file with the Department.

7. A copy of a certificate issued by the County Judge where the vehicle is registered that shows that the owner has on deposit, cash or a cashier's check in at least the amount required by law.

8. Evidence of Financial Responsibility must be furnished for the TOWING VEHICLE of any trailer, semitrailer, or pole trailer presented for inspection.

9. A Non-owner's policy is not acceptable as evidence of Financial Responsibility.

10. Proof of Financial Responsibility from another state is acceptable if it meets Texas liability requirements.

11. An electronic image displayed on a wireless communication device that includes the information required on the standard proof of liability insurance form, or the other proof of Financial Responsibility documents listed above, as provided by the liability insurance provider is acceptable as Evidence of Financial Responsibility.

B. A Vehicle Inspection Report may not be issued for a vehicle for which the owner or operator fails to furnish the required evidence of Financial Responsibility.

C. Vehicles exempt from the Financial Responsibility requirement are:

1. Government vehicle (U.S., State-Texas, county, city, or other political subdivision.
2. Vehicles registered to volunteer fire departments.
3. Antique or former military vehicles not used for regular transportation.

04.15.00 INSPECTION REQUIREMENTS.

Every vehicle which is registered in this state and operated on the highways of this state is required to be inspected.

15.01 Vehicle Exempt from Inspection.

1. Equipment:

a. Road-Building Equipment
b. Farm Machinery
c. Trailers
d. Semitrailers
e. Pole Trailers
f. Mobile Homes
g. Any vehicle required to display a Slow-Moving Vehicle Emblem

***When actual gross weight or registered gross weight is 4,500 pounds or less.**

2. A vehicle with one of the following type Texas license plates:

a. Paper Dealer Demonstration/In-transit /Convertor Tag
b. Parade License
c. Former Military Vehicle License
d. In-Transit License
e. Machinery License
f. Disaster License
g. Farm Trailer License
h. Permit License
i. Antique License
j. Charitable Organization License
k. Custom Vehicle License
l. Street Rod License

3. A vehicle with one of the following Texas permits:

a. Vehicle Temporary Transit Permit
b. One-Trip Permits
c. Temporary 24-Hour Permits
d. Prorate Tabs

15.02 General Inspection Requirements

1. City, county, state or federally owned vehicles, if licensed with Texas plates, require inspection and they must meet the same requirements of any other vehicle of that same if that same size, weight, etc. (Example: Fire Trucks, ambulances, police vehicles, and others; except that these vehicles are exempt from

evidence of Financial Responsibility requirements.) (See 04.10.00)

2. When inspection trailers, semitrailer, pole trailers, and mobile homes, these vehicles will be considered a separate vehicle whether used in connection with a motor vehicle or not and will require a separate inspection. A separate fee shall be charged for each vehicle inspected.

3. Each inspection shall be a complete inspection performed by a certified inspector and shall include a check of all the items in the Vehicle Inspection Operations and Training Manual, except that a reinspection of a rejected vehicle by the same station within 15 days of the initial inspection that resulted in rejection need only check the items previously found defective, unless any other obvious defects are noted, A vehicle with no evidence of Financial Responsibility will be refused inspection and no fee will be charged. Once the inspection a vehicle has begun, it must be completed whether or not the vehicle is passed or rejected.

4. All inspections must be made only in the approved inspection areas at the location approved by the Texas Department of Public Safety.

5. All inspectors shall be certified by the Texas Department of Public Safety. If a certified inspector changed their place of employment, the Department representative must be notified immediately. Each inspection shall be performed by a properly certified inspector if:

a. a certified vehicle inspector changes their place of employment, the inspector must prove their ability to correctly operate the testing equipment at the new vehicle inspection station.
b. a certified vehicle inspector changes their place of residence, the inspector must notify the Department of their new permanent street address within 30 days of the dare of the change.
c. a certified vehicle inspector changes their name, the inspector must notify the Department of their new name within 30 days of the date of change.

6. Inspection may be made while it is raining or snowing. Care must be exercised when making inspection during inclement weather. Road (brake) tests will be permitted with due care when it is raining or when braking surfaces are wet. No road (brake) tests are permitted on icy road test areas.

7. Refusing to inspect a vehicle submitted for inspection without sufficient cause or the careless inspection and willful violation of inspection requirements may result in suspension of the Certificate of Appointment and possible court action.

8. Vehicle not registered in the state of Texas may be inspected, and issued a Vehicle Inspection Report if they meet Texas' requirements, including evidence of Financial Responsibility.

9. Complete Vehicle Identification Number or serial number shall be listed on the Vehicle Inspection Report. If no number is on the vehicle, show "None."

10. Public Station: A station, open to the public performing inspection on vehicles presented by the public.

11. Fleet Station: A station not providing vehicle inspection services to the public.

12. Government Station: A statin operated by a political subdivision, or agency of this State.

13. Each Official Vehicle Inspection Station must inspect every vehicle (according to endorsement) presented for inspection as prescribed by the rules and regulations, wither

rejecting or approving it. A vehicle rejected by one inspection station may be reinspected by another inspection station if the vehicle owner desires to have this done, and is willing to pay an additional fee.

14. Reports of violations of the Vehicle Inspection Act or of those rules and regulations will be investigated. When such reports are found to be justified they may result in the suspension of the inspector or station, possible court action, or other appropriate action. Repeated violations or serious violation may result in the revocation of the appointment by the Department or action against the certified inspector or station.

15. The term "inspection" as herein used shall not include repairs or adjustments. Repairs or adjustments necessary to bring the vehicle into conformity with these regulations may be made by agreement between the vehicle owner and such inspection station or whatever repair shop the vehicle owner may select.

16. All vehicles owned by the federal government shall be exempt from all provisions of the Vehicle Inspection Act or rules and regulations, except those which are registered in Texas and display Texas registration plates.

17. The Department of Public Safety extends the time within which an inspection shall be obtained by a resident owner or operator of a Texas-registered vehicle, when the vehicle has no valid inspection. The extension will be granted only on the first occasion of operation in this state during an inspection year and only until the resident owner or operator of the vehicle has arrived at his home, station, or destination in this state and for three days thereafter.

18. Each vehicle that meet the requirements set forth in these regulations shall be issued a Vehicle Inspection Report signed by the inspector. Those vehicles that do not meet the inspection requirements must be issued a Vehicle Inspection Report rejection receipt.

15.03 Foreign Vehicles

A. The inspection of vehicles applies to foreign-made motor vehicles as well as American-made motor vehicles. However, there are some foreign-made vehicles that cannot be inspected in the usual manner. Therefore, when inspecting those foreign-made vehicles, you are authorized to follow the Department's recommendation for inspection and to reject any vehicle for an item that is worn, missing, broken, or defective in any manner that exceeds the Departments tolerance for replacement. Many of these vehicles are not export models and, therefore, are equipped with lighting and other devices that do not meet standards adopted by the Texas Department of Public Safety. All devices must meet applicable Department standards. In cases where those devices do not comply with the inspection requirements, legal devices must be installed. Head lamps on those vehicles must be of a type acceptable by the Department before a passing Vehicle Inspection Report can be issued.

B. Texas requires that all safety and emissions components for that model year be installed and operational. Check with the vehicle manufacturer as to what was required in the United States for that year model. Vehicle importation is the responsibility of the U.S. Customs and Border Protection. The critical point in vehicle importation is whether the vehicle meets the Federal Motor Vehicle Safety Standards (FMVSS) established by the National Highway Traffic Safety Administration (NHTSA). Emissions equipment and lighting equipment are common problem areas.

15.04 All Terrain Vehicle.

1. All-Terrain Vehicle (ATV) shall not be inspected regardless of how equipped. This class vehicle is not designed for use on public roads.

15.05 Unique Vehicles. (Reconstructed/Rebuilt Vehicle, Engine Swaps, Kit Cars, Miniature Motorcycles)

A. Reconstructed/Rebuilt Vehicles. All vehicles used on the public highways are required to meet all of the state equipment laws and requirements; therefor, reconstructed or rebuilt vehicles which are using the public highways are also expected to meet all of the state equipment laws and regulations. Reconstructed or rebuilt vehicles in many instances fail to meet state requirements and therefor, are not legal for use on the public highways.

All reconstructed or rebuilt vehicle (sans or dune buggies or hot rods) must comply with inspection requirements for the class of motor vehicle it is being inspected as, such as a car, truck, motorcycle, or motor-driven cycle. Be sure to check reconstructed or rebuilt vehicles for all required items of inspection with particular attention to the lighting devices. Head lamps shall be of a type acceptable by the Department. No modifications are allowed that will change the original design or performance of any lamp. Only acceptable automobile head lamps may be used on cars and trucks. Wither the 7-inch head lamps or both dual head lamps (type 1 and type 2) may be used. Only acceptable motorcycle head lamps may be used on motorcycles, motor-driven cycles, and mopeds.

All lighting devices must be of an acceptable type that meet Department standards and must comply with the mounting heights as specified in the inspection requirements.

The year model of a reconstructed vehicle will be the same year in which it was reconstructed and not the year of original manufacture. Therefore, the inspection requirements would be for the model year of the vehicle (same as the year of reconstruction) or the year model of the engine itself, whichever is the later model. Motor vehicles used for competitive racing, such as modified stock cars, dragsters, and hot rods may be inspected. When such a vehicle is presented for inspection, all rules and regulations regarding the inspection the vehicle will apply. This applies to brake requirements, exhaust systems, as well as any other item required in these provisions.

B. Engine Swaps. The simple rule is that a vehicle must have all emission components that were present when it was manufactured. A replacement engine can be installed if: (1) the design of the replacement engine has received prior approval of the EPA; (2) the design of the replacement engine is compatible with the vehicle chassis such that all applicable pollution control systems and devices are properly installed and operable; and (3) the resulting vehicle is identical with regard to all emission related parts and emission related engine design parameters and calibration, to the same or a newer model year, as originally equipped.

C. Kit Cars. Vehicles are required to meet emissions standards (i.e. catalytic converter, oxygen sensors, exhaust gas recirculation, evaporative emissions, etc…) for the year the vehicle is assembled in order to pass a safety inspection. Vehicle manufacturers have to certify their vehicle meet EPA emissions standards. Just as the EPA does not allow an individual to reverse engineer a vehicle to defeat emission standards, they do not allow an individual to build a brand new “old” vehicle to bypass emissions standards. It is possible if you use older parts (like a 1965 engine, or

complete 60's frame and power train) that the vehicle will be registered as that model year (replica), but that is determined by the Texas Department of Motor Vehicles. An inspection station shall follow the model year registration classification of the vehicle in determining the inspection criteria for that particular vehicle. The Texas Department of Motor Vehicles has a custom vehicle and street rod license plate program that may be of assistance in licensing a kit car. The Texas Department of Motor Vehicles is responsible for issuing a certificate of title, registration, and establishing a safety inspection program for custom vehicles and street rods.

D. Miniature Motorcycles. Miniature motorcycles are illegal to operate on public roadways. Miniature motorcycles, also known as pocket biked or pocket rockets, can only be operated on private property. Miniature motorcycles do not meet the equipment standards under both federal and state law; therefore they cannot be registered or inspected.

E. Neighborhood Electric Vehicles. (TRC 551.301-303). A "Neighborhood Electric Vehicle" means a vehicle that can attain a maximum speed of 35 miles per hour on a paved level surface and otherwise complies with Federal Motor Vehicle Safety Standard 500 (49 CFR 571.500). A neighborhood electric vehicle (NEV) may be operated only on a street or highway for which the posted speed limit is 45 mile per hour or less. A NEV is a motor vehicle that:

- is originally manufactured to meet, and meets, the equipment requirements and safety standards established in Federal Motor Vehicle Safety Standard 500
- Has four wheels
- does not have to be powered by electricity (other power sources, such as gasoline are acceptable)
- is capable of attaining a speed of more than 20 miles per hour but not more than 35 miles per hour, and
- is not a golf cart designed primarily for transporting persons on a golf course

A NEV is required to be titled in order to be registered for operation on public roads. The registration classification of a NEV will be a passenger vehicle (Passenger Vehicle plate). A NEV requires the same Financial Responsibility or liability insurance as any other motor vehicle operated on the public roadways and a 17 digit VIN.

A NEV shall be equipped with:

- Headlamps
- Front and rear turn signal lamps
- Tail Lamps
- Stop Lamps
- Reflex reflectors (one red on each side as far to the rear as practicable, and one red on the rear)
- Exterior mirror mounted on the driver's side of the vehicle and with and exterior mirror mounted on the passenger's side of the vehicle or an interior mirror
- Parking brake
- Windshield that conforms to FMVSS on glazing materials (49 CFR 571.205)
- Seat belt assemblies at each designated seating position.

A NEV that is not required to display a Slow-Moving Vehicle Emblem and is registered as a passenger vehicle by TxDMV will not be required to be inspected.

F. Low Speed Vehicles (TRC 551.401-405). A Slow-Moving Vehicle means a motor vehicle

designed to operate at a maximum speed of 25 miles per hour or less. A slow-moving vehicle emblem in accordance with TRC 547.703. Low Speed Vehicle would include vehicles such as golf carts and certain utility vehicles. A low speed vehicle is required to display a slow-moving vehicle emblem when it is operated in a public highway in accordance with TRC 547.703(d). TRC 548.052 states that a vehicle required to display a slow-moving vehicle emblem is not subject to inspection.

15.06 Multi-Purpose Vehicles.

Multi-purpose passenger vehicle means a motor vehicle with power, except a trailer, designed to carry 10 persons or less which is constructed either on a truck chassis or with special features for occasional off-road operation. Lighting requirements for this type vehicle would refer to diagrams of similar type vehicles such as bus or van-type truck. The type of registration plate is not a determining factor in the number of lighting devices required for inspection purposes.

15.07 Compressed Natural Gas. (CNG)

Compressed Natural Gas (CNG) Fuel Systems have been added as an item of inspection. CNG Fuel systems must comply with the requirements of 49 CFR 571.304. The expiration date of the fuel container has not been exceeded.

15.08 Unsafe Vehicles.

It is a violation of Transportation Code, Section 547.004 (a) for any person to operate or move on any highway any vehicle unless the equipment upon any and every said vehicle is in good working order and adjustment as required in this Act and said vehicle is in such safe mechanical condition as not to endanger the driver or other occupant or any person upon the highway. It is also a violation for any person to operate or move or for the owner to cause or to permit to be moved on the highway any vehicle which is in unsafe condition as to endanger any person, or which does not contain those parts or is not at all time equipped with such lamps and other equipment in proper condition and adjustment as required by law, or which is equipped in any manner in violation of the law, or for any person to do any act forbidden or fail to perform any act required by law.

15.09 Special Lighting Devices and Reflector Requirements:

The law described certain lamps and reflectors that certain vehicles must have regardless of whether or not those vehicles are operated at night. The law further states that when these vehicles are operated at night all of these prescribed lamps must be operational.

Any lighting device, lens and/or reflector used on a vehicle must meet standards adopted by the Texas Department of Public Safety for that particular use.

Whenever a requirement is declared as to the mounting height of lamps or devices, it shall mean from the center of such lamp or device to the level ground upon which the vehicle stands when such vehicle is without a load. Whenever a requirement is declared as to visibility distance from which certain lamps and devices shall render objects visible or within which such lamps or devices shall be visible, these provisions shall apply at nighttime in respect to a vehicle without a load when upon straight, level, unlighted highway under normal atmospheric conditions unless a different time or condition is expressly stated.

REJECT ANY VEHICLE PRESENTED FOR INSPECTION WHICH IS NOT EQUIPPED WITH ALL THE LAMPS AND DEVICES PRESCRIBED REGARDLESS

<u>OF HOW AND WHEN THE VEHICLE IS OPERATED.</u>

15.10 Commercial Motor Vehicle Inspection Program.

The term "commercial motor vehicle" means a self-propelled or towed vehicle, other than a farm vehicle with a gross weight, registered weight, or gross weight rating of less than 48,000 pounds, that is used on a public highway if:

1. The vehicle or combination of vehicles has a gross weight, registered weight, or gross weight rating of more than 26,000 pounds (**excluding the occasional transportation of personal property by individuals not for compensation or in the furtherance of a commercial enterprise, such as a recreational vehicle**); or

2. The vehicle is a farm vehicle with a gross weight, a registered weight, or a gross weight rating of more than 48,000 pounds; or

3. The vehicle is designed to transport more than 15 passengers, including the driver; or

4. The vehicle is used to transport hazardous materials in a quantity requiring placarding by a regulation issued under the Hazardous Materials Transportation Act; or

5. The vehicle or combination of vehicles has a gross weight rating of more than 10,000 pounds and is operated in interstate commerce and registered in this state.

6. The vehicle is a school bus that will operate at a speed authorized by the Texas Transportation Code: or

7. The vehicle is a school activity bus that has a gross weight, registered weight, or **gross weight rating of more than 26,000 pounds, or is designed to transport more than 15 passengers, including the driver.**

8. Refer to Chapter 6 of the Vehicle Inspection Operations and Training Manual for the requirements of the Texas Commercial Vehicle Inspection Program.

04.20.00 INSPECTION ITEM CRITERIA

All items of inspection enumerated are required to be inspected in accordance with the Texas Transportation Code, Chapter 548, and these rules and regulations prior to issuing a Vehicle Inspection Report.

During the brake test of a vehicle requiring a Commercial Driver License (CDL), the certified inspector may ride in the vehicle driven by its operator observing the braking performance at the brake test area, if the inspector is not licensed to operate the class of vehicle presented for inspection.

Any vehicle presented for inspection that is modified for use by a disabled person may be driven by the operator with the certified inspector riding and observing during the brake test portion of the inspection.

20.01 Compressed Natural Gas (CNG)

After verifying vehicle insurance, CNG tank should be inspected with the vehicle owner present.

1. Inspection Procedure.

Visually inspect label or documentation that the expiration date of the fuel container has not been exceeded and that it was manufactured in accordance with 49 CFR 571.304.

2. Inspect and reject if:

a. The CNG Fuel Container was not manufactured in accordance with 49 CFR 571.304.

b. The CNG Fuel Container has exceeded its expiration date.
c. Compliance with 49 CFR 571.304 cannot be determined through observation or documentation.
d. Fleet operator does not provide documentation that the fleet operator employs a certified installer or inspector for CNG Fuel System, unless compliance can be determined by reviewing the CNG label affixed to the vehicle or from documentation provided by the original equipment manufacturer or from a certified CNG installer or inspector.

3. If the CNG Fuel system does not pass the inspection, the inspection process shall not proceed any further. The inspector should advice the owner operator of the vehicle the reason for the failure. A failing Vehicle Inspection Report is not required to be completed.

20.02 Beam Indicator.

Every new motor vehicle registered in this state after January 1, 1948, other than a motorcycle or motor-driven cycle, which has multiple beam rod lighting equipment, shall be equipped with a beam indicator (no certain color required) which shall be lighted whenever the uppermost distribution of light from the head lamp is in use, and shall not be otherwise lighted. Said indicator shall be so designed and located that when lighted it will be readily visible without glare to the driver of the vehicle so equipped.

1. Inspection Procedure.

Check operation and condition visually.

2. Inspect and reject if: (When required)

a. Vehicle not equipped with a beam indicator.
b. Improper switching indication
c. Produces a glaring light.
d. Inoperative for any reason.

20.03 Brakes.

Every passenger car, truck, school bus, motorcycle and autocycle shall be equipped with brakes acting on all wheels except:

1. Motor-Driven cycles, motor scooters, motorcycle sidecars, or mopeds.

2. Trucks and truck tractors (manufactured prior to 1981) having three or more axles need not have brakes on the front wheels, except that when such vehicles are equipped with at least two steerable axles, the wheels on one steerable axle need not have brakes. However, such trucks and truck tractors must be capable of complying with the performance requirements of this Act.

3. Any vehicle being towed in a driveaway or towaway operation, provided the combination of vehicles is capable of complying with the brake performance requirements, does not require brakes acting on all wheels.

Definition of Terms:

Brake System: A combination of one or more brakes and their related means of operation and control.

Service Brake System: A brake system used for retarding, stopping, and controlling the vehicle under normal operating conditions. This brake is sometimes referred to as "foot brake."

Parking Brake System: A brake system used to hold and maintain the vehicle in a stationary position. A positive mechanical means is

employed to hold the brake applied when the vehicle is unattended.

Pedal Reserve: As applied to hydraulic, mechanical, or power assisted hydraulic brakes, this is the amount of distance (total pedal travel) left in reserve when the pedal is depressed to the brake-applied position. The purpose of the pedal reserve check is to ascertain the degree of the brake adjustment and to demonstrate satisfactory brake actuating system condition.

Equalization: Brakes shall be so adjusted as to operate as equally as practicable with respect to the wheels on the opposite sides of the vehicle.

Driveaway-Towaway Operation: Any operation in which any motor vehicle, trailer, or semitrailer, singly or in combination, new or used, constitutes the commodity being transported when on set or more of wheels of any such vehicle are on the roadway during the course of the transportation, whether or not such vehicle furnishes the motor power.

4**. Inspection Procedure.**

Service brake performance tests should be conducted on a substantially level, hard, smooth surface road or area that is free from loose material, oil or grease. Using the service brake only, the stopping ability of the vehicle should be tested by one of the following methods.

20.04 Service Brake Test Methods.

1. On Road (Decelerometer): Mount an approved decelerometer at centerline of vehicle. Level the decelerometer. At a speed of 20 mph apply the service brake firmly. Observe decelerometer reading.

2. On Road (Brake Test Area): At a speed of 20 mph apply service brakes firmly. Observe whether a vehicle comes to a smoot stop within the distance prescribed by the chart, "Required Brake Performance." Inspector should have firm control of the steering wheel throughout the test.

3. Platform-Type Tester: Drive vehicle onto "drive-no-and-stop" platform tester. Apply brakes firmly at a speed from 4-8 mph without wheel lockup. All braking action must take place on the platforms.

Front-wheel drive vehicles are to be checked by road test only unless a platform tester specifically approved by the Department to test front-wheel drive vehicle is used. These machines may be used to inspect the relative effectiveness of each wheel. There should be braking actin on all wheels and the action on any one wheel should be 75 percent or more of the action on the other wheel on the same axle.

4. Roller-Type Brake (Dynamometer-Force Measuring Type):

a. Adjust tire inflation to recommended values.
b. Position vehicle on dynamometer rolls and begin test.
c. Follow Department's recommended testing procedures.

5. Test Brake Hydraulic System for Leakage

a. While the vehicle is stopped, depress brake pedal under moderate foot force (40-60 pounds in non-powered systems and 15-20 pounds in power assisted systems).

6. Test Pedal Reserve

a. While the vehicle is stopped, depress brake pedal under moderate foot force (40-60 pounds in non-powered systems and 15-20 pounds in power assisted systems.

7. Condition of Vacuum System

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

8. Electric Brake System. (Trailers) (Ammeter)

1. Insert a low-range dc ammeter into the brake circuit between the controller and the brakes.

2. With controller in "off" position. Ammeter should read zero.

3. Gradually apply controller observe maximum ammeter reading and current modulation.

4. Gradually return controller to "full off" and observe return to zero ampere and current modulation.

5. Divide maximum ammeter reading by number of brakes.

Check for loose or dirty connections and for broken, frayed or unsupported wires.

20.05 Brake Test Procedures.

If a road test is used for checking service brakes:

1. Brake test are must be used on every inspection made.

2. When it is raining, snowing, or when the brake surfaces are wet, brake tests are permitted; however, if the certified inspector feels that they cannot safely and with due care accurately check the service brakes they may refuse to make the inspection.

3. No inspections are permitted when the brake test areas are icy.

4. Extreme care must be exercised and sudden stops must be avoided if other traffic is affected.

5. All vehicles so tested (brake test area) should be driven at a speed of 20 miles per hour and the vehicle must stop as indicated by the stopping distance chart. (See the Brake Performance Chart in Reference Section 04.30.06.)

6. The brake application must be started as close to a speed of 20 miles per hour as possible. The stopping distance is to be measured from the point at which the service brake pedal or control begins. The vehicle must stop within the prescribed stopping distance requirements and must not pull to the right or left. Using the service (foot) brake only, the stopping ability of the vehicle should be tested by actual operation of the vehicle.

7. When applying brakes to the moving vehicle, the braking force must be evenly distributed to the wheels. The brakes should be so adjusted as to operate as equally as practicable with respect to the wheels on the opposite sides of the vehicle. The driver should have a firm control of the steering wheel throughout the test.

8. Brakes on a truck-tractor may be inspected without a trailer; however, a trailer shall be inspected only with a towing vehicle attached.

9. Approved brake machines may be used for testing brakes so long as the machine and the braking surfaces afford a competent brake test.

10. All testing of service brake for stopping distance and equalization must be done either by an actual road test or by a machine.

11. If a platform-type tester is used, a measured brake test area must also be maintained to test vehicle with more than two (2) axles or vehicle with front-wheel drive, unless, the tester has

been specifically approved by the Department to test these types of vehicles.

20.06 Platform-Type Tester.

This type of brake tester is a drive-on-and-stop machine consisting of 4 pads or platforms, one for each wheel. When the brakes are applied at the time the vehicle is moving on the pads, the braking effort at each wheel caused a proportionate movement of the pad against the measuring system. All brake action must take place on the platforms.

1. Operation

a. Drive vehicle on brake tester about 5 miles per hour and apply the brakes firmly but not severely. (Excessive speed and braking should be avoided).
b. These machines may be used to inspect the relative effectiveness of each wheel. There should be braking action on all wheels.
c. Each gauge will record the individual wheel braking effort in hundreds of pounds.
d. Total braking effort and comparative braking energy can be determined.
e. The tester must be properly installed, maintained, and kept clean at all times.
f. If the vehicle fails the first brake test, a second brake test must be conducted before the vehicle is rejected.

2. Equalization and tolerances:

a. Total reading must not be less than 50% of the total weight of the vehicle if the vehicle has brakes on all wheels. The required 50% is the equivalent of a vehicle stopping within 25 feet at 20 miles per hour.
b. Total reading must not be less than 35% of the weight of the vehicle if the vehicle does not have brakes on all wheels. The required 35% is the equivalent of a vehicle stopping within 39 feet at 20 miles per hour.
c. Brake machine readings on each opposing wheel of the same axle shall be within 25% on the front and within 35% on the rear axle.

3. Conditions affecting break tester readings;

a. Wet tires or wet tread plates (pads) will cause reading of braking efficiency to be inaccurate.
b. Grease, sand, or other foreign material on tires or tread plates (pads) will also cause readings of braking efficiency to be inaccurate.
c. Worn or slick tires will not affect brake tester as much as they will affect a road test.
d. Dirt and debris under the tread plates (pads).

20.07 Roller-Type Tester.

This type brake tester (Dynamometer [Force Measuring Type]) is equipped with powered rollers that rotate the wheels at a speed of approximately 35 to 45 miles per hour with the vehicle in a stationary position. The brakes are applied while the wheels are turning and developing braking force. Measurements of both BRAKING FORCE (Brake Effort) and BRAKE BALANCE are indicated on the gauge9s0s. Brake fade can also be tested on this machine.

1. Operation – Acceptance Tests. With tester in operation and wheels turning, apply brakes slowly until brake effort teaches the following values and hold for 5-6 seconds:

a. Small vehicle up to 2,200 pounds – 175 lb. Brake Effort/Wheel (Total 350 pounds)

b. Light compacts 2,300 to 3,000 pounds – 230 lb. Brake Effort/Wheel (Total 460 pounds)

c. Heavy compacts 3,100 to 3,600 pounds – 285 lb. Brake Effort/Wheel (Total 570 pounds)

d. All others over 3,700 pounds – 355 lb. Brake Effort/Wheel (Total 670 pounds)

e. Brake Balance Test – During the "Brake Force Test," variance in braking force between wheels should not exceed 70 pounds.

2. As additional service to the vehicle owner or operator, the inspection station is permitted to perform an additional dynamic brake inspection according to recommendations of the equipment manufacturer. However, legal reject must be based on the above parameters under "Operation – Acceptance Tests."

a. If substandard brake conditions are found that are not exposed by the above acceptance test, the inspection station may suggest that the brake repairs be made but must clearly inform the vehicle owner or operator that such repairs are not mandatory to pass inspection.

20.08 Decelerometer-Type Tester.

This tester is an inertia-type Decelerometer consisting of a scale to measure the vehicle's deceleration or equivalent braking force (sometimes referred to as brake efficiency in percentages. The Decelerometer is generally placed as close to the center of the vehicle as practicable (on window of right front door) and the vehicle is operated on the highway outside the inspection station.

1. Operation

a. Level Decelerometer and set to "(0)."
b. Drive vehicle on a clean, level road (road grade of 5% or less) at 20 mph and apply brakes evenly, without skidding vehicle wheels.
c. Read the dial to see if vehicle stopped within required stopping distance for class of vehicle.
d. For brake balance (equalization), the vehicle should stop in a straight line. A pull to wither side, right or left, during a test stop indicates brake unbalance.

2. Conditions affecting brake tester readings:

a. Wet tires and highways may cause readings of braking efficiency to be inaccurate.
b. Oil slicks, sand or other foreign material on tires or highways may also cause readings of braking efficiency to be inaccurate.
c. Worn or slick tires may also cause reading to be inaccurate.
d. Any fast, hard application of the brake can cause wheel lockup and tire skid.

20.09 Autocycle, Motorcycle, Motor-Driven Cycle, and Moped Brake Requirements.

Every autocycle, motorcycle, motor-driven cycle, and moped, at all times and under all conditions of loading, upon application of the service brake pedal or control, shall be capable of:

1. Developing a brake force that is not less than 43.5% of its gross weight, OR

2. Decelerating to a stop from not more than 20 miles per hour at not less than 14 feet per second, OR

3. Stopping from a speed of 20 miles per hour in not more than 30 feet, such distance to be

measured from the point at which movement of the service brake pedal or control begins.

4. Autocycles and motorcycles shall be provided with adequate brakes on all wheels. Sidecars are not required to have brakes when braking performance of the motorcycle or motor-driven cycle is met. Motor-driven cycles and mopeds are required to have brakes on at least the rear wheel. During the brake road test, an autocycle, motorcycle motor-driven cycle, or moped may be driven by its owner or operator with certified inspector observing the braking performance at the brake test area if the certified inspector is not licensed to operate a motorcycle, motor-driven cycle, or moped.

20.10 Inspect Service Brakes for and reject if:

a. Vehicle is not equipped with required service brakes.

b. Upon first application, there is less than 2 inches of pedal reserve as determined by the use of an accurate measurement of the full applied brake pedal of vehicle equipped with conventional brakes.

c. Upon first application, there is less than 1 inch of pedal reserve as determined by the use of an accurate measurement on the full applied brake pedal of vehicles with power brakes (power must be on and operating when tested).

d. On service brakes that cannot be checked with the use of an accurate measurement, there is less than a reserve of one-third of the total travel distance of the brake actuator.

e. Brake pedal height cannot be maintained under moderate foot force (40 to 60 pounds for conventional – 15 to 20 pounds for power) for a period of 1 minute.

f. There is visible leakage or audible seepage in hydraulic lines and cylinders, or any other part of the service brake system.

g. Fluid level in the master cylinder is more than 1 inch below the top of the reservoir or below manufacturer's recommended level.

h. Hosed or cables are restricted, abraded, crimped, cracked, leaking, frayed, or broken.

i. Brake rods or mechanical parts are missing, broken, badly worn, or misaligned.

j. Brake operating levers or control cables do not operate freely, improperly positioned, or misaligned.

k. Any part of the service brake system has been removed, disconnected, rendered inoperative.

l. There is obvious metal to metal contact sound when brakes are applied, and upon investigation, drum or disk is being scored.

m. The service brakes do not develop the required total braking force as determined by machine tests.

n. Braked do not meet requirements for stopping distances for the class of vehicle.

o. The brake are not equalized as determined from road testing or by machine test of the vehicle.

p. Red brake warning lamp or signal is on or comes on during test.

q. Anti-lock (ABS) lamp or signal which is on or comes on during test will not be cause for rejection.

r. It is imperative that brake system reservoir cover and the surrounding area be thoroughly cleaned before cover is removed for inspection to assure that NO DIRT OR WATER is mixed with the brake fluid.

20.11 Electric Brake System. (Trailers) (Ammeter)

1. Inspection Procedure.

a. Insert a low-range (0 to 25 amperes will be adequate for most two and four brake systems; 0 to 40 amperes may be required for a six brake system) dc ammeter into the brake circuit between the controller and the brakes. With controller in "off" position, ammeter should read zero. Gradually apply controller to "full on" position; observe maximum ammeter reading and current modulation. Gradually return controller to "full off" and observe return to zero ampere and current modulation. Divide maximum ammeter reading by number of brakes. Check for loose or dirty terminal connection and for broken, frayed, or unsupported wires.

2. Inspect for and reject if:

a. Trailers showing a per-brake maximum amperage value of more than 20% above, or less than 30% below, the brake manufacturer's maximum current rating.
b. Ammeter showing no reading, or needle indication not steady on application and release of brake controller.
c. Loose or dirty terminal connections; broken, frayed, or unsupported wires.
d. Trailers using single conductor or non-stranded wires or wires of a size below brake manufacturer's minimum recommendation.

20.12 Parking Brake

The inspection of the parking brake (auxiliary or holding) applies only to all motor vehicles beginning with the model year 1960. This does not include autocycles, motorcycles, motor-driven cycles, mopeds, trailers, semitrailer, pole trailers, and mobile homes.

Some types of parking brake may be actuated by food or hand lever.

The parking brake may be assisted by the service brake or other source of power, provided that failure of the service brake actuating system or other power assisting mechanism will not prevent the parking brakes from being applied. The parking brakes should be so designed that when once applied- despite exhaustion of any source of energy or leakage of any kind. If the means of applying the parking brakes and the service brakes are connected in any way, they shall be so constructed that failure of any one part shall not leave the vehicle without operative brakes. Brake lock systems will not meet the parking brake requirement (i.e. placing the transmissions in park).

1. Inspection Procedure.

On a motor vehicle that has the automatic parking brake release when the transmission is placed in gear, the parking brake should be applied and the engine accelerated enough to cause a slight pull on the braking mechanism to determine if it is working properly.

2. Inspect Parking Brake for and reject if:

a. Motor vehicle is not equipped with a parking brake.
b. Operating mechanism, when fully applied, does not hold the vehicle. The service brake pedal or control, shall be capable of:
c. Actuating mechanism is not fully released when the release control is operated.
d. Any mechanical parts are missing, broken, badly worn, or not operating properly.
e. Pull cables are badly worn, stretched, frayed, or not operating freely.
f. Parking brake will not hold the vehicle in place when, with the engine running,

the vehicle is place in forward gear and the engine is accelerated enough to cause a slight pull on the braking mechanism.

20.13 Vacuum Brake System

1. When checking the operation of the vacuum system on a truck or truck-tractor, the trailer shutoff valves must be closed. When checking the operation of the vacuum system on a trailer or semitrailer, the trailer must be coupled to a truck or a truck-tractor with the trailer shutoff valve open. The engine of the truck-tractor should be allowed to run for one minute to build up vacuum.

a. Visually inspect system for collapsed, broken, badly chafed, and improperly supported hosed and tubes, and loose or broken hose clamps.
b. On truck or truck-tractor, depress brake pedal with moderate food force. While maintaining this force on the pedal, start engine, and observe if pedal falls slightly when engine starts.
c. On trucks with low vacuum indicators build full vacuum. Shut off engine and reduce vacuum by making a series of moderate brake application. A flashing or buzzing signal shall function when vacuum reaches weight inches mercury.
d. Apply and release pedal a number of times and observe actin on brake chamber rod on trailers.

2. Inspect for and reject if:

a. Hosed, tubes, or connection leaking, restricted, abraded, crimped, cracked, or broken; or collapse of vacuum hoses when vacuum is applied. Connecting lines not properly attached or supported to prevent damage or abrasion by contact with frame, axle, other lines, or any other part of the vehicle.

b. Evidence of leakage in the system.

c. In vacuum-assisted systems, service brake pedal does not move slightly as the engine is started while pressure is maintained on the pedal.

d. Trailer vacuum brake chamber rods not operating in conjunction with the tractor brake pedal, or not reaching full released position.

e. In vacuum-equipped vehicle in excess of 10,000 pound gross vehicle weight and vehicle combinations, insufficient vacuum reserve to permit three full service brake applications after engine is stopped.

f. Failure of low-vacuum indicator to function when system is reduced to eight inches of mercury vacuum.

20.14 Air Brake System

1. With air system charged, open drain cocks in each reservoir, carbon trap, or filter used in the air system; close drain cocks and with air system at zero gauge pressure, check pressure buildup, running engine at fast idle and record time to raise air pressure from 50 to 90 psi on the gauge. Check pressures at which light, buzzer, or flag connected to the low-pressure indicator is no longer visible or audible. Continue running engine until the governor cuts out and observe pressure-gauge reading. With engine idling, reduce pressure in system by making a series of brake applications and observe pressure at which governor cuts in. With system fully charged, stop engine and check for air leakage by recording the pressure drop in psi per minute both with brakes released and brakes fully applied. Inspect for restricted, abraded, collapsed, improperly supported, or broken hosed and tubes and audible leaks. Check safety valve for freedom of action. If the compressor is belt drive, check belt for tightness and observe

belt condition. Check air compressor for air cleaner condition and restrictions.

2. Inspect for and reject if:

a. The time required to build up air pressure from 50 to 90 psi is more than 3 minutes with engine running at fast idle.
b. Warning device (light, buzzer, or flag) connected to the low pressure indicator of the air brake system not operating when air pressure is lowered to 55 psi.
c. Governor cut-in pressure lower than 80 psi or cut-out pressure higher than 135 psi, unless other values are recommended by the vehicle manufacturer.
d. Compressed air reserve insufficient to permit one full service brake application after engine is stopped, and with system fully charged, without lowering reservoir pressure more than 20%, below initial reading.
e. Air brake pressure drop of more than 2 psi in 1 minute for single vehicle or more than 3 psi in 1 minute for vehicle combinations, with engine stopped and service brakes released.
f. Air pressure drop of more than 3 psi in 1 minute for single vehicle or more than 4 psi in 1 minute for vehicle combinations with engine stopped and service brakes fully applied.
g. Hoses, tubes, or connections leaking, restricted, abraded, crimped, cracked, or broken. Connecting lines not properly attached or supported to prevent damage or abrasion by contact with frame, axle, other lines, or any other part of the vehicle.
h. Valves, diaphragms, or piston cups leaking audibly.
i. Air safety valve inoperative.
j. Compressor drive belt without sufficient tension, or badly worn or frayed.
k. Compressor air intake cleaner clogged sufficiently to prevent proper intake of air.

20.15 Clearance Lamps.

1. Required on all:

Buses 80 inches or more in overall width. Trucks and Truck-Tractors 80 inches or more in overall width. Trailers and semitrailers 30 feet or more in overall length. Pole trailers.

a. Clearance lamps, so far is practicable, be mounted on the permanent structure of the vehicle in such a manner as to indicate the extreme height and width of the vehicle. When identification lamps are present and are mounted as high as practicable, clearance lamps may be mounted at optional height. When mounting of front clearance lamps results in such lamps failing to indicate the extreme width of the trailer, such lamps may be mounted at optional height but must indicate, as near as practicable, the extreme width of the trailer.
b. Clearance lamps and side marker lamps may be mounted in combinations, provided illumination is given as required by law.
c. Clearance lamps mounted on the front or on the sides near the front of a vehicle shall display an amber color.
d. Clearance lamps mounted on the rear of on the sides near the rear of a vehicle shall display a red color.
e. Clearance lamps shall be visible under normal atmospheric conditions at a distance between 500 feed and 50 feet from the vehicle on which mounted.

f. On buses, trucks and truck-tractors 80 inches or more in overall width and trailer and semitrailers 80 inches or more in overall width:

1. On the front, two clearance lamps.

2. On the rear, two clearance lamps.

2. Inspection Procedures:

Check operation and condition visually.

3. Inspect for and reject if:

a. Lamps are not present.
b. Lamps are not securely mounted and properly located.
c. Lamps do not emit required color; lens or bulb painted; or not steady burning.
d. Visibility requirements are not met. LED lights have less than 50% of the diodes illuminated.
e. Lens is discolored, or missing.
f. Wiring insulation is worn, rubbed bare, or shows any evident of burning, short circuiting, or poor electrical connections.
g. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated. Permitting light from the bulb to emit through the crack or break.
h. Lamp lenses repaired with repair tape or repair kit.
i. Lamps are not of equal intensity.
j. Any lamp assembly is cracked allowing water to enter or lamp assembly contains standing water.
k. Vehicles that are equipped and lighted by a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.

20.16 Exhaust Emissions System.

The owner or operator of any new motor vehicle or new motor vehicle engine beginning with the model year 1968 equipped with an exhaust emission system shall maintain the exhaust emission system in food operable condition and shall use it at all time that the motor vehicle or motor vehicle engine is operated. The owner or operator of the motor vehicle or motor vehicle engine shall not remove or intentionally make inoperable with the State of Texas the exhaust emissions system or any part thereof, except where the purpose of removal of the exhaust emissions system or part thereof is to install another exhaust emission system or part thereof, which is intended to be equally effective in reducing atmospheric emissions from the vehicle or engine.

The exhaust emission system was installed by manufacturers of motor vehicles beginning with model year 1968. The inspection of the exhaust emissions system will apply only to those vehicles that are equipped with such a system. The following exhaust emissions systems will be inspected if installed as original equipment by the manufacturer: thermostatic air cleaner, exhaust gas recirculation system, positive crankcase ventilation system, air injection system, evaporative emissions system, and/or catalytic converter.

If installed as original equipment by the manufacturer, the catalytic converter will be considered a part of the exhaust emission system on all 1984 and later model vehicles. It will be inspected as a part of the exhaust system on prior to 1984 model vehicles. Some diesel engines re equipped from the manufacturer with catalytic converters. The catalytic converters on diesel-powered motor vehicles will be inspected for presence and leaks only.

The inspection of the exhaust emission system shall not apply to motor vehicles altered and modified to use only a fuel other than gasoline (e.g. compressed natural gas – CNG, liquefied petroleum gas – LPG). This exemption does not include diesel-powered motor vehicles. A diesel engine is neither altered not modified to use a fuel other than gasoline. A diesel powered motor vehicle with a diesel exhaust fluid system, exhaust gas recirculation system, catalytic converter, etc… shall have those items inspected for presence and leaks only.

Vehicles that are originally manufactured with a Thermostatic Air Cleaner (TAC) System are required to have a closed-type design air filter system. Vehicles that are not originally equipped with a Thermostatic Air Cleaner (TAC) System may have an aftermarket open-type air filter intake system installed. This type of system is not an item of inspection.

1. Inspection Procedure: Examine visually

2. Inspect for and reject if:

a. The exhaust emission system has been removed
b. The exhaust emissions system has been disconnected.
c. The plumbing or hoses are loose, broken, leaking or improperly routed.
d. Air pump (air injection-type) belt is loose, remove, excessively cracked, frayed or has pieces missing.
e. The exhaust emission system has been altered in any manner to make it ineffective.
f. The catalytic converter has been removed, leaking, or disconnected on a 1984 or later model vehicle.

3. Gas Cap Testing.

Every gasoline-powered vehicle from 2-24 model years old will be checked for presence of and by a Department approve "Gas Cap Testing Device" to determine if the gas cap is missing or defective. The following vehicles are exempt:

a. Slow-moving vehicles.
b. Motorcycles.
c. Vehicles operated exclusively by a fuel other than gasoline.
d. Vehicles newer than 2 years old and older than 24 years old.
e. Vehicles manufactured with a cap-less fuel system.

4. Inspector Procedure.

a. Conduct daily calibration check of gas cap testing device.
b. Check for presence (all gas caps must be checked).
c. Check for correct type of gas cap(s).
d. Remove gas cap(s) and test using an approved testing device. (Gas cap present but not testable will not be cause for rejection).
e. Any gas cap(s) failing the initial test will be tested a second time to verify failure.

5. Inspect for and reject if:

a. Vehicle not equipped with required gas cap(s).
b. Vehicle not equipped with proper type of gas cap(s).
c. Gas cap(s) fails both tests.

20.17 Exhaust System.

Every motor vehicle shall at all time be equipped with a muffler in good working order and in constant operation. The exhaust system included the exhaust manifolds, gaskets, exhaust pipes, catalytic converters, mufflers, resonators, tailpipes, hanger, and supporting hardware.

Muffler defined: Muffler is a device consisting of a series of chamber or baffle plates or other mechanical design for the purpose of receiving

exhaust gas from an internal combustion engine. On vehicles manufactured or equipped with a muffler and a turbo, the muffler must be present and in good working order.

Motor vehicle cannot be equipped with a muffler which is perforated or which was perforated and has been repaired, wither by a muffler repair jacket or by patching or in any other way. In those cases where a muffler is perforated at the time of an inspection or has been perforated and has been repaired previous to the inspection, the muffler must be replaced or the vehicle rejected.

Some pickups are equipped with a camper or hard shell cover and are sometimes used for the transportation of passengers. The tailpipe should discharge the exhaust at the rear or sides. This truck modification will be considered as a passenger compartment.

The entire structure of a passenger vehicle or a motor home-type vehicle is considered a passenger compartment. The cab only of other truck-type vehicle is considered passenger or luggage compartment.

If the vehicle is equipped with lake pipes or similar device, such pipes or devices must be securely plated and bolted or capped.

Dual exhaust systems may be modified to single exhaust systems and single exhaust systems to dual exhaust systems provided the modification does not violate requirements concerning exhaust emission systems.

The catalytic converter will be considered as a part of the exhaust system on all vehicles prior to 1984 year model and will be inspected only visually (if present) for leakage. On 1984 and later model light truck and passenger vehicle, the catalytic converter will be checked for presence and leakage. Flexible tubing which meets the requirements listed below may be used anywhere in the exhaust system.

Inspection of exhaust systems covers the discharge of exhaust fumes and is not concerned with the noise level.

1. Inspection Procedure:

The exhaust system shall be examined visually while the engine is running to determine efficiency of the system.

2. Inspect for and reject if:

a. Vehicle is not equipped with a muffler.
b. Any joint is loose or leaking, including manifolds. Does not include minor leakage at exhaust control valve (manifold damper or hear riser valve).
c. Manifold is cracked or broken causing leakage.
d. Holes, leaking seams, or patches on the muffler, resonators, exhaust pipe, tailpipe, or catalytic converter.
e. Exhaust system is not secured to the vehicle by mounting bracket designed for exhaust systems (wire, bailing wire, wire clothes hangers, wire rope, or similar material is not acceptable.
f. Any brackets are loose, broken, or missing.
g. There is excessive vibration of exhaust line.
h. Any part of the exhaust system passes through the passenger compartment.
i. The tailpipe is broken, pinched, or eroded off to the extent to allow exhaust fumes to penetrate into the interior of the passenger compartment.
j. The tailpipe fails to discharge exhaust from the rear of side or top of the passenger compartment of the vehicle.
k. Hole in the exhaust system made by the manufacturer for drainage are not cause for rejection. The tailpipe must direct the exhaust fumes out from under the passenger compartment.

l. On pickups not equipped with a camper or hard shell cover, holes or leaks in the tailpipe extending beyond the passenger compartment will not be cause for rejection.

20.18 Head Lamps

1. Motor Vehicles. Every motor vehicle shall be equipped with at least two head lamps, at least one on each side of the front of the motor vehicle, which head lamps shall comply with the requirements and limitation, set forth in these regulations.

a. Every head lamp upon every motor vehicle shall be located at a height of nor more than 54 inches nor less than 24 inches to be measured from the center of such lamp to the level ground upon which the vehicle stands when such vehicle is without a load.

2. Autocycles, Motorcycles, Motor-Driven Cycles Mopeds.

Every autocycle, motorcycle, motor-driven cycle, and moped shall be equipped with at least one and not more than two head lamps which shall comply with the requirements and limitation of these regulation.

a. Every head lamp upon every autocycle, motorcycle, motor-driven cycle, and moped shall be located at a height of not more than 54 inched not less than 24 inches to be measured from the center of such lamp the level ground upon which the vehicle stands when such vehicle is without a load. The head lamp on a motor-driven cycle or moped may be a single beam lamp.

3. General Provisions.

All motor vehicles including autocycles and motorcycles sold new after January 1, 1948, other than motor-driven cycles (motor scooters and motorbikes), must be equipped with multiple beam head lamps. Single beam head lamps will be permitted on those vehicles sold new prior to January 2, 1948, and on all motor-driven cycles (motor scooters, motorbikes, and mopeds).

There shall be an uppermost distribution of light, or composite beam, so aimed and of such intensity as to reveal persons and vehicles at a distance of a least 450 feet ahead for all conditions of loading (motorcycles, motor-driven cycles, and mopeds at a distance of at least 300 feet).

There shall be a lowermost distribution of light, or composite beam, so aimed and of sufficient intensity to reveal persons and vehicles at a distance of at least 150 feet ahead.

a. **Single beam head lamp:**

A head lamp which provides only one fixed beam, which is not adjustable from the driver's seat (usually on motor-driven cycles and mopeds only).

b. **Multiple beam head lamp:**

A head lamp which provides more than one beam, which may be selected as required from the driver's seat.

c. **Dual head lamp system:**

Those vehicles using the dual for four head lamps system must be equipped with a combination of a #1 and a #2 type head lamp on each side of the vehicle. The use of any other type of lamp in those sockets is illegal and does not meet the inspection requirements for head lamps.

d. Other **lamps:**

Fog lamps, auxiliary passing lamps, auxiliary driving lamps, backup lamps, and parking lamps are not required to be inspected.

4. Headlight Identification:

a. **Sealed Beam Lamps:** Glass headlamps whether round or rectangular identified by the #1 or #2 indicating the number of filaments in the head lamp. A one piece unit with a non-replaceable inner bulb.

b. **Composite Head Lamps:** Consisting of a lens (usually contoured to the grill and fenders of the vehicle), a reflector, and one or two halogen replaceable bulbs marked DOT or SAE on the lamp housing.

c. **Projection Head Lamps:** Consist of a lens (usually contoured to the grill and fenders of the vehicle), a reflector, and on bulb with a projection lens.

d. **High Intensity Discharge Head Lamps (HID):** Produce light with an electric arc rather than a glowing filament. Aftermarket HID bulbs installed in halogen composite head lamps are illegal.

e. Head lamps approved for use on motorcycles and motor-driven cycles cannot be used on an automobile or truck and vice versa.

f. On motorcycles, motor-driven cycles, and mopeds without batteries, the engine should be run at high idle speed to observe operation of the head lamp.

5. **Preparation for Head Lamp Inspection:**

Clean head lamp lenses, if necessary.

6. **Sealed Beam Inspection Procedure:**

Check operation and condition visually.

7. **Sealed Beam head lamps will be inspected for and reject if:**

a. Lamp or lamp assembly is not securely fastened to the vehicle. Lamp can be easily moved by hand.
b. Lamp is improperly connected and does not light the proper filament for different switch positions.
c. Lamp lens is cracked, broken, discolored, or missing.
d. Lamp is not of a type meeting Department or DOT or SAE standards.
e. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections. Wiring is dangling or connections are loose
f. Lamp lens is rotated, upside down, canted, or is marked “Right,” “Left,” #1 or #2 and not appropriately installed.
g. Lamp fails to function properly in any manner, such as any filament in a head lamp fails to burn.
h. Lamp has dirt, any contamination, discoloration, or moisture on the inside.
i. Lamp switch or dimmer switch does not operate properly and is not convenient for the driver.
j. Foreign material placed on head lamp lens, such as shields, half of lens, paint, tape, tinting (other than clear), that interferes with the light beam of the lamp.
k. Headlamp is covered by any lens or cover located in front of the headlamp which is any shade or color other than headlamp which is any shade of color other than clear.
l. Vehicle is not equipped with head lamps as required or lamp is missing.
m. Lens is other than clear.

n. Lamp is mounted on vehicle more than or less than prescribed mounting heights.
o. Headlamps are not of equal intensity.
p. There is physical damage that would obviously cause a headlight beam to fail to illuminate the roadway ahead of the vehicle sufficiently.
q. Retractable lamps: Must fully open and lock in a rigid position.

10. **Projection Head Lamp Inspection Procedure:**

Check operation and condition visually.

11. **Projection Head Lamps will be inspected for and rejected if:**

a. Lamp or lamp assembly is not securely fastened to the vehicle. Lamp can be easily moved by hand.
b. Lamp is improperly connected and does not light the proper filament for different switch positions.
c. Lamp lens is broken, discolored, or missing (Exception: Composite headlamps will not be rejected for being cracked unless the reflective material inside the lamp assembly is discolored or deteriorated).
d. Lamp is not of a type meeting Department or DOT or SAE standards.
e. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections. Wiring is dangling or connections are loose.
f. Lamp lens is rotated, upside down, canted.
g. Lamp fails to function properly in any manner, such as any filament in a head lamp fails to burn.
h. Lamp has dirt, standing water, or discoloration inside.
i. Lamp switch or dimmer switch does not operate properly and is not convenient for the driver.
j. Foreign material placed on head lamp lens, such as shields, half of lens, paint, tape, tinting (other than clear, that interferes with the light beam of the lamp.
k. Head lamp is covered by any lens or cover located in front of the head lamp which is any shade or color other than clear.
l. Vehicle is not equipped with head lamps as required or lamp is missing.
m. Lens is other than clear.
n. Headlamps are not of equal intensity.
o. Lamp is mounted on vehicle more than or less than prescribed mounting heights.
p. There is physical damage that would obviously cause a headlight beam to fail to illuminate the roadway ahead of the vehicle sufficiently.
q. Retractable lamps: Must fully open and lock in a rigid position.

12. **High Intensity Discharge Head Lamp Inspection Procedure.**

Check operation and condition visually.

13. **High Intensity discharge Head Lamps will be inspected for and rejected if:**

a. Lamp or lamp assembly is not securely fastened to the vehicle. Lamp can be easily moved by hand.
b. Lamp is improperly connected and does not light the proper filament for different switch positions.
c. Lamp lens is broken, discolored, or missing (Exception: Projection headlamps will not be rejected for being cracked unless the reflective material inside the lamp assembly is discolored or deteriorated).
d. Lamp is not of a type meeting Department or DOT or SAE standards.

e. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections. Wiring is dangling or connections are loose.
f. Lamp lens is rotated, upside down, canted.
g. Lamp fails to function properly in any manner.
h. Lamp has dirt, standing water, or discoloration inside.
i. Lamp switch or dimmer switch does not operate properly and is not convenient for the driver.
j. Foreign material placed on head lamp lens, such as shields, half of lens, paint, tape, tinting (other than clear), that interferes with the light beam of the lamp.
k. Head lamp is covered by any lens or cover located in front of the head lamp which is any shade or color other than clear.
l. Vehicle is not equipped with head lamps as required or lamp is missing.
m. Lens is other than clear.
n. Headlamps are not of equal intensity.
o. Lamp is mounted on vehicle more than or less than prescribed mounting heights.
p. There is physical damage that would obviously cause a headlight beam to fail to illuminate the roadway ahead of the vehicle sufficiently.
q. Retractable lamps: Must fully open and lock in a rigid position.

20.19 Horn.

Every motor vehicle shall be equipped with a horn (electric or air) in good working order and capable of emitting a sound audible for a distance of 200 feet or more, but no horn shall emit an unreasonably loud or harsh sound or a whistle.

Bulb or hand-operated horn is acceptable if original vehicle equipment.

1. Inspection Procedure

a. Sound the horn.
b. Check actuating device.
c. Examine wiring – mounting.

2. **Inspect for and reject if:**

a. Vehicle is not equipped with a horn.
b. Horn or horn switch is not securely fastened.
c. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor connections.
d. Horn switch not readily accessible to vehicle operator.
e. Horn is actuated by grounding two bare wires or similar method.
f. Sound is not audible under normal conditions for 200 feet.
g. Horn emits an unusually loud or harsh sound or whistle.
h. Operation of the horn interferes with the operation of any other circuit.
i. Horn switch missing or inoperative

20.20 License Plate Lamp.

Either a tail lamp or a separate lamp shall be so constructed and placed as to illuminate with a white light the rear registration plate and render it clearly legible for a distance of 50 feet to the rear. Any such lamp shall be so wired as to be lighted when the head lamps or auxiliary driving lamps are lighted.

On vehicles such as truck-tractors which require no rear registration plate, a license plate lamp would not be required. If two license plates are issued, a license plate lamp is required.

Do not reject a vehicle because the rear registration plate is obstructed.

1. Inspection Procedure.

Check operation and condition visually.

2. **Inspect for and reject if:**

a. Lamp is not present, steady burning, or operational. LED lights have less than 50% of diodes illuminated.
b. Lamp is not securely mounted to the vehicle.
c. Lamp is not placed to illuminate with a white light the rear registration plate. (Only one lamp is required.)
d. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections.
e. Lamp is not wired so as to be lighted when head lamps or auxiliary driving lamps are lighted.
f. Lamp emits a glaring light to the rear.
g. Lens is missing, cracked, or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.
h. Lamp lens has been repaired with repair tape or repair kit.
i. Lamp assembly is cracked allowing water to enter or the lamp assembly contains standing water.
j. Lamp does not meet the visibility requirements.

0.21 Mirror.

Every motor vehicle shall be equipped with a mirror so located as to reflect to the driver a view of the highway for a distance of at least 200 feet to the rear of such motor vehicle.

1. Inspection Procedure

a. Inspect only one mirror.
b. If the vehicle is equipped with more than one mirror, only one, either inside or outside, needs to meet all requirements.

1. Exterior Rearview Mirror: From the driver's position, visually inspect exterior mirror for a clear and reasonably unobstructed view to the rear. Look for correct location and stable mounting.

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

2. **Inspect for and reject if:**

a. Mirror does not provide the driver with a clear view to the rear of 200 feet.
b. Vehicle is not equipped with at least one mirror.
c. Mirror creates interference with driver's forward vision.
d. Reflective surface of mirror is cracked, broken, peeled, tarnished, or has sharp edges.
e. Mirror is not mounted securely to prevent swing or excessive vibration, unless the vehicle is equipped with another mirror which meets requirements.
f. Vehicles with no visibility through the rear window will require two outside mirrors, one on each side of the vehicle.

20.22 Reflectors. (Rear)

Every motor vehicle, trailer, semitrailer, and pole trailer shall carry on the rear, either as a part of the tail lamps or separately, two or more red reflectors. Autocycles, motorcycles, motor-driven cycles, and mopeds shall have mounted on the rear, either as a part of the tail lamp or separately, at least one red reflector.

Every reflector upon any vehicle shall be of such size and characteristics and so mounted as to be visible at night from all distances within 600 feet to 100 feet from such vehicle when directly in front of the lawful lower beams of head lamps, except that reflectors on passenger cars, autocycles, motorcycles, and motor-driven cycles manufactured or assembled prior to January 1, 1972, shall be visible at night from all distances within 350 feet to 100 feet when directly in front of lawful upper beams of the head lamps.

Reflectors on all vehicles shall be mounted at a height of not less than 15 inches or more than 60 inches measured from the center of such reflector to the level ground upon which the vehicle stands when the vehicle is without a load. If the highest part of the permanent structure of the vehicle is less than the height required, the reflector shall be mounted as high as that part of the permanent structure will permit.

Rear reflectors on a vehicle shall reflect a red color.

Red reflectors required on the rear of a vehicle may be incorporated with the tail lamp assembly.

Required rear reflectors shall be mounted with one on each side of the center of the vehicle.

Rear reflectors on pole trailers may be mounted on each side of the bolster or load.

1. **Inspection Procedure.**

Check condition and mounting.

2. **Inspect for and reject if:**

a. Reflector is not present.
b. Reflector is not of red color.
c. Reflector is not properly and/or securely mounted to the vehicle.
d. Reflector is cracked to the extent that the reflecting ability is impaired.
e. Reflector is discolored, deteriorated, or painted.
f. Visibility distance is not as required.
g. Requirements shown on lighting diagram are not met. Reflector height requirements are not met.

20.23 Reflectors (Side).

Refer to Reference Section for lighting diagrams.

1. Required on all:

Buses 80 inches or more in overall width.
Trucks 80 inches or more in overall width.
Trailers and semitrailers 80 inches or more in overall width.

a. Every required reflector upon any of the above named commercial vehicles shall be of such size and characteristics and so maintained as to be readily visible at nighttime from all distances within 600 feet to 100 feet from the vehicle when directly in front of the lawful lower beams of head lamps, except that the visibility for reflectors on vehicles manufactured or assembled prior to January 1, 1972, shall be measured in front of lawful upper beams of head lamps.
b. Reflectors on vehicles shall be either mounted at a height of not less than 15 nor higher than 60 inches above the ground on which the vehicle stands.
c. If the highest part of the permanent structure of the vehicle is less than the height required, the reflector shall be mounted as high as that part of the permanent structure will permit.
d. Reflectors mounted on the sides near the front of a vehicle shall reflect an amber color.
e. Reflectors mounted on the sides near the rear of a vehicle shall reflect a red color.
f. On buses and trucks 80 inches or more in overall width and trailers and

semitrailers 80 inches or more in overall width: two reflectors on each side - one at or near the front and one at or near the rear.

g. On trailers and semitrailers 30 feet or more in overall length - one amber reflector on each side - centrally located with respect to the length of the vehicle.
h. On pole trailers - one amber reflector - at or near the front of the load (if loaded.)

2. Inspection Procedure

Check condition and mounting.

3. **Inspect for and reject if:**

- **a.** Reflectors are not present.
- **b.** Reflectors are not of the required color for the location on the vehicle.
- **c.** Reflectors are not properly and/or securely mounted to the vehicle.
- **d.** Reflector is cracked to the extent that the reflecting ability is impaired.
- **e.** Reflectors are discolored, deteriorated, or painted.
- **f.** Requirements shown on lighting diagram are not met. Reflector height requirements are not met.
- **g.** Visibility distance is not as required.

20.24 Safety Guards or Flaps

Safety Guards or Flaps Requirement and Inspection.

Required on all:

Trucks, Light Trucks - Trailers and Semitrailers (In combination with a towing vehicle). If the rearmost axle of the vehicle or (combination) has at least four tires or more, or at least two super single tires. A super single tire is a wide based single tire that may be used in place of two standard tires on the same axle.

Safety Guards are Flaps are Not Required On:
1. Buses
2. Motor homes
3. Pole trailers
4. Truck-tractors

Safety guards or flaps shall be located and suspended behind the rearmost wheels of such vehicle or if in combination behind the rearmost wheels of such combination to within twelve (12) inches of the surface of the roadway. Safety guards or flaps shall be at least as wide as the tires they are protecting.

Safety guards or flaps shall be of metal, rubber, rubberized material, or other substantial material, capable of remaining in place back of rear wheels by their own weight while the said vehicle is being operated. The construction of safety guards or flaps will be such that they will remain in proper place back of rear wheels and will be rigid enough to prevent slush, mud, or gravel being transmitted from the vehicle's rear wheels to the windshield of the following vehicle.

When trailers and semitrailers are presented for inspection in combination, each trailer or semitrailer will be considered a separate vehicle and safety guards or flaps will be required on the rearmost axle of each trailer or semitrailer.

1. Inspection Procedure.

Check for presence and condition.

2. **Inspect for and reject if:**

a. Safety guard or flap is not present.
b. Safety guard or flap is not securely mounted.
c. Safety guard or flap is not as wide as the tires that it is protecting.
d. Safety guard or flap is split or torn to the extent that it is ineffective.
e. The bottom edge of safety guard or flap is more than twelve (12) inches from the surface of the roadway.

20.25 Seat Belts.

Front seat belts are required on every motor vehicle in which front seat belt anchorages were a part of the manufacturer's original equipment on the vehicle.

Anchorages defined: A seat belt anchorage consists of a threaded hole in suitable structure to receive the seat belt attachment fittings or a circular anchor which is welded to the vehicle chassis. Self-threading bolts are inserted into the anchor to form the complete seat belt anchorage assembly.

1. Inspection Procedure.

Inspect front lap seat belts for frayed, split, or torn webbing; malfunctioning buckles; and loose or damaged anchorages or floor pan. Vehicles originally equipped with automatic seat belts (shoulder belts) without front lap seat belts will have the automatic belts inspected.
Front lap belts only will be inspected in all other vehicles. The ignition seat belt interlock system is not an item of inspection.

2. **Inspect for and reject if:**

a. Front lap seat belts are required and not present.
b. Seat belt webbing is frayed, split, or torn.
c. Belt anchorages or attachment fittings are loose, badly corroded, missing, or not fastened to belt.
d. Belt buckles loose or inoperative.
e. All seat belt anchor bolts are not securely fastened to floor or are missing.
f. Pelvic restraint is not present.
g. Seat belt will not adjust to allow proper fit.

20.26 Side Marker Lamps

Refer to Reference Section for lighting diagrams.

1. Required on all:

Buses 80 inches or more in overall width.Trucks 80 inches or more in overall width. Trailers and semitrailers 80 inches or more in overall width. Trailers and semitrailers 30 feet or more in overall length. Pole trailers.

a. Side marker lamps shall, so far as is practicable, be mounted on the permanent structure of the vehicle in such a manner as to indicate the length of the vehicle.
b. Side marker lamps and clearance lamps may be mounted in combination, provided illumination is given as required by law.
c. Side marker lamps mounted on the front or on the sides near the front of a vehicle shall display an amber color.
d. Side marker lamps mounted on the rear or on the sides near the rear of a vehicle shall display a red color.
e. Side marker lamps shall be visible under normal atmospheric conditions at a distance between 500 feet and 50 feet from the vehicle on which mounted.
f. On buses and trucks 80 inches or more in overall width and trailers and semitrailers 80 inches or more in overall width:

    1. Two side marker lamps, one on each side, one at or near the front and one at or near the rear.

g. All trailers and semitrailers 30 feet or more in overall length are required to have mounted centrally located with respect to the length of the vehicle:

1. On each side, one amber side marker.

h. On pole trailers:

    1. On each side, one amber side marker lamp at or near the front of the load (if loaded).
    2. On the rearmost support for the load, one combination marker lamp showing amber to the front and red to the rear and side, or cluster of required color lamps.

2. Inspection Procedure.

Check operation and condition visually.

3. **Inspect for and reject if:**

a. Lamps are not present.
b. Lamps are not securely mounted and properly located.
c. Lamps do not emit required color; lens or bulb painted; or not steady burning.
d. Visibility requirements are not met. LED lights have less than 50% of diodes illuminated.
e. Lenses are discolored or missing.
f. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections.
g. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.
h. Lights which are not of equal intensity.
i. Lamp lenses repaired with repair tape or repair kit.
j. Requirements shown on lighting diagram are not met. Side marker lamp height requirements are not met.
k. Vehicles that are equipped and lighted by a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.)

20.27 Steering

The steering system of the vehicle must be inspected to determine if excessive wear and/or maladjustment of the steering linkage and/or steering gear exists. Wear and adjustment of the steering system will be checked by measuring lash. Vehicle must be on a dry surface.

Lash defined: Lash is the condition in which the steering control can be turned through some part of a revolution without front wheel motion. The wheels should be loaded and positioned straight ahead.

Jamming defined: Jamming is any obstruction to the turning of the steering control caused by interference between some components of the steering system. The obstruction would include tires too large or damaged fenders that would interfere with a full right or left turn.

1. Inspection Procedure.

Lash or Free Play: With steering axle tires in straight ahead position, turn steering wheel until the turning motion can be observed at the steering axle tires. Measure lash (See Chart Below). On vehicles equipped with power steering, the fluid level, belt tension and belt condition must be checked for compliance before starting the engine to check for proper operation of the steering. On vehicles equipped with power steering, the engine must be running when measuring steering lash.

2. **Inspect for and reject if:**

a. Steering Lash.

Steering Wheel Diameter	Manual Steering System	Power Steering System
14” or less	2”	3”
16”	2”	4”
18”	2”	4-3/4”
20”	2”	5”
22”	2-3/4”	5-3/4”

b. It is impossible to turn the steering wheel from full right to full left without binding or jamming other than at wheel stops.
c. Steering mechanism is not firmly attached and free of frame cracks or missing bolts.
d. Modification of the steering system so as to affect the proper steering of the vehicle or steering wheel has been modified or replaced with one that is noticeably smaller than original factory equipment.
e. Any excessively worn or broken parts in the steering system.
f. Visible leaks in power steering unit or hoses.
g. Power steering belt is excessively cracked, frayed, or has pieces missing or tension is not adequate. Serpentine belts

are not to be rejected merely for cracks in the ribs.

h. Fluid in power steering unit is below manufacturer's recommended level. Do not overfill.

i. On motorcycles and motor-driven cycles, handlebars or steering head is bent, loose, broken or damaged so as to cause unsafe condition in steering.

j. On vehicles equipped with flexible couplings, or energy-absorbing steering columns, when it is obvious through a visual inspection of the vehicle that the column has been damaged and is in an unsafe condition, it should be rejected. Tilt steering wheels must lock into position. Steering wheel must be securely mounted to the steering shaft.

20.28 Stop Lamps.

Every motor vehicle, trailer, semitrailer, and pole trailer shall be equipped with two or more stop lamps. Passenger cars and trucks manufactured or assembled prior to the model year 1960 shall be equipped with at least one stop lamp. At least one stop lamp is required on all autocycles, motorcycles, and motor-driven cycles.

A stop lamp must emit a steady burning red or amber light, or any shade of color between red and amber, be spaced as far apart as practicable and be visible from a distance of not less than 300 feet to the rear in normal sunlight. The stop lamp shall be actuated upon application of the service brake and which may, but need not, be incorporated with one or more other rear lamps.

Stop lamp lens must be of a type meeting Department of Public Safety standards.
On vehicles equipped with two stops lamps, the stop lamps shall be mounted on the same level and as widely spaced laterally as practicable.

1. Inspection Procedure.

Check operation and condition visually.

2. **Inspect for and reject if:**

a. Required lamp or lamps are not present.

b. Lamps are not properly located or securely mounted to the vehicle.

c. Lamp does not emit a steady burning red or amber light which is actuated on application of the service (foot) brake.

d. Lamp is not visible from a minimum distance of 300 feet to the rear of the vehicle to which it is attached. LED lights have less than 50% of the diodes illuminated. Lamp height requirements are not met (Refer to Lighting Diagram).

e. Lamp lens is painted, missing, discolored, or does not fit properly.

f. Wiring is shoddy or electrical connections are poor.

g. Lamp projects a glaring or a dazzling light.

h. Lamp is not mounted on rear of vehicle.

i. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.

j. Lamps which are not of equal intensity.

k. Lamp lenses repaired with repair tape or repair kit.

l. Any lamp assembly is cracked allowing water to enter or the lamp assembly contains standing water.

m. Must be steady burning.

n. Vehicles that are equipped with and lighted by a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.)

Center High Mounted Stop Lamp.

High-mounted stop lamp means a lamp mounted high and possibly forward of the tail, stop, and rear turn signal lamps intended to give a steady stop warning.

All passenger cars manufactured on or after September 1, 1985 shall be equipped with a red center, high mounted stop lamp.

All multipurpose passenger vehicles, trucks and buses less than 80 inches wide with a GVWR of 10,000 pounds or less, manufactured on or after September 1, 1993, shall be equipped with a red center, high mounted stop lamp. Any truck that has a camper shell that covers the red center high mounted stop lamp shall not be rejected. However, if the camper shell was manufactured with a red center, high mounted stop lamp it must be operable at the time of inspection. The red center, high mounted stop lamp, if required, will not be a substitute for any other required stop lamp.

Vehicles that are equipped from the manufacturer with approved lenses which are clear and lighted by L.E.D. lights will pass state inspection.

1. Inspection Procedure.

Check operation and condition visually.

2. **Inspect for and reject if:**

a. Required lamp is not present.
b. Lamp is not properly located or securely mounted to the vehicle.
c. Lamp does not emit a steady burning red light which is actuated on application of the service (foot) brake.
d. Lamp is not visible from a minimum distance of 300 feet to the rear of the vehicle to which it is attached. LED lights have less than 50% of the diodes illuminated. Lamp height requirements are not met (Refer to Lighting Diagram).
e. Lamp lens is painted, missing, discolored, does not fit properly or has any aftermarket tint applied over the center high mount stop lamp.
f. Wiring is shoddy or electrical connections are poor.
g. Lamp projects a glaring or a dazzling light.
h. Lamp is not mounted on rear of vehicle.
i. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.
j. Lamp which is not of equal intensity.
k. Lamp lens repaired with repair tape or repair kit.
l. Any lamp assembly is cracked allowing water to enter or the lamp assembly contains standing water.
m. Must be steadily burning.
n. Vehicles that are equipped with and lighted by a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.)

20.29 Tail Lamps.

Every motor vehicle, trailer, semitrailer, pole trailer, and any other vehicle which is being drawn at the end of a combination of vehicles shall be equipped with at least two tail lamps mounted on the rear which, when lighted, shall emit a steadily burning red light plainly visible from a distance of 1,000 feet to the rear, except that passenger cars and trucks manufactured or assembled prior to the model year 1960 shall have at least one tail lamp. On vehicles equipped with more than one tail lamp, the tail lamps shall be mounted on the same level and as widely spaced laterally as practicable.

Every tail lamp upon every vehicle shall be located at a height of not more than 72 inches nor less than 15 inches. Tail lamps are used only to designate the rear of a vehicle.

Every tail lamp upon autocycles, motorcycles, motor-driven cycles, or mopeds shall be located at a height of not more than 72 inches nor less than 20 inches. Tail lamp lens must be of a type meeting Department of Public Safety standards.

At least two tail lamps are required on all motor vehicles, trailers, semitrailers, and pole trailers, except that at least one tail lamp is required on autocycles, motorcycles, motor-driven cycles, and mopeds and all 1959 model year and earlier passenger cars and trucks.

Vehicles that are equipped from the manufacturer with approved lenses which are

clear and lighted by L.E.D. lights will pass state inspection.

Vehicles that are equipped with aftermarket lenses which are clear and lighted by a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.)

1. Inspection Procedure.

Check operation and condition visually.

2. **Inspect for and reject if:**

a. Required lamp or lamps are not present.
b. Lamp is not securely mounted to vehicle.
c. Lamp does not emit a steady burning red light plainly visible 1,000 feet to the rear. LED lights have less than 50% of the diodes illuminated.
d. Lamp lens is painted, missing, discolored, does not fit properly, or is any color other than red or clear.
e. Wiring is shoddy or electrical connections are poor.
f. Lamp is not wired so as to be lighted when head lamps or auxiliary driving lamps are lighted
g. Lamp is obstructed by any part of the body.
h. Lamp does not emit a red color.
i. Lamps are not mounted on the same level and as widely spaced laterally as practicable. Lamp height requirements are not met.
j. Lamps are not mounted on rear of vehicle.
k. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.
l. Lamp lenses repaired with repair tape or repair kit.
m. Lamps are not of equal intensity.
n. Is not steady burning.
o. Any lamp assembly is cracked allowing water to enter or the lamp assembly contains standing water.
p. Vehicles that are equipped with a red bulb will be rejected. (There are no red bulbs currently approved for use on vehicles.)

20.30 Tires.

Every motor vehicle (including autocycles, motorcycles and motor-driven cycles, trailer, semitrailer, pole trailer, and mobile home) registered in this state and operated on the streets and highways of this state and required to be inspected shall be equipped with tires in proper and safe condition.

Definition of terms:

Rim: A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

Bead: The part of the tire made of high tensile steel wires, wrapped and reinforced by the ply cords, which is shaped to fit the rim.

Bead Separation: A breakdown of bond between components in the bead area.

Sidewall: The portion of the tire between the tread and the bead.

Cord: Textile, steel wire strands forming the plies or other structure of the tire.

Cord Separation: Cord parting away from adjacent rubber compounds.

Ply: Layer of rubber coated parallel cords forming the tire body.

Ply Separation: A parting of rubber compound between adjacent plies.

Tread: The portion of the tire that comes in contact with the road.

Tread Separation: The pulling away of the tread from the tire carcass.

Tread Rib: A tread section running circumferentially around a tire.

Groove: The space between two adjacent tread ribs.

Tread Depth: The amount of tread design on the tire. Tread depth includes both original, retread, and recapped tread design; and in respect to special mileage commercial tire design.

Regroovable Commercial Tire: A tire manufactured with an extra layer of rubber between the cord body and the original tread design which extra layer is designed for the purpose of recutting or regrooving, and which tire is specifically labeled as a regroovable tire.

Belt: A layer or layers made of fabric or other material, located under the tread area.

1. Inspection Procedure.

Tires should be inspected visually and the tread should be measured with a tread depth gauge calibrated in 32nds of an inch if it does not have tread wear indicators. Some tire manufacturers have placed tread wear indicators at 5/32nds of an inch, do not reject tires so equipped unless the tread depth is less than 2/32nds of an inch when measured with an approved tire gauge. No tire shall be passed to be in safe operating condition unless it meets the visual and tread depth requirements set forth in these regulations.

Inspection of the spare tire is not required. All tires must appear to be properly inflated - even though a gauge check is not required.

The tread depth requirement of these regulations shall apply to both tires of each set of dual wheels. The other requirements will also apply to both tires in each set of dual wheels.

Dragster tires or racing slicks without sufficient tread or which have had all tread removed are not acceptable.

2. **Inspect for and reject if:**

a. Any tire with a localized worn spot that exposes the ply or cord through the tread.
b. Any tire with tread or sidewall cracks, cuts, or snags (as measured on the outside of the tire) in excess of one inch in any direction and deep enough to expose the body cords.
c. Any tire which has any visible bumps, bulges, or knots apparently related to tread or sidewall separation or partial failure of the tire structure, including bead area.
d. Any tire which has been regrooved or recut below the original groove depth, except special (regroovable) tires which have extra undertread rubber for this purpose (commercial vehicles only) and are identified as such.
e. Any dual wheel assembly where the side of one tire is in contact with the other. (Any dual tires that contact each other.)
f. Any tire that is marked “Not for Highway Use,” “Farm Use Only,” “For Racing Purposes Only,” or with other use restrictions that would indicate the tire is not meant for highway use. This would include vehicles using temporary spares, inflatables, or small high pressure spares.
g. Any tire which has been repaired temporarily by the use of blowout patches and boots. Nail hole plugs or patches are not cause for rejection.
h. Any tire without tread wear indicators worn so that less than 2/32 of an inch of tread design depth remains when measured with a tread depth gauge at the lowest points in any two adjacent major

grooves in the center or middle of the tire.

i. Any tire with tread wear indicators worn so that the tread wear indicators contact the road in any two adjacent major grooves in the center or middle of the tire.

Refer to Reference Section for further tire inspection procedures.

20.31 Turn Signal Lamps.

Every motor vehicle, trailer, semitrailer, and pole trailer shall be equipped with electrical turn signal lamps, except that passenger cars and trucks less than 80 inches in width and manufactured or assembled prior to the model year 1960 need not be equipped with electrical turn signal lamps.

If the bed, body, cab, load, and any other equipment on a vehicle or combination of vehicles exceeds 24 inches or more to the left of the center of the top of the steering post in the same horizontal plane (that is, as high as the center of the top of the steering post) or when the distance from the center of the top of the steering post to the rear limit of the body or load exceeds 14 feet, then turn signal lamps are required, even though a hand and arm signal can be seen and the vehicle was manufactured or assembled prior to model year 1960.

Vehicles equipped from the manufacturer with lenses are clear and lighted by L.E.D. bulbs will pass state inspection.

Required turn signal lamps must be visible to the front and to the rear of the vehicle.

1. Electric turn signal lamp types:

a. Single-faced units.
b. Double-faced units.
c. Arrow-faced units.
d. Kits designed to be used in conjunction with the parking light assembly.

2. Electric turn signal lamp flashers. All open-faced and arrow-type turn signal lamps must flash on and off in order to clearly indicate an intention to turn.

a. Turn signal lamps are required on those vehicles manufactured with a right-hand (steering wheel) drive, regardless of model year.
b. A single lamp (large double-faced unit) on each side of a truck-tractor, which is visible to the front and rear, will suffice for turn signal lamps.

3. Turn signal lamp mounting. The lamps showing to the front shall be mounted on the same level and as widely spaced laterally as practicable and, when signaling, shall emit a white or amber light or any shade of light between white and amber.

a. The lamps showing to the rear shall be mounted on the same level and as widely spaced laterally as practicable and, when signaling, shall emit a red or amber light or any shade of color between red and amber.
b. Turn signal lamps on vehicles 80 inches or more in overall width shall be visible from a distance of not less than 500 feet to the front and rear in normal sunlight. Turn signal lamps on vehicles less than 80 inches in overall width shall be visible from a distance of not less than 300 feet to the front and rear in normal sunlight.
c. Turn signal lamps may, but need not, be incorporated in other lamps on the vehicle.
d. Turn signal lamps shall indicate an intention to turn by flashing lamps showing to the front and rear of a vehicle. On a combination of vehicles, turn signal lamps shall indicate an intention to turn by flashing lamps to that side of the vehicle or combination toward which the turn is to be made.

e. Motorcycles, motor-driven cycles, and mopeds are not required to be equipped with turn signal lamps.
f. Semaphore or mechanical arm devices are not acceptable as turn signal lamps.

4. Inspection Procedure.

Check operation and condition visually.

5. **Inspect for and reject if:**

a. Lamps are required and not present.
b. Lamp is not securely mounted or properly located on the vehicle. Lamp height requirements are not being met (Check Lighting Diagram).
c. Lamp is not of a type meeting Department standards.
d. Lamp lens is discolored or missing.
e. Wiring insulation is worn, rubbed bare, or shows any evidence of burning, short circuiting, or poor electrical connections.
f. Switch is not convenient to the driver or indicator light does not operate. Selector switch must lock in proper turn position, if required for the signal to operate, when applied but need not cancel automatically.
g. Signal shows any color other than white or amber to the front, or signal shows any color other than red or amber to the rear.
h. Signal does not flash or is not operating properly.
i. Signal is not clearly visible to the front and to the rear of the vehicle for the required distances. LED lights have less than 50% of the diodes illuminated.
j. Lens is cracked or broken to the extent that a portion of the lens is missing and/or separated, permitting light from the bulb to emit through the crack or break.
k. Lamps are not of equal intensity.
l. Lamp lenses cannot be repaired with repair tape or repair kit.
m. Any lamp assembly is cracked allowing water to enter or lamp assembly contains standing water.
n. Vehicles that are equipped with clear aftermarket lenses lighted by a red bulb will be rejected (There are no red bulbs currently approved for use on vehicles).

20.32 Vehicle Identification Number, Motor, or Serial Number.

Make an actual physical check of the motor block, frame, or body part where such number is located and record through the electronic interface device. If the vehicle has no such number, enter “NONE” on the Vehicle Inspection Report and in the electronic interface device. If such number is obscured, “OBS” should be entered. Station or certified inspector suspension can result from taking this number from the old Vehicle Inspection Report, title, or registration receipt. The entire vehicle identification number must be used. Do not reject a vehicle because it has no vehicle identification number or motor or serial number. Vehicles with altered or removed vehicle identification numbers or motor or serial numbers should be reported to your Department representative.

20.33 Wheel Assembly.

The inspection of all wheels and rims will be visual. Spare wheels and rims will not be inspected.

Wheel covers or hubcaps may be removed from the vehicle if the certified inspector has probable cause or reason to believe that wheel or rim defects exist.

1. Inspection Procedure.

Examine visually.

2. **Inspect for and reject if:**

a. Loose, missing, or damaged wheel studs, bolts, nuts, or lugs.
b. Any part of the wheel is bent, cracked, rewelded, or damaged so as to affect safe operation of the vehicle.
c. Wheel nuts, studs, and clamps which are loose, broken, missing, or mismatched. Adequate thread engagement is imperative. Stud and nut threads on wheel lugs must engage completely through the entire threaded portion of the nut.
d. Rims and rings which are mismatched, bent, sprung, or otherwise damaged. Check for evidence of rim slippage - this is an indication of wear of loose nuts.
e. Disc wheels with elongated bolts, holes, or cracks between hand holes or stud holes, or both.
f. Cast wheels with cracks, evidence of wear in the clamp area, or both.
g. Rims have defects or cracks to the extent that they impair the safe mounting and proper retention of tires.
h. Any wheel cannot be securely fastened to the hub of the vehicle.
i. On motorcycles and motor-driven cycles, any spokes are bent, loose, broken, or missing.

20.34 Window Tinting.

All vehicles that have applied window coating, tinting, or sun screening on the windows must be inspected. Vehicles with windows which cannot be raised or lowered for the inspection of window tint will require that the inspection be terminated.

1. **Inspect for and reject if:**

a. Glass coating or sun screening devices on windshields:
    1. Extends downward beyond the AS-1 line or more than five (5) inches from the top of windshield on vehicles without an AS-1 line. Measurements shall be taken from inside the windshield; or
    2. is red, blue, amber in color or is a reflective type.

b. Glass coating or sun screening devices on windows:
    1. Windows immediately to the right and left of the driver, which open, have less than 25% light transmittance.
    2. If one window is inspected and has more than 25% light transmittance and the other window has window tinting which is obviously the same degree of sun screening, only the one window needs to be inspected

c. Check tint meter calibration before rejecting vehicle.

2. Exemptions:

a. The following will not be considered as sun screening or glass coating devices:

    1. Rearview mirror.
    2. Sun visors.
    3. Motor carrier destination signs.
    4. Rear window wipers and motors.
    5. Trunk lid handle or hinge.
    6. Luggage racks
    7. A clear (un-tinted) UV film is allowed anywhere on the front windshield without a medical exemption.

b. Do not inspect glass coating on vehicles used to transport passengers on a regular basis for a fee, (i.e., taxi, limousine, and buses).
c. Do not inspect glass coating on a vehicle that is maintained by a law enforcement agency and used for law enforcement purposes.
d. Vehicles used by persons with medical permits. Drivers of these vehicles must present a letter of authorization from the Texas

Department of Public Safety to gain this exemption.
e. Multipurpose vehicles may be equipped with any non-reflective film on the side windows that is to the rear of the driver. No label required. (Those motor vehicles designed to carry 10 or fewer persons constructed either on a truck chassis or with special features for occasional off-road use.)

1. **Medical Exemption Application.**

a. The medical exemption allows motorists to place a darker tint on the front side windows and the upper portion of the front windshield (top 5 inches or above the AS-1 line, whichever is less). The exemption does not, however, allow a motorist to place a sun screening device on any portion of the front windshield.

20.35 Windshield Wipers.

Every motor vehicle with a windshield must be equipped with a windshield wiper or wipers adequate for cleaning rain, snow, or other moisture from the windshield; in good working order; and constructed so as to permit operation and control by the driver of the vehicle.

All motor vehicles which were originally equipped (manufactured) with one wiper, only one wiper is required; if originally equipped (manufactured) with two or more wipers, all wipers will be required. Replacement of vacuum with electric or electric with vacuum wipers is permissible. Vehicles presented for inspection without windshields will not be required to have wipers. The windshield is not an item of inspection. Manually operated wipers are permissible if original vehicle equipment.

1. Inspection Procedure.

Inspect for satisfactory operation. If vacuum operated, engine must be idling and control full on. Inspect for proper contact of blades with windshield. Raise arm away from windshield and release. Arm should return to original position and wiper blade should contact the windshield firmly. The rear window is not considered a windshield and any wiper present on the rear window is not an item of inspection.

2. **Inspect for and reject if**:

a. Vehicle is not equipped with the number of wipers with which it was originally equipped.
b. Wiper is inoperative, does not operate freely, or is improperly adjusted.
c. Wiper blades have damaged, hardened, or badly worn rubber elements.
d. The portion of the rubber element that contacts the windshield is torn more than one inch on one end or is torn a total of one inch on both ends.
e. Any part of the rubber element is torn loose from the metal backing or blade base.
f. Metal parts of wiper blades or arms are damaged or come in contact with the windshield.
g. Wiper is incapable of adequately cleaning the windshield.
h. Wiper blades are not making proper contact with windshield
i. Wiper controls are not operating properly or are located beyond the driver's reach.
j. The rear window is not considered a windshield and any wiper present on the rear window is not an item of inspection.

20.36 Rejected Vehicles.

Every inspection must be a complete inspection before a vehicle may be approved or rejected. In case a vehicle is rejected and the owner fails to have the necessary adjustments made to the vehicle in conformance with the minimum requirements of the Texas Vehicle Inspection Act, the required inspection fee may be charged and a rejection receipt shall be issued which lists the items rejected and other required information. The rejection receipt must be delivered and explained to the owner or operator of the vehicle.

The owner or operator of a vehicle rejected must make or have made the necessary adjustment or repairs and return to the original inspection station for one reinspection within fifteen (15) days from the date of rejection (excluding the day of rejection), in order to obtain the one reinspection without charge. The vehicle owner or operator shall have the right to remove the vehicle to such place for correction upon paying the inspection fee and has the exclusive right to determine by whom any repairs will be made. The customer should be informed of all defects necessary to put the vehicle in passing condition.

A Vehicle Inspection Report must be issued by the certified inspector for a vehicle presented for inspection that does not pass the inspection requirements. Vehicle Inspection Reports are an official part of the inspection program. All Vehicle Inspection Reports must be signed by the certified inspector, and the original given to the customer.

Any inspection station which, for any reason, cannot reinspect a vehicle to which that inspection station has issued a failing inspection report shall return the full inspection fee. No vehicle will be rejected on any items not covered by the Vehicle Inspection Act.

A reinspection of a rejected vehicle by the initial inspection station shall only include a check of the items previously found defective unless any other obvious defects are noted. When a vehicle is repaired and returned for the one free reinspection within fifteen (15) days (excluding the day of rejection), no additional inspection fee may be charged. In the event the vehicle fails to pass this free reinspection, the inspection station's obligation is fulfilled. Any subsequent inspection shall be considered as a new inspection procedure. If the rejected vehicle is returned for reinspection to the original inspection station after the fifteen (15) days have elapsed from the date of rejection (excluding the day of rejection), or if the vehicle is presented to a different inspection station for reinspection, the vehicle will be handled as if it were being inspected for the first time.

20.37 Repairs.

The owner of a vehicle is under no obligation to have disclosed defects corrected by the inspection station. They may have the necessary work done where they desire or they may do it themselves. The inspection alone is all that is required. Although an owner has a right to have the necessary repairs or adjustments made wherever they wish, they often show by their actions or remarks that they expect to secure a passing VIR from some other person without having the defects corrected. Please report this at once to the representative supervising your inspection station. Investigation of such cases by this Department will be the most effective way of protecting both the inspection stations which are honestly conducting inspections and the motoring public. The fee is for your work in making the inspections. You shall collect your inspection fee at the time of inspection whether the vehicle passes or fails inspection.

Inspection stations shall not in any manner attempt to require owners or operators of disapproved vehicles to have the vehicles repaired at the inspection station. The repairs necessary for approval may be made at any place chosen by the owner or operator of the vehicle. Any and all repairs or adjustments must be specifically authorized by the vehicle owner or operator before being made by any inspection station.

After a defect requiring repair is discovered by an Official Vehicle Inspection Station, the owner of the defective vehicle shall have the right to ask for, and receive, an estimate of the cost of parts and labor necessary to accomplish such repair if the Official Vehicle Inspection Station is in the business of making such repairs. Said estimate shall not in any way obligate the owner

of the defective vehicle to have their vehicle repaired at the Official Vehicle Inspection Station, nor shall it create any right for the Official Vehicle Inspection Station to make such repairs.

Certain items of inspection require that established tolerances are necessary. It is necessary that every Official Vehicle Inspection Station inform the vehicle owner or operator of any borderline passage. This precaution should be taken in any instance where it can be of value to the owner of a vehicle for minimum conformance.

04.25.00-RECOMMENDED INSPECTION PROCEDURE

Recommended Inspection Procedure

*Check for evidence of Financial Responsibility/CNG tank expiration (if equipped) and/or documentation

Road Test

1. Check steering - lash and free movement (full turn without jamming)

2. Check brakes:

    a. Service - pedal reserve, stopping ability, and equalization

    b. Parking - holding ability

Inside the vehicle

1. Check head lamps - turn on - beam indicator and dimmer switch

2. Check horn - sound and actuating device

3. Check mirrors – view to the rear and mounting

4. Check seat belts - presence and condition.

5. Check turn signal lamps - switch and proper indication

6. Check windshield wipers - control and operation

Outside Vehicle

1. Check window tint (if required)

2. Check windshield wipers - required number and condition of blades

3. Check mirror - (mounting only if outside mirror required)

4. Check tail lamp(s) - operation and condition

5. Check stop lamp(s) - operation and condition

6. Check center high mount stop lamp – operation and condition

7. Check license plate lamp - operation and condition

8. Check reflectors - condition

9. Check turn signal lamps - operation and condition

10. Check head lamps - mounting, condition, and operation

11. Vehicles Over 80” in width - clearance lamps, side marker lamps, safety guards and flaps.

12. Check school buses - warning lamps, signs, fire extinguisher, crossover mirror, etc.

13. Check tires - tread depth and visible cuts

14. Check wheels and rims - defective or bent

Underneath the Vehicle

1. Check brake system for leaks

    a. Service - leaks, defective rods, or cables

    b. Parking - defective cables

4. Check catalytic converter - leaks, presence when required

5. Check exhaust system - muffler, exhaust pipe, tailpipe, mounting brackets, and hangers for presence and condition

Under the Hood

1. Check brakes - master cylinder fluid level - leaks

2. Check exhaust emission system - presence - if required
3. Check horn - mounting and wiring

4. Check exhaust system - manifold leaks

5. Check steering - belts - fluid level - leaks

6. Check motor number (if 1955 or earlier model)

Completion

1. Explain rejection should vehicle fail inspection.

2. Issue Vehicle Inspection Report, pass or fail.