

STATE OF UTAH DEPARTMENT OF PUBLIC SAFETY



OFFICIAL VEHICLE SAFETY INSPECTION MANUAL FOR PASSENGER VEHICLES AND LIGHT DUTY TRUCKS UP TO 26,000 GVWR

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SECTION 2 – TIRES AND WHEELS



When examining the tires and wheels, you should:

Check for cuts, cracks, or sidewall plugs.

It may be time to replace a tire that has:

- weather cracks, but no cords showing.

A tire is unsafe and needs to be replaced if it has:

- sidewall plugs, cuts, or cracks deep enough to expose cords.

Check tires for indication of tread separations.

A tire is unsafe and needs to be replaced if:

- tire integrity has been compromised due to visible bumps, bulges, or tire separation.

Check tire pressure for proper inflation with tire pressure gauge.

A tire is unsafe and needs to be repaired or replaced if:

- it is flat, has a noticeable air leak, or is inflated to less than half (50%) of the vehicle manufacturer's recommended tire pressure.

Check tires for re-grooving or re-cutting.

A tire is unsafe and needs to be replaced if:

- It is re-grooved and is not identifiable as re-groovable.

Check tires for "restricted usage only" markings.

A tire is unsafe and needs to be replaced if:

- It is marked "for farm use only", "off-highway use only", "for racing only", "for trailers only", or other non-highway use.

Check tires for the same size and same type of construction.

All tires on the same axle must be of the same size and construction, but mismatched tread design is allowed.

Tires on an axle must be the same size and same construction.

Check tire wear.

It may be time to replace a tire when:

- tread wear bars are touching the road surface.

A tire is unsafe and needs to be replaced if :

- the tread depth is less than 2/32 inch when measured in any two adjacent major tread grooves at three equally spaced intervals around the circumference of the tire. Tread depth measurement should not be measured by a tread wear bar.



A tire is unsafe and needs to be replaced if:

- secondary rubber is exposed in the tread or sidewall area.

Check wheels for damage and proper mounting.

A wheel is unsafe and needs to be repaired or replaced if:

- wheel bolts, nuts, studs, or lugs are loose, missing, or not properly fastened.
- wheels are bent, cracked, re-welded, or have elongated bolt holes.
- spacers are used to increase the wheel track width.
- Bead lock wheels are installed and do not meet the SAE J2530 Aftermarket Wheel Performance Requirements and Test Procedures. Bead lock wheels that meet this standard will be stamped with an SAE marking indicating the wheel meets the standard.



ADAPTER



SPACER

NOTE: A wheel adaptor changes the bolt pattern of a vehicle's hub and moves the wheel out allowing the use of custom wheel's for most cars. Wheel adapters are not spacers.

Check vehicle tires for proper size and weight load ratings.

Tires need to be replaced when:

- They do not meet the proper load rating for the vehicles actual weight (Gross Vehicle Weight).
- mounted on wheels that are not within tire manufacturer specifications.
- they make contact with any other vehicle parts or accessories.

Check that fenders and mudflaps are in place when required.

- Fenders or fender extenders must cover the full width of a tire.
- Rear tires must have the top 50% of the tire covered by mudflaps, fenders, or the vehicle body construction when required.
- Rear mudflaps must be directly aligned with the tire and at least as wide as the tire when required (required when original vehicle height has been altered).
- Fender flares or mud flaps must be made of durable material.
- Fender flares or mud flaps must be secured properly.



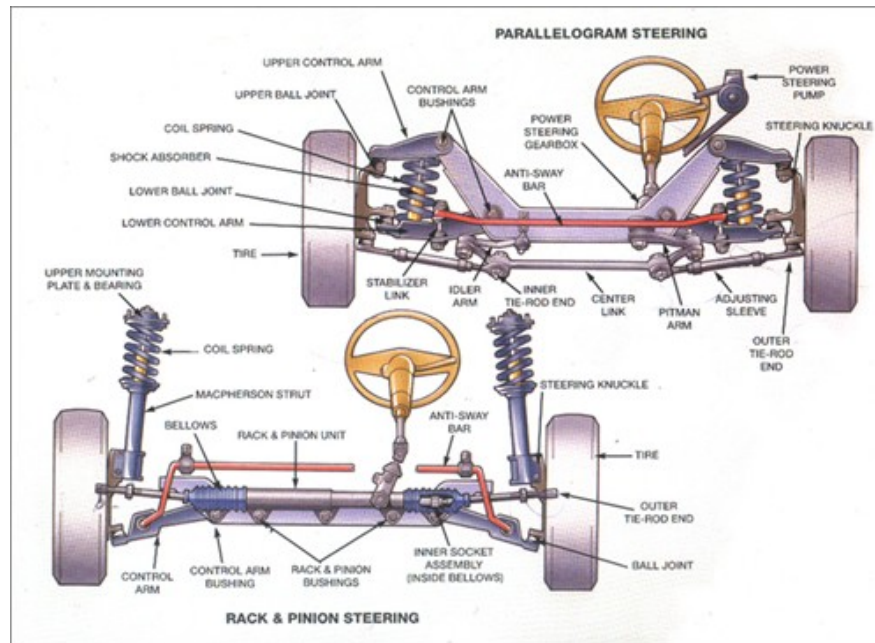
Check for studded snow tires.

Studded snow tires shall not be used between April 1 and October 14.



SECTION 3 – STEERING

NOTE: right-handed steering systems must be OEM. Waivers will not be granted for after-market conversions.



The steering system must be inspected to determine if excessive wear or maladjustment of the linkage or steering gear exist. Vehicle must be on a smooth, dry, level surface. On vehicles equipped with power steering, the engine must be running and the fluid level, belt tension and condition must be adequate before testing.

When inspecting the vehicle's steering system, you should:

Measure lash at steering wheel.

Repairs are needed when steering wheel movement exceeds:

- 2 inches for power steering.
- 3 inches for manual steering.
- 0.4 of an inch for rack and pinion.



Check the size of steering wheel.

The steering wheel needs to be replaced if:

- It is less than 13 inches in outside diameter or is not of full circular construction.

Check for binding or jamming conditions by turning the steering wheel through a full right and left turn without the brake being applied.

Repairs are needed when:

- Steering is incapable of being turned fully from right to left.
- One wheel turns before the opposite wheel.

Check the condition and tension of steering belts if the vehicle is equipped with power steering.

It may be time to replace the steering belts if:

- The belts are cracked or are not properly adjusted.

The steering belts must be replaced when:

- The belts are frayed or torn.

Check the condition of the power steering system, hoses, hose connections, cylinders, and valves.

These items must be repaired or replaced when:

- Hoses or hose connections have a dripping leak.
- Cylinders or valves have a dripping leak.

Check the condition of the pump and check for secure mounting and proper fluid level in the reservoir.

These items should be repaired or replaced when:

- Pump mounting parts are loose or broken.
- The system is inoperative.
- Reservoirs have a dripping leak.
- The fluid level is below minimum fluid level indicators.

Check for separation of the shear capsule from bracket and general looseness of steering wheel and column.

These items should be repaired or replaced when:

- The shear capsule is separated from bracket.
- The wheel and column can be moved as a unit.

Check movement on tilt steering wheels.

Tilt steering wheels must be repaired when:

- An adjustable steering wheel cannot be secured in all positions
- Steering column has 3/4 inch or more movement at the center of the steering wheel when it is in locked in position.
- Steering wheel and column is on the right side of the vehicle that is not OEM or the owner does not possess a valid waiver from the safety inspection office.

Check the idler arms and tie rod ends for looseness in excess of OEM specifications.

These items may need to be repaired or replaced when:

- Tie rod grease seals are cut, torn, or otherwise damaged to the extent that lubricant will not be retained.

These items must be repaired or replaced when:

- There is looseness in the tie rod ends or idler arm in excess of OEM specifications.
- The tie rod is bent, causing the vehicle to be out of alignment.

Conduct a thorough inspection of the complete rack and pinion system.

The system needs to be repaired or parts replaced when:

- There is any looseness in excess of OEM specifications.
- There is any looseness in the tie rod ends in excess of OEM specifications.
- There is a dripping leak.

Check the steering gear box for proper function.

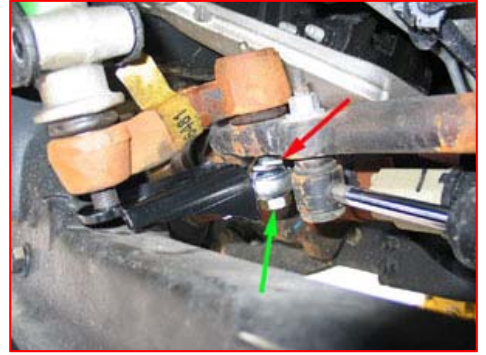
Repairs may be needed when:

- The gearbox on vehicle with manual steering has a dripping leak.



Repairs or replacements are required when:

- There is looseness at the frame or mounting.
- There are any cracks.
- Any mounting brackets are cracked.
- Any fasteners are missing.
- There is a dripping leak.
- Any welded repair is present.



Check the pitman arm.

Repairs or replacements are required when:

- The gearbox output shaft has movement inside the pitman arm.
- Any welded repair is present.

Check all wheel bearings for looseness with the vehicle lifted, by grasping the top and bottom of the tire and rocking it in and out.

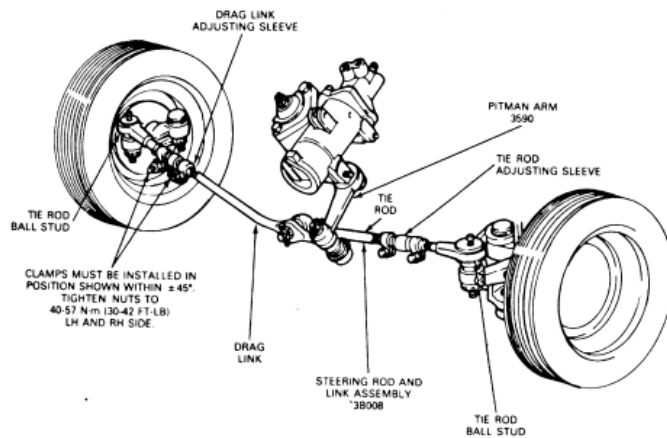
Repairs or replacements are required when:

Any bearing has movement of more than 1/8 inch when measured at the outer circumference of the tire.

Check all the steering components and axle nuts for required cotter pins.

Repairs or replacement is requires when

- Any cotter pins are missing or ineffective.



SECTION 4 – SUSPENSION



When inspecting the vehicle's suspension, you should:

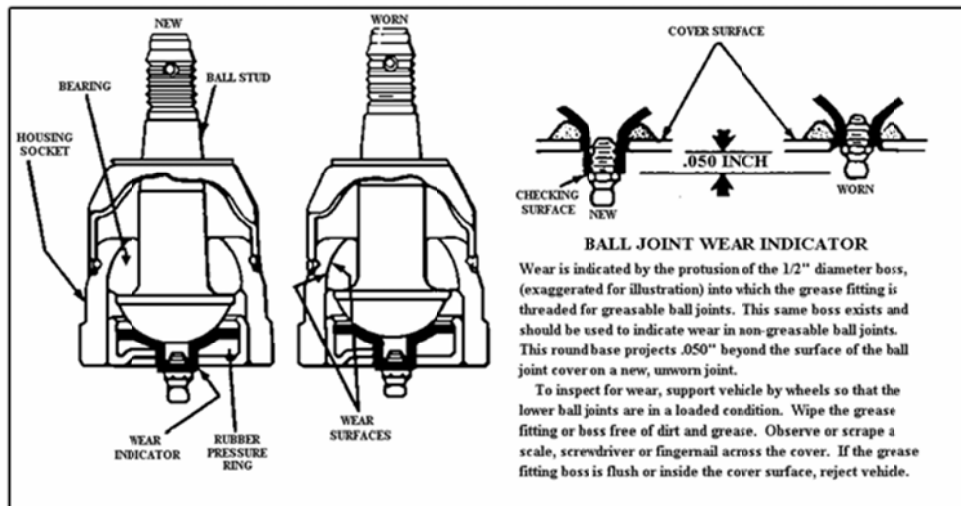
Support vehicle with the ball joints loaded and wheels straight ahead. Wipe the grease fitting and check to ensure the surface is free of dirt and grease. Determine if checking surface extends beyond the surface of the ball joint cover.

Repairs or replacements may be needed when:

- Any ball joint seal is cut, torn, or otherwise damaged to the extent it will not retain lubricant.

Repairs or replacements are required when:

- A ball joint wear indicator is flush or inside the cover surface.
- Ball joint movement is in excess of manufacturer's specifications.



If the vehicle does not have a wear indicating ball joint, unload the ball joints by raising the vehicle and checking the ball joint seals.

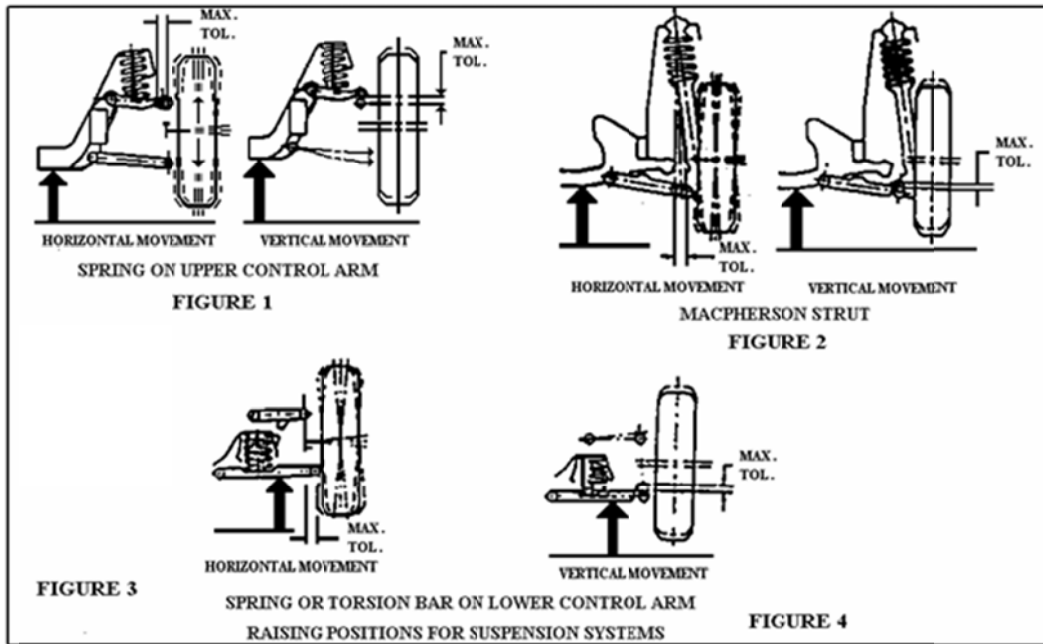
Repairs or replacements may be needed when:

- Any ball joint seals is cut, torn, or otherwise damaged to the extent that it will not retain lubricant.

Repairs or replacements are required when:

- The ball joint movement is in excess of manufacturer's specifications.





Position a pry bar under the front tire and with a lifting motion, sufficient to overcome the weight of the wheel assembly only, and move the wheel up and down.

Repair or replacement is required when:

- The ball joint movement is in excess of manufacturer's specifications.

Grasp the tire and wheel assembly at the top and bottom and move the assembly in and out to detect looseness.

Repairs or replacements are required when:

- Movement is in excess of manufacturer's specifications.

Visually inspect for broken or damaged leaf springs.

Repairs or replacement is required when:

- Springs are missing, cracked, broken, disconnected, or cut.
- Springs are sagging and allow the body to come in contact with the tires.

Check the spring shackles.

Repairs or replacement is required when:

- Shackles are damaged or loose.
- Shackles have been modified and don't meet OEM specifications.

Check the U-bolts.

Repairs or replacement is required when:

- The U-bolts are damaged, loose, or the bolts are not at least flush with the nut.

Check the coil springs.

Repairs or replacement is required when:

- Springs are broken or not properly attached.
- Springs have been heated, cut, are missing, or altered from OEM specifications.



Visually inspect the sway bars, torsion bars, and tracking components for damage.

Repairs or replacement is required when:

- Any sway bar, torsion bar, or any tracking component is loose, cracked, bent, or disconnected.
- Bushings are missing, worn, or distorted so that looseness is present.

Check the control arms for cracks, bends or breakage.

Repairs or replacement is required when:

- The upper or lower control arms are bent, cracked, welded, or otherwise do not meet OEM specifications.

Check the bushings for wear or distortion.

Repair or replacement is required when:

- The bushings are missing, worn, or distorted so that looseness is present.

Check the spring mounted strut assembly, which must be inspected very closely for leakage, shaft binding, and poor damping.

Repairs may be needed when:

- The struts have poor damping or leakage.

Repairs or replacement is required when:

- There is any wear in the upper mount assembly.
- There is any horizontal or vertical movement in the lower shaft mounting area.
- A shaft is bent or binding.

Visually inspect shock absorbers for looseness of mounting brackets and bolts.

Repairs or replacement may be needed when:

- The shocks have poor damping or leakage.

Repair or replacement is required when:

- Shock absorbers are missing or disconnected.
- Mounting brackets, bolts, or bushings are loose, broken, or missing.
- A shock is bent or binding.



Check the CV Axle and axle boots.

Repair or replacement may be needed when:

- The CV boots are cracked or torn.

Repair or replacement is required when:

- A CV joint makes popping or clicking noise while turning during test drive.

Check the U-joint for wear.

Repair may be needed when:

- Wear is found in the U-joint.

Repair or replacement is required:

- The U-joint, driveline, or supporting hardware is worn or damaged to the extent that component separation is imminent.



SECTION 5 – ALTERED VEHICLES

When inspecting lowered vehicles, you should:

Ensure that all replacement parts and equipment are equal to or greater in strength and durability as OEM parts.

Repairs, adjustments, or replacements are required when:

- Any part of the vehicle, other than tires, rims, or mudflaps, are less than three inches above the ground or contact the ground.
- The fuel tank is exposed to damage without a skid plate.
- Exhaust system brackets are not secure.
- Wheels or tires make contact with the body or other vehicle component.
- Tire tread is not fully covered by existing fenders or fender extenders
- Braking, steering, or suspension is modified, disconnected, or changed in any manner that may impair the safe operation of the vehicle.
- Main springs or shocks have been removed to accommodate a hydraulic or air suspension system.
- Headlamps are less than 22 inches from the ground when measured from the ground to the center of the low beam bulb.
- Any light does not meet mounting height specifications as outlined in the Federal Motor Vehicle Safety Standards.
- Chassis or suspension components have been altered or changed from OEM that reduces the vehicle stability and safety integrity.



NOTE: all measurements must be taken while the vehicle is on a flat, level surface and while unladen. If the door certification plate has been removed, the vehicle shall be considered to be 4500 lbs. GVWR.

When inspecting lifted vehicles, you should:

Check the braking and steering system components.

Repairs or replacements are required when:

- The braking or steering systems have been altered, modified, disconnected, or changed in any manner that may impair the safe operation of the vehicle.

Check vehicle lift by frame height measuring from the ground to the bottom of the frame on the left side of the vehicle under the driver's seat. If the door certification plate has been removed, the vehicle shall be considered to be 4,500 lbs.

Repairs or adjustments are required when:

- The frame height is greater than 24 inches on a vehicle with a GVWR less than 4,500 lbs.
- The frame height is greater than 26 inches on a vehicle with a GVWR of 4,500 lbs and less than 7,500 lbs.
- The frame height is greater than 28 inches on a vehicle with a GVWR of 7,500 lbs or more.

Check the body lifts above the frame.

Repairs or adjustments are required when:

- The lowest part of the body floor is raised more than 3 inches above the top of the frame.

Check the vehicle for front and rear axle blocks.

Repairs or adjustments are required when:

- Axle blocks have been added to the front axle.
- There are stacked blocks on the rear axle, which includes two blocks that have been welded together.
- There are stacked frames.

NOTE: Two blocks that have been welded together are still considered to be stacked blocks and in violation of UCA 41-6a-1630 (d).

Check vehicle tire and wheel track.

Repairs or adjustments are required when:

- A fender or fender extender does not cover the full width of a tire.
- Spacers are used.

Check the mudflaps if the vehicle has been altered, which includes the addition of larger tires and suspension lift kits.

Repairs or adjustments are required when:

- Fenders do not cover the top 50% of the tire when required.
- Mudflaps are not present on the rear wheels of a vehicle that has been altered from its original OEM specifications.
- Rear mudflaps are not directly aligned with the tire and do not cover the full width of the rear tires and have a ground clearance of not more than 50% of the diameter of a rear-axle wheel, under any conditions of loading the vehicle.

Check lights for proper height requirements.

Repair, replacement, or adjustment is required when:

- Any light does not meet mounting height specifications as outlined in the Federal Motor Vehicle Safety Standards.

Check fuel tank.

Repair or adjustment is required when:

- The fuel tank is exposed with no impact protection.

SECTION 6 – BRAKES



When using a plate brake tester, you should:

Follow the equipment manufacturer procedures for testing.
Be certified by the equipment manufacturer or an authorized agent of the division.
Renew the inspector certification every three years.
Ensure the manufacturer has certified the equipment annually.

Pull two wheels upon the failure of the plate brake test to check brake components.

Repairs are required when:

- Vehicle fails the plate brake test, even if the vehicle has adequate pad and or shoe thickness.

When conducting a visual inspection of a vehicle's brake system, you should:

Visual inspection through the wheel openings is not an approved inspection procedure for vehicles less than 10,000 lbs. GVWR and does not meet the safety inspection requirements.

Remove at least one front and one rear wheel for a brake inspection on all vehicles less than 10,000 lbs. GVWR.

- Vehicles over 10,000 lbs. GVWR are not required to have wheels pulled if the vehicle is equipped with inspection ports/slots.

Inspect the brake drum, linings, pads, discs, calipers, and the condition of all mechanical components.

- Visual inspection through the wheel openings is not an approved inspection procedure.
- Adjustment slots are not adequate for inspecting brakes or if the vehicle has open brake drums.

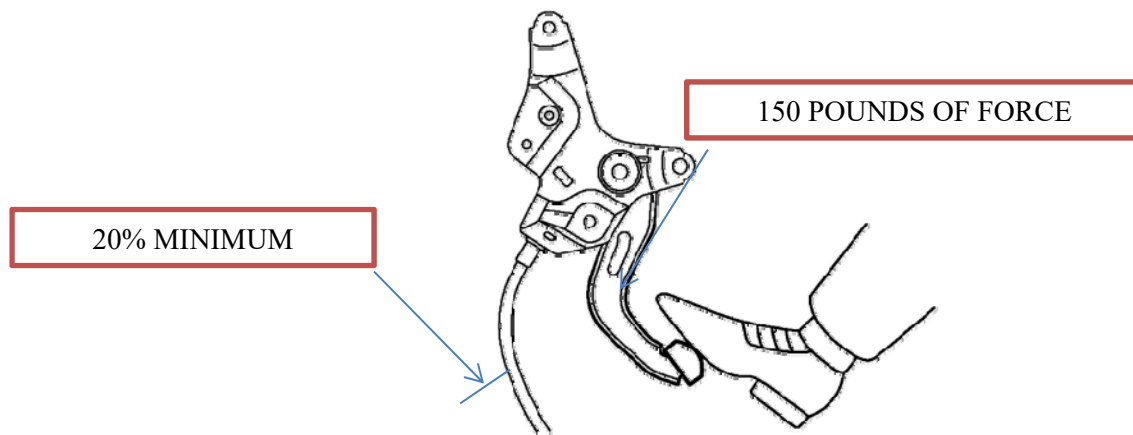
When inspecting the hydraulic brake system of a vehicle, you should:

NOTE: Some manufacturers allow for less than 20% pedal reserve. If unsure, check manufactures specifications.

Test the pedal reserve according to the manufacture's specifications.

Repairs are required when:

- There is less than 20% of the total available pedal travel when the brakes are fully applied.



Check the wheel cylinders for leakage.

Repairs are required when:

- Any wheel cylinders leak.

Inspect hydraulic hoses and tubes for exposed fabric cord, flattened, restricted, or unsecured lines.

Repair or replacement is required when:

- Hoses or tubing are cracked, leaking, or show exposed fabric cord, flattened, restricted, or are unsecured. (Brake hoses must be DOT approved and cannot be altered.)

Inspect master cylinder for leakage and fluid level.

Repairs are required when:

- Master cylinder leaks or fails to operate properly.
- Master cylinder is below the add line or less than 3/4 full, whichever is less.
- Master cylinder gasket is damaged.

When inspecting the dual hydraulic circuits of a vehicle, you should:

Check any vehicles equipped with a brake warning light and test for operation of light.

Repairs are required when:

- A warning light remains illuminated or comes on when brake pedal is depressed.
- A warning light does not operate when required. (Most vehicles can be checked by turning the key to the on position.)

When inspecting the brakes with vacuum assist of a vehicle, you should:

Check the condition of vacuum system for collapsed, broken, badly chafed, improperly supported tubes, and loose or broken hose clamps.

Repairs or replacements are required when:

- Hoses, tubes, or booster is leaking.
- The system is collapsed, broken, badly chafed, showing metal or fabric cord.
- The system is improperly supported or loose.
- Hoses or tubes are exposed to damage from excessive heat, debris, or rubbing.

Determine if the system is operating by turning off engine and depressing the brake pedal several times to deplete all vacuum in the system, and then starting the engine while maintaining pedal force and observe if the pedal falls slightly when the engine starts.

Repairs are required when:

- The service brake pedal does not fall slightly as engine is started and while pressure is maintained on pedal.

When inspecting the brakes with a hydraulic booster of a vehicle, you should:

Check the integrated Hydraulic Booster. With the ignition key in the off position, depress the brake pedal a minimum of 25 times (50 times on Jeeps with anti-lock brakes) to deplete all residual stored pressure in the accumulator. Depress the pedal with a light foot-force (25 lbs.). Place the ignition key in the on position and allow 60 seconds for the brake warning lights to go out indicating the electric pump has fully charged the accumulator.

Repairs are required when:

- The brake pedal does not move down slightly as the pump builds pressure.
- The brake warning lights remain on longer than 60 seconds.

Check the braking system, while fully charged, for leaks and proper fluid levels.

Repairs are required when:

- Fluid reservoir is below the add line or less than 3/4 full, whichever is less.
- System has broken, kinked or restricted fluid lines or hoses.
- System has any leakage of fluid at the pump or brake booster, or on any of the lines or hoses in the system.

When inspecting brake drums of a vehicle, you should:

Check the condition of the drum friction surface for damage, contamination, and substantial cracks.

Repairs or replacement is required when:

- There are substantial cracks, other than short hairline heat cracks, on the friction surface extending to the open edge of the drum.
- Any part of the brake drum is missing or is in danger of falling away.

Check for cracks on the outside of drum.

Repairs or replacement is required when:

- A brake drum has external cracks, other than short hairline cracks.

Check for mechanical damage.

Repair or replacement is required when:

- There is evidence of mechanical damage other than wear.

Check for leaks at all grease or oil seals.

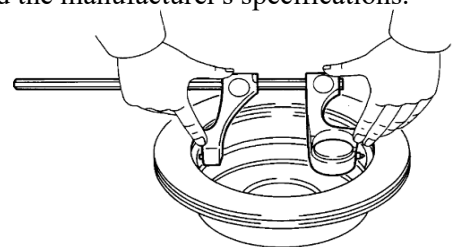
Repair or replacement is required when:

- The leakage of oil, grease, or brake fluid contaminates the brake components.

Check the drum diameter.

Repair or replacement is required when:

- The drum is turned or worn beyond the manufacturer's specifications.

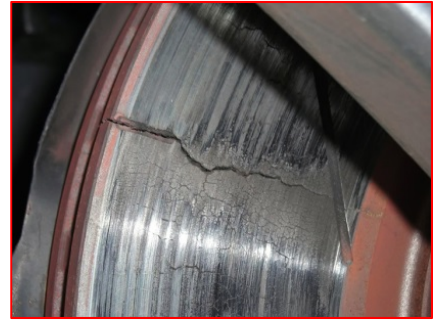


When inspecting brake rotors of a vehicle, you should:

Check the condition of the rotor friction surface for substantial cracks.

Repair or replacement is required when:

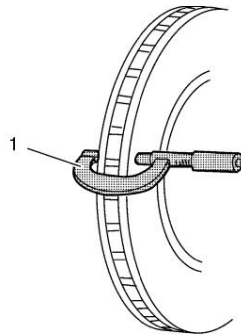
- There are substantial cracks, other than short hairline cracks, on the friction surface extending to open edge of rotor.
- The friction surface is contaminated with oil or grease.
- Any part of the brake rotor is missing or are in danger of falling away.



Check the rotor thickness.

Repair or replacement is required when:

- The rotor thickness is less than the manufacturer's specifications.



When inspecting the bonded lining and pads of a vehicle, you should:

Check the primary and secondary lining thickness at the thinnest point.

It may be time to replace the pads when:

- The lining thickness is worn to $2/32$ inch.

Replacement is required when:

- The lining thickness is worn to less than $2/32$ inch.

When inspecting the riveted lining and pads of a vehicle, you should:

NOTE: Calipers must be removed to accurately measure riveted pads.

Check for loose or missing rivets

Repair or replacement is required when:

- Any rivets are loose or missing.
- The lining thickness is worn to less than $2/32$ inch.

Check the primary and secondary lining thickness above the rivet head by measuring at the thinnest point with the calipers removed.

Replacement is required when:

The lining thickness is less than $2/32$ inch above any rivet head.

When inspecting the brake linings of a vehicle, you should:

Check for broken or cracked linings.

Repair or replacement is required when:

- The linings are broken, cracked, or not firmly and completely attached to shoe.



Check for contamination of the friction surface.

Repair or replacement is required when:

- The friction surface is contaminated with oil, grease, or brake fluid.
- Once a brake lining has been contaminated, replacement is required.

Check for uneven lining wear.

Replacement or repair may be needed when:

- The lining is uneven or grooved.

When inspecting the mechanical brake components of a vehicle, you should:

Check for missing or defective mechanical components.

Repair or replacement is required when:

- Mechanical parts are missing, incompatible, broken, or badly worn.

Check for frozen calipers, rusted or inoperative components, missing spring clips, and defective grease retainers.

Repair or replacement is required when:

- Any mechanical parts are frozen, inoperative, missing, or defective.
- The backing plate or brake shoe is damaged, restricting free movement of the brake shoe.

Check for restriction of shoe movement at the backing plate and for binding between the brake shoe and anchor pins.

Repair is required when:

- The shoes and anchor pins are improperly positioned or misaligned.



When inspecting the parking brake of a vehicle, you should:

Park/Emergency brake light indicator DOES NOT need to illuminate

Check holding ability.

Repairs are required when:

- The parking brake does not operate or fails to hold the vehicle.

Check the ratchet or the locking device.

Repairs are required when:

- The ratchet, pawl or other locking device fails to hold the brake in an applied position.



When inspecting the Anti-Lock Brakes (ABS) of a vehicle, you should:

Check the ABS warning light and system for proper operation.

Repairs may be needed when:

- The ABS light fails to light, fails to shut off after 60 seconds, or when 5 rapid beeps are heard when ignition switch is turned to the on position.
- ABS components are broken, missing, or disconnected.

SECTION 7 – LIGHTING



NOTE: Lenses that are patched with another automotive lens piece is an acceptable repair, so long as it is glued on and permanent. Any other repairs that are patched, taped, or covered with any other foreign material **MUST BE REPAIRED**.

NOTE: Utah law states lighting devices shall not be used if they “tend to change the original design or performance” of the original device (UCA 41-6a-1618).

NOTE: High intensity lighting (HID) components cannot be installed in vehicles manufactured with a halogen system. The electrical components are not intended to be interchangeable.

When inspecting the headlamps of a vehicle, you should:

Check headlamp from proper mounting.

Repairs or adjustments are required when:

- Mounting brackets are loose, missing, or damaged in any way so that a headlamp cannot be properly and securely mounted.
- A vehicle headlamp is lower than 22 inches or exceeds 54 inches, measured from the ground to the center of the headlamp.

Check headlamp for proper aim and lighting.

Repairs, adjustment, or replacement is required when:

- Headlight aim deviates more than four inches in any direction.
- A headlamp is less than 22 inches or greater than 54 inches measured from the ground to the center of the low beam.
- A headlamp fails to light properly.
- A headlamp projects other than white light.
- A headlamp is not marked USDOT approved.
- An aftermarket headlight, including a high intensity discharge kit), does not comply with Federal Standards (CFR 571).

Check headlamps for holes, breakage, and non-factory colored covers or non-transparent covers.

Repairs or replacement may be needed when:

- A headlamp has minor holes or cracks in the headlight lens.

Repairs or replacement is required when:

- A headlamp covering not approved by the department is placed on or in front of any headlamp, or a factory-installed light or cover is faded or painted to the point that components inside are not distinguishable.
- A headlamp cover is broken or missing.
- A headlamp cover is tinted, colored, or painted other than clear.

Check the dimmer switch for proper functioning and ensure that both high and low beams function.

Repairs are required when:

- The dimmer switch fails to work properly.

When inspecting the backup lights of a vehicle, you should:

Check for proper functioning.

Repairs may be needed when:

- The backup lights are missing or fail to light.

Repairs are required when:

- The backup lights remain illuminated when transmission is not in reverse.

When inspecting the hazard warning lamps of a vehicle, you should:



Check the hazard warning lamps for proper functioning.

Repairs are or replacement is required when:

- The hazard warning lamps fail to function properly.
- There is any tinted cover over the lens.

When inspecting a vehicle's interior lamps, you should:



Check the interior lamps for proper functioning.

Repairs are required when:

- Turn signal indicators, high beam indicator, or brake warning indicator fails to function.

This section does not apply to Park/Emergency brake light indicators.

NOTE: ILLUMINATED CHECK ENGINE LIGHT IS NOT A VIOLATION.

When inspecting the vehicle's parking lamps, you should:

Check the parking lamps for proper functioning.

Repairs or replacement is required when:

- Parking lamps fail to function properly or display an unapproved color.
- Any tinted cover is over the lens.

When inspecting the side marker lamps of a vehicle, you should:

Check for proper functioning and color.

Repair or replacement is required when:

- Side marker lamps are not functioning properly;
- Side marker lamps or side reflectors are not the correct color, which must be yellow or amber on the front of the vehicle and red on the rear of the vehicle.
- There is any tinted cover over the lens.

When inspecting the tail lamp assembly of a vehicle, you should:

Check for proper lens and required reflex reflectors.

Repair or replacement is required when:

- Rear lenses do not produce red light, are painted, or covered by any tinted cover.
- Lenses are missing required reflectors.
- There is tinting or material that obstructs the original design of the light.

Check lens covers for breakage.

Repairs are required when:

- A tail lamp lens is broken to the extent that any white light shows through the broken area.
- There is a tinted cover or temporary patch.

Check for the proper operation.

Repairs are required when:

- Tail lamps fail to light properly.

Check for proper mounting.

Repairs are needed when:

- Tail lamps are not securely mounted.

Check for visibility.

Repair or replacement is required when:

- Lamps are not visible from a distance of 500 feet in normal light.



When inspecting the stop lamps of a vehicle, you should:

Check the stop lamps for proper color.

Repair or replacement is required when:

- Stop lamp lens does not produce a steady burning red light.
- Is painted or tinted.
- Has any cover that partially or entirely obstructs the original design of the light.
- A stop lamp is a blue dot tail light.

Check the stop lamps for breakage.

Repair or replacement is required when:

- A stop lamp is broken to the extent that white light is visible to the rear.
- There is a tinted cover or a temporary patch.

Check for the correct operation of stop lamps.

Repair is required when:

- A stop lamp does not operate when required.
- A stop lamp fails to light properly.

Check for proper stop lamp mounting.

Repairs are required when:

- Stop lamps are not securely mounted.

Check the visibility of stop lamps.

Repair or replacement is required when:

- A stop lamp is not visible from a distance of 500 feet in normal light.
- LED lights have less than 50% of the diodes illuminated.
- Stop lamp lens does not produce a steady burning red light.
- Stop lamp is painted or tinted.
- Stop lamp has any cover that partially or entirely obstructs the original design of the light.

Check center high-mounted stop lamps, if applicable.

- Center high-mounted stop lamps are required on all passenger vehicles manufactured after September 1985.

NOTE: Some passenger vans and SUV's manufactured prior to 2003 may have center brake lights mounted under AS-3 privacy glass. These vehicles are okay as long as no aftermarket tint has been applied to the glass.

- Trucks whose overall width is less than 80 inches and GVWR is 10,000 pounds or less, manufactured after September 1, 1993, must be equipped with a high-mounted stop lamp.
- Trucks greater than 80 inches in overall width and 10,000 pounds GVWR do not require a high-mounted stop lamp.
- A truck equipped with a camper shell at the time of the inspection that covers the center high-mounted stop lamp is acceptable.
- A truck shell that was manufactured with a center high-mounted stop lamp is required to function if the truck is equipped with a high-mounted stop lamp.

Repairs are required when:

- A center high-mounted stop lamp is not present when required.
- A center high-mounted lamp fails to light.
- Any aftermarket tint has been applied over the center high-mounted stop lamp.
- LED lights have less than 50% of diodes illuminated.
- Lens does not produce a steady burning red light. (Unless equipped with a continuously flashing light system which causes the stop lamp to pulse rapidly for no more than five seconds when the brake is applied and then converts to a continuous light as a normal stop lamp until the time that the brake is released.)
- A center high-mounted stop lamp is painted.
- A center high-mounted stop lamp has a cover that partially or entirely obstructs the original design of the light.

When inspecting the turn signal operation of a vehicle, you should:

Check the turn signals on all vehicles manufactured in 1956 and later.

Replacement may be needed when:

- One of the two bulbs fails to illuminate in a two-bulb system.

Repair or replacement is required when:

- The vehicle is not equipped with proper signals.
- A turn signal fails to function.

Check the switch for proper functioning.

Repairs may be needed when:

- The switch does not cancel automatically for vehicles manufactured in 1956 or later.

Repairs are required when:

- The turn signal lever needs to be held in the on position.

Check the condition of the lens.

Repairs or replacement is required when:

- A turn signal lens is tinted, painted, broken or missing.
- Any tinted cover or foreign material is over the lens.
- There is a temporary patch on the cover or lens.

Check for proper mounting.

Repairs are required when:

- The turn signals are not securely mounted.

Check for the proper color of lens and bulbs.

Repairs or replacement is required when:

- Turn signal colors are not red, yellow, or amber in the rear of the vehicle.
- Turn signal color is not amber in the front of the vehicle.
- A turn signal lens or bulb is painted.

Check for visibility of lens.

Repairs or replacement is required when:

- Turn signals are not visible from a distance of 100 feet in normal light.

NOTE: Lighting requirements for all vehicles (FMVSS 108). No other colors than those notated are permissible. Neon lights are not acceptable.

LIGHT	COLOR	LOCATION	HEIGHT	NUMBER
Headlamps	White	On the front	Not less than 22 inches nor more than 54 inches	2 or 4
Turn Signal Lamps	Amber Red or Amber	At or near the front, at the same height, symmetrically about the vertical centerline, as far apart as practicable	Not less than 15 inches, nor more than 83 inches	2 or more
Tail lamps	Red	On the rear, at the same height, symmetrically about the vertical centerline, as far apart as practicable	Not less than 15 inches, nor more than 72 inches	2
Stop Lamps	Red	On the rear, at the same height, symmetrically about the vertical centerline, as far apart as practicable	Not less than 15 inches, nor more than 72 inches	2
Backup Lamp (not required on trailer)	White	On the rear	No requirement	1 or more
Hazard Lamp (same lamp as turn signal)	Amber red or Amber	Front/Rear	15" - 83" (F) (R)	2 or more(F) 2 or more (R)
Rear Reflector	Red	Rear	15" – 60"	2 or more
Side Marker Lamp (not required on truck-tractor)	Amber (F) Red (R)	On each side as far to the front as practical, and as far to the rear as practical	15" minimum for Front and Rear	1 front 1 rear both sides
Side Reflector (not required on truck-tractor)	Amber Red	On each side as far to the front as practical, and as far to the rear as practical	15"-60" 15"-60"	1 each side 1 each side
Intermediate Side Reflector (if vehicle overall length is 30' or greater)	Amber	Side near center	15"-60"	1 each side
Intermediate Side Lamp (if vehicle overall length is 30' or greater)	Amber	Side near center	15" minimum	1 each side
Parking Lamp (only if vehicle is less than 80" wide)	Amber or White	Front (not required on trailer)	15"-72"	2 or more
Identification Lamp	Amber	Front, spaced 6"-12" on center (not required on trailer)	As high as practical	3
	Red	Rear (not required on truck-tractor)	As high as practical	3
Clearance Lamp	Amber	Front, at widest point	As high as practical	2
	Red	Rear, at widest point (not required on truck- tractor)	As high as practical	2
License Plate Lamp	White	On the rear to illuminate license plate from top or sides	No requirement	1 or more

SECTION 8 – ELECTRICAL SYSTEM



When inspecting the electrical system of a vehicle, you should:

Check the horn.

Repairs may be needed when:

- The horn is not securely fastened.

Repairs are required when:

- The horn does not function properly or is not audible under normal conditions at a distance of at least 200 feet.

Check the electrical switches and wiring.

Repairs may be needed when:

- Electrical switches fail to function as designed for OEM required equipment.
- Connections show signs of corrosion.
- Permanent connection wires are not soldered and insulated.



Repairs or replacement is required when:

- Wiring insulation is worn or rubbed bare.

Check the automatic or manual transmission safety starting switch.

Repairs are required when:

- The starter operates in any gear other than "P" or "N" for an automatic transmission.
- The vehicle starter operates without the clutch depressed for a manual transmission, when equipped with a neutral safety switch.

Check for battery securement.

Repairs are required when:

- A battery is not properly secured.

NOTE: Battery shall not be secured by a temporary repair (i.e. Bungee Cord, Rope, zip-ties, duct tape, etc.).

SECTION 9 – VEHICLE WINDOWS



NOTE: Architectural glass and Plexiglas are prohibited

When inspecting the windshield of a vehicle, you should:

Check the windshield for appropriate "AS" certification number.

Replacement is required when:

- The windshield is missing.
- The windshield does not have AS-1, AS-10, or AS-14 markings.



Visually inspect the windshield for scratches, cloudiness, etching, or other marks.

Repairs or replacement is required when:

- The windshield glass is scratched, discolored, clouded, or pitted to a level that obscures vision.
- The windshield cloudiness is more than one inch from each side edge, more than four inches down from the top edge, or more than three inches up from the bottom edge.
- The windshield has decorative etching that is not OEM.

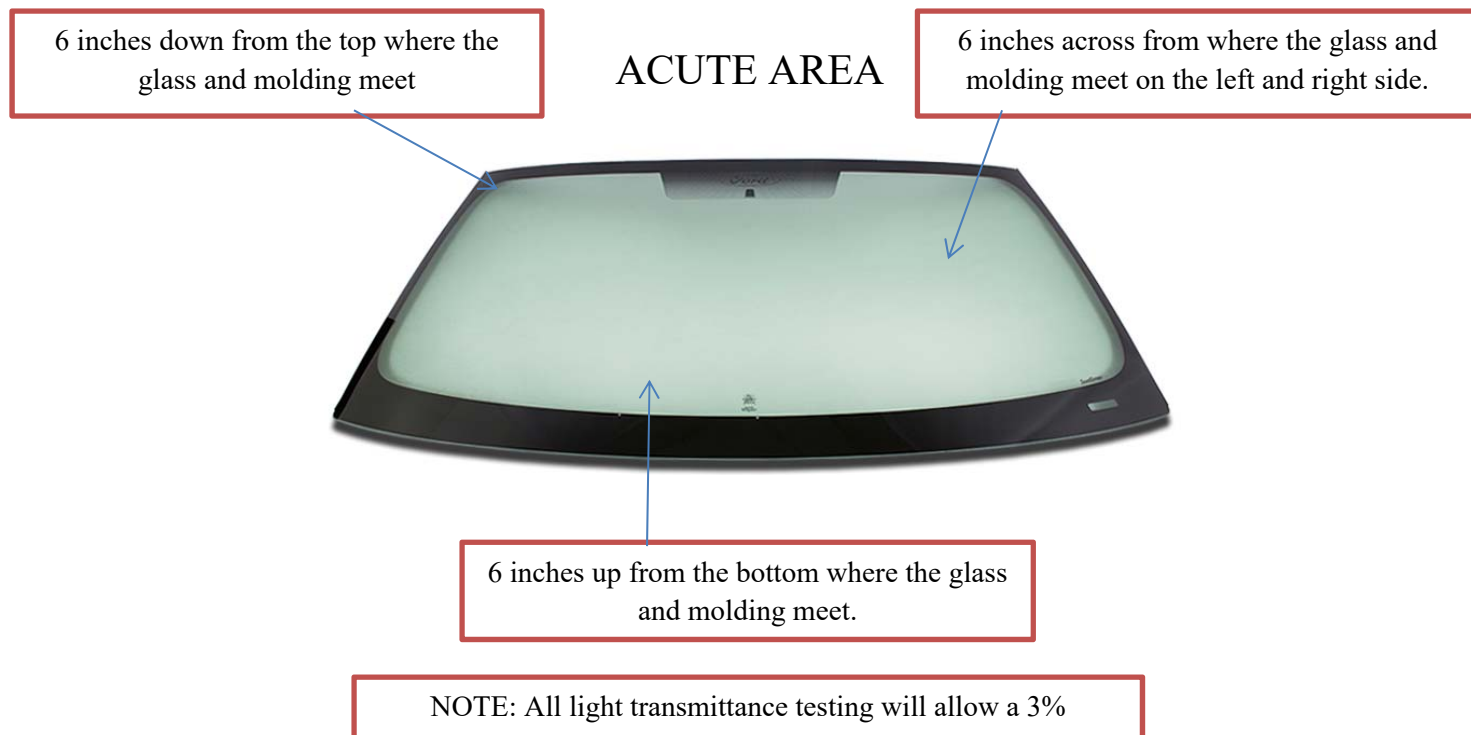
Check the windshield for damage, unauthorized tinting, signs, or other non-transparent materials.

Repair or replacement is required when:

- The windshield has outright breakage, which includes shattered glass on either the inside or outside surface, or any broken glass leaving sharp or jagged edges.
- Any crack intersects with another crack within the acute area.
- Any damage within the acute area that cannot be covered by a disc 3/4 inch in diameter (a penny).
- Any damage in the acute area that is within 3 inches of any other damage in the acute area.
- Windshield allows less than 70% light transmittance or any sign, poster, or other non-transparent material is present below the AS-1 line or four inches down from the top of the windshield, whichever is lower.
- Any transparent material becomes obscured or impairs the drivers vision and is more than one inch in from each side edge, more than four inches down from the top edge, or more than three inches up from the bottom edge.

Non-transparent material is allowed in the lower left-hand corner of the windshield provided, it does not extend more than 3 inches to the right of the left edge or more than 4 inches above the bottom edge of the windshield in accordance with Section 41-6a-1635.

NOTE: All measurements are taken on the outside of glass, from the edge where the glass and molding



When inspecting the windshield defroster of a vehicle, you should:

Verify a vehicle manufactured after January 1, 1969 is equipped with a windshield defroster system.

If applicable, turn on windshield defroster fan switch and inspect for heated air blowing over the inside of the windshield.

Repairs are required when:

- A vehicle manufactured after January 1, 1969 is not equipped with a windshield defroster system.
- The defroster fan fails to function or the fan functions but a stream of heated air cannot be felt blowing against the proper area of the windshield.

When inspecting the windshield wipers of a vehicle, you should:

Check for satisfactory operation of the windshield wipers (if vacuum operated, the engine must be idling).

Repairs may be needed when:

- Wipers fail to return to the park position.

Repairs are required when:

- Any wiper fails to function properly, other than streaking from wiper blades.
- A vehicle originally equipped with two windshield wipers has been modified to use one wiper.
- A vehicle manufactured after January 1968 does not have a two or more speed system.



Check the wiper blades for damaged, torn, or hardened rubber elements.

Replacement is required when:

- The wiper blades show signs of physical breakdown of the rubber wiping element.



Check for damaged metal parts of wiper blades or arms.

Repair or replacement is required when:

- The wiper blades or arms are missing or damaged to the extent that they do not function properly.

Check for proper contact of blades with windshield.

Repair or replacement is required when:

- A wiper blade fails to contact the windshield firmly.

When inspecting the windshield washers of a vehicle, you should:

NOTE: Rear window wipers are optional and do not need to work.

Verify a vehicle manufactured after May 1966 is equipped with a windshield washer system.

If applicable, check for proper operation of hand or foot control and that an effective amount of fluid is delivered to the windshield.

Repairs are required when:

- A vehicle manufactured after May 1966 is not equipped with a windshield washer system.
- The windshield washer system fails to function properly, including cracked or broken hoses or if the fluid reservoir is unable to hold fluid.

When inspecting the front side windows of a vehicle, you should:

Check the operation of the driver window and front passenger window.

Repairs may be needed when:

- The driver window cannot be readily opened to permit arm signals.

Repairs are required when:

- The driver or front passenger window fails to roll up.

Check the driver and front passenger windows for tinting or shading, scratches, discoloration, and cloudiness.

Repairs or replacement may be needed when:

- The driver or front passenger window is scratched, discolored, or clouded, but the driver's view of the side mirrors is unobscured.

Repairs or replacement is required when:

- There is any tinting or non-transparent material added to the windows to the immediate left or right of the driver's seat that allows less than 43% light transmittance.
- The front left and right side windows are scratched, discolored, clouded, or etched with non-OEM markings to a level that obstructs the drivers' view of the side mirrors.
- The right side mirror is missing when any window is tinted.
- Windows are covered by or treated with a material, which presents a metallic or mirrored appearance when viewed from the outside of the vehicle.

Check the driver and front passenger windows for breakage.

Repairs or replacement is required when:

- Any glass is broken, shattered, or jagged.

Check the wind deflectors (bubbles) when present.

Repair or replacement is required when:

A wind deflector on the driver or front passenger window is tinted to allow less than 43% light transmittance, or when deflector and window are both tinted to allow less than 43% light transmittance.

NOTE: This applies only to wind deflectors on the front, left and right windows of the driver, which block visibility to the left and/or right mirror.

When inspecting the rear side window of a vehicle, you should:

Check the windows behind the driver and passenger doors for tinting or for material that presents a metallic or mirrored appearance.

Repair or replacement is required when:

- Any window is covered by or treated with a material that presents a metallic or mirrored appearance when viewed from the outside of the vehicle.
- Any glass is broken, shattered, or jagged.
- Windows do not meet AS standards.
- Center high-mounted brake light is covered with aftermarket window tint or is not visible.

All windows behind the driver do not have window tint limits.

Check the vehicle for rearview mirrors.

Repair or replacement is required when:

- The vehicle lacks a left rearview mirror that meets OEM standards.
- The vehicle has only one review mirror; or
- Lacks a right outside rearview mirror if the vehicle has any amount of tint on its windows.

SECTION 10 – BODY



When inspecting the body of a vehicle, you should:

Check the vehicle body for protruding metal parts, moldings, and other body parts that may protrude from vehicle, creating a hazard.

Repairs are required when:

- Metal, molding, or any other body part protrudes from the surface of the vehicle and creates a hazard.

Check parts and accessories for proper securement.

Repairs are required when:

- Parts or accessories are not properly secured.

When inspecting bumpers of a vehicle, you should:

Check bumpers to ensure they meet OEM specifications in vertical height, are centered on the vehicle's centerline, connected securely to the vehicle frame, and extend the entire width of the vehicle wheel track.

Repairs or replacement is required when:

- Bumpers are not 4.5 inches in vertical height.
- Bumpers do not extend to the entire width of original body wheel track.
- Bumpers are missing, improperly attached, broken, or have portions protruding which create a hazard.
- Bumpers are not made from a material that is strong enough to effectively transfer impact.

A pickup truck is required to meet the requirements of this section even though it may be sold or purchased without a rear bumper meeting OEM standards.

Roll pans are not bumpers and are only acceptable when a material is concealed behind the roll pan that meets the strength, vertical height, and securing requirements of a rear bumper. This material must extend the width of the wheel track and must meet all of the requirements of a rear bumper.

NOTE: Pickup trucks are designed and manufactured for a rear bumper with OEM standards. However, pickup trucks can be sold and may be purchased without a rear bumper. The vehicle owner has the responsibility for compliance with Utah law (41-6a-1632 UCA) when the vehicle is operated on Utah roads.

NOTE: Roll pans are not bumpers and are only acceptable when a material is concealed behind the roll pan that meets the strength, vertical height, and securing requirements of a rear bumper. This material must extend the width of the wheel track and meet the requirements of a rear bumper.

Check for removal or alteration of front and rear fenders.

Repairs or replacement is required when:

- Any fender has been removed or altered to such extent that it does not cover the entire width and upper 50% of the tire.



NOTE: Fenders, bumpers and hoods are optional on replica vehicles 1935 and older.

When inspecting the seats of a vehicle, you should:

Check seats for proper operation of adjusting mechanism and to see that the seats are securely anchored to the floor.

Repairs are required when:

- Seats are not anchored to the floorboard.
- The seat adjusting mechanism slips out of set position.
- The seat adjusting mechanism does not function properly.
- Any driver or passenger seat back is broken or disconnected from the base so that it will not support a person's full weight.
- Seat belts are not installed when required or are inoperative when present.
- Seat belts are cut, torn, frayed, or otherwise damaged.



Check motorized safety belts for proper function.

Repairs may be needed when:

- A motorized seat belt does not function as designed.

Repairs are required when:

- Motorized seat belts fail to lock in the rear position.

When inspecting the air bags of a vehicle, you should:

Check the Air Bag Readiness Light.

Repairs may be needed when:

- Air bag indicator fails to light in the manner prescribed by the manufacturer, continuously flashes, remains illuminated, or if five sets of "beeps" are heard concurrent with indicator failing to light.



Check the air bags.

Repairs are required when:

- An air bag has been deployed or is not present when originally equipped on the vehicle.



When inspecting the floorboards of a vehicle, you should:

Check the floorboard in both the occupant compartment and trunk for rusted areas or holes that could permit entry of exhaust gases or will not support occupants adequately.

Repairs are required when:

- Any area of the floorboard is rusted through sufficiently to cause a hazard to an occupant.
- Exhaust gases could enter the occupant compartment or trunk.



Check the space between the floor pan and frame for body lifts.

Repairs or adjustments are required when:

- The lowest part of body floor is raised more than three inches above top of frame.

When inspecting the doors of a vehicle, you should:

Check the doors and door components for proper operation.

Repairs or replacements are required when:

- Doors are missing, unless the vehicle manufacturer specially designed the doors to be removed.
- Door parts are missing, broken, or sagging to the extent that the door cannot be opened and closed properly.
- Any interior and exterior door handles are not present or do not function as designed by the manufacturer.

Shaved door handles with automatic releases are allowed provided that when the engine is running and the vehicle is in drive, the wireless remote cannot activate door release switch.

When inspecting the hood of a vehicle, you should:

Check all vehicles for hood or engine cover.

Repairs are required when:

- The hood or engine cover is missing.
- The hood is unable to be opened.

Check the hood and open it to check the safety catch for proper operation.

Repairs are required when:

- The secondary or safety catch does not function properly.

Check for proper hood operation.

Repairs are required when:

- The hood latch does not securely hold the hood in its proper fully closed position.

Check for aftermarket hood scoop or air intake.

Repairs, adjustment, or replacement is required when:

- A hood scoop, air intake, or any engine component is higher than four inches above the top of the hood.
- Moving parts are exposed above the hood.

When inspecting the frame of a vehicle, you should:

Check the frame and ensure that any repairs made to the frame meet OEM specifications.

Repairs are required when:

- There is any broken or cracked frame component.
- The frame is rusted through.
- The frame has been cut or portions of the frame have been removed, drilled, or bent, affecting the strength or integrity of the frame.
- Repairs made to the frame do not meet OEM specifications.



When inspecting the mounts of a vehicle, you should:

Check all mount components, including motor mounts, transmission mounts, and drive train mounts.

Repairs or replacement may be needed when:

- Heat cracks are present.

Repairs or replacement is required when:

- Any mount bolts or nuts are broken, loose, or missing.
- The rubber cushion is separated from the metal plate of any mount.
- There is a split through the rubber cushion.
- The engine or transmission is sagging to the point where the mount bottoms out or there is engine misalignment to the point of a drive train component compromise.
- Fluid-filled mounts are leaking (leakage must be verified from the mount).

When inspecting the exterior rearview mirrors of a vehicle, you should:

Check exterior mirrors from the driver's position for a clear and reasonably unobstructed view to the rear.

- Verify one driver-side mirror that meets OEM standards is equipped on a vehicle manufactured after January 1968.
- Verify one passenger-side mirror is equipped on a vehicle with tinted windows or an obstructed rear view.

Repairs are required when:

- The required mirrors are not present.
- Driver-side mirror does not meet OEM standards.

Verify mirrors are in the correct location and are mounted securely.

Check for cracks, sharp edges, or unnecessary protrusion.

Repairs are required when:

- Mirrors are loose enough that the driver's rear vision could be impaired.
- Mirrors are cracked, pitted, or clouded to a level that obscures the driver's rear vision.
- Mirrors will not maintain a set adjustment.
- Mirrors do not allow 200 feet of rear visibility.

When inspecting the interior rearview mirror, you should:

Check the mirror (if an interior rearview mirror is required) for proper mounting, location, cracks, sharp edges, and ease of adjustment.

Repairs are required when:

- The interior mirror is loosely mounted.
- The interior mirror obstructs the drivers' forward vision.
- The interior mirror does not provide a clear view of the highway at least 200 feet to rear.
- The interior mirror is cracked, broken, has sharp edges, or rear vision is obscured.
- The interior mirror will not maintain a set adjustment.

NOTE: One mirror on driver's side is required on all vehicles manufactured after January 1968. In addition, a mirror on the passenger side is required when tinting is present or the rear view is obstructed.

When inspecting the speedometer of a vehicle, you should:

Check the vehicle to ensure that it is equipped with a properly functioning speedometer.

Repairs may be necessary when:

- The speedometer is not functioning properly.



SECTION 11 – EXHAUST SYSTEM



NOTE: After Market Muffler Devices: (UCA 41-6a-1626(b)). Every motor vehicle shall at all times be equipped with a muffler or other effective noise suppression system in good working order and in constant operation. A person may not use a muffler cut-out, bypass, or similar device. Excessive or unusual noise is prohibited. (Additional noise ordinances may be enforced by a city and/or county agency).

NOTE: Cherry Bomb/Glass Packs are acceptable noise suppression devices. Resonators alone are not.

When inspecting the vehicle's exhaust system, you should:

Check the manifold, exhaust or header pipe, mufflers, tail pipes, and the supporting hardware.

Repairs are required when:

- The muffler is missing.
- The exhaust system has leaks of any kind on any part of the system, excluding drain holes installed by the manufacturer.
- Any part of the system is not securely fastened or is secured in a manner that is likely to fail, such as using a rope to secure the tail pipe.
- The tail pipes do not extend beyond the outer periphery of the passenger compartment, discharge at any point forward of the passenger compartment, or are severely bent or broken.
- The exhaust system passes through any occupant compartment.
- A muffler cutout or similar device is installed.
- Any part of the exhaust system that is located or exposed in a manner that a person will likely be burned or injured.
- Any part of the exhaust system is located so that it would likely result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

SECTION 12 – FUEL SYSTEM



NOTE: Containers shall be located to minimize the possibility of damage to the container and its fittings. They shall not be mounted directly on roofs or ahead of the front axle or beyond the rear bumper of a vehicle. No part of a container or its appurtenances shall protrude beyond the sides or top of the vehicle. Containers located less than 18 inches from the exhaust system, the transmission, or a heat-producing component of the internal combustion engine shall be shielded by a vehicle frame member or by a noncombustible baffle with an air space on both sides of the frame member or baffle. For tanks that are installed inside a passenger compartment, they shall be installed in an enclosure that is securely mounted to the vehicle, such as a trunk which is gastight with respect to the passenger compartment and is vented to the outside of the vehicle. Manual shutoff valves shall be designed to provide positive closure under service conditions and shall be equipped with an internal excess-flow check valve designed to close automatically at the rated flows of vapor. The manual shutoff valve when put in the closed position shall stop all flow to and from the container and should be readily accessible without the use of tools, or other equipment. A check valve will not meet this requirement.

NOTE: Make sure that the fuel tank is not exposed or unprotected. Tanks that are installed under a vehicle may not be mounted ahead of the front axle or behind the point of attachment of the rear bumper. Tanks shall be protected from physical damage using the vehicle structure, valve protectors or a suitable plastic or metal shield. A tank that is installed in the bed of a truck must be protected with a shield over the top and down any exposed sides. Shields shall be installed in a manner that prevents direct contact between the shield and the fuel tank. The shield shall also prevent the trapping of solid materials or liquids between the shield and tank that could damage the container or its coating. (NFPA 52, 6.3).

When inspecting a vehicle that uses diesel or gasoline, you should:

Check the fuel tank, fuel tank support straps, filler tube, tube clamps, fuel tank vent hoses or tubes, filler housing drain, overflow tube, and fuel filler.

Repairs are required when:

- i. There is fuel leakage at any point or there are escaping gases detected in the system.
- ii. The fuel tank filler cap is missing.
- iii. Any part of the system is not securely fastened or supported.
- iv. There is physical damage to any fuel system component.
- v. The crossover line is not protected and drops more than two inches below fuel tanks.

When inspecting a vehicle with a fuel system that uses liquid propane gas (LPG), you should:

NOTE: The mere presence of a propane odor (Ethyl Mercaptan) does not necessarily mean that a leak exists. An inspection utilizing the soap test with antifreeze must be utilized. Leaks are commonly found in the vaporizer, fuel lines, or fuel line connections.

Check the fuel tank, fuel tank support straps, filler tube, tube clamps, fuel tank vent hoses or tubes, filler housing drain, overflow tube, fuel filler cap, and conversion kit installations.

Check for leaks by using the soap test with antifreeze.

Check that the fuel container is installed in a way to prevent it from jarring loose, slipping, or rotating.

Check that containers are located to minimize the possibility of damage to the container and its fittings.

Check that containers located less than 18 inches from the exhaust system, the transmission, or a heat-producing component of the internal combustion engine are shielded by a vehicle frame member or by a noncombustible baffle with an air space on both sides of the frame member or baffle.

Check that the piping system is installed, supported, and secured in such a manner as to minimize damage due to expansion, contraction, vibration, strains, and wear. Protection to the piping system may be achieved by parts of the vehicle furnishing the necessary protection, a fitting guard furnished by the manufacturer of the container, or by other means to provide equivalent protection.

Check that container valves, appurtenances, and connections are protected to prevent damage from accidental contact with stationary objects or from stones, mud, ice, and from damage from the vehicle's overturn or similar accident.

For a tank installed inside a passenger compartment, check that it is installed in an enclosure that is securely mounted to the vehicle, such as a trunk which is gas-tight with respect to the passenger compartment and is vented to the outside of the vehicle.

Check that manual shutoff valves provide positive closure under service conditions, are equipped with an internal excess-flow check valve designed to close automatically at the rated flows of vapor, stop all flow to and from the container when put in the closed position, and are readily accessible without the use of tools or other equipment. A check valve will not meet this requirement.

Repairs are required when:

- There is fuel leakage at any point or there are escaping gases detected in the system.
- The fuel tank filler cap is missing.
- Any part of the system is not securely fastened, supported, or the tank valve is not shielded.
- There is physical damage, such as excessive denting, corrosion, bulging, gouging, or corrosion, to any fuel system component.
- The fuel lines have any corrosion.
- Welding is present, with the exception of being on saddle plates, lugs, pads or brackets that are attached to the container by the container manufacturer.
- Excessive surface rust on the tank or tank paint coating is in poor condition.
- There is any installation hazard present that may cause a potential hazard during a collision.
- A container is mounted directly on roofs or ahead of the front axle or beyond the rear bumper of a vehicle.
- A container or its appurtenance protrudes beyond the sides or top of the vehicle.
- The vehicle does not have a weather-resistant, diamond shaped label located on the right rear of the vehicle identifying the vehicle as a 'PROPANE' fueled vehicle.
- A data plate (saddle plate) is not present or is not legible on a propane tank.
- Any aftermarket data plates are welded on the tank.
- A check valve is used for a manual shutoff valve.

ASME (American Society of Mechanical Engineers) containers are installed permanently to vehicles and are not subject to the DOT inspection requirements.

All liquefied propane gas containers fabricated to earlier editions of regulations, rules, or codes listed in NFPA 5.2.1.1 and of the Interstate Commerce Commission (ICC) Rules for Construction of Unified

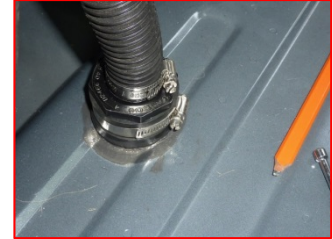
Pressure Vessels, prior to April 1, 1967, shall be permitted to continue to be used in accordance with Section 1.4 of NFPA.

Containers that have been involved in a fire and show no distortion shall be re-qualified by a manufacturer of that type of cylinder or by a repair facility approved by DOT, before being used or reinstalled.

SAFETY ALERT: CNG is lighter than air. It can accumulate in sealed spaces, not vented to atmosphere: Use extreme caution when working around CNG systems. At no time shall an inspector attempt to conduct maintenance or alterations to any alternative fuel system, unless that inspector is currently certified and trained in alternative fuel conversion installations. Working around these systems is extremely dangerous and requires extensive training.

When inspecting a fuel system that uses either CNG or liquefied natural gas, you should:

Check the fuel tank, fuel tank support straps, filler tube, tube clamps, fuel tank vent hoses or tubes, filler housing drain, overflow tube, fuel filler cap, and conversion kit installations.



Check the tank to verify it is protected from physical damage using the vehicle structure, valve protectors or a suitable plastic or metal shield.

Check that fuel tank shields do not have direct contact with fuel tanks and prevent trapping of materials that could damage the tanks or its coatings.



For fuel tanks installed above, below, or within the passenger compartment, check to verify connections are external or sealed and vented from the compartment.

For fuel tanks installed within the passenger compartment, check to verify tanks are vented to the outside of the vehicle with a boot or heavy plastic bag and shall not exit into a wheel well.

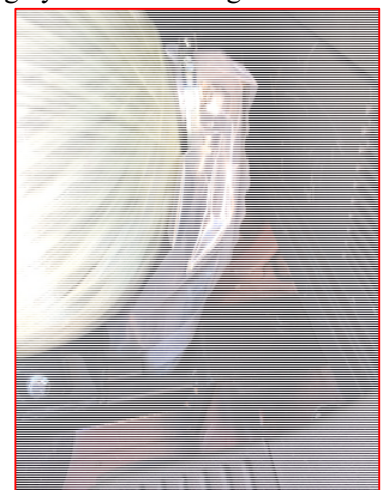
Check tanks and fuel lines to verify mounting and bracing is away from the exhaust system and supported to minimize vibration and to protect against damage, corrosion, or breakage.

Check for identification with a weather-resistant, diamond-shaped label located on an exterior vertical surface or near-vertical surface on the lower right rear of the vehicle, excluding the bumper, inboard from any other markings. The label shall be a minimum of 4.72 inches long by 3.27 inches high.

Check that when a manual valve is used, the valve location is accessible, indicated with the words "MANUAL SHUTOFF VALVE."

Check that the vehicle bears in the engine compartment a label readily visible identification as a CNG-fueled vehicle, system service pressure, installer's name or company, container retest dates expiration date, and the total container water volume in gallons.

Check for a label located at the fueling connection receptacle with identification as a CNG-fueled vehicle, system working pressure, and container retest dates or expiration date.



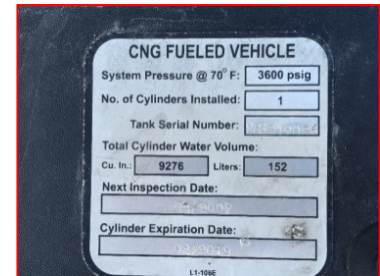
or

Check that CNG fuel containers are permanently labeled. Disassembly of the tanks protective shield is not required to verify the label on the tank; it is the vehicle owner's responsibility to provide documentation for a current CNG tank Inspection from a CNG certified inspector. The documentation must identify the vehicle and list the CNG tank certification number.

Visually inspect CNG fuel containers for damage and deterioration at a minimum of every 36 months or 36,000 miles, whichever comes first, or after a motor vehicle accident or fire.

Repairs or certification is required when:

- There is fuel leakage at any point or escaping gases are detected in the system (odor will be present).
- The fuel tank filler cap or cover is missing.
- Any part of the system is not securely fastened, supported, or shielded to prevent damage from road hazards, slippage, loosening, or rotations.
- Fuel tank is exposed or unprotected.
- Tanks that are installed under a vehicle are mounted ahead of the front axle or behind point of attachment of the rear bumper.
- There is any physical damage to a fuel system component.
- There is any installation hazard present that may cause a potential hazard during a collision.
- Any part of the fuel tank or its appurtenances protrudes beyond the sides or top of any vehicle where the tanks can be struck or punctured.
- The vehicle is not labeled as described in section C or in accordance with National Fire Protection Association Pamphlet 52.
- A CNG fuel container is not current with its certification in accordance with Federal Motor Vehicle Safety Standards.



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SECTION 15 – CUTOM VEHICLES

DEFINITIONS

1. "Custom Vehicle" means:

- a. a motor vehicle that is at least 25 years old and of a model year after 1948; or
- b. was manufactured to resemble a vehicle that is at least 25 years old and of a model year after 1948; and has been altered from the manufacturer's original design; or has a body constructed of non-original materials.
- c. A custom vehicle is primarily a collector's item that is used for: club activities; exhibitions; tours; parades; occasional transportation; and other similar uses. A custom vehicle does not include a motor vehicle that is used for general, daily transportation or is a vintage vehicle (UCA 41-6a-1507).

The following are minimum safety equipment requirements for a custom vehicle:

1. Hydraulic service brakes on all wheels with current vehicle brake and stopping standards.
2. Parking brake operating on at least two wheels on the same axle.
3. Seat belts for all passengers and driver.
4. Sealed beam or halogen headlamps.
5. Brake Lamps.
6. Turn signal lamps and switch.
7. AS-1 safety glass or Lexan.
8. Electric or vacuum windshield wiper in front of the drivers view.

Repairs or replacement is required when:

- Any of the above requirements are not met.

Exhaust systems may discharge along the side of the vehicle provided they discharge at a point behind the rear edge of the door and exhaust is directed away from the vehicle.

The vehicle identification for a custom vehicle shall be a number stamped on the frame of the vehicle. If no such numbers exist, then the requirements as established pursuant to Administrative Rule R873-22M-15 (Department of Motor Vehicles) must be followed in order to pass inspection.

All safety equipment of a replica vehicle shall at least meet the safety standards applicable to the model year of the vehicle being replicated. Any replacement equipment shall comply with the design standards of the replacement equipment's manufacture (41-6a-1507).

NOTE: Fenders, bumpers and hoods are optional on replica vehicles 1935 and older

NOTE: A vintage vehicle does not require a safety inspection (UCA 53-8-205)

SECTION 16 – LOW-SPEED VEHICLES



NOTE: Golf carts are NOT considered Low Speed Vehicles.

“LOW-SPEED VEHICLES”: A four wheeled electric motor vehicle that is designed to be operated at speeds of not more than 25 miles per hour; and has a capacity of not more than four passengers, including the driver. “Low-speed vehicle” does not include a golf cart or an off-highway vehicle (UCA 41-6a-102).

A low-speed vehicle shall meet the requirements found in Section 41-6a-1508 which include:

1. Headlights.
2. Front and rear turn signals, tail lamps, and stop lights.
3. Reflectors one on the rear of the vehicle and one on the left and right side as far to the rear as practical.
4. A parking brake.
5. A windshield that meets the standards of UCA 41-6a-1635 (see the windshield section of this manual), including a device for cleaning rain, snow, or other moisture from the windshield.
6. An exterior rearview mirror on the driver’s side and an interior rearview mirror or an exterior rearview mirror on the passenger side.
7. A low-speed vehicle shall not be altered from the original manufacturer’s design.
8. Safety belts (as required by UCA 41-6a-1803).
9. A slow-moving vehicle identification emblem displayed on the rear of the vehicle (UCA 41-6a-1508).
10. An operation braking system as designed by the manufacturer (OEM).

Repair or replacement is required when:

- i. Any of the above requirements are not met.

DEFINITIONS (From the Webster's H New Riverside University Dictionary)

ABSORB - To take in through or as if to soak in or up.

ACCUMULATOR - An automobile storage component.

ACUTE - Extremely serious or significant.

ADAPTER - A device used to affect operative compatibility between different parts of one or more pieces of apparatus.

ADEQUATE - Able to satisfy a requirement.

ADJUSTMENT - To change so as to match or fit. To bring into proper relationship.

ADVISE - "To Notify" to inform customer of items in an inspection that will pass but will need to be repaired at a later date.

AFTER-MARKET - The demand for goods or services associated with the upkeep of a previous purchase.

AIR-BAG - An automotive safety device designed to inflate upon collision and prevent passengers from pitching forward.

ALTERED - To make different to modify. Alter - Altering.

ANCHORED - Something that provides a rigid point of support, stability, or security.

ANTI-LOCK - Computerized power surging system that keeps brakes from locking into a frozen position.

APPLIED - Put into practice or a particular use.

APPROPRIATE - Suitable; fitting.

ASPIRATED - To remove liquids or gases with an aspirator. Aspirate - Aspirates Aspirating.

ASSEMBLY - The combining of manufactured parts to make a completed product, esp. a machine.

AUTOMATIC - Acting or operating in a manner essentially independent of external influence or control. Self-regulating.

AUXILIARY - Giving or capable of giving assistance or support.

AXLE - A supporting shaft or member on which a wheel or pair of wheels revolves.

BALL BEARING - A friction-reducing bearing consisting of a ring shaped track containing freely revolving hard metal balls against which a rotating shaft or other part turns.

BASE - The lowest part of a structure as in foundation.

BEARING - A part supporting another machine part.

BENT - Not straight, crooked.

BINDING - To be tight and uncomfortable. To restrain

BLOCKS - To support, strengthen, or retain in place by a block.

BODY - The passenger and cargo-carrying section of an aircraft, ship or vehicle.

BOLT - A fastener having a threaded pin or rod with a head at one end, designed to be inserted through holes in assembled parts and secured by mated nut that is tightened by application of torque.

BRAKE - A device for reducing or stopping motion, as of a vehicle, esp. by contact friction.

BRAKE DRUM - A metal cylinder to which pressure is applied by a braking mechanism so as to arrest rotation of the wheel or shaft to which the cylinder is attached.

BRAKE FLUID - Liquid used in a hydraulic brake system.

BRAKE LINING - The covering of a brake shoe or pad.

BRAKE PAD - A flat block brake lining that presses against the disc of a disc brake.

BRAKE SHOE - A curved block, attached to the brake lining that presses against and reduces or stops the rotation of a wheel or shaft.

BROKEN - Forcibly fractured into pieces; shattered.

BULGES - A protruding part, as an outward curve or swelling.

BUMP - To cause to knock against an obstacle; displace.

BUMPER - Either of two metal structures, typically horizontal bars, attached to the front and rear of a car to absorb the impact of a collision, a protective device used to absorb shocks

BUSHING(S) - A fixed or removable lining used to constrain, guide, or reduce friction.

CALIBRATE - To check, adjust or standardize systematically the graduations of a quantitative measuring instrument.

CALIPER - An instrument composed of two curved hinged legs, used for measuring internal and external dimensions.

CERTIFICATE - A document testifying to accuracy or truth.

CHAFED - To wear away by friction or irritation.

CHASSIS - The rectangular steel frame,

supported on springs and attached to the axles, that holds the body and engine of an automotive vehicle.

CIRCUMFERENCE - The boundary line of a circle.

CLAMP - A device for joining, gripping, supporting or compressing structural or mechanical parts.

CLEAR(LY) - Free from what dims, obscures or darkens: Transparent.

CLOUDED - A dark blemish or spot, something that obscures.

COIL - A series of connecting spirals or connecting rings formed by winding or gathering.

COLLAPSE - An abrupt failure of function, strength.

COMPONENT - A constituent element, as of a system, a part of a mechanical or electrical complex.

COMPUTERIZED - Of or relating to a computer or the use of a computer.

CONTAMINATED - To make impure by mixture or contact.

CORRODE - To dissolve or eat away gradually by chemical reaction like rust.

CRACKS - To break without dividing into parts.

CRIMPS - To press or pinch into small regular ridges or folds.

CUSTOM - Specializing in the selling of made-to-order goods.

CUTS - To separate into parts with or as if with a sharp-edged instrument; sever.

CYLINDER - The chamber in which a piston of a reciprocating engine moves.

DAMPING - The capacity built into a mechanical or electrical device to prevent excessive correction and the resulting instability or oscillatory conditions.

DAMPEN - DAMPENING - To make slightly wet, moisten.

DAMAGE - Impairment of the usefulness or value of person or property.

DEFECTS, defective - A fault or imperfection: having a defect: faulty.

DEFROSTER - A heating device designed to remove ice or frost or prevent its formation.

DEPRESS - To push down.

DETERIORATED - To lower or impair in quality, or value.

DIAMETER - A straight segment passing through the center of a figure, esp. of a circle

or sphere, and terminating at the periphery.

DISCONNECT - To interrupt or break the connection of or between.

DISLOCATED - To displace from the proper or usual relation- ship with adjoining parts.

DISTORTION - To twist out of proper shape or relation; to contort.

DRAG - To cause to move with great reluctance, weariness, or difficulty.

ELECTRICAL - Of, relating to, or operated by electricity.

ELONGATED - To make or grow longer, extended, lengthened.

ENGINE - A machine that converts energy into mechanical motion.

ERRATIC - Lacking regularity, consistency, or uniformity.

ETCHING - To cut into the surface by the action of acid, printing designs or pictures.

EXCESS - An amount beyond the normal, sufficient, required or appropriate. Greater or more than the requirement.

EXPOSED - To remove protection from, the act of making visible.

EXTEND - To stretch or spread out to full length.

EXTERNAL - An exterior surface or part.

FAILURE - A cessation of proper functioning, a decline in strength or effectiveness.

FENDERS - A metal guard over the wheel of an automotive vehicle.

FLEXIBLE - Capable of being bent or flexed; pliable.

FLUSH - To be cleaned by a rapid brief gush of water.

FMCSA – Federal Motor Carrier Safety Administration

FMVSS - Federal Motor Vehicle Safety Standard

FORCE - To compel through pressure or necessity; to move against resistance.

FRAME - A skeletal structure designed to shape and support.

FRAYED - To wear away by rubbing, a frayed spot as on fabric.

FRICTION - The rubbing of one object or surface against another.

FROZEN - Rendered immobile.

FUNCTIONAL - Designed for or adapted to a specific function or use. To have or perform a

GASKET - A seal or packing used between matched machine parts or around pipe joints to prevent the escape of a gas or fluid.

HEAVY TRUCK- Covers vehicles from 26,001 lbs and up.

HORIZONTAL - Parallel to or in the plane of the horizon.

HYDRAULIC - Of, involving, moved, or operated by a pressurized fluid, esp. water.

ILLEGAL - Forbidden by law, by official rules. function.

INDICATOR - An instrument as a meter or a gauge for monitoring the operation or condition of a physical system, as an engine.

INOPERATIVE- Not working or functioning.

INSTABILITY - Lack of stability.

JAGGED - Having sharp or ragged projections on a surface or edge.

JAMMING - To activate or apply suddenly, as automotive brakes. To cause to lock in inoperable position.

JOINT (S) - A point or a position at which two or more things are joined. A configuration in or by which two or more things are joined.

KINKED - A tight curl or sharp twist in a wire-like material, typically caused by the tensing of a looped section.

KNOT, knots - A compact intersection or interlaced material, as cord, ribbon, or rope. To tie in or become entangled.

LAMINATED - Made up of bonded layers.

LAMP - A device that generates, heat, light, or therapeutic radiation

HEIGHT - The distance from the base to the top of an object.

LATCH, latching - To close or lock with or as if to latch.

LEAF SPRING - A composite spring used especially in automotive suspensions, consisting of several layers of metallic strips joined to function as a unit.

LEAK, leakage - To allow the passage or escape of something through a breach or flaw. A crack or opening that permits something to escape from or enter a container or conduit.

LENS - A carefully ground or molded piece of glass, plastic, or other transparent material with opposite surfaces either or both of which are curved by means of which light rays are refracted so that they converge or diverge to form an image.

LEVERAGE - The action of a lever. The mechanical advantage of a lever.

LINKAGE - A system of interconnected

machine parts, as rods, springs, and pivots, for transmitting power or motion.

LOOSE - looseness - Not tight fitting, not bound, stapled, bundled or gathered together.

MALADJUSTMENT - Faulty adjustment as in a machine.

MECHANISM - mechanical device and arrangement of machine parts.

METALLIC - Of, relating to or having the characteristics of a metal.

MINIMUM - The least possible quantity or degree. The lowest amount or degree reached.

MIRRORED - A surface able to reflect enough undiffused light to form a virtual image of an object placed before it.

MISPLACED - To put in wrong place.

MODIFIED - To change in form or alter. To make less extreme, severe or strong.

MOTORCYCLE - means a motor vehicle, other than a tractor, having a saddle for the use of the rider and designed to travel with not more than three wheels in contact with the ground.

MOVEMENT- A mechanism that produces or transmits motion.

MUFFLER - A device that absorbs esp. one used with an internal combustion engine.

OBSCURED - Deficient in light, dark. Lacking a clear delineation, indistinct.

OEM - Original Equipment Manufacturer.

PASSENGER VEHICLE / LIGHT TRUCK
Covers

vehicles up to 26,000 lbs.

PAWL - A hinged or pivoted device adapted to fit into a notch of a ratchet wheel to impart forward motion or prevent backward motion.

PERIPHERY - The outermost region or part within a precise boundary.

PIT, pitted - A natural depression or small indentation on a surface. To make cavities, depressions or scars.

PLEXIGLAS - A trademark for a light, transparent, weather-resistant thermoplastic.

PRESSURE - An application of continuous force by one body on another that it touches.

PROTRUDE - To push or thrust outward, to jut out.

PUMP, pumping - A device or machine for transferring a gas or liquid from a source or container through tubes or pipes to another container or receive

RATCHET - A mechanism consisting of a

pawl that engages the sloping teeth of a bar, or wheel, of a ratchet.

RATING - To specify performance limits.

REFLECT - To throw or bend back light.

RE-INSPECTION means an inspection of previously rejected items that is completed within fifteen days of the original inspection.

REJECT – To deny a vehicle to pass an inspection with safety items that fail to function properly.

RESERVOIR -A receptacle for storing a fluid.

RESTRICT, restricted - To hold within limits, to confine.

RIM - The circular outer part of a wheel, furthest from the axle. A circular metal structure around which a wheel tire is fitted.

RIVET - A metal bolt or pin having a head on one end, used to fasten metal plates or other objects together by inserting the shank through a hole in each piece and hammering down the plain end so as to form a new head.

ROTOR - A rotating part of an electrical or mechanical part.

RUB/rubbing - To subject to the action of something that moves back and forth with friction and pressure.

SAGGING - To lose strength, firmness, or resilience.

SEAL/SEALED - An adhesive agent used to close or secure something or prevent seepage of moisture or air.

SECURE, secured - Not likely to fail or give way, stable, well-fastened.

SEEP, seepage - to pass slowly through small openings or pores. Something that has seeped.

SEIZE, seizing - To fuse or cohere with another part due to high pressure or temperature, slowing or stopping further motion.

SCRATCH, scratched - To make a narrow line or mark with a sharp instrument. To scrape or strike on an abrasive surface.

SEVERE - Corresponding strictly and rigidly to established rule.

SEVERED - To become cut or broken apart.

SHACKLE - A device used to fasten or couple. (Shackles, something that restrains or confines.)

SHADE, shaded - Light reduced in intensity due to interception of the rays; partial darkness. To obscure or to darken.

SHATTER, shattered - To cause to break or

burst suddenly into pieces. A fragmented or splintered condition.

SHIMMY - Abnormal vibration, as in the chassis of a motor vehicle.

SLIP, slippage - To move quietly and smoothly, glide. To cause to move in a smooth easy or sliding motion.

SMEAR - To stain by or as if by spreading or daubing with a sticky, greasy or dirty substance.

SNAG - A sharp rugged or jagged protuberance.

SPECIFICATIONS - An exact written description of an item

SPRINGS - An elastic device, as coil or wire that regains its original shape after removal of stress.

STABILITY - Resistance to sudden change, dislodgement, or overthrow. Reliability, dependability.

STEERING - To direct the course, to maneuver, to guide a vessel or vehicle.

STRUT - To brace with a supporting bar or rod.

SUSPENSION - The system of springs that protects the chassis of a motor vehicle from shocks transmitted through the wheels.

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SWITCH - A device for breaking or opening an electrical circuit or for diverting current from one conductor to another.

SYSTEM - A group of interacting mechanical or electrical components.

TENSION - A force tending to stretch or elongate something, the measure of such force.

TILT - To cause to slope as by raising one end.

TINT, tinting - A shade of a color, a slight coloration, a shaded effect. To give a tint or take on a tint.

TORSION BAR - A part of an automotive suspension consisting of a bar that twists to maintain stability

TRACK - To keep a constant distance apart. Used as a pair of wheels. To be in alignment.

TRANSMISSION - An automotive assembly of gears and associated parts by which power is transmitted from the engine to a drive shaft.

TRAVEL - To move from one place to another.

TREAD - The grooved face of a tire.

U-BOLT - A bolt shaped like the letter "U", fitted with threads and a nut at each end.

UNLADEN - Without load.

USDOT - United States Department of Transportation.

VACUUM - A state of being sealed off from external or environmental influences.

VALVES - A device that regulates the flow of gases, fluids or loose materials through a pipe, the moveable control element.

VERTICAL - Being at right angles to the horizon.

VINTAGE VEHICLE - means a motor vehicle that is 40 years old or older, from the current year, primarily a collector's item, and used for participation in club activities, exhibitions, tours, parades, occasional transportation, and similar uses, but that is not used for general daily transportation.

VISUAL - Capable of being seen by the eye.

WEEPING - To ooze, exude, or let fall drops of liquid. Drops of moisture.

WEIGHT - A measure of the heaviness or mass of an object.

WELDED - To join metals by applying heat, sometimes with pressure and sometimes with an intermediate or filler metal having a high melting point.

WIDTH - The measurement of the extent of something from side to side.

WORN - Affected by use or wear, impaired, damaged, or showing fatigue by use or wear.