WEST VIRGINIA
SECRETARY OF STATE
NATALIE E. TENNANT
ADMINISTRATIVE LAW DIVISION

Form #4

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OFFICE WEST VIRGINIA
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NOTICE OF RULE MODIFICATION OF A PROPOSED RULE

AGENCY: West Virginia State Police TITLE NUMBER: 81

CITE AUTHORITY: W. Va. Code §17C-15-48(i)

AMENDMENT TO AN EXISTING RULE: YES X NO ____

IF YES, SERIES NUMBER OF RULE BEING AMENDED: Series 4

TITLE OF RULE BEING AMENDED: West Virginia State Police Modified Inspections

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ____

TITLE OF RULE BEING PROPOSED: ____

THE ABOVE PROPOSED LEGISLATIVE RULES, FOLLOWING REVIEW BY THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE, IS HEREBY MODIFIED AS A RESULT OF REVIEW AND COMMENT BY THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE. THE ATTACHED MODIFICATIONS ARE FILED WITH THE SECRETARY OF STATE.

1/6/12

Authorized Signature

TITLE 81
LEGISLATIVE RULE
WEST VIRGINIA STATE POLICE

SERIES 4
MODIFIED VEHICLE INSPECTIONS

§81-4-1. General.

1.1. Scope. -- This rule governs and specifies the inspection procedures for vehicles with modified suspension systems.

1.2. Authority. -- W. Va. Code §17C-15-48(i).

1.3. Filing Date. ~~—May 21, 1998~~.

1.4. Effective Date. -- ~~June 15, 1998~~.

§81-4-2. General Requirements.

2.1. Any vehicle operated upon a public highway with a gross vehicle weight rating of less than 10,000 pounds which has been ~~raised~~ altered from the original manufacturer's specifications or configuration by the installation of a suspension lift kit, body lift kit, or tires which are three (3) sizes or more above the maximum size recommended by the manufacturer must undergo a modified vehicle inspection.

2.2. Upon the submission of a completed application, the Superintendent of the West Virginia State Police may grant certified inspection stations the authority to perform modified vehicle inspection in accordance with this section.

2.2.1. To the extent that at least two (2) qualified applicants are available, each county shall have a minimum of two (2) modified vehicle inspection stations.

2.2.2. To the extent that at least a minimum number of qualified applicants are available, each county shall have one (1) modified vehicle inspection state for every four thousand (4,000) registered vehicles within that county.

2.2.2.1. The Superintendent first shall allocate the number of modified vehicle inspection stations based upon the geographic location of the certified inspection stations submitting applications to ensure accessibility of modified vehicle inspection stations throughout a county.

2.2.2.2. If the number of qualified applicants exceeds the number of modified vehicle stations allotted to a particular county, the Superintendent shall grant authority to perform modified vehicle inspections first based upon geographic location to ensure accessibility of modified vehicle inspection stations throughout the county. The remainder of qualified applicants will be randomly selected by the Superintendent or his/her designee.

2.2.3. In order to be qualified to be a modified vehicle inspection station, a certified inspection station must continue to meet the following minimum standards:

2.2.3.1. The certified inspection station must have been a certified inspection station for the three (3) consecutive years immediately preceding the submission of the application.

2.2.3.2. The certified inspection station must not have been suspended by the West Virginia State Police from performing inspections for the three (3) consecutive years immediately preceding the submission of the application.

2.2.3.3. The certified inspection station must have one (1) licensed inspector mechanic ~~other than the owner of the station.~~

2.2.3.4. The certified inspection station must be at least a certified one-car inspection station.

2.2.3.5. Each licensed inspector mechanic who will be performing modified vehicle inspections must have a minimum of three (3) years experience as an inspector mechanic and may not have been suspended by the West Virginia State Police.

2.2.4. The Superintendent may certify additional modified vehicle inspection stations to operate in any particular county if the Superintendent determines that the number of modified vehicle inspection stations in a particular county is insufficient to meet the demand for modified vehicle inspections.

2.2.5. For purposes of this section, a completed application shall consist of a signed application demonstrating the criteria contained in section 2.2.3 of this rule. Application forms will be prescribed by the Superintendent.

2.3. Inspector mechanics will follow the same preliminary guidelines in inspecting modified vehicles, i.e., proof of insurance and ownership, etc.

2.4. Upon examination of the insurance card and ownership forms, the standard modified vehicle inspection certificate will be removed.

2.5. The inspector mechanic will then conduct a ~~standard~~ regular state inspection and also inspect those areas as outlined in the Modified Vehicle Inspection Requirements.

2.5.1. If the vehicle fails to pass either the regular vehicle inspection or the modified vehicle inspection requirements, the inspector mechanic will place a rejection sticker on the vehicle in accordance with the already prescribed standards.

2.5.2. If the vehicle passes all requirements, a modified vehicle inspection emblem will be placed on the vehicle.

2.6. The modified vehicle inspection emblem will be the only inspection emblem required on these vehicles.

2.7. These emblems will be completed on the back by the inspector mechanic, ~~the appropriate date punched~~ with the appropriate inserts applied and placed in the lower left (driver's side) corner of the

windshield, much the same as the original inspection certificate.

2.8. All inspections will be logged on a modified vehicle inspection record.

2.8.1. Upon completion of the modified vehicle inspection record, the original and all copies will be handled the same as with the standard inspection forms.

2.9. Modified vehicle inspection emblems will be requisitioned from the West Virginia State Police, Traffic Records Section, ~~725 Jefferson Road, South Charleston, West Virginia 25309~~, as per established rules (Modified Inspection Manual) on the appropriate requisition form. Requisition form will be supplied by the West Virginia State Police Traffic Records Section. (~~DPS-MVI-4B~~).

2.10. Charges for the modified vehicle inspection shall be $25.00 plus tax.

2.11. Where these rules are silent, inspectors are directed to refer back to the provisions of the West Virginia State Police Inspection Manual for standard vehicle inspection.

§81-4-3. Modified Vehicle Inspection Definitions.

3.1. Constant Velocity or C. V. Joint -- means the part of the drive axle shaft which allows for the application of torque and the turning of the wheels simultaneously on front wheel drive vehicles.

3.2. F.M.V.S.S. -- means Federal Motor Vehicle Safety Standard.

3.3. Modified Vehicle -- means a vehicle which has been altered in altitude from the manufacturer's original height.

3.4. "OEM" or Original Equipment Manufacturer -- means a part or component of the vehicle which is identical to the part or component on the original vehicle and is supplied by the recognized manufacturer of the original vehicle.

3.5. "OER" or Original Equipment Replacement -- means a vehicle part or component which performs the identical function as the part or component of the original vehicle but is supplied by a manufacturer other than the recognized manufacturer of the original vehicle.

3.6. "OREP" or Original Replacement Essential Part -- means any part or component of a vehicle which is:

3.6.1. Identical in fact or in performance to any part or component offered as an option for that vehicle by the original manufacturer of the vehicle when new;

3.6.2. Essential for the safe operation of the vehicle; and

3.6.3. Purchasable through auto parts store or dealerships of the original vehicle manufacturer.

Examples include, but are not limited to, parts and components of a vehicle's engine, transmission, differential, steering system, suspension system, exhaust system, intake system, body parts or lamps and reflectors. A part or component which may alter the performance of a vehicle or may inherently affect adversely the safety or structural integrity of a vehicle, its occupants, or surrounding vehicles or

individuals, unless specifically excepted in this rule, shall not be an original replacement essential part.

3.7. Recognized Motor Vehicle Manufacturer means a person engaged in the business of manufacturing or assembling motor vehicles who has filed an identification statement with the U.S. Department of Transportation and is applying certification tags to the vehicles being manufactured in accordance with Part 567 of Title 49, The Code of Federal Regulations.

3.8. SAE -- means Society of Automotive Engineers.

3.9. Shock Absorber – means a Generic Term which is commonly applied to hydraulic or pneumatic mechanisms used for the purpose of damping or suppressing oscillatory motion of vehicle bodies.

3.10. Split Service Brake System – means a brake system consisting of two (2) or more sub-systems actuated by a single control design so that a leakage-type failure of a pressure component in a single sub-system (except structural failure of a housing that is common to two (2) or more sub-systems) will not impair the operations of any other sub-system.

3.11. Steering System – means the assembly of mechanical, structural, pneumatic or hydraulic components which allow for movement of the vehicle to the right or left.

3.12. Suspension System – means the assembly of mechanical, structural, pneumatic or hydraulic members which provides a flexible support between the ground or roadway and the engine, load and passenger carrying structure of the vehicle.

3.13. Wheel Base – means the distance in inches from the center of the front wheel to the center of the rear wheel as measured in a straight line from the front to rear wheel of the same side of the vehicle. Whenever referred to within these regulations, wheel base will be the original manufacturer's specifications with no modification.

3.14. Wheel Track – means the distance in inches from the center of the tire of one axle to the center of the opposite tire of the same axle as measured in a straight line across the vehicle. Whenever referred to within this rule, wheel track will be the original manufacturer's specification with no modification.

§81-4-4. Modified Vehicle Inspection Requirements.

4.1. Fuel System (combustion power units only).

4.1.1. Each fuel system orifice provided for the introduction of air to be used for the combustion of fuel (air intake) shall be equipped with a device which will:

4.1.1.1. Prevent the ejection into the atmosphere of any ignited fuel and air mixture.

4.1.2. All fuel system components, such as tank, tubing, hoses, clamps, etc., shall:

4.1.2.1. Be located outside of any compartment intended for use by the driver or any passenger except OEM or OREP components.

4.1.2.2. Be securely attached with fasteners designed for this purpose.

4.1.2.3. Not be positioned above, or nearer than three (3) inches to any exhaust system component, except in the engine compartment, unless appropriate shielding is provided (except OEM or OREP components).

4.1.2.4. Be positioned so as not to contact any moving vehicle component.

4.1.2.5. Be free of any fuel leakage.

4.1.3. Fuel line connection to the engine shall be of a flexible design, and of a length sufficient to accommodate all engine vibrations and movements of the engine with respect to the vehicle frame.

4.1.4. The fuel tank shall:

4.1.4.1. Not be located in the engine compartment, except for OEM or OREP components.

4.1.4.2. Be shielded from any compartment intended for use by a flame-proof barrier, except for OEM or OREP components.

4.1.4.3. Be securely mounted to the body or frame.

4.1.4.4. Comply with VESC-12, minimum standard for fuel tanks, if not built by a recognized motor vehicle manufacturer.

4.1.4.5. Be equipped with an external vent or be vented to the engine through an evaporative emission control system (EEC).

4.1.2.6. Be equipped with a filler cap designed to vent fuel spillage from the filler opening when the cap is in place.

4.1.2.7. Be located within the lateral perimeter of the vehicle frame or unit body to minimize crash damage rupturing, (unless originally equipped).

4.1.5. Auxiliary liquid fuel tanks described as an additional fuel tank and any other components attached directly thereto designed to supplement the vehicle's liquid fuel carrying capacity beyond that provided by the vehicle manufacturer shall meet the requirements of VESC-12.

4.2. Vehicle Body.

4.2.1. Body Structure -- The body structure of a modified vehicle shall be free of sharp edges and projections in all interior and exterior locations where they may be contacted by persons in the normal use and care of the vehicle. This requirement does not include those locations usually accessible only when the vehicle is hoisted or partially dismantled for the purpose of maintenance or repair.

4.2.1.1. The body to frame mounting hardware shall be in accordance with OEM specifications, provided that a maximum three (3) inch spacer block may be added, over and above the manufacturer's spacer block and further provided that appropriate modifications of the steering column, brake hose location, and controls are made when required.

4.2.2. Doors and Latches.

4.2.2.1. A modified vehicle shall have a means of entry and exit on each side of the vehicle which provide ready access to the seats in the vehicle.

4.2.2.2. On vehicles not equipped with doors, approved type occupant restraining devices shall be installed within the vehicle and be readily accessible to the occupants.

4.2.2.3. The doors used to provide access to the passenger compartment of a modified vehicle shall be of a hinged type and shall be readily operable and be provided with a two-position self-acting latch which functions in each latching position to keep the door from opening (unless OEM). This requirement does not apply to doors that are designed to be easily attached to or removed from modified vehicles designed for operation without doors.

4.2.2.4. All doors shall be equipped with a manual latch control on the exterior of the door and a manual or electric latch on the interior of the door.

4.2.3. Hood and Trunk Latches.

4.2.3.1. Hood -- All modified vehicles are required to have a hood which shall cover the top of entire engine compartment. The engine compartment sides may remain open.

4.2.3.2. A hood, a trunk lid, or any compartment cover forward of the windshield, which opens along the edge toward the front of a modified vehicle shall be equipped with a two-position self-acting latch which functions in each latching position to keep the hood, lid, or cover closed. A minimum of two (2) hood pins designed for that purpose can be substituted for the two-position self-acting latch.

4.2.3.3. A hood, trunk lid, or compartment cover which opens along an edge toward the sides or the rear of a modified vehicle shall be equipped with at least one (1) latch which holds the hood, lid or cover in the closed position.

4.2.4. Fenders -- Each tire of a modified vehicle which contacts the surface of the road shall be equipped with a fender, or other body structure, which covers the entire width of the tire above that portion of the circumference from 15° in front to 75° to the rear of the vertical line through the center of the wheel hub (see attached Appendix A).

4.2.4.1. Any attachment added to the body or fender of the vehicle to meet the requirements of this section (i.e. mud flaps, fender flares) shall be securely mounted and free of any sharp edges or protuberances.

4.2.5. Driver Visibility -- Obstructions forward of the windshield can extend no more than three (3) inches upward into the horizontally projected vision area of the windshield except for windshield wiper components.

4.3. Vehicle Frame.

4.3.1. Frame -- A modified vehicle shall be equipped with a frame consisting of structural beams

or channels, or structural tubing, or unitized construction capable of supporting the vehicle, its load, and the torque produced by the power source under all conditions of operation. The frame structure shall be essentially rigid, free of cracks and visual indications of weakness, such as bending, buckling or poor quality welded joints.

4.3.2. Floor Pan -- A modified vehicle shall be equipped with a floor pan which:

4.3.2.1. Covers the area beneath the passenger compartment and any cargo or luggage compartment that is not entirely separate from the passenger compartment. Entirely separate means there are no components shared by both compartments, such as roof, floor, or sides.

4.3.2.2. Is capable of supporting the weight of the number of occupants, including seats and any cargo the vehicle is designed to carry.

4.3.2.3. Has sufficient strength to adequately anchor the seats and safety belts.

4.3.2.4. Is free of openings which are not sealed or provided with covers which are specifically designed to prevent the transit of fumes and airborne particles.

4.3.3. Bumpers -- A modified vehicle shall be equipped with a bumper on the front. A rear bumper must be present if the vehicle was so equipped by the manufacturer. OEM or OREP bumpers are acceptable.

Rear bumpers are required on any modified motor vehicle if the fuel tank is located in the rear and is unprotected by the frame of the vehicle.

Whenever the bumpers installed on a modified vehicle are altered, modified, replaced, or whenever the vehicle ground clearance height has been altered or modified, the bumpers installed on the vehicle shall:

4.3.3.1. Be of sturdy construction.

4.3.3.2. Be securely attached to the vehicle frame with attaching components specifically designed for the purpose which are equivalent in strength to the bumper.

4.3.3.3. Have no pointed projections or sharp edges.

4.3.3.4. Have a smooth outward face.

4.3.3.5. Be at least three (3) inches in vertical height, be centered on the vehicle center line and extend horizontally no less than the wheel track distance.

4.3.3.6. Not be constructed of pipe unless OEM.

4.3.3.7. Be mounted no higher than specified from the ground to the bottom of the bumper. Maximum bumper heights shall be indicated below:

4.3.3.7.1. Vehicles 10,000 pounds or less: Maximum height to both front and rear

bumper is thirty-one (31) inches as measured from the ground to the bottom of the bumper. No person may alter, modify, or otherwise move the original bumper mounting on the frame. In the absence of bumpers, or if the original bumper has been moved, bumper heights will be measured to the frame rail.

4.3.3.7.2. All above measurements will be made with all tires on the vehicle inflated to the tire manufacturer's specifications.

4.4. Brake System.

4.4.1. Every modified vehicle shall be equipped with a service brake system which:

4.4.1.1. Will provide braking action at each wheel.

4.4.1.2. Is actuated by pressure applied to a pedal control by the driver's foot.

4.4.1.3. Is actuated primarily by the use of hydraulic fluid (actuation primarily by mechanical means, rods, or cables, is not permitted even if the OEM system was so designed).

4.4.2. Modified vehicles shall be equipped with a service brake system which:

4.4.2.1. Is designed to prevent the complete loss of the braking function in the event of a rupture or leakage-type failure of any single pressure component except structural failures of the master cylinder (split system required).

4.4.2.2. Is equipped with a combination of components, i.e., master cylinders, calipers, wheel cylinders, metering valves, proportioning valves, etc., which is in accordance with current accepted automotive industry standards.

4.4.3. Brake tubing and brake hose installed on a modified vehicle shall be:

4.4.3.1. Securely attached with hardware designed for this purpose in a manner which will prevent chafing, kinking, or other mechanical damage.

4.4.3.2. Of sufficient length and flexibility to accommodate, without damage, all normal movements of the parts to which it is attached.

4.4.3.3. Located in a manner that prevents contact with any component of the vehicle's exhaust system.

4.4.3.4. Routed along the exterior of box or tubular frame chassis. Routing tubing or hoses through the interior or along bottom edge of such frame or tubing is prohibited, unless OEM.

4.4.4. All tubing, other than OEM, used in the brake service brake system of a modified vehicle shall be of a type that meets the requirements of SAE Standard J1047, Tubing - Motor Vehicle Brake System, Hydraulic. No tubing may be made of copper.

4.4.5. All brake tubing ends must be double flared in a manner consistent with SAE Standard J533b or formed in accordance with SAE recommended practice J1290.

4.4.6. All hoses, other than OEM, used in the service brake system of a modified vehicle shall be of a type that meets the requirements of FMVSS-106.

4.4.7. Every modified vehicle shall be equipped with a parking brake system which:

4.4.7.1. Provides braking action on at least two wheels of the same axle.

4.4.7.2. Is actuated by a control that is operated by the driver's hands or foot and remains set in the applied position until released by a separate action.

4.4.7.3. Is actuated by a means independent of the service brake system except that the brake shoes and drums, or pads and discs, may be common to both the service and parking brake systems.

4.5. Steering System.

4.5.1. The steering control mechanism of a modified vehicle shall:

4.5.1.1. Consist of a circular steering wheel having an outside diameter of no less than thirteen (13) inches attached to a shaft in a manner such that the rotary motion of the control device turns the shaft which will cause the moving vehicle to move to the right when the control is rotated in a clockwise direction and to the left when the control is rotated in a counterclockwise direction.

4.5.1.2. Be securely attached to a structural member of the vehicle.

4.5.1.3. Be located forward of the driver's seating position.

4.5.1.4. Be operable through its entire control range by a person seated against the seat back at the driver's position.

4.5.1.5. Not interfere with the driver's vision through the windshield nor interfere with any other vehicle control mechanism.

4.5.1.6. Be so constructed that no components or attachments, including horn actuating mechanism and trim hardware can catch the driver's clothing or jewelry during normal driving maneuvers.

4.5.1.7. Have no other component or structure between the driver and the device except safety belts, air bags or both.

4.5.1.8. Have no other component or structure located in the plane of rotation nearer than three (3) inches outside of the path of the maximum radius of the control device (unless OEM).

4.5.1.9. Have a range of rotation, lock to lock, of no less than two (2) turns, 360° rotation per turn and no more than 6 turns and shall be free of any jamming or binding throughout this range. From a straight ahead position, the number of turns to the right stop shall be equal to the number of turns to the left stop. One quarter turn tolerance permitted.

4.5.2. A modified vehicle equipped with a steering system that has been modified in any manner except replacement of the steering wheel shall:

4.5.2.1. Have the steering components geometrically arranged in accordance with the manufacturer's specifications.

4.5.2.2. Comply with the original vehicle manufacturer's caster, camber and toe-in alignment specifications.

4.5.2.3. Have all nuts equipped with appropriate locking devices such as lock washers, cotter pins or self-locking devices. If self-locking nuts are used, at least one complete bolt thread must pass through the nut and be exposed.

4.5.2.4. Have flat washers installed on spherical rod ends to prevent bearing pull-out.

4.5.2.5. Be equipped with universal or other flexible joints which meet or exceed those used for similar purposes by recognized motor vehicle manufacturers. Such devices must be securely installed and used within designed parameters.

4.5.3. The steering gear box or other mechanism which translates the rotary motion of the control shaft to linear motion to move the wheels shall be securely attached to the vehicle frame with hardware designed for this purpose.

4.5.4. All components of the steering system shall be connected with fittings designed for the purpose and adjusted to eliminate any unnecessary free play or lash.

4.5.5. All welding used in the modification of any system component or attachment shall be accomplished by an electric arc welding process.

4.5.5.1. Gas welding is permitted for those types of metal not suitable for electric arc welding.

4.5.5.2. No welding repairs or welding modifications of any type shall be permitted on cast iron or factory cast steering components.

4.5.6. Any power steering device used on a modified vehicle shall be of a type which will permit the continued use of the power steering mechanism under manual control in the event of the failure of the power unit, except OEM.

4.5.7. Four wheel steering system, e.g., front and rear steering axles, are not permitted unless they are OEM).

4.5.8. Any protective covering of C. V. joints, steering mechanisms, or other components commonly referred to as "Boots" may not be cracked, broken, lose or in any way damaged or leaking.

4.6. Suspension System.

4.6.1. Lift blocks of any type or configuration on the front suspension of a modified vehicle are

expressly prohibited.

4.6.2 The use of coil spring spacers to level the front end of the vehicle are permissible.

4.6.3. Every modified vehicle shall be equipped with a flexible primary suspension component (spring, torsion bar, etc.) mounted between the vehicle frame, or unit body, and each axle, or other component to which the wheels are mounted (trailing arms, control arms, etc.), which:

4.6.3.1. Permits vertical relative movement between the frame and axle.

4.6.3.2. Permits negligible lateral (side to side) or longitudinal (front to rear) horizontal movement between the frame and the axle.

4.6.3.3. Is securely attached to both the frame and the axle with mounting hardware designed for this purpose.

4.6.3.4. Provides adequate support for the safe control of the vehicle under all normal conditions of operation upon public streets and highways.

4.6.4. Each position on an axle of a modified vehicle where one or more wheels are mounted shall be equipped with at least one shock absorbent which:

4.6.4.1. Is mounted between, and securely attached to, the axle and the frame with mounting hardware designed for this purpose.

4.6.4.2. Provides a damping action on all vertical motion (double acting) throughout entire vertical motion range of the primary suspension component.

4.6.5. At each position where one or more wheels are mounted, the suspension system of a modified vehicle shall provide a minimum range of vertical motion between the axle and the frame of two (2) inches for compressions and two (2) inches for rebound when the empty vehicle is standing upon a level surface.

4.6.6. The range of movement between the axle and the frame of a modified vehicle shall be limited in a manner which, under all normal conditions of suspension and rebound, will prevent:

4.6.6.1. Contact between the wheels, including the tires, and any part of the vehicle frame or chassis.

4.6.6.2. Contact between the suspended and unsuspended portions of the vehicle except at suspension component attachment points and at those points which are designed and suitably cushioned to limit extreme suspension movement.

4.6.6.3. Any brake hose from becoming fully extended.

4.6.6.4. Any shock absorber from reaching the limit of its travel.

4.6.7. Any primary or supplemental coil springs used in the suspension system of a modified

vehicle shall not be capable of being fully compressed or fully extended within the limits of vertical motion of the system.

4.6.8. A modified vehicle shall have sufficient ground clearance between the vehicle body chassis and steering components and the road surface on which the vehicle rests so that it will be able to be in motion on its four rims on a flat surface with no other parts of the vehicle touching that surface.

4.6.9. When used in the suspension system of a modified vehicle, all leaf spring hanger (shackle) extensions shall:

4.6.9.1. Have a maximum effective length of no more than two inches over the OEM shackle as measured between the upper and lower bolt centers.

4.6.9.2. Be assembled with bolts and hangers specifically designed with adequate extra strength for this purpose.

4.6.10. No coil spring, leaf spring, or torsion bar used in the suspension system of a modified vehicle shall be heated or welded.

4.6.11. Any electric, hydraulic or pneumatic device used to adjust the height of a vehicle cannot be capable of raising the front or rear of the vehicle more than four (4) inches over the OEM ride height and can in no way alter the steering geometry of the vehicle unless it is OEM.

4.6.12. The wheel base on one side of the vehicle must be the same as the wheel base on the opposite side, with a tolerance of plus one inch.

4.7. Exhaust System (combustion power units only).

4.7.1. All modified vehicles shall be equipped with a system of components to conduct exhaust gases from the engine to a safe discharge point outside of the vehicle.

4.7.2. All exhaust system components, such as manifolds, headers, exhaust pipes, resonators, mufflers, converters, tail pipes, etc., shall:

4.7.2.1. Be located outside of any compartment intended for use by the driver or any passenger.

4.7.2.2. Be securely attached with fasteners designed for this purpose.

4.7.2.3. Be positioned so as not to contact any moving vehicle component.

4.7.2.4. Be free of any leakage.

4.7.2.5. Have suitable shielding provided for all components which may cause personal injury and are accessible to inadvertent contact by persons standing outside of the vehicle under normal operating conditions.

4.7.2.6. Have no temporary patches or makeshift repairs.

4.7.3. Suitable heat shielding shall be provided for:

4.7.3.1. Any catalytic converter located less than three (3) inches below the floor pan or from any flammable material.

4.7.3.2. Any other exhaust system component located less than one and one-half (1 1/2) inches below the floor pan or less than three (3) inches from any flammable material.

4.7.4. The exhaust system shall contain a muffler or mufflers. Such mufflers shall be the muffler originally installed by the manufacturer of the vehicle or, if a replacement, the equivalent thereof.

4.7.5. The exhaust system shall discharge the engine exhaust gases outward from the vehicle to the atmosphere.

4.7.5.1. Exhaust systems on property-carrying vehicles shall discharge the exhaust gases to the rear of that part of the vehicle designed and normally used for carrying the driver and passengers.

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

4.7.5.3. No part of the exhaust system shall pass through any area of the vehicle that is used as a passenger compartment, nor in close proximity to the fuel system without being properly shielded. No part of the exhaust system may contain a muffler cut-out or by-pass.

4.8. Wheels and Tires.

4.8.1. The rims mounted on a modified vehicle, if other than OEM, including options, or OREP, i.e., special rims, shall meet or exceed all applicable Federal Motor Vehicle Standards.

4.8.2. All rims mounted on a modified vehicle shall be free of cracks, rim dents, warpage, and repairs of any kind.

4.8.3. All rim mounting studs, nuts or bolts shall be present, in good condition, and securely tightened.

4.8.4. All rims mounted on a particular axle or equivalent front or rear suspension component, shall be of identical size, design, and material (all front rims the same and all rear rims the same).

4.8.5. The rim diameter of the rims mounted on the front axle shall be no less nor no greater than two (2) inches as the rim diameter of the OEM rims for the suspension system used.

4.8.6. The use of any combination of reverse mounted or special rims or adapters shall not increase the negative offset of the front or rear rims in a manner that will reduce the track width of the vehicle. The modified vehicle owner shall provide the rim offset specifications and the manner of measurement from the recognized manufacturer of the vehicle when it was new, if requested.

4.8.7. The use of any combination of reverse mounted or special rims or adapters shall not increase the positive offset of any of the rims by more than two (2) inches. Any increases in positive offset for wheels on one side of a vehicle should be the same as for the wheels on the opposite side.

4.8.8. All tires used on the rims of a modified vehicle shall have a load rating of sufficient capacity to support the weight imposed on both the tire and rim.

4.8.9. All tires mounted on the rims of a modified vehicle shall be tires designed specifically for highway use (FMVSS No. 109 and No. 119) including those designed for highway use and retreaded in accordance with FMVSS No. 117. The use of tires designed, retreated or designated for any other purpose is not permitted.

4.8.10. Every tire mounted on the rims of a modified vehicle shall have an average tread depth of no less than 2/32 of an inch.

4.8.11. The outermost edge of tires mounted on a modified vehicle shall not extend laterally beyond the outboard edge of the fender, the fender well, or other wheel enclosure including flared fender openings when viewed from above.

4.8.11.1. Maximum width of fender flares is three (3) inches as measured from the outside edge of the original fender or configuration to the outermost edge of the flare.

4.8.12. Wheel studs must be of sufficient length to allow a minimum of two threads to project beyond the lug nut. Where capped lug nuts are used, all wheel studs must project into the hex portion of the lug nut by a distance equal to at least one diameter of the stud.

4.8.13. Minimum width of any tire on any axle of a modified vehicle will be five (5) inches.

4.9. Miscellaneous.

4.9.1. If equipped with an automatic transmission, it must be equipped with an interlock that causes the engine starter to be inoperative when the transmission shift lever is in a forward or reverse drive position unless it is OEM.