

## Specialty Vehicle Association of Alberta Safety Check Guidelines

The following notes are guidelines to aid the owner and/or the inspector in his or her decisions on the safety of each item on the Safety Check Sheet. The current Alberta Vehicle Equipment Regulations are highlighted in red.

1) **Windshields and Glass:** Windshields must be safety glass. Safety glass must be installed in all flat windows when replacement is required. Replacement glass should have standard AS-2M541 etched on it. Vision must be reasonably unobstructed by hood ornament or any attachment or projection outside the front of the windshield.

69 A motor vehicle, other than a motor cycle or moped, must have a windshield.

70(1) A person shall not install, replace or cover the window glazing in a windshield or in a left or right side window of a motor vehicle that is beside or forward of the driver with a transparent, translucent or opaque material.

(2) A person shall not install, replace or cover the rear window glazing in a motor vehicle with a transparent, translucent or opaque material unless the motor vehicle has outside rear view mirrors on both the left and right that comply with section 74(2).

(3) A person shall not install, replace or cover the window glazing in a motor vehicle with a material that reflects the headlamps of approaching vehicles into the eyes of the driver of another vehicle.

(4) A person shall not install, replace or cover the window glazing in a motor vehicle with a material that reflects sunlight into the eyes of the driver of another vehicle.

(5) A person may replace the window glazing installed by the manufacturer of a motor vehicle with the same type of glazing.

(6) A person may apply clear untinted frost shields to a window of a motor vehicle only if they do not impair the view through the window by discolouring, scratching or damaging the glazing.

(7) A person may apply stickers to the window of a motor vehicle only if they do not limit the driver's field of vision or otherwise impair the safe operation of the motor vehicle.

71(1) For the purposes of this section, "American National Standard" means the standard adopted under section 58(3).

(2) The glazing referred to in subsection (3) must be appropriate to the make and model of the motor vehicle.

(3) A person shall not keep or use window glazing for motor vehicles unless the glazing complies with the specifications and standards set out in the American National Standard.

(4) **A windshield must be made of laminated safety glass.**

(5) A window in a motor vehicle, other than a windshield, may be made of laminated safety glass or heat treated safety glass.

(6) A windshield, side window or rear window in a motor vehicle must be made of glass unless another glazing material is prescribed by the American National Standard.

(7) A piece of safety glass manufactured for use in accordance with the American National Standard must be visibly, legibly and permanently marked

(a) with "American Standard" or "AS",

(b) with the manufacturer's distinctive designation, trademark or name, and

(c) with the appropriate numeral as set out in section 6 of the American National Standard.

(8) Replacement glazing that is cut from flat sheets and installed in a motor vehicle need not be marked if the glazing supplier certifies in writing that the replacement glazing otherwise complies with this section.

2) **Rearview Mirror(s) :** Rearview mirror must be securely attached and not be broken, cracked or unclear.

74(1) A motor vehicle must have an inside rear view mirror that gives the driver a clear view of the roadway behind the vehicle and of any other vehicle approaching from behind.

(2) If the view in the rear view mirror is obstructed or interfered with in any way, a motor vehicle must have side mirrors on each side that give the driver a clear view of the roadway behind and on each side of the motor vehicle.

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(3) If a motor vehicle is equipped by a manufacturer with an outside rear view mirror attached to the left side of the motor vehicle, the rear view mirror must be maintained in good working order.

**3) Doors & Door Locks:** Doors must open properly with both outside (if equipped) and inside handles. Door locks are not a requirement but if present the inside handle operation must unlock the door.

**68(1)** A hinged door on a motor vehicle that leads directly to a driver's seat or a passenger seat must have a door latch and striker assembly that have a fully latched closed position and a secondary latched closed position.

(2) Subsection (1) does not apply to a cargo door, sliding door, rolling door or folding door or to a 2-part door that closes by one part latching to the other part.

**(3) Subsection (1) does not apply to a motor vehicle manufactured before January 1, 1971.**

**4) Driver's Window w/o signals:** Vehicles not originally equipped with turn signals must have an operational driver's side window to facilitate hand signals.

**5) Seat Belts:** Seat belts must be as originally equipped. They must be securely fastened to the vehicle with large enough washers to prevent the washer from being drawn through the fastening hole.

**82(6)** A person shall not drive or operate a motor vehicle that was equipped with a seat belt assembly at the time it was manufactured as required by the Motor Vehicle Safety Act (Canada) and the regulations under that Act if the seat belt assembly has been removed, rendered partly or wholly inoperative or modified so as to reduce its effectiveness.

**84(1) Section 82 does not apply to the following:**

**(a) motor vehicles that were not designed or equipped with seat belt assemblies by their manufacturers**

**6) Horn :** The horn must be capable of emitting sound audible from a distance of not less than 60 meters (197ft). The switch used to activate the horn shall be easily accessible to the driver when seated in the normal driving position and secured by the seat belt.

**60** A motor vehicle, power bicycle and bicycle must have a horn or bell.

**7) Wipers and Washers:** Windshield wipers must be operable by driver and blades in good condition. Operation must be automatic other than the activation of the controls and does not apply if the original system was manual.

**62(1)** A motor vehicle, other than a motor cycle, moped or antique motor vehicle, that has a windshield must also have a self-operating windshield wiper and washer system that removes water, road splash and other opaque material from the outside of the windshield.

(3) The controls for equipment required by this section must be located so that the driver of the motor vehicle is able to operate the equipment from the driver's seat.

**63** An antique motor vehicle that has a windshield must also have an automatic or manual windshield wiper system that removes water, road splash and other opaque material from the outside of the windshield if the antique motor vehicle is on a highway and the weather requires a wiper system.

**8) Headlights - high & low beam:** Headlights must work and be as bright as manufactured, and if equipped with high beam lighting the operation must be by switch easily accessible by the driver.

**6(1)** A motor vehicle, other than a motor cycle or moped, must have at least 2 headlamps, one on each side of the front of the motor vehicle.

(2) A headlamp must be mounted so that the centre of the headlamp is not more than 1.4 metres and not less than 560 millimetres above ground level when the motor vehicle is not loaded.

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(4) The light from a headlamp must be white, and the lens and bulb of the headlamp must be made of clear, untinted glazing.

### High and low beams

7(1) The headlamps on a motor vehicle, other than a moped, must comply with subsections (2), (3) and (4).

(2) A headlamp must have a low beam that can reveal a person or another vehicle that is at least 30 metres ahead.

(3) A headlamp must have a high beam

(a) that can reveal a person or another vehicle that is at least 100 metres ahead, and

(b) that does not shine in the eyes of an approaching driver.

(4) A motor vehicle must be equipped so that the driver is able to choose either

(a) to change the headlamps to high beams or to low beams by hand, or

(b) to switch to the control that automatically changes the headlamps to high beams or to low beams.

### High beam indicator

8(1) A high beam indicator must be located on the dashboard of a vehicle so that the driver is able to see the high beam indicator when the high beam of a headlamp is lit.

(2) A high beam indicator must not glare in the driver's eyes.

### Single beam headlamps

9(1) Headlamps on the following motor vehicles may be arranged to provide a single distribution of light instead of that required by section 7:

(a) motor vehicles, other than motor cycles, manufactured and sold before April 1, 1956;

(b) motor cycles manufactured and sold before January 1, 1969.

(2) Headlamps arranged to provide a single distribution of light must be aimed so that they reveal a person or a vehicle that is at least 60 metres ahead.

9) **Lights - tail, park, licence plate, brake:** All lights must work and have no broken lenses and or missing parts. When checking brake and signal lights, leave parking tail lights on so that any poor grounds will show up as a "wig -wag" effect in the light operation.

### Tail lamps

13(1) A self-propelled implement of husbandry, a trailer, the last vehicle in a train of vehicles and a motor vehicle, other than a

motor cycle or moped, must have at least 2 tail lamps mounted at the rear.

(2) A motor cycle, a moped, a power bicycle and a trailer that is less than 760 millimetres wide, including its load, must have at least one tail lamp mounted at the rear.

(3) The tail lamps must be as widely spaced laterally as practicable.

(4) A tail lamp must be capable of emitting a red light that is visible from at least 150 metres to the rear.

(5) The centre of a tail lamp must not be less than 380 millimetres or more than 2 metres above ground level when the vehicle is not loaded.

(6) A tail lamp must turn on and stay lit when the headlamps or auxiliary driving lamps are lit.

### Licence plate lamp

14(1) The licence plate of a vehicle must be illuminated by a tail lamp or a separate licence plate lamp so that the licence plate is clearly visible from at least 15 metres to the rear.

(2) A separate licence plate lamp for illuminating the rear licence plate must turn on and stay lit when the headlamps are lit.

(3) A separate licence plate lamp must emit white light.

### Colour

17(1) A lamp on the rear of a vehicle must emit red light unless this Regulation permits another colour.

(2) Back-up lamps that are lit only when a vehicle is backing up may emit white light.

### Brake lamp

18(1) A motor vehicle, other than a motor cycle or moped, and the last vehicle in a train of vehicles must have at least 2 brake lamps mounted at the rear.

(2) A motor cycle, moped or power bicycle must have at least one brake lamp mounted at the rear.

(6) If a motor vehicle has a centre high mounted brake lamp installed by the manufacturer of the vehicle, the centre high

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mounted brake lamp must be maintained in good working order and to the manufacturer's specifications.

### Brake lamp location

19(1) A brake lamp must be permanently mounted on a rigid part of the vehicle.

(2) The centre of a brake lamp must not be less than 380 millimetres or more than 2 metres above ground level when the vehicle is not loaded.

(3) A single brake lamp on a motor cycle, moped or power bicycle must be located on the vertical centre line.

(4) Multiple brake lamps must be as far apart as is practicable and located symmetrically about the vertical centre line.

(5) A centre high mounted brake lamp must be located as follows:

(a) with its center at any place on the vertical centre line of the vehicle, including the glazing, as the vehicle is viewed

from the rear;

(b) if the lamp is mounted below the rear window of the vehicle, in such a way that no portion of the lens is lower than 153 millimetres below the rear window on a convertible or 77 millimetres below the rear window on other passenger cars.

(6) If a centre high mounted brake lamp is mounted inside the vehicle, means must be provided to minimize reflections from the light of the lamp on the rear window glazing that might be visible to the driver when viewed either directly or indirectly in the rear view mirror.

(7) Subsections (1) to (6) do not apply to vehicles manufactured before January 1, 1971.

### Lit brake lamp

20(1) A brake lamp on a vehicle must light up when the service brake is applied.

(2) A lit brake lamp on a vehicle, other than a moped or power bicycle, must be clearly visible from at least 250 metres to the rear.

## 10) Turn Signals: Turn signals including the indicator must work and no broken lenses and or missing parts.

21(1) This section applies to a motor vehicle manufactured on or after January 1, 1971.

(2) This section does not apply to a moped.

(3) A person shall not sell, offer for sale, drive or operate a motor vehicle unless it has front and rear turn signal lamps that are visible from both the front and rear.

(4) A person shall not sell, offer for sale, drive or operate a motor vehicle unless it has turn signal lamps that operate on one side of the vehicle at a time.

23(1) This section applies to a vehicle, other than a towed implement of husbandry, manufactured on or after January 1, 1971.

(2) One set of turn signal lamps on a vehicle that has turn signal lamps must comply with the following:

(a) they must be located at or near the front of the vehicle;

(b) they must be on the same level and as widely spaced laterally as practicable;

(c) when lit, they must emit amber light that is plainly visible from at least 250 metres ahead.

(3) One set of turn signal lamps on a vehicle that has turn signal lamps must comply with the following:

(a) they must be located at or near the rear of the vehicle;

(b) they must be on the same level and as widely spaced laterally as practicable;

(c) when lit, they must emit red or amber light that is plainly visible from at least 250 metres to the rear.

(4) The turn signal lamps or mechanical turn signal devices must be self-cancelling on a vehicle that is less than 2.05 metres wide, including its load.

(5) A turn signal lamp or a mechanical turn signal device on a vehicle must be mounted on a rigid part of the vehicle that is not glazing.

(6) A turn signal lamp on a vehicle must be mounted so that the centre of the lamp is not less than 380 millimetres or more than 2.11 metres above ground level when the vehicle is not loaded.

(8) A vehicle or trailer must be equipped so that the driver is able to indicate the direction in which the driver intends to turn the vehicle or trailer

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(a) by turning on and flashing the front and rear turn signal lamps on the side of the vehicle towards which the turn is to be made, or by using the mechanical turn signal device on the side of the vehicle towards which the turn is to be made.

(9) A mechanical turn signal device must be self-illuminating if it is used at nighttime.

(11) Subsection (4) does not apply to a motor cycle.

**11) Defrost/heater:** The defrost/heater system must work to keep a windshield clear enough to operate the vehicle safely.

62(2) A motor vehicle, other than a motor cycle, moped or **antique motor vehicle**, that has a windshield must also have a self-operating defrosting and defogging system on each half of the windshield that removes moisture and frost from the inside of the windshield.

**12) Brake Pedal Reserve:** Pedal reserve should be 2 inches minimum clearance from floorboards.

54(1) Unless otherwise exempted by the Act, a regulation under the Act or the Motor Vehicle Safety Act (Canada), a person shall not drive or operate a motor vehicle, other than a motor cycle or moped, unless it has

(a) adequate brakes, and

(b) an adequate emergency or parking brake.

(2) A motor vehicle referred to in subsection (1) must be equipped so that the driver is able to operate each type of brake separately from the other.

(4) A person shall not drive or operate a motor cycle, moped or power bicycle unless each wheel of the vehicle has an adequate brake.

(5) For the purposes of this section, brakes, an emergency brake or a parking brake are adequate if they meet the requirements of the applicable provision of section 55.

### **Adequate brakes**

55(1) The brakes on a motor cycle, moped, power bicycle or self-propelled implement of husbandry are adequate if they can bring the vehicle to a stop

(a) if the vehicle is moving at 30 kilometres per hour and loaded to capacity when the brakes are applied,

(b) on a level surface free from loose materials and consisting of dry paving of asphalt or concrete, and

(c) within 12 metres from the point at which the brakes are applied.

(2) The brakes on a motor vehicle, other than a motor vehicle that is exempt in accordance with subsection (1), or on a combination of vehicles are adequate if they can bring the motor vehicle or combination of vehicles to a stop

(a) if the motor vehicle or combination of vehicles is moving at 30 kilometres per hour and loaded to capacity when the brakes are applied,

(b) on a level surface free from loose materials and consisting of dry paving of asphalt or concrete, and

(c) within 10 meters from the point at which the brakes are applied.

**13) Park Brake:** "Parking" brake must be easily accessed and operated. "Minimum" brake effectiveness shall be to hold the vehicle from moving backwards when at rest .

55(3) The emergency or parking brake on a motor vehicle or on a combination of vehicles is adequate if it can bring the motor vehicle or combination of vehicles to a stop

(a) if the motor vehicle or combination of vehicles is moving at 30 kilometres per hour and loaded to capacity when the brake is applied,

(b) on a level surface free from loose materials and consisting of dry paving of asphalt or concrete, and

(c) within 16 meters from the point at which the brake is applied.

**14) Speedometer :** A speedometer or a device to accurately measure the speed must be in working order.

76(1) A motor vehicle must have a speedometer that indicates the speed of the vehicle when it is moving forward.

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(2) If a motor vehicle is equipped with an odometer, the odometer must indicate the accumulated distance the vehicle has travelled since it was manufactured.

**15) Neutral Safety Switch (automatics):** Only Park and Neutral positions shall allow starter motor operation.

**16) Steering Wheel Lash:** Steering lash is checked by a back and forth movement of the steering wheel with the vehicle's weight on the front wheels. Resistance to the movement will show up any looseness in the steering linkage and gearbox. Allowable amount of free movement depends on steering wheel size.

Steering wheels less than 35.5 cm (14") diameter = 5 cm (2") total movement.

Steering wheels 38 cm - 50 cm (15 -20") diameter = 7 cm (2.8") total movement.

**17) Wiring - under dash:** Wiring should have no frayed, melted or blackened areas or bare connections. Wires must be safely routed and secured.

**18) Body Work:** Upper bodywork should have no broken, jagged pieces that could catch an object or person passing by. There can be no holes or rust perforations below the window belt line that would allow exhaust fumes into the passenger area. **Fenders shall cover the tire tread circumference from at least 15 degrees in front to at least 90 degrees to the rear of the vertical center line at each wheel measured from the center of wheel rotation.**

64(1) A motor vehicle or trailer must have a part of its body, a fender or a mudguard that covers the width of each tire.

(2) The body part, fender or mudguard referred to in subsection (1) must be above each wheel and

(a) extend downwards at the rear of each axle or axle group to at least the centre line of the axle, or

(b) be a distance away from the ground equivalent to at least 1/3 of the horizontal distance from the bottom edge of the

mudguard to the centre line of the axle, but not closer to the ground than 150 millimetres when the vehicle is loaded.

**19) Fuel Cap:** A proper fuel cap must seal all fuel tank fill points from release of vapors.

**20) Bumpers:** Bumpers are required on all passenger vehicles in Alberta.

79(1) A passenger car must have both a front and a rear bumper.

(2) A person shall not install or alter a bumper on a passenger car unless the design of the bumper is equivalent to, and the bumper is mounted in substantially the same manner as, the bumper installed by the manufacturer of the passenger car.

(3) A person shall not alter a passenger car in such a way that the main structural component of a bumper is more than 500 millimetres or less than 400 millimetres above ground level when the passenger car is not loaded.

(4) For the purposes of subsection (3), components that are commonly known as bumperettes or overriders are not part of the main structural component of a bumper or of the projected vertical facing of a bumper.

(5) Subsection (3) does not apply to passenger cars manufactured before April 1, 1976.

(6) A person shall not alter a car manufactured before April 1, 1976 in such a way that the bumper is more than 100 millimetres higher or lower than it was at the time the car was manufactured.

**21) Accelerator / Carburetor linkage:** Linkage must operate freely and have adequate clearance from obstacles to compensate for engine torque movement. The linkage must have a return spring that returns the the system to the idle position.

**22) Battery, connections & hold downs:** The battery must have adequate support and be fastened to prevent any movement. Connections should be free of corrosion build-up. Wiring must be safely routed and in sound condition with no visible fraying or insulation or rot (brittleness).

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- 15) Wiring:** Wiring should have no frayed , melted or blackened areas or bare connections. Wires must be safely routed and secured from rubbing.
- 16) Fan, Belts and Hoses:** The fan must have adequate clearance to allow for engine torque movement. All belts and hoses shall be free from checking, splits and signs of wear points. Hoses should be free of cracks and not brittle or hard. Connections should be free of leaks.
- 17) Master Cylinders and fittings:** Master cylinder(s) and fittings must be adequately fastened and have no visible signs of leaking fluid or wear points. Fluid levels must be at or above manufactures required levels.
- 18) Power Steering (if equipped):** Fluid levels must be at or above manufactures required levels. All components and lines must be free from signs of wear, corrosion and leaking.
- 19) Exhaust manifold or headers:** Exhaust manifolds and connections must be sealed and not show any sign of leakage.
- 20) Hood safety latch:** Hood safety latch must work. Hinges must allow free operation of engine compartment access.
- 67(1)** A motor vehicle's hood that opens from the front must have a primary and a secondary hood latch mechanism.
- (2)** The secondary hood latch mechanism must prevent the hood from opening if the primary hood latch mechanism fails.
- (3)** This section does not apply to motor vehicles manufactured before January 1, 1971.
- 21) Wheels & Wheel lugs:** Wheels must revolve without wobble, have no missing spokes or visible cracks or damage. The lug holes must not be distorted and all lug nuts are in place.
- 30&31) Tires:** Inspect tires for correct pressure, tread depth, splits, cuts or sidewall checking and age. The last four digits of the tire identification number will give you the week (the first 2) and the year ( last 2) of when the tire was manufactured. If by chance your tire was manufactured before 2000, the last three numbers give you the week and year. Tires must be matched in size and type on each axle. Tread depth minimum is .32 cm (1/8") above wear bars, no baldness showing on adjacent treads is allowed. **No part of the vehicle shall come within 2.54 cm (1 in.) of any part of the tire in any position of travel or turn.**
- 32) Alignment (visual):** Check tire thread wear for unusual or uneven wear or cupping indicating that front end alignment is off.
- 33) Steering box or rack, linkage:** Steering box or rack must be securely bolted in place. If movement is determined at any connection the amount of play must be checked against factory allowable standards.
- 34) Tie rod ends:** If movement is determined at any joint the amount of play must be checked against factory allowable standards, or if not known, total play should fall between 3.2 to 7 mm (1/8—1/4 in.)
- 35) Kingpins, spindles & ball joints:** Jack up the vehicle so that the weight of the vehicle is removed from the wheels and try to move the tire in and out at the top and bottom. Note whether

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movement is in the king pins or wheels bearings. Normal passenger car maximum movement moving the tire sidewalls should be .32 cm to .635 cm (1/8" - 1/4").

**36) Shocks and Sway bars:** Shock absorbers must be present and operational without signs of stress or wetness (leaking fluid). Anti-sway bars (if equipped) must operate freely and all bushings should be in good condition.

**37) Springs and Shackles:** Springs should not have a negative arc, be free from cracks and signs of severe chaffing. All connection bushings and shackles must be in good condition.

**38) Brake components - hydraulic:** All brake lines must be free from signs of wear, corrosion and leaking. All brake hoses must be free of cracks and approved for on highway use.

**39) Brake components - mechanical:** All linkage must be free from signs of excess wear and corrosion. All pins should be checked for wear and that locking devices (cotter keys) are in place.

**40) Exhaust system - mufflers, hangers:** Exhaust system components must be secured by flexible hangers where engine torque movement occurs and all rubber-type connections shall be in good condition. There should be no signs of contact wear, cracks or leakage.

**41) Fuel System - tanks and lines:** Check fuel tank for vent and wetness (leaks). Tank must be secure and connections made using appropriate fasteners or clamps.

**42) Floor pan and Frame:** The frame and floor pan shall have no cracks or corrosion perforations. The floor pan shall have no holes into the passenger area.

**43) Air Lift Systems:** Any suspension components that constitute an air system should have rubber stops to limit chassis movement in the event of system failure. All lines must be free from leakage and show no signs of contact abrasion.

**44) Body &/or Suspension lifts or lowering:** Any components added for body or suspension lift should be in good condition and not cause any other component to be stressed. Of particular importance is the steering linkage before and after the steering box and the driveshaft U-joint angles (though 6 degrees is considered a maximum, twice that may suffice for a low speed vehicle). **No vehicle parts shall extend below the wheel rims at their lowest position, except tires.**

**45) Fire extinguisher:** At least 2 lb fire extinguisher with A, B & C ratings should be in the car when on tours or on display or any other club events.

**46) Battery disconnect switch:** A battery disconnect switch is recommended as a safety item to protect the vehicle from electrical shorts when parked. It also isolates the battery from any parasitic loads which will discharge a battery while connected to the car's electrical system.

**47) Trailer Towing Components:** Trailer towing components such as a frame or bumper mounted hitch must be adequate for the trailer being towed and should not interfere with any vehicle systems. Trailer wiring connections to the vehicle's wiring should be sealed from the elements and be of adequate length as to not pull tight during a turn. A safety chain is required, as are two outside mirrors on the vehicle if the trailer obstructs vision by the rear view mirror.