

**LIGHT DUTY / PASSENGER VEHICLE INSPECTION STANDARD**  
**OVERVIEW OF PROPOSED SIGNIFICANT TECHNICAL CHANGES**  
FROM REGULATION 611, SCHEDULES 1 AND 2  
 February 2015

Overall Changes	Rationale
<p>The Ministry wishes to adopt a format and layout for the light duty/passenger vehicle standard that is similar to National Safety Standard 11</p> <p>Proposed requirement for the inspecting technician to provide an inspection report to the client which includes, but is not limited to, those components specifically identified in the Standard as reportable items</p>	<p>Allows for a more detailed inspection process and better communicates the process to inspection station owners, technicians and the public.</p> <p>Allows for clear communication between the station owner / technician and the consumer.</p>

	611 – APPLICABLE ITEMS	MVIS 1 – POWERTRAIN
Line #	General Changes	Rationale
	<p>New requirements have been added to the powertrain system, including: accelerator pedal, throttle actuator, exhaust system, drive shaft, differential, clutch, clutch pedal, engine and transmission mounts, gear shifter/ selector and position indicator, drive belt pulley, electric and hybrid electric powertrain, gasoline and diesel fuel systems and compressed natural gas and propane fuel systems.</p>	<p>Throttle systems have increased in complexity, adding new inspection requirements.</p> <p>Includes inspection of systems which were not previously considered or which did not exist when the previous standard was created.</p>

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	<b>611 4. – SUSPENSION</b>	<b>MVIS 2 – SUSPENSION</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	New ride height, bushing and shock / strut requirements have been added. There are also new requirements for air suspension components and suspension system travel.	Detail has been added to cover important new criteria identified since the introduction of the earlier standard.

	<b>611 2. – BRAKES</b>	<b>MVIS 3 – BRAKE SYSTEMS</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	<p>New requirement to measure and record the dimensions of brake components: drum, rotor and brake lining.</p> <p>The current standard requires the technician to measure components to verify compliance it does not require the recording of the dimensions.</p>	Ensures better adherence to established wear limits, and better enables verification of inspection results.
	Better distinction between various types of brake systems with criteria more closely aligned with the specific requirements for each of the various system types. (e.g. vacuum assist, hydraulic assist, air assist)	To more accurately assess the condition of the various types of braking systems.
3-12	The ABS system must function on a vehicle required to have such a system by the federal manufacturing standards and has a GVWR greater than 4536 kg. For	Light duty vehicles with a GVWR 4536 kg or under do not require ABS by federal standards. Transport Canada has not made ABS a mandatory feature on

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	those vehicles that do not require an ABS system and yet are so equipped the fault indicator lamp must indicate a fault in the system.	light-duty vehicles, therefore it should not be necessary to ensure that it functions on these vehicles.
3-13	Electronic Stability Control systems are required for light duty vehicles manufactured on or after September 1, 2011. The system must function as intend for those vehicles that require the system.	ESC systems have been demonstrated to have a major benefit in reducing loss of control and resulting collisions. Vehicles that are required to have the system must be maintained to keep the system functional.

	<b>611 3. – ENGINE CONTROLS AND STEERING</b>	<b>MVIS 4 – STEERING</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	<p>Rack and pinion steering system requirements, including associated parts (boot, bellows, clamps) have been added in addition to those for recirculating ball type.</p> <p>New requirements for upper strut bearings, steering dampener, tilt/telescopic hardware, remote steering systems, hydraulic power steering system pump and associated components and minimum parts quality and maximum leakage requirements have been introduced.</p> <p>Simplified steering lash requirements and elimination of table from O. Regulation 611 while adding requirements for proper installation of steering box/rack necessitating correct steering ratio on both</p>	<p>Rack and pinion systems have become popular on light duty vehicles since the last update of the standard.</p> <p>The introduction of new systems and components, since the standard was last updated, necessitated the introduction of the additional requirements.</p> <p>Changes made to properly evaluate modern steering systems on light-duty vehicles.</p>

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	sides and tire/body clearance.
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	<b>611 – APPLICABLE ITEMS</b>	<b>MVIS 5 – INSTRUMENTS AND AUXILIARY EQUIPMENT</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	<p>New requirements for horn switch, speedometer, odometer, windshield wiper and washer have been added.</p> <p>Limits on coolant leakage from all heaters and fuel leakage from auxiliary heaters were added.</p>	<p>Additional requirements, which were not in the earlier version of the standard, are necessary and have been introduced.</p>

	<b>611 6. – LIGHTING</b>	<b>MVIS 6 - LAMPS</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
6	<p>The lighting requirements have been amended to incorporate the lighting equipment required by the MVSR when the vehicle was new.</p>	<p>There have been major improvements in lighting performance since the introduction of Canada's federal safety standards in 1971.</p> <p>Subsequent improvements in the federal vehicle manufacturing standards have significantly improved automobile conspicuity.</p> <p>This is a significant increase in the lighting</p>

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		requirements of Reg. 611 however, not much different than the common practise already followed by most shops today.
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	<b>611 5. – ELECTRICAL</b>	<b>MVIS Section 7 – ELECTRICAL SYSTEM</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	<p>Horn, windshield washer, heater/defroster, neutral safety switch and speedometer are now in Section 5, with the exception of “neutral safety switch”, which is in Section 1.</p> <p>The revised section provides requirements for vehicle wiring.</p> <p>Requirements for the vehicle’s battery are provided. Battery, posts, connections, mounts and covers must be tight and free from corrosion, deterioration or evidence of burning. They must be secure, comprised of OEM-quality components and in good condition.</p>	<p>Various critical components that form part of the vehicle’s electrical system were not previously. Failure of those components could cause safety hazards, including fire.</p>

	<b>611 1. – BODY WORK</b>	<b>MVIS 8 – BODY</b>
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<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
8-2(a) 8-5	Specific requirements have been introduced to deal with a loss of structural integrity of cab, cargo or passenger body, chassis, or sub-frame, tailgate, bumper, seats and seat belts due to specified weaknesses, deficiencies, damage, seizure, wear, loss of components or material or improper repair procedures	The structural integrity of load carrying body components is important for the proper attachment and positioning of components, such as steering and suspension. Failure thereof can lead to loss of control. Structural integrity is important for reducing body damage and intrusion into the vehicle during a collision.
8-6	Equipment, latches, handles, door openers, hinges and other devices attached to the vehicle are now included in the inspection and must be in good working condition, not missing nor present an unsafe or hazardous condition to individuals who may be exposed to the vehicle.	Although not a part of the base vehicle, attached equipment could create a safety hazard for the driver, passengers, pedestrians or other motorists while the vehicle is in operation on the highway.
8-9	The entire area of the windshield swept by either the driver's or passenger's side wiper is now included in the inspection, with limits specified.	The subjective nature of the current requirement created confusion as to what "may" interfere with the driver's vision.
8-8(e) 8-9(d)	<p>The federal safety standard which requires 70% minimum light transmittance (maximum tint or opacity of 30%) through the vehicle's windshield and side windows immediately to the left and right of the driver has been added to the revised inspection.</p> <p>Vehicles manufactured after January 1, 2016, are not permitted to have any aftermarket tinting on windshield or side windows directly to the left or right of the driver</p>	<p>The new requirement is a specific and objective standard that the newly manufactured vehicles must comply with. Safety benefits include:</p> <ul style="list-style-type: none"> <li>• enable police to better view driver &amp; other occupants in the vehicle &amp; more effectively enforce hand-held devices law</li> <li>• enable pedestrians and other drivers at intersections to determine if a driver has observed them</li> <li>• improve the driver's view of the roadway and other</li> </ul>

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		traffic
8-14	Occupant protection systems required by federal law are now required to be maintained in functional order. This includes air bags, seatbelt pre-tensioners, and side curtains..	Occupant protection systems have developed substantially. The addition of these requirements will improve occupant safety by reducing the probability of injury during collisions.

	<b>611 7. – TIRES AND WHEELS</b>	<b>MVIS 9 – TIRE AND WHEEL</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
	The tire and wheel section has been updated to incorporate the developments that have taken place in the tire industry since this section of Regulation 611 was last updated.	
9-1	<p>The new requirement fails a tire if any single point on a tire's tread is below the minimum, whereas the current standard requires 6 measurements in two adjacent grooves, equally spaced around the circumference of the tire.</p> <p>The minimum required tread depth has been increased from 1.6 mm to 2 mm an increase of 26% (2/32 inch = 1.5875 mm increased to 2 mm)</p>	<p>Tire tread depth has a major impact on the handling and stopping performance of a vehicle, particularly on wet or snow covered roads. Although tires, by industry practise, are marked by wear indicators at 1.6 mm (2/32 inch) it is also commonly argued that this is a very minimal requirement and that safety performance of vehicles greatly increases with even a marginal increase in tread depth.</p> <p>Plug-type repairs have a tendency to blow out at high vehicle speed.</p>
	No mixing of radial with other tire construction types	Research has shown that mixing of tires, particularly

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	(such as bias ply) is permitted.	mixing winter and other tires, causes potential safety hazards with respect to maintaining vehicle control.
9-7	The use of wheel spacers is now prohibited, although adaptors are permitted if they are in good mechanical condition.	Spacers have been found to cause lug nuts/bolts to come loose in service and are therefore considered a safety hazard. A properly designed adapter does not have the same propensity to loosen in service. Adapters are used by some OEMs and are considered a safe way to adjust offset.

	<b>611 1.(11) &amp; 1.(12) - BODY WORK</b>	<b>MVIS 10 – COUPLING DEVICES</b>
<b>Line #</b>	<b>General Changes</b>	<b>Rationale</b>
10	Better distinction between various types of hitch systems with more complete criteria closely aligned with the specific requirements for each hitch types.	To more accurately assess the condition of the various types of hitch systems.

	<b>NEW SECTION</b>	<b>MVIS 11 – ROAD TEST</b>
	<b>General Changes</b>	<b>Rationale</b>
	A section has been added to the MVIS to capture the elements which should be inspected and recorded during a road test of the vehicle, including telltales, shock absorber functionality, odometer, steering, etc.	Although road testing of the vehicle is generally performed already, important elements of the inspection can only be identified through a road test.