



VEHICLE INSPECTION HANDBOOK

Manitoba

LIGHT VEHICLE INSPECTION METHODS AND STANDARDS

INDEX

	<u>Section</u>
Power Train.....	1
Suspension.....	2
Brakes.....	3
Steering.....	4
Instruments and Auxiliary Equipment.....	5
Lamps.....	6
Electrical System.....	7
Body.....	8
Tires and Wheels.....	9
Body Integrity for Total Loss Vehicles.....	10
CSA/Manitoba Labour Decals.....	11
Approved Theft Deterrent Immobilizer.....	12

INTRODUCTION

This handbook outlines the inspection procedures and criteria for determining vehicle compliance with the standards of safety and repair maintained by the Registrar of Motor Vehicles in accordance with Manitoba Regulation 75/94, the Vehicle Safety Inspection Regulation.

The standards and procedures contained herein have been compiled from several sources. THE AMERICAN ASSOCIATION OF MOTOR VEHICLE ADMINISTRATORS (AAMVA), COMMERCIAL VEHICLE SAFETY ALLIANCE (CVSA), and MOTOR VEHICLE MANUFACTURERS ASSOCIATION (MVMA) Standards have been consulted and form the foundation on which the inspection handbook is based.

Every reasonable effort has been made to ensure the accuracy of this handbook. It is possible, however, specific pieces of information may have been inadvertently omitted or that there may be discrepancies between the Registrar's Standard and the Original Equipment Manufacturer's Standards.

Where a discrepancy arises between the Registrar's Standard and the Original Equipment Manufacturer's (OEM) Standard, the user of the handbook is obliged to use the lesser standard.

Users of this manual are encouraged to notify the Vehicle Standards and Inspection Branch of the Department of Highways and Transportation of any errors, omissions or discrepancies.

Wheel removal does not apply to new vehicles where new Vehicle Information Statement NVIS or Certificate of Origin for Vehicle is supplied by the Canadian or U.S. Manufacturer.

LIGHT VEHICLE INSPECTION PROGRAM

Driver's Controls	Section Subsection
01 Vehicle Identification Number	1-1
02 Neutral Safety Switch	1-6
03 Accelerator Pedal	1-2
04 Sun Visor	8-13
05 Horn Operation	5-4
06 Mirrors	8-11, 12
07 Windshield Wipers and Washers	8-9
08 Windshield Defroster and Interior Heaters	8-14, 15
09 Speedometer and Odometer	5-1, 2
10 Windshield and Windows	8-8, 10
11 Switches	7-3
12 Clutch and Brake Pedal Pad	5-5
13 Instrument Panel Lamps	6-3
14 Parking Brake, Automatic Transmission	3-1, 5-3
15 Power Brake Operation	3-7
16 Brake Failure Indicators	3-3
17 Brake Pedal Reserve and Leakage Test	3-4, 5
18 Steering Linkage Lash and Travel	4-1, 2
19 Clutch Disengagement	1-5
Body Interior	
20 Lamps	6-1
21 Flooring	8-5
Body Exterior	
22 Headlamp Operation & Aim	6-1, 4
23 Turn Signal Lamps	6-1
24 Parking Lamps	6-1
25 Side Marker Lamps	6-1
26 Reflex Reflectors	6-2
27 Back-up and Licence Plate Lamps	6-1
28 Tail Lamps	6-1
29 Stop Lamps	6-1

Vehicle Standards and Inspection

Body Exterior (continued)

	Section Subsection
30 Daytime Running Lamps	6-1
31 Hazard Lamps	6-1
32 Body & Bumpers	8-2, 4
33 Trunk	8-19
34 Doors and Door Latches	8-7

Undercarriage

35 Flooring	8-5
36 Tires, Wheels and Road Clearance	9-1 thru 6, 2-9
37 Ball Joints	4-6, 7
38 Steering Linkage	4-3
39 Steering Column Coupler	4-4
40 Kingpins and Alignment	4-5, 9
41 Frame and Unibody	8-3, 6
42 Springs and Attachments	2-1, 2, 3
43 Shock Absorbers	2-5
44 Brake Lines and Hoses, Vacuum Lines	3-2
45 Wheel Bearings	2-6, 7
46 Fuel Storage and Delivery System	1-3
47 Exhaust System and Catalytic Converter	1-4
48 MacPherson Strut	2-4
49 Constant Velocity Joints	2-8

Brakes

50 Front and Rear Disc Brakes	3-10
51 Front Brake Drums	3-9
52 Rear Brake Drums	3-9
53 Front Brake Lining	3-9
54 Rear Brake Lining	3-9
55 Wheel Cylinders	3-9
56 Brake Mechanical Components	3-8, 9
57 Proportioning Valve	3-11

Engine Compartment

58 Hood and Safety Catch	8-1
59 Power Steering	4-8
60 Brake Master Cylinder, Lines and Hoses	3-2
61 Vacuum and Hydraulic System	3-6, 8
62 Wiring and Battery	7-1, 2

LESS THAN 4500 kg POWER TRAIN

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>L.P.G., C.N.G. AND DUAL-FUEL VEHICLES</p> <p>Refer to the pressure fuel section of this manual.</p> <p>4. Exhaust System, Emission Equipment and Catalytic Converter:</p> <p>With the engine running, visually and audibly inspect:</p> <ul style="list-style-type: none"> a) manifolds b) mufflers c) resonators (where fitted) d) tail pipes e) exhaust pipes f) mounting hardware g) exhaust cut-out h) heat shield (applicable vehicles) i) tail pipe termination j) catalytic converter - (Applies to motor vehicles manufactured on or after January 1, 1995) k) emission control equipment - (Applies to motor vehicles manufactured on or after January 1, 1995) <p>5. Clutch:</p> <p>6. Neutral Safety Switch: (if originally equipped)</p> 	<p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any fuel system has a visible leak at any point ii) any fuel tank filler cap missing iii) any fuel tank not securely attached to the motor vehicle (Note: Some fuel tanks use springs or rubber bushings to permit movement.) a) leaking b) leaking, missing, patch not welded c) leaking, missing, patch not welded d) leaking, missing, patch not welded e) leaking, missing, patch not welded f) missing, loose g) exhaust cut-out is installed h) insecure, missing i) the installation does not expel the exhaust fumes beyond outside perimeter of the vehicle; trucks - tail pipe does not extend beyond passenger compartment j) missing, or replaced with a non-catalytic muffler k) any emission equipment is missing <p>does not function</p> <p>does not function</p>

**LESS THAN 4500 kg
SUSPENSION**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Leaf Springs and Attachments: Visually inspect:</p> <ul style="list-style-type: none"> a) spring leaves b) shackles c) hangers d) u-bolts e) centre bolts f) bushings or pivot g) torque arms h) stabilizer bars - if factory installed i) ride height (passenger car type) 	<ul style="list-style-type: none"> a) leaf in any leaf spring assembly broken or missing b) loose, broken, missing, worn c) loose, broken, missing, worn d) loose, broken, missing e) broken, missing f) loose, missing g) broken, loose h) broken, welded repair, damaged, missing i) not within manufacturer's specifications <p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) one-quarter of the leaves, or the main leaf, in any leaf spring assembly is broken or missing ii) one or more leaves displaced in a manner that could result in contact with a tire, rim, brake drum
<p>2. Coil Springs and Attachments: Visually inspect:</p> <ul style="list-style-type: none"> a) springs b) control arms c) torque arms (rear) d) axial strut (applicable units) e) radius arm (applicable units) f) stabilizer bars (front & rear) if factory installed 	<ul style="list-style-type: none"> a) broken b) bent, cracked, welded repair, control arm shaft or bushings loose c) missing, bent, cracked, welded repair, bushings loose d) missing, bent, cracked, welded repair, bushings loose e) missing, bent, cracked, welded repair, bushings loose f) missing, disconnected, broken, loose, welded or damaged

**LESS THAN 4500 kg
SUSPENSION**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>4. MacPherson Strut: Visually inspect:</p> <ul style="list-style-type: none"> a) coil spring b) control arm c) mounting tower d) stabilizer bar e) ride height <p>NOTE: Adjustment holes can be enlarged as long as they do not infringe on centre hole or flange.</p> <p>5. Shock Absorbers/Shock Struts: Visually inspect:</p> <ul style="list-style-type: none"> a) with vehicle on level surface, push down on one corner of vehicle and release b) condition c) mountings d) bushings e) leakage 	<p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) broken torsion bar spring in a torsion bar suspension ii) any torsion bar attachment or other axle positioning part(s) cracked, broken, loose or missing, resulting in shifting of any axle from its normal position <ul style="list-style-type: none"> a) broken b) bent, cracked, field welded, bushings loose c) rusted through that the strut could come detached; attaching bolts are loose, bent or misaligned d) missing, disconnected, broken, loose, field welded, damaged, bushings loose e) not within manufacturer's specifications <ul style="list-style-type: none"> a) vehicle continues free rocking motion after 2 oscillations b) defective c) loose d) missing e) leakage (not slight dampness)

**LESS THAN 4500 kg
SUSPENSION**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>6. Drive Wheel Bearings: Inspect:</p> <ul style="list-style-type: none"> a) free play b) condition c) seal 	<ul style="list-style-type: none"> a) exceeds vehicle manufacturer's specifications b) loose, noisy c) leaking
<p>7. Free-Wheeling Bearings: Inspect:</p> <ul style="list-style-type: none"> a) free play b) condition 	<ul style="list-style-type: none"> a) exceeds vehicle manufacturer's specifications b) loose, noisy
<p>8. Constant Velocity Joints: Visually inspect:</p> <ul style="list-style-type: none"> a) constant velocity joint seal (with the front of the vehicle raised) b) constant velocity joint (while operating vehicle) c) axles 	<ul style="list-style-type: none"> a) leaking, missing b) makes noise when wheels turned to extreme c) bent, field welded
<p>9. Road Clearance: Visually inspect underside of vehicle:</p> <ul style="list-style-type: none"> a) clearance between lowest part of the vehicle and a flat road surface 	<ul style="list-style-type: none"> a) any part of the vehicle extends below the rim of any wheel

LESS THAN 4000 kg
BRAKES

3
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>CAUTION: ANTI-LOCK BRAKING SYSTEMS REQUIRE SPECIAL TREATMENT AND SHOULD BE HANDLED AND INSPECTED ACCORDING TO THE MANUFACTURER'S RECOMMENDED PROCEDURE.</p> <p>1. Parking Brake:</p> <ul style="list-style-type: none"> a) function b) mechanical components c) indicator light (OEM equipped) <p>2. Brake Lines, Hoses and Master Cylinder: Visually inspect:</p> <ul style="list-style-type: none"> a) hoses b) lines c) master cylinder d) cap e) hose protection 	<p>NOTE: MICRO LOCK SYSTEM IS NOT CONSIDERED TO BE AN ACCEPTABLE PARKING BRAKE.</p> <ul style="list-style-type: none"> a) does not operate, fails to hold vehicle, does not release fully b) any component is seized, missing, incorrectly installed, broken, loose, worn that the brake is inoperable c) fails to operate <ul style="list-style-type: none"> a) cracked, chafing, flattened, insecurely mounted, twisted, restricted, bulged, leaking, non-approved type b) any repairs other than steel tubing, tubing connections not double flared, flattened, restricted, leaking, welded, non-approved type c) fluid level is down by more than 12.5 mm (0.5 in) in either chamber or as recommended by the manufacturer, pedal fades under a steady pressure d) missing, damaged, vent hole is plugged, gasket missing, damaged e) hoses located within 38 mm (1.5 in) of exhaust system and not protected by heat shields <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any visually observed leaking hydraulic fluid in the brake system ii) seeping or swelling brake hose(s) under application of pressure iii) fluid lines or connections leaking, restricted, crimped, cracked or broken

**LESS THAN 4500 kg
BRAKES**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>3. Brake Failure Indicators: (where original equipment) Visually and manually inspect:</p> <ul style="list-style-type: none"> a) warning indicator b) pressure differential switch <p>4. Brake Pedal Reserve and Leakage Test: (non power assisted)</p> <p>Apply a moderate foot force to the pedal, and maintain it for 30 seconds.</p> <ul style="list-style-type: none"> a) pedal accessibility b) pedal condition c) leakage d) travel 	<ul style="list-style-type: none"> a) the lamp fails to operate, the lamp is continuously illuminated b) lamp comes on with engine running and brake pedal depressed firmly <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) brake failure or low fluid warning light is on <ul style="list-style-type: none"> a) pedal is obstructed b) non skid surface is missing c) pedal continues to move slowly in the applied direction d) pedal travel from free height to depressed height is more than 80% of the total possible travel, or does not meet the manufacturer's specifications <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) the service brake pedal requires pumping to obtain the pedal reserve
<p>Brake Pedal Reserve and Leakage Test (Cont.): (hydraulic assisted)</p> <p>Stop engine, then depress brake pedal several times to eliminate all pressure. While maintaining light foot force on the pedal, start engine and observe if pedal moves slightly down when engine starts.</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> a) travel 	<ul style="list-style-type: none"> a) pedal does not move slightly downward as engine is started while force is on brake pedal

**LESS THAN 4500 kg
BRAKES**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>5. Brake Pedal Reserve - Vacuum Power Brakes:</p> <p>With the engine shut off, all vacuum exhausted, and without pumping or repeated brake pedal applications, apply a moderate foot force to the pedal, and maintain it for 30 seconds.</p> <p>Visually and with a measuring device, inspect:</p> <ul style="list-style-type: none"> a) pedal accessibility b) pedal condition c) leakage d) travel <p>6. Vacuum Brake System:</p> <p>Visually and manually inspect:</p> <ul style="list-style-type: none"> a) lines and hoses b) leaks c) clamps d) tank (if fitted) <p>7. Power Brake Operation:</p> <p>With the engine off, depress brake pedal several times to eliminate vacuum, apply light force on brake pedal and start engine.</p> <p>Visually inspect booster:</p> <ul style="list-style-type: none"> a) operation b) condition 	<ul style="list-style-type: none"> a) pedal is obstructed, broken, missing b) non skid surface is missing c) pedal continues to move slowly in the applied direction d) pedal travel from free height to depressed height is more than 80% of the total possible travel, or does not meet the manufacturer's specifications <p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) the service brake pedal requires pumping to obtain the pedal reserve <ul style="list-style-type: none"> a) collapsed, broken, chafed b) any leakage detected c) loose, missing, broken d) loose, damaged <ul style="list-style-type: none"> a) does not operate b) loose, damaged

**LESS THAN 4500 kg
BRAKES**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>8. Hydraulic Booster System: With engine stopped eliminate all pressure. Maintain light foot force and start engine.</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> a) pedal travel b) fluid level c) lines and hoses d) leakage e) belts <p>9. Drum Brakes: Remove at least one front and one rear wheel on opposite sides of vehicle.</p> <p>Note: Wheel removal does not apply to new vehicles where New Vehicle Information Statement (NVIS) or Certificate of Origin for vehicle is supplied by the Canadian or U.S. manufacturer.</p> <p>a) Bonded Lining</p> <p>Visually and with the use of a steel scale or Vernier caliper inspect:</p> <ul style="list-style-type: none"> i. thickness ii. condition 	<p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) the service brake pedal does not move toward floor board when engine is started with brakes applied <ul style="list-style-type: none"> a) no movement in pedal is detected b) fluid level below "ADD" mark c) broken, kinked, restricted d) leakage evident at pump, booster lines or hoses e) frayed, cracked <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) the service brake pedal does not move toward floor board when engine is started with brakes applied <ul style="list-style-type: none"> i. worn to 1.6 mm (1/16 in) or less at any point other than chamfered area of lining ii. broken, cracked, lining insecurely bonded to the shoe, contaminated (contaminated linings must be replaced)

**LESS THAN 4500 kg
BRAKES**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>b) Riveted Lining (total lining thickness)</p> <p>Visually and with the use of a steel scale or Vernier caliper inspect:</p> <ul style="list-style-type: none"> i. thickness ii. condition <p>c) Mechanical Components</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> i. self-adjusters ii. self-adjuster cables iii. anchor pins and springs iv. backing plate v. parking brake cables and linkage <p>d) Wheel Cylinders</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> i. operation ii. leaks iii. dust seals <p>e) Brake Drums</p> <p>Visually inspect for:</p> <ul style="list-style-type: none"> i. cracks ii. damage iii. wear - measure inside diameter of drum at 2 locations approximately 90° apart by using an approved gauge - document drum measurement on inspection report iv. operation - with engine not running apply the brakes, then attempt to rotate the wheel assembly and inspect operation for brake effectiveness 	<ul style="list-style-type: none"> i. worn to 3.2 mm (1/8 in) or less, at any point other than chamfered area of lining ii. broken, cracked, contaminated (contaminated linings must be replaced) i. seized, extensively worn or inoperable, missing, wrong thread for wheel installed ii. missing, broken, inoperable iii. extensively worn, broken, loose, missing iv. worn sufficiently to restrict free movement of shoes v. missing, loose, broken, inoperable i. inoperable, seized ii. leaking iii. damaged, missing, deteriorated i. crack extends to open edge of the drum, external cracks are present ii. friction surface is excessively scored iii. diameter exceeds the manufacturer's limit marked on the drum iv. wheels rotate

**LESS THAN 4500 kg
BRAKES**

ITEM AND METHOD OF INSPECTION	REJECT IF:
<p>11. Proportioning Valve: (if equipped)</p> <p>a) Determine if rear wheel brakes are working.</p> <p>CAUTION: MANUFACTURER'S PROCEDURES SHOULD BE FOLLOWED.</p>	<p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any pads that are contaminated ii) thickness of any rotor less than the minimum thickness marked on the assembly iii) absence of any braking action iv) bonded pads worn less than 0.8 mm (1/32 in), riveted 2.4 mm (3/32 in) v) cracks other than heat cracks to hub <p>a) rear wheels fail to lock</p>

MACHINING AND WEAR LIMITS, BRAKE DRUMS AND ROTORS

BRAKE DRUMS

- a) No combination of machining and/or wear shall exceed a manufacturer's limit.
- b) If manufacturer's limit not given, then no combination of wear and/or machining shall exceed original diameter by more than the following limits:

Original Diameter	Limit
all passenger cars	1.5 mm (0.060 in)
360 mm (14-1/8 in) or less	2.3 mm (0.090 in)
greater than 360 mm (14-1/8 in)	3.0 mm (0.120 in)

BRAKE ROTORS

Original thickness may not be decreased by any combination of wear and machining below manufacturer's minimum thickness stamped on the rotor.

**LESS THAN 4500 kg
STEERING**

4
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:								
<p>1. Steering Lash:</p> <p>On vehicles equipped with power steering, the engine must be running and the fluid level, belt condition and tension, all adequate before the testing.</p> <p>a) With front wheels in straight ahead position, turn steering wheel until turning motion can be observed at either of front wheels. Mark rim of steering wheel and, using pointer, turn steering wheel in the opposite direction until motion can be again observed at front wheel.</p> <p>Measure the distance between the mark and the pointer.</p> <p>2. Steering Travel:</p> <p>Turn steering through a full right and left turn. Visually and manually inspect:</p> <p>a) manually for binding</p> <p>b) manually for jamming</p> <p>c) steering stops (visually)</p> <p>d) travel left and right</p> <p>e) steering wheel</p>	<p>a) total movement greater than shown in the following table is encountered at the steering wheel rim before the front wheels indicate any movement:</p> <table align="center" border="0"> <thead> <tr> <th>Type of Steering</th> <th>Lash Exceeds</th> </tr> </thead> <tbody> <tr> <td>Power Steering</td> <td>50 mm (2 in)</td> </tr> <tr> <td>Manual Steering</td> <td>76 mm (3 in)</td> </tr> <tr> <td>Volkswagen/Audi only</td> <td>no play allowed</td> </tr> </tbody> </table> <p align="center">OR MANUFACTURER'S SPECIFICATIONS</p> <p>a) binding during cycle</p> <p>b) jamming during cycle</p> <p>c) missing, evidence of tires rubbing on suspension or body parts</p> <p>d) number of turns from the straight ahead position to full left lock does not equal (plus or minus 1/2 turn) number of turns from the straight ahead to the full right lock position</p> <p>e) less than 330 mm (13 in)</p> <p align="center"><u>Out of Service Criteria</u></p> <p>i) any modification or other condition that interferes with free movement of any steering component</p>	Type of Steering	Lash Exceeds	Power Steering	50 mm (2 in)	Manual Steering	76 mm (3 in)	Volkswagen/Audi only	no play allowed
Type of Steering	Lash Exceeds								
Power Steering	50 mm (2 in)								
Manual Steering	76 mm (3 in)								
Volkswagen/Audi only	no play allowed								

**LESS THAN 4500 kg
STEERING**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>3. Steering Linkage/Rack and Pinion:</p> <p>Visually inspect any modification to the rod ends, drag link or idler arm.</p> <p>Power steering/manual steering</p> <p>Rock steering left and right, and observe movement in steering components.</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> a) tie rods b) tie rod ends c) drag link and idler arm d) pitman arm e) steering box/rack and pinion f) cotter pins/lock nuts g) bellows seal 	<p>Injected with any plastic/polymer compound or modified in any way that conceals wear.</p> <ul style="list-style-type: none"> a) bent, welded b) looseness is evident, bent, welded, seized, injected c) looseness is evident, bent, welded, seized, injected d) loose, welded, injected e) loose, insecurely mounted, bolts missing or loose f) missing, inferior substitute g) split, missing <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any mounting bolt(s) on steering gear box loose or missing ii) any crack(s) in gear box, mounting brackets, or frame adjacent to box iii) any nut is loose or missing on a tie rod, pitman arm, drag link, steering arm, idler arm or tie rod sleeve iv) movement of any stud nut under a steering load v) any ball and socket joint in the steering linkage shows axial looseness vi) any movement (not rotational) between any linkage member and its attachment point

**LESS THAN 4500 kg
STEERING**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>4. Steering Column and Coupler: Visually and manually inspect the steering column and flexible coupling in the column for:</p> <ul style="list-style-type: none"> a) condition b) security c) telescope/tilt steering movement 	<ul style="list-style-type: none"> a) pot joint or rag joint is badly misaligned or deteriorated b) column brackets loose or missing; clamp bolt, nut, locking roll pin is loose or missing c) play is in excess of 6.4 mm (.250 in) <p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any absence or looseness of any u-bolt, or other positioning part(s) in the steering column ii) worn, faulty or weld-repaired universal joint iii) steering wheel not properly secured
<p>5. Kingpins: Visually inspect:</p> <ul style="list-style-type: none"> a) modifications b) horizontal movement - attempt to rock in and out and observe movement at extreme top or bottom of tire c) check vertical movement between spindle support and axle d) kingpin or thrust bearing 	<ul style="list-style-type: none"> a) injected with any plastic/polymer compound or modified in any way that conceals wear b) in excess of - 6.5 mm (1/4 in) for wheels under 406 mm (16 in) c) movement is in excess of 2.5 mm (.100 in) measured vertically d) seized
<p>6. Ball Joints: Refer to manufacturer's specifications for test methods and rejection criteria for a, b, c only</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> a) modifications b) horizontal movement c) vertical movement 	<ul style="list-style-type: none"> a) injected with any plastic/polymer compound or modified in any way that conceals wear b) movement is in excess of the manufacturer's specifications c) movement is in excess of the manufacturer's specifications

**LESS THAN 4500 kg
STEERING**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>7. Ball Joint Securement: Visually inspect:</p> <ul style="list-style-type: none"> a) ball joints at spindle b) ball joints at control arms <p>8. Power Steering: Visually inspect:</p> <ul style="list-style-type: none"> a) belts b) hoses c) pump d) cylinders (if equipped) e) steering box f) assist 	<ul style="list-style-type: none"> a) loose in spindle b) loose in control arm, not seated properly <ul style="list-style-type: none"> a) missing, loose b) leaking, (seepage permitted) c) loose, leaking (seepage permitted) d) loose, leaking e) loose, leaking (seepage permitted) f) no assist is evident
FOR TOTAL LOSS VEHICLES ONLY	
<p>9. Wheel Alignment:</p> <ul style="list-style-type: none"> a) Front each wheel <ul style="list-style-type: none"> i) caster ii) camber iii) toe iv) SAI v) included angle vi) total toe vii) set back viii) turning angle b) Rear, each wheel <ul style="list-style-type: none"> i) caster ii) camber iii) toe iv) total toe v) set back vi) thrust angle 	<ul style="list-style-type: none"> a) not within manufacturer's alignment specifications <ul style="list-style-type: none"> b) not within manufacturer's alignment specifications

**LESS THAN 4500 kg
INSTRUMENTS AND AUXILIARY EQUIPMENT**

5
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Speedometer:</p>	<p>a) does not function</p>
<p>2. Odometer:</p>	<p>a) does not function</p>
<p>3. Automatic Transmission: Visually inspect:</p> <p>a) shift indicator</p>	<p>a) does not function, not accurate</p>
<p>4. Horn: Inspect:</p> <p>a) activating control</p> <p>b) audibility</p>	<p>a) not readily accessible to driver, does not function</p> <p>b) not clearly audible, sound of horn plays a musical tune</p>
<p>5. Clutch Pedal: Visually inspect:</p> <p>a) pedal</p> <p>b) anti-slip provisions</p>	<p>a) missing, loose, linkage worn</p> <p>b) missing</p>

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Lamps:</p> <p>All lamps mentioned below except a hazard lamp must be inspected with lights on.</p> <p>All vehicle lighting must meet CMVSS, DOT or SAE standards for lights and signalling devices.</p> <p>Visually inspect:</p> <ul style="list-style-type: none"> a) headlamps b) tail lamp(s) c) stop lamps d) centre high-mounted stop lamp (if equipped) (required January 1, 1987 on passenger cars) e) turn signal lamps f) hazard warning lamps (where equipped) g) side marker lamps (where equipped) <p>NOTE: A lamp may be both side marker and clearance lamp if visible from side and end.</p> <ul style="list-style-type: none"> h) front parking lamps i) backup (if equipped) j) fog lamps k) driving lamps l) roll-bar high-mounted lamps and off-road lamps 	<p>Auxiliary equipment is placed on, in, or in front of any lamp (except originally equipped with transparent covers).</p> <p>Any lamp is missing or not securely mounted; fails to illuminate properly; any lens broken or cracked so as to impair its effectiveness; modified wiring in poor condition; water (not just moisture droplets) inside the lamp.</p> <ul style="list-style-type: none"> a) not 2 or 4, not white, not facing front as far apart as practical; not proper filament b) not clearly visible, not the proper filament(s) lit; not red c) not clearly visible, not red, not the proper filament(s) lit d) not red, comes on with signal lights e) front: not white or amber; rear: not amber or red; not clearly visible, not proper filament lit, not flashing, indicator does not show correct turn direction f) all hazard warning lamps do not operate in unison g) not 4 located 2 on each side, front: amber, rear: red; not clearly visible h) not white or amber, not clearly visible i) more than 2, not white, not clearly visible, illuminated in forward gear j) more than 2 on front, (not white or yellow) k) more than 2 on front, not white l) opaque covers not in place

LESS THAN 4500 kg LAMPS

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>m) other lamps</p> <p>n) clearance lamps (not required on vehicles under 2.05 m (81 in.) width)</p> <p>o) identification lamps (not required on vehicles under 2.05 m (81 in.) width)</p> <p>p) daytime running lamps</p>	<p>m) red light showing toward front or white light showing toward rear</p> <p>n) (if equipped) does not have 4, not located at widest part of vehicle, front not amber, rear not red</p> <p>o) (if equipped) does not have 6, (3 amber on front, three red on rear), not as high and near centre as practical, not clearly visible</p> <p>p) not equipped on all vehicles manufactured after December 1, 1989; not located on front of vehicle; not white or yellow in colour; does not operate continually when engine operating and master lighting switch is not in the "ON" position</p> <p style="text-align: center;"><u>Out of Service Criteria</u></p> <p>the vehicle does not have:</p> <p>i) at least one headlamp operative on low beam</p> <p>ii) at least one steady-burning red lamp on the rear and visible from 154 m (500 ft)</p> <p>iii) at least one operative stop lamp on the rear</p> <p>iv) turn signals on each side at rear</p>
<p>2. Reflectors:</p> <p>Visually inspect all reflectors:</p>	<p>any reflector missing, insecurely mounted; any lens broken, cracked, modified such as to impair its effectiveness</p>
<p>3. Indicator and Instrument Panel Lamps:</p> <p>Visually inspect:</p> <p>a) brake warning indicator (if equipped)</p> <p>b) high beam indicator</p> <p>c) turn signal indicators</p> <p>d) hazard lamp indicators</p> <p>e) instrument panel lamps (speedometer)</p>	<p>a) fails to operate</p> <p>b) fails to operate</p> <p>c) fails to operate</p> <p>d) fails to operate</p> <p>e) fails to operate</p>
<p>4. Headlight Aiming:</p> <p>Visually Inspect:</p> <p>a) aim</p>	<p>a) not within manufacturer's specifications</p>

LESS THAN 4500 kg
ELECTRICAL SYSTEM

7
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Wiring: Where visible, inspect:</p> <ul style="list-style-type: none">a) securityb) insulation <p>2. Battery: Visually inspect:</p> <ul style="list-style-type: none">a) tray or boxb) cover or hold down <p>3. Switches: (for operation of vehicle) Visually and manually inspect:</p> <ul style="list-style-type: none">a) operationb) condition	<ul style="list-style-type: none">a) loose and contacts moving partsb) bare wire exposed <ul style="list-style-type: none">a) weakened, crackedb) missing, insecure <ul style="list-style-type: none">a) a vehicle system switch fails to functionb) damaged

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Hood and Safety Catch: Manually inspect hood operation and visually inspect:</p> <ul style="list-style-type: none"> a) latches b) secondary latches c) hinges 	<ul style="list-style-type: none"> a) broken, missing, seized, insecurely mounted, inoperable, will not close or open easily b) broken, missing, inoperable c) missing, broken, cracked, seized, inoperable
<p>2. Conventional Body: Visually inspect for:</p> <ul style="list-style-type: none"> a) torn metal/moulding b) rear quarter panels c) wheel spray protection d) wheel panels 	<ul style="list-style-type: none"> a) sharp edges (protruding so as to be hazardous to passengers, pedestrians or cyclists) b) rusted through sufficiently or improperly repaired to allow exhaust gases to enter occupant compartment or affect safety c) mud flap or fenders not full width of tire, or height of bottom edge greater than 2/3 distance from centre of wheel to extreme rear of vehicle d) missing, incomplete, perforated to allow exhaust gases into trunk/passenger compartment
<p>3. Frame and Mounts: With the vehicle raised, visually inspect:</p> <ul style="list-style-type: none"> a) frame rails b) engine/transmission mounts/bolts c) cross members d) body mounts/insulator 	<ul style="list-style-type: none"> a) improperly repaired, cracked, broken, bent, perforated or separated due to corrosion between front and rear suspension mounts and rear frame to body mounts b) missing, loose, broken c) improperly repaired, cracked, broken, bent or separated due to corrosion or collision damage to a depth as to weaken member so as to effect the safety and structural integrity of the vehicle d) split, broken, cracked, loose, missing, missing bolts

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>4. Bumpers - Front and Rear: Visually inspect:</p> <ul style="list-style-type: none"> a) condition b) shock absorber (if equipped) c) height d) dimensions <p>5. Floor:</p> <ul style="list-style-type: none"> a) condition 	<p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any cracked, rusted, loose, sagging or broken frame member permits shifting of the body onto moving parts ii) any other condition indicating an imminent collapse of the frame iii) any cracked, rusted, loose or broken frame member adversely affecting the support of any functional components such as steering gear, engine, transmission, body parts and suspension iv) a 38 mm (1 1/2 in) or longer crack in a frame web is directed towards bottom of flange v) any crack extends from a frame web around radius and into bottom flange vi) crack 25 mm (1 in) or longer in bottom flange <ul style="list-style-type: none"> a) missing, loose, broken, wood material, torn portion is protruding so as to create a hazard b) collapsed c) cars - centre of bumper not between 355 - 560 mm (14 in - 22 in) from the ground trucks - lowest part of front bumper, higher than 740 mm (29 in) from the ground (rear bumper not mandatory) d) less than track width, horizontal surface less than 76 mm (3 in) trucks (front) 100 mm (4 in) <ul style="list-style-type: none"> a) rusted through or allows exhaust gases to enter the vehicle

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>6. Unibody: Visually inspect:</p> <ul style="list-style-type: none"> a) floor pan b) strut towers and spring shackle supports) c) body panels d) high strength, front and rear structural side members e) welding f) fenders and mud flaps g) frame and/or structural body components: <ul style="list-style-type: none"> i) - corrosive deterioration or deterioration of structural components such as frame assemblies in full frame or semi-monocoque vehicle construction and floor pan on unibody and monocoque construction - corrosive weakening can be evaluated by tapping with rounded end of a 10 to 12 ounce ball peen hammer or jacking at front or rear and measuring rear edge of door to "B" pillar clearance before and after jacking 	<ul style="list-style-type: none"> a) improperly repaired or rusted through to allow exhaust gases entering occupant compartment or the safety and structural integrity features of the vehicle are compromised by the deteriorated condition b) cracked, broken, rusted through to a depth so as to weaken supports c) perforated as to weaken structural integrity of vehicle or allow exhaust gases into occupant compartment d) oxy-acetylene welded or braised, cracked, broken, rusted through to a depth so as to weaken member e) components welded when originally bolted or riveted f) not full width of tire, height of bottom edge greater than 2/3 distance from centre of wheel to the extreme rear of vehicle i) - frame rails or crossmembers are perforated or separated due to corrosion anywhere between the front and rear suspension mountings and near frame-to-body mountings on vehicles with frames and sub-frames and when unibody sheet metal is separated - perforated or flaking in area near suspension component mounting or where structural shapes have been stamped into the floorpan - frame rails, crossmembers, sub-frame assemblies and unibody or monocoque stamped structural shapes are distorted, or cracking is visible - signs of heating to straighten unibody structure - tapping with hammer causes indentations indicating extensive corrosive weakening of metal in structural shapes - rear edge of door to "B" pillar clearance changes significantly during jacking

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<ul style="list-style-type: none"> ii) evidence of collision damage or additional welding on frame rails iii) structural components (which include rad supports, inner fender skirts, floor pan, rocker panels, engine compartment side rails, upper reinforcements, lower body rails in the rear, inner fender wells, and luggage compartment floors) 	<ul style="list-style-type: none"> ii) - frame rail shows evidence of welding or additional gusseting; frame rail twisted or bent iii) originally bolted components welded as part of repair
<p>7. Doors and Door Latches: Inspect:</p> <ul style="list-style-type: none"> a) handles (interior, enclosed vehicle) b) catches c) hinges 	<ul style="list-style-type: none"> a) missing, broken, inoperable b) loose, worn or misaligned so as not to latch on primary and secondary catches c) cracked, missing, loose so door will not close properly, seized
<p>8. Windshield: Refer to Windshield Damaged Chart Page 9 Note: Critical viewing area is the area swept by the windshield wipers. Visually inspect for:</p> <ul style="list-style-type: none"> a) condition 	<ul style="list-style-type: none"> a) outright breakage <ul style="list-style-type: none"> i. two or more cracks over 279 mm (11 in) long in the critical viewing area of the driver ii. any star or shot damage over 51 mm (2 in) in diameter in the critical viewing area of the driver iii. two or more stone or shot damages larger than 25 mm (1 in) in the critical viewing area of the driver iv. four or more star or shot damages larger than 25 mm (1 in) in diameter in the critical viewing area of the windshield v. if cloudiness extends more than 76 mm (3 in) into the windshield (measured from outer edge) vi. broken glass showing sharp edge vii. cracked through both layers of glass

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>Over the whole windshield, visually inspect:</p> <ul style="list-style-type: none"> b) missing area c) tinting (other than original by vehicle manufacturer) d) type (marking applies to all vehicles manufactured on and after 1952) <p>Seated in the driver's seat in a normal position, visually inspect:</p> <ul style="list-style-type: none"> e) obstructions to view <p>9. Windshield Wipers and Washers: Visually inspect both sides for:</p> <ul style="list-style-type: none"> a) number fitted b) operation c) blades d) arms e) washers (applies to all vehicles manufactured on or after Jan. 1, 1971) 	<ul style="list-style-type: none"> b) any portion of windshield glass, or the complete windshield glass area, missing c) tinting of windshield more than 127 mm (5 in) below top or is non transparent d) windshield is other than a laminated safety glass of type AS-1 or AS-10, 14 or is not marked with the AS grade (AS-1 or AS-10, 14 only) e) the view of the driver over the front of vehicle is obstructed by more than a 51 mm (2 in) upward projection into the horizontal forward vision area of the windshield as measured from the rearmost part of the hood or bottom edge of windshield whichever is highest <ul style="list-style-type: none"> a) less than original installation b) fails to operate c) torn, hardened, missing; fails to wipe 75% (approximately) of the windshield; fails to contact the windshield properly d) missing, bent, distorted e) fails to function, fails to clean an effective area in 10 cycles, not aligned <p align="center"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any wiper is inoperative, or there are missing or damaged parts that render a wiper ineffective on the driver's side

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>10. Windows: (side and rear) Visually and manually inspect:</p> <ul style="list-style-type: none"> a) type (marking applies to all vehicles manufactured on and after Jan.1, 1971) b) condition c) operation d) tinting/obstructions (other than original by vehicle manufacturer) 	<ul style="list-style-type: none"> a) not safety glass type, not so marked with AS 1, 2, 10, 11 b) any window is cracked through both layers, broken or clouded so as to restrict vision; rear window is broken or clouded to the extent that the driver is unable to see 60 m (200 ft) to the rear (Trucks do not require rear window) c) left front window does not operate as intended d) after June 1, 1993 have tinting contrary to Manitoba Regulation 99/93
<p>11. Mirrors: Interior (passenger cars required) Visually inspect:</p> <ul style="list-style-type: none"> a) presence b) condition c) adjustment 	<ul style="list-style-type: none"> a) missing b) cracked, broken, obscured c) not adjustable, will not maintain adjustment
<p>12. Mirrors: Exterior Visually inspect:</p> <ul style="list-style-type: none"> a) left outside mirror b) right outside mirror c) view d) mounts e) glass condition f) adjustment 	<ul style="list-style-type: none"> a) missing from passenger vehicles manufactured after Jan.1, 1971; missing from any truck or bus regardless of model year b) missing from multi purpose passenger vehicles manufactured on or after Sept. 1, 1988; missing from any truck or bus regardless of model year c) mirror does not give a clear view to the rear, obstructed d) insecure, loose, excessive protrusion e) cracked, pitted, vision reduced f) not adjustable
<p>NOTE: All trucks and buses require left and right outside mirrors regardless of model year.</p>	

**LESS THAN 4500 kg
BODY**

8
SECTION

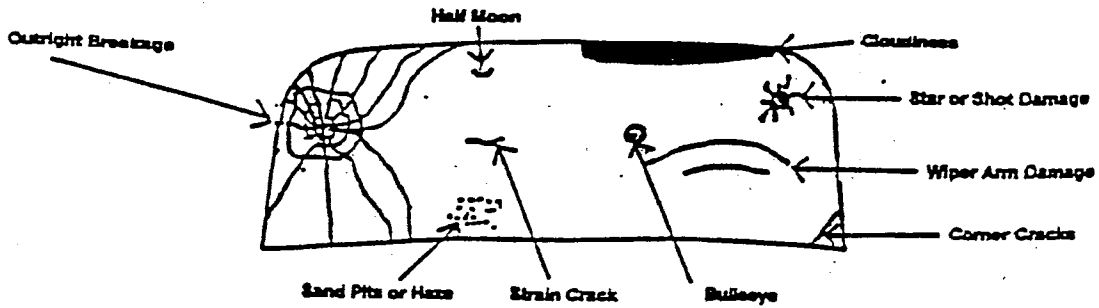
ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>13. Sun Visors: Visually and manually inspect:</p> <ul style="list-style-type: none"> a) location b) attaching parts c) positioning 	<ul style="list-style-type: none"> a) missing on driver's side b) broken, bent, loose c) cannot be maintained in a set position
<p>14. Windshield Defroster: Turn on the defroster fan and feel for warm air coming out of the ducts.</p> <ul style="list-style-type: none"> a) fan operation b) air flow c) controls 	<ul style="list-style-type: none"> a) fails to operate b) insufficient volume of air as to clear area swept by wipers (auxiliary fans may be used to assist the defroster) c) fails to operate as designed
<p>15. Interior Heaters: Turn on fan and feel for warm air coming out of heater duct. Visually and manually inspect:</p> <ul style="list-style-type: none"> a) fan b) condition 	<ul style="list-style-type: none"> a) fails to operate b) any leaks are present
<p>16. Seat: Driver's: Visually inspect:</p> <ul style="list-style-type: none"> a) driver's seat 	<ul style="list-style-type: none"> a) not tightly secured to the floor, frame broken, adjusting mechanism does not operate, will not lock in position, covering material torn and exposing any metal component
<p>17. Seats: Passenger's: Visually inspect for:</p> <ul style="list-style-type: none"> a) passenger seat 	<ul style="list-style-type: none"> a) not tightly secured to the floor, frame broken, adjusting mechanism does not operate, will not lock in position

**LESS THAN 4500 kg
BODY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>18. Seat Belts: Visually inspect:</p> <ul style="list-style-type: none"> a) seat belts (applicable model year 1971 and subsequent year) b) retractors <p>19. Trunk: Visually and manually inspect:</p> <ul style="list-style-type: none"> a) trunk lid b) seal 	<ul style="list-style-type: none"> a) seat belts are missing, webbing is frayed, split, torn; belt buckles do not operate properly; belt anchorages or mounting surfaces are weakened, damaged, deformed, missing b) fails to allow belt to extend to its maximum length, does not release properly <ul style="list-style-type: none"> a) will not close, latch won't hold, hinges damaged, perforations in trunk area to allow exhaust gases to enter b) missing or deteriorated to permit exhaust gases into trunk area

WINDSHIELD DAMAGE DEFINED

Section
8



DRIVER'S SIDE **PASSENGER SIDE**

Cloudiness extends **MORE THAN 3" (76 mm)** into the windshield (measured from outer edge) - **REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

Crack Extending the entire length of the windshield - **DO NOT REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

Star or shot damage **LESS THAN 2" (51 mm)** in diameter in the Critical Viewing Area of the driver - **DO NOT REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

Outright Breakage - **REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

Two cracks in the Critical Viewing Area of the driver are over **11" (279 mm)** in length - **REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

Star or shot diameter **OVER 2" (51 mm)** in diameter in the Critical Viewing Area of the driver - **REJECT**

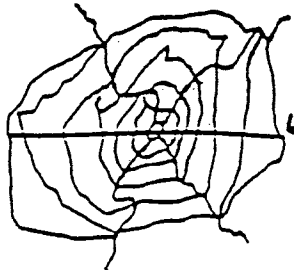
DRIVER'S SIDE **PASSENGER SIDE**

TWO OR MORE stone or shot damage larger than **1" (25 mm)** are in the Critical Viewing Area of the driver - **REJECT**

DRIVER'S SIDE **PASSENGER SIDE**

FOUR OR MORE star or shot damage **LARGER than 1" (25 mm)** in diameter in the Critical Viewing Area of the windshield - **REJECT**

HOW TO MEASURE STONE OR SHOT DAMAGE:



Stone or shot damage to windshields causes damage rings to run outside of the damaged areas. To take an accurate measurement, measure across the largest extending ring.

GLASS THAT DOES NOT AFFORD CLEAR VISION IS:

1. Extreme cloudiness running more than 3" (76 mm) into the windshield.
2. Distorted plastic curtains.
3. **EXTREME** damage caused by blowing sand or other pitting.
4. **EXTREME** windshield wiper damage.

**LESS THAN 4500 kg
TIRES AND WHEELS**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Tread Depth:</p> <p>Visually examine all tread wear indicators:</p> <p>For tires without tread wear indicators, using a tread depth gauge, measure the tread depth in any two adjacent major tread grooves at 3 circumferential locations spaced approximately equally around the outside of the tire:</p> <ul style="list-style-type: none"> a) all tires b) studded tires (if any fitted) <p>NOTE: If a vehicle is presented for an inspection with studded tires between April 30 and October 1, the driver should be warned that this is contrary to regulations.</p> <p>2. Tread Section of Tire:</p> <p>Visually inspect for:</p> <p>Front Tires</p> <ul style="list-style-type: none"> a) damage b) separation c) flat spots and cupping d) section repairs e) run-out <p>Rear Tires</p> <ul style="list-style-type: none"> a) damage b) separation c) flat spots and cupping d) section repairs e) run-out 	<p>Tread wear indicators contact road in any two adjacent grooves, at 3 points-equidistantly spaced around the outside of the tire.</p> <ul style="list-style-type: none"> a) less than 1.6 mm (2/32 in) tread is remaining b) only one tire on drive axle studded, rear drive-axle tires not studded with front tires studded, not all tires studded on a vehicle with front-wheel drive <ul style="list-style-type: none"> a) has a cut exposing cord greater than 25 mm (1 in) b) has any tread separation, any peeling c) tread no longer evident in cupped area d) has any breaks, boots, blow-out patches e) run-out indicates broken or slipped belt <ul style="list-style-type: none"> a) has a cut exposing cord greater than 25 mm (1 in) b) has any tread separation, any peeling c) tread no longer evident in cupped area d) has any breaks, boots, blow-out patches e) run-out indicates broken or slipped belt

**LESS THAN 4500 kg
TIRES AND WHEELS**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>3. Sidewalls: Visually inspect for:</p> <ul style="list-style-type: none"> a) bulges b) cords c) matching tire size d) valve stems e) direction of rotation marking <p>4. Tire Pressure: With use of a gauge, check:</p> <ul style="list-style-type: none"> a) pressure <p>5. Wheel Nuts, Studs: Visually and manually check:</p> <ul style="list-style-type: none"> a) tightness and thread engagement b) condition c) cross threading 	<ul style="list-style-type: none"> a) has any bulges, bumps, lumps apparently caused by separation of cords, belts or by partial failure of the tire structure including the bead area b) has any wear or damage, such as cuts, that exposes cords c) mismatching tires - for example: different size tires on one axle, or one of a dual pair more than 13 mm (0.5 in) different diameter d) seriously damaged, leaking e) a directional tire is incorrectly mounted <ul style="list-style-type: none"> a) pressure not within recommended range set by vehicle manufacturer or as marked on sidewall <ul style="list-style-type: none"> a) loose, inadequate thread engagement b) cracked, crooked, missing, seized from rust c) cross-threaded <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) missing nuts exceed 25% of total nuts on a wheel

LESS THAN 4500 kg
TIRES AND WHEELS

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>6. Wheels: Visually inspect each wheel:</p> <ul style="list-style-type: none"> a) stud holes (of wheels removed for brake check) b) condition c) repaired damage d) centre-lock knock-off type <p>8. Tire Type: Visually inspect:</p> <ul style="list-style-type: none"> a) examine for tire type 	<ul style="list-style-type: none"> a) stud holes elongated b) rim or disc is crooked, bent, cracked; spoke broken, missing c) field welded d) loose on hub splines <ul style="list-style-type: none"> a) equipped with both bias ply tires and radial ply tires on same axle or with radial ply tires on front axle and bias ply tires on rear axle <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any tire that is part of a single wheel mount on any vehicle has any part of the breaker strip or carcass ply showing in the tread, or worn-through plies in the sidewall ii) a tire is marked "NOT FOR HIGHWAY USE" or otherwise marked and having a like meaning except Slow Moving Vehicles carrying a Slow Moving Vehicle triangle

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

10
SECTION

Body Structural Integrity Inspection Standards

The repair/rebuild process shall meet or exceed the rebuilding standards specified by the Inter-Industry Conference on Auto Collision Repairs (I-CAR) and/or the Original Equipment Manufacturer (OEM). Dimensional manuals such as those produced by Mitchell are acceptable for gauging vehicle specifications. In any case where there is inconsistency OEM standards will prevail.

The alignment of the chassis or of the unitized body must conform to the manufacturer's standards and tolerances relative to the safe use of the vehicle, in particular with regard to the position of the suspension and steering components.

The four wheels must be aligned in accordance with the manufacturer's tolerances.

The repair and assembly of the components of the body must be carried out in such a way as to provide occupant protection that is equal to/or exceeds I-CAR or OEM standards.

Unrepairable components of the structure must be replaced.

Repairable components of the body must be repaired in accordance with methods or techniques that do not affect their original properties in accordance with I-CAR or OEM recommendations.

The assembly joints of the body must be located in the places recommended by the manufacturer or other agencies such as I-CAR.

Those joints which are a part of a repair or replaced component must be accessible when the structural integrity inspection is made. No sealant, soundproofing or rustproofing compound shall be applied to the areas repaired or replaced prior to the inspection.

All structural components of a vehicle must be assembled using methods that do not affect the mechanical and metallurgical properties of the component.

Body Structural Integrity is defined as:

"Critical components designed as stress and weight/load bearing member/elements such as radiator support, inner fender skirts, floor pan, rocker panels, engine compartment side rails, upper reinforcements, lower body rails in the rear, inner fender wells, luggage compartment floors and the unibody are within 3 mm (less than 1/8 in) of the critical manufacturing dimensions, alignments and tolerances. All fits and alignments are determined by the accuracy of the welded structural panels."

THIS IS IN ADDITION TO THE MECHANICAL INSPECTION

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

If you see any of the following, you **MUST** refer the vehicle for a structural integrity assessment.

1. Hood:

Crush Zone modifications on the hood;
Damage to crush zone on the hood.

2. Body:

Torn metal on body.

3. Frame Rails and Mounts:

Cracked, broken, bent perforated or separated due to corrosion or collision damage.

4. Unibody:

Rusted through sufficiently or improperly repaired to allow exhaust gases to enter occupant compartment or affect safety and/or structural integrity.

Kinks or wrinkles in sub sheet metal eg. cowl, strut towers, firewall, floor pans, suspension.

5. Frame/Structural Components:

Evidence of frame splicing;

Signs of welding on unibody;

Welding on frame or suspension components that were originally bolted item.

Windshield not properly installed or improper sealant used - Ref. CMVSS 212, 216

THE FOLLOWING IS AN ADVISORY ITEM AND SHOULD NOT CONSTITUTE A FAILED INSPECTION:

Air bags not installed on a vehicle equipped with same - advise owner.

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

**10
SECTION**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. Hood: Manually inspect hood operation and visually inspect:</p> <ul style="list-style-type: none"> a) latches b) secondary latches c) hinges d) safety retainer pins e) hood reinforcement f) crush zones <p>2. Body: Visually inspect for:</p> <ul style="list-style-type: none"> a) torn metal b) rear quarter panels c) floor d) body panels d) wheel panels 	<ul style="list-style-type: none"> a) broken, missing, seized, insecurely mounted, inoperable, will not close or open easily b) broken, missing, inoperable c) missing, broken, cracked, seized, inoperable d) missing e) hood reinforced other than by manufacturer f) any modifications to crush zones a) sharp edges b) - damaged in such a manner that factory installed lamps cannot be secured as per factory installation, missing section torn away so road spray is not controlled <ul style="list-style-type: none"> - mud flap or fenders not full width of tire, or height of bottom edge greater than 2/3 distance from centre of wheel to extreme rear of vehicle - fitted so that it could cause interference with steering mechanism or cause rubbing of tires when suspension bottomed and steering moved block to block, includes rear wheels c) - rusted through sufficiently to cause a hazard or allow exhaust gases to enter the vehicle <ul style="list-style-type: none"> - improperly repaired to compromise the safety and structural integrity features of the vehicle d) perforated or dented in excess of 50 mm (2 in) from original body design so as to affect the safety and structural integrity features of the vehicle d) - missing, incomplete <ul style="list-style-type: none"> - improperly repaired to affect the safety and structural integrity of the vehicle - perforated to allow exhaust fumes into trunk/passenger compartment

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>3. Frame Rails and Mounts: With the vehicle raised, visually inspect:</p> <ul style="list-style-type: none"> a) frame rails b) body mounts c) cross members d) welded and heated areas 	<ul style="list-style-type: none"> a) repair does not conform to OEM or I-CAR Standards, cracked, broken, bent, perforated or separated due to corrosion between front and rear suspension mounts and rear frame to body mounts b) split, broken, cracked, loose, missing, missing bolts c) repair does not conform to OEM or I-CAR Standards, improperly repaired, cracked, broken, bent or separated due to corrosion or collision damage to a depth as to weaken member d) not coated, repair does not conform to OEM or I-CAR Standards, <p style="text-align: center;"><u>Out of Service Criteria</u></p> <ul style="list-style-type: none"> i) any cracked, rusted, loose, sagging or broken frame member permits shifting of the body onto moving parts; any other condition indicating an imminent collapse of the frame ii) any cracked, rusted, loose or broken frame member adversely affecting the support of any functional components such as steering gear, engine, transmission, body parts and suspension iii) a 38 mm (1 1/2 in) or longer crack in a frame web is directed towards bottom of flange iv) any crack extends from a frame web around radius and into bottom flange v) crack 25 mm (1 in) or longer in bottom flange

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

**10
SECTION**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>4. Unibody: Visually inspect condition of:</p> <ul style="list-style-type: none"> a) floor pan b) strut towers and spring shackle supports c) body panels d) high strength, front and rear structural side members e) welding f) unibody sheet metal g) fenders and mud flaps 	<ul style="list-style-type: none"> a) improperly repaired or rusted through sufficiently to cause a hazard or allow exhaust gases to enter occupant compartment or compromises the safety and structural integrity features of the vehicle b) cracked, broken, rusted through to a depth so as to weaken supports c) does not conform to OEM or I-CAR Standards, d) oxy-acetylene welded or braised, cracked, broken, rusted through to a depth so as to weaken member e) components welded when originally bolted or riveted, unless recommended by OEM or I-CAR f) separated, flaking in areas near suspension mounts, structural shapes distorted, signs of heating, hammer-caused indentations g) not full width of tire, height of bottom edge greater than 2/3 distance from centre of wheel to the extreme rear of vehicle
<p>5. Bumpers - Front and Rear: Visually inspect:</p> <ul style="list-style-type: none"> a) condition b) shock absorber (if equipped) c) height d) dimensions e) reinforcement bars 	<ul style="list-style-type: none"> a) missing, loose, broken, torn portion is protruding so as to create a hazard b) collapsed, welded to rail, not collapsible c) cars - centre of bumper not between 355 - 560 mm (14 in - 22 in) from the ground trucks - lowest part of front bumper, higher than 740 mm (29 in) from the ground (rear bumper not mandatory) d) less than track width, horizontal surface less than 76 mm (3 in) trucks (front) 100 mm (4 in) e) welded, heated, unless recommended by OEM or I-CAR, torn or missing

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>6. Doors:</p> <p>Inspect:</p> <ul style="list-style-type: none"> a) operation b) buttons or handles c) catches d) hinges e) seals f) location g) intrusion beam 	<ul style="list-style-type: none"> a) binds, jams, closes insecurely b) missing, broken, inoperable c) loose, worn so as not to latch on primary and secondary catches d) cracked, missing, loose so door will not close properly, seized e) exhaust gases enters passenger compartment f) - no exit on each side - exits as per original manufacturer are non-operational g) repair does not conform to OEM or I-CAR Standards
<p>7. Frame and/or Structural Body Components:</p> <ul style="list-style-type: none"> a) corrosive deterioration <ul style="list-style-type: none"> - inspect for corrosive deterioration or deterioration of structural components such as frame assemblies in full frame or semi-monocoque vehicle construction and floor pan on unibody and monocoque construction. - corrosive weakening can be evaluated by tapping with rounded end of a 10 to 12 ounce ball peen hammer or jacking at front or rear and measuring rear edge of door to "B" pillar clearance before and after jacking. b) inspect for evidence of collision damage or additional welding on frame rails or unibody 	<ul style="list-style-type: none"> a) - frame rails or crossmembers are perforated or separated due to corrosion anywhere between the front and rear suspension mountings and near frame-to-body mountings on vehicles with frames and sub-frames and when unibody sheet metal is separated <ul style="list-style-type: none"> - perforated or flaking in area near suspension component mounting or where structural shapes have been stamped into the floorpan - frame rails, crossmembers, sub-frame assemblies and unibody or monocoque stamped structural shapes are distorted, or cracking is visible - signs of heating to straighten unibody structure - tapping with hammer causes indentations indicating extensive corrosive weakening metal in structural shapes - rear edge of door to "B" pillar clearance changes significantly during jacking b) - frame rail shows evidence of welding or additional gusseting; frame rail twisted, bent or repair does not conform to OEM or I-CAR Standards, - unibody shows signs of welding or buckling

**LESS THAN 4500 kg
BODY INTEGRITY FOR TOTAL LOSS VEHICLES ONLY**

10
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<ul style="list-style-type: none"> c) measure and gauge three dimensional measurements, height, width and length d) structural components include radiator support, inner fender skirts, floor pan, rocker panels, engine compartment side rails, upper reinforcements, lower body rails in the rear, inner fender wells, and luggage compartment floors <p>8. Unibody structural integrity rejection criteria:</p> <p>Visually inspect unibody structural components for:</p> <ul style="list-style-type: none"> a) alignment b) securement c) welding techniques d) structural components e) windshield replacement 	<ul style="list-style-type: none"> c) not straightened or aligned to numerical tolerances d) - originally bolted components welded as part of repair - does not meet OEM or I-CAR Standards <ul style="list-style-type: none"> a) structural components are obviously misaligned (door, trunk, hood) b) door latches, hood catch, trunk latch, fail to operate properly and hold unit secure c) - high strength steels are oxy-acetylene or stick electrode welded - structural components are gas welded - does not conform to OEM or I-CAR Standards d) - structural components have been sectioned and does not conform to OEM or I-CAR Standards - kinks, wrinkles or other defects in sub sheet metal in such areas as cowlings, strut towers, floor pan, suspension attachment points e) not properly installed or improper sealant, reference CMVSS 212 and 216

**Specification
For Mobile Home or Recreational
Vehicle Under The Buildings and
Mobile Homes Act**

Manitoba
Labour
Office of the
Fire Commissioner

Room 510
Norquay Building
401 York Avenue
Winnipeg, Manitoba
R3C 0P8



CERT.
No.

A) GENERAL:

Manufacturer _____
 Factory Address _____
 Trade Name _____ Year Built _____
 Model No. _____ Serial No. _____

B) APPLIANCE SPECIFICATION:

	<u>MAKE</u>	<u>MODEL</u>	<u>ENERGY SOURCE</u>
1) Furnace	_____	_____	_____
2) Water Heater	_____	_____	_____
3) Air Conditioner	_____	_____	_____
4) Range	_____	_____	_____
5) Refrigerator	_____	_____	_____
6) Dishwasher	_____	_____	_____
7) Clothes Washer	_____	_____	_____
8) Dryer	_____	_____	_____
9)	_____	_____	_____
10)	_____	_____	_____

- CAUTION:** 1) Do not use fuels other than those specified for the appliance involved.
 2) If the installed furnace draws combustion air from below the floor of the unit any skirting installed to enclose the crawl space between the ground and the underside of the unit must be such that an adequate air supply is maintained.
 3) To ensure a supply of fresh air to occupants, open ventilators when fuel burning range and/or lights are in operation.
 4) Before operating any appliance, read all instructions supplied by the manufacturer for the specific appliance.

C) ELECTRICAL SYSTEM SPECIFICATION:

Voltage _____ Amperage _____ Frequency _____
 No. of Receptacle Outlets _____ No. of Lighting Outlets _____
 No. of Razor Outlets _____ No. of Switch Outlets _____

D) PLUMBING SYSTEM SPECIFICATION:

(Number of fixtures of each type)

1) Water Closets _____	5) Shower Stalls _____	9) Floor Drains _____
2) Wash Basins _____	6) Laundry Tubs _____	10) Urinals _____
3) Bathtubs _____	7) Auto Washers _____	11) _____
4) Kitchen Sinks _____	8) Roof Terminals _____	12) _____

E) MECHANICAL SYSTEM SPECIFICATION:

The furnace installed in this unit is capable of maintaining a _____ inside temperature with an outdoor temperature of _____ with storm sash, or _____ without storm sash.

F) STRUCTURAL DESIGN SPECIFICATION:

1) Roof Design snow load _____
 2) Ultimate load _____
 3) Floor design load _____
 4) Pier design spacings _____

G) VEHICULAR SYSTEM SPECIFICATION:

1) Length _____ 2) Width _____ 3) Interior Area _____
 4) Gross Trailer Weight _____
 5) Vertical Tongue Load _____
 6) Minimum Tire Size and Ply Rating _____
 7) Recommended Cold Tire Inflation Pressure _____

CAUTION: It is recommended that highway authorities be consulted on regulations applicable to the relocation of this unit.

NOTE:

- 1) THIS SPECIFICATION SHALL NOT BE REMOVED FROM THIS UNIT.
 2) PROPOSED ADDITIONS OR MODIFICATIONS TO THIS UNIT OR ANY SYSTEMS OR EQUIPMENT INSTALLED HEREIN MUST BE REPORTED TO THE MECHANICAL AND ENGINEERING DIVISION OF THE DEPARTMENT OF LABOUR.

Manitoba
Labour
Office of the
Fire Commissioner

Travail
Manitoba
Bureau du
Commissaire
aux incendies



MOBILE HOME
RECREATIONAL VEHICLE

MAISON MOBILE
VEHICULE DE PLAISANCE

STANDARDS
DE NORMES NO. [REDACTED]

PERMIT
PERMIS

Manitoba
Labour
Office of the
Fire Commissioner

Travail
Manitoba
Bureau du
Commissaire
aux incendies



MOBILE HOME
RECREATIONAL VEHICLE

MAISON MOBILE
VEHICULE DE PLAISANCE

AUTHORIZING
SALE OR LEASE

PERMIS AUTORISANT
LA VENTE OU LA LOCATION

DATE [REDACTED]

SERIAL NO. [REDACTED]

N° DE SÉRIE [REDACTED]

MANUFACTURER
FABRICANT [REDACTED]

AUTHORIZED AGENT
AGENT AGRÉÉ [REDACTED]

001


LESS THAN 4500 kg
APPROVED THEFT DETERRENT IMMOBILIZER

12
SECTION

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>1. <u>Approved Theft Deterrent</u></p> <p><u>Immobilizer:</u></p> <p>Only inspect if:</p> <p>The motor vehicle is a "most-at-risk motor vehicle" as defined in the <i>Approved Theft Deterrent Immobilizer Regulation</i>. Refer to the list of most-at-risk motor vehicles – make, model and applicable model years – reproduced in the appendix after this section to determine which motor vehicles must be inspected.</p> <p>Method of inspection:</p> <p>a) After determining that the motor vehicle is a most-at-risk motor vehicle, visually inspect both of the vehicle's front side windows to determine whether the vehicle displays a window decal from the Vehicle Security Installation Bureau Inc. (identifying the vehicle as being equipped with an approved theft deterrent immobilizer). Refer to the decal example on the next page.</p> <p>b) If the vehicle does not display the decal, contact The Manitoba Public Insurance Corporation ("MPI"), at 985-7214, or 1-877-266-6766 (toll free), and select the immobilizer option to find out whether the vehicle being inspected requires an approved theft deterrent immobilizer.</p> <p>Note: "Approved theft deterrent immobilizer" is defined in the <i>Approved Theft Deterrent Immobilizer Regulation</i> and has that defined meaning in this section. That regulation requires a most-at-risk motor vehicle to be equipped with an approved theft deterrent immobilizer if:</p> <ul style="list-style-type: none">• the vehicle is an imported vehicle (as defined in that regulation); or• the vehicle is a recovered vehicle (also as defined in that regulation).	<p>The motor vehicle meets the following criteria:</p> <p>a) the vehicle is on the list of most-at-risk motor vehicles;</p> <p>b) the vehicle does not display a Vehicle Security Installation Bureau Inc. window decal on at least one front side window; and</p> <p>c) MPI confirms that</p> <ul style="list-style-type: none">(i) the <i>Approved Theft Deterrent Immobilizer Regulation</i> requires the vehicle to be equipped with an approved theft deterrent immobilizer, and(ii) according to its records, the vehicle is not equipped with an approved theft deterrent immobilizer.

12
SECTION

LESS THAN 4500 kg
APPROVED THEFT DETERRENT IMMOBILIZER

ITEM AND METHOD OF INSPECTION:	REJECT IF:
<p>APPROVED THEFT  DETERRENT PROGRAM</p> <p>REGISTERED INSTALLATION 00000000</p> <p>WARNING! THEFT PROTECTED</p>	

SCHEDULE/ANNEXE
(Section 1/Article 1)

TABLE OF MOST-AT-RISK MOTOR VEHICLES/
TABLEAU DES VÉHICULES AUTOMOBILES À RISQUE ÉLEVÉ

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Acura	Integra GS	1990-1999
Acura	Integra GS-R	1992-1999
Acura	Integra LS	1990-1999
Acura	Integra RS	1990-1999
Acura	Integra RS-SE	1990-1994, 1999
Acura	Integra SE	1995-1999
Acura	Integra Type R	1997-1999
Buick	Century	1980, 1981
Buick	Century Custom	1982-1994
Buick	Century Estate	1980, 1981, 1984-1990
Buick	Century Limited	1980-1993
Buick	Century Special	1991, 1993, 1994
Buick	Century T Type	1985, 1986
Buick	Electra	1985-1987
Buick	Electra Estate	1985-1989
Buick	Electra Park Avenue	1985-1989
Buick	Electra Park Avenue Ultra	1989
Buick	Electra T Type	1985-1989
Buick	LeSabre	1980, 1981
Buick	LeSabre Custom	1982-1994
Buick	LeSabre Estate	1982, 1983, 1985-1989
Buick	LeSabre Limited	1980-1994
Buick	LeSabre Sport	1980
Buick	LeSabre T Type	1987-1989
Buick	Regal	1980-1987
Buick	Regal Custom	1988, 1989
Buick	Regal Estate	1982, 1983
Buick	Regal Grand National	1987
Buick	Regal Grand National GNX	1987
Buick	Regal Limited	1980-1989
Buick	Regal Sport Coupe	1980-1982
Buick	Regal T Type	1983-1987
Buick	Regal T Type Grand National	1984-1987
Buick	Skylark	1980-1983

MAKE/MARQUE	MODEL/MOÛLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÉLES
Buick	Skylark Custom	1983-1989
Buick	Skylark Limited	1980-1989
Buick	Skylark S	1980-1982
Cadillac	DeVille	1985-1989
Cadillac	Fleetwood	1985, 1989
Cadillac	Fleetwood Brougham	1985-1989
Cadillac	Fleetwood D'Elegance	1986-1988
Chevrolet	Astro	1985-1994
Chevrolet	Astro AWD	1990-1994
Chevrolet	Astro Cargo Van	1985-1994
Chevrolet	Astro Cargo Van AWD	1990-1994
Chevrolet	Astro Cargo Van Ext	1985-1989, 1991
Chevrolet	Astro CL	1985-1994
Chevrolet	Astro CL Ext	1990-1994
Chevrolet	Astro CS	1985-1987, 1989-1994
Chevrolet	Astro CS Ext	1990-1994
Chevrolet	Astro Ext	1990-1994
Chevrolet	Astro Ext AWD	1993, 1994
Chevrolet	Astro LT	1988-1994
Chevrolet	Astro LT AWD	1991-1994
Chevrolet	Astro Lt Ext	1990-1994
Chevrolet	Astro Lt Ext AWD	1991-1994
Chevrolet	Avalanche 1500	2002-2006
Chevrolet	Avalanche 1500 LS	2005, 2006
Chevrolet	Avalanche 1500 LS Z71	2002-2006
Chevrolet	Avalanche 1500 LT	2004-2006
Chevrolet	Avalanche 2500	2002-2004
Chevrolet	Beretta	1990-1994
Chevrolet	Beretta GT	1990-1993
Chevrolet	Beretta GTZ	1990-1993
Chevrolet	Beretta Z26	1994
Chevrolet	Blazer	1985, 1986, 1988, 1992-1995
Chevrolet	Blazer K/V	1985-1994
Chevrolet	Blazer LS	1986, 1991-2005
Chevrolet	Blazer LT	1992-2002
Chevrolet	Blazer S	1985-2005
Chevrolet	Blazer S10	1985-1987, 1989-1992
Chevrolet	Blazer S10 Sport	1992
Chevrolet	Blazer S10 Tahoe	1991, 1993, 1994
Chevrolet	Blazer T	1985-2004
Chevrolet	Blazer Tahoe	1991, 1992, 1994

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Chevrolet	Blazer Tahoe LS	1993, 1994
Chevrolet	Blazer Tahoe LT	1991-1994
Chevrolet	Blazer Trailblazer	1999-2001
Chevrolet	C10 Blazer	1980-1984
Chevrolet	C10 Pickup	1980-1994
Chevrolet	C10 Pickup Diesel	1980-1984, 1990
Chevrolet	C10 Pickup 4+ Cab	1985-1994
Chevrolet	C10 Suburban	1980-1994
Chevrolet	C1500 Pickup	1980-1994
Chevrolet	C1500 Pickup Diesel	1985-1994
Chevrolet	C1500 Pickup 4+ Cab	1985-1994
Chevrolet	C1500 Suburban	1980-1994
Chevrolet	Camaro	1974-1989
Chevrolet	Camaro Berlinetta	1979-1986
Chevrolet	Camaro IROC-Z	1986-1989
Chevrolet	Camaro LT	1975-1978, 1987
Chevrolet	Camaro RS	1980, 1989
Chevrolet	Camaro Z28	1980-1987
Chevrolet	Caprice	1974-1977, 1986-1992
Chevrolet	Caprice Classic	1974-1996
Chevrolet	Caprice Classic Brougham	1986-1990
Chevrolet	Caprice Classic L	1975-1978
Chevrolet	Caprice Classic LS	1993, 1994
Chevrolet	Caprice Estate	1974-1983
Chevrolet	Cavalier	1985-1989
Chevrolet	Cavalier Cadet	1989
Chevrolet	Cavalier CS	1985-1987
Chevrolet	Cavalier RS	1985-1989
Chevrolet	Cavalier Type 10	1985
Chevrolet	Cavalier Z24	1986-1989
Chevrolet	Celebrity	1985-1989
Chevrolet	Celebrity Eurosport	1987-1989
Chevrolet	K10 Blazer	1985-1994
Chevrolet	K10 Pickup	1985-1994
Chevrolet	K10 Pickup 4WD Diesel	1985-1994
Chevrolet	K10 Pickup 4+ Cab 4WD	1985-1994
Chevrolet	K10 Suburban	1985-1994
Chevrolet	K1500 Pickup	1985-1994
Chevrolet	K1500 Pickup 4WD Diesel	1991, 1993, 1994
Chevrolet	K1500 Pickup 4+ Cab	1988-1994
Chevrolet	K1500 Suburban	1985-1994

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Chevrolet	K20 4+ Cab	1990-1994
Chevrolet	K20 Pickup 4WD Diesel	1990-1994
Chevrolet	K20 Suburban	1990-1994
Chevrolet	K2500 4+ Cab	1990-1994
Chevrolet	K2500 Pickup 4WD	1990, 1994
Chevrolet	K2500 Suburban	1990-1994
Chevrolet	Lumina	1990-1994
Chevrolet	Lumina APV	1990-1994
Chevrolet	Lumina APV CL	1990, 1992
Chevrolet	Lumina APV LE	1990, 1991
Chevrolet	Lumina APV LS	1993, 1994
Chevrolet	Lumina APV Utility (Cargo)	1990-1994
Chevrolet	Lumina Euro	1990-1994
Chevrolet	Lumina 3.4 Euro	1992-1994
Chevrolet	Lumina Z34	1991-1994
Chevrolet	Malibu	1980, 1981, 1983
Chevrolet	Malibu Classic	1980-1982
Chevrolet	Malibu Classic Landau	1980, 1981
Chevrolet	Monte Carlo LS	2000-2004
Chevrolet	Monte Carlo SS	2000-2004
Chevrolet	Monte Carlo Supercharged SS	2004
Chevrolet	R10 Pickup	1980-1994
Chevrolet	R10 Pickup 4+ Cab	1985-1994
Chevrolet	R10 Suburban	1980-1994
Chevrolet	R1500 Pickup	1980-1994
Chevrolet	R1500 Pickup 4+ Cab	1985-1994
Chevrolet	R1500 Suburban	1980-1994
Chevrolet	S10 4+ Cab	1980-1994
Chevrolet	S10 LS 4+ Cab	1992, 1994
Chevrolet	S10 Pickup 2WD	1980-1994
Chevrolet	S10 Pickup 4WD	1985-1994
Chevrolet	S10 Pickup 4+ Cab	1983-1994
Chevrolet	S10 Tahoe	1990, 1991, 1993
Chevrolet	Tahoe	1995-2004
Chevrolet	Tahoe LS	1995-2004
Chevrolet	Tahoe LT	1995-2004
Chevrolet	Tahoe Sport	1995-1999
Chevrolet	Tahoe Z71	2000, 2002
Chevrolet	Trailblazer Ext LS	2005, 2006
Chevrolet	Trailblazer Ext LT	2005, 2006
Chevrolet	Trailblazer LS	2005-2007

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Chevrolet	Trailblazer LT	2005-2007
Chevrolet	Trailblazer SS	2006, 2007
Chevrolet	V10 Pickup	1985-1994
Chevrolet	V10 Pickup 4+ Cab	1988-1994
Chevrolet	V10 Suburban	1985-1994
Chevrolet	V1500 Pickup	1985-1994
Chevrolet	V1500 Pickup 4+ Cab	1988-1994
Chevrolet	V1500 Suburban	1985-1994
Chrysler	Cirrus LX	1995-2000
Chrysler	Cirrus LXI	1995-2000
Chrysler	Concorde	1993-1995
Chrysler	Concorde LX	1993-1999
Chrysler	Concorde LXI	1995-1999
Chrysler	Daytona	1987-1993
Chrysler	Daytona ES	1989-1993
Chrysler	Daytona IROC	1991-1993
Chrysler	Daytona IROC R/T	1992, 1993
Chrysler	Daytona Pacifica	1987, 1988
Chrysler	Daytona Pacifica Turbo	1987, 1988
Chrysler	Daytona Shelby	1989-1992
Chrysler	Daytona Shelby Z	1987-1990
Chrysler	Daytona Shelby/IROC	1987-1993
Chrysler	Daytona Turbo	1985-1989
Chrysler	Dynasty	1988-1992
Chrysler	Dynasty LE	1988-1993
Chrysler	Fifth Avenue	1985-1989
Chrysler	Intrepid	1993-2000
Chrysler	Intrepid ES	1993-2000
Chrysler	Intrepid R/T	2000
Chrysler	LeBaron	1985-1994
Chrysler	LeBaron GTC	1990-1994
Chrysler	LeBaron GTS	1985-1989
Chrysler	LeBaron LX	1991-1994
Chrysler	LeBaron Premium	1987-1990
Chrysler	LeBaron Town & Country	1985-1988
Chrysler	LHS	1995-1997, 1999
Chrysler	Neon LE	2000
Chrysler	Neon LX	2000
Chrysler	New Yorker	1980-1989, 1991-1994
Chrysler	New Yorker Fifth Avenue	1982, 1983, 1990-1993
Chrysler	New Yorker L	1988-1990

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Chrysler	New Yorker T	1988
Chrysler	New Yorker Turbo	1985, 1987, 1988
Chrysler	Sebring JX	1996-2000
Chrysler	Sebring JXI	1996-1999
Chrysler	Sebring LX	1995-2003
Chrysler	Sebring LXI	1995-2003
Chrysler	Town & Country	1990-1999
Chrysler	Town & Country Limited	1999
Chrysler	Town & Country LX	1996-1999
Chrysler	Town & Country LXI	1996-1999
Dodge	Avenger	1995-1999
Dodge	Avenger ES	1995-1999
Dodge	Caravan	1985-2000
Dodge	Caravan CV	1985-1998
Dodge	Caravan ES	1990-1997
Dodge	Caravan LE	1985-1999
Dodge	Caravan SE	1985-2001
Dodge	Caravan Sport	1993, 1996-2001
Dodge	D100 Club Cab	1990-1994
Dodge	D150 Club Cab	1990-1994
Dodge	D150 Pickup	1990-1996
Dodge	D250 Club Cab	1990-1994
Dodge	D250 Pickup	1990-1994
Dodge	D250 Turbo Diesel	1990-1994
Dodge	D250 Turbo Diesel Pickup	1990-1992, 1994
Dodge	Dakota	1990-2002
Dodge	Dakota Club Cab	1990-2002
Dodge	Dakota Convertible	1990
Dodge	Dakota LE V8 Club Cab	1991-1993
Dodge	Dakota Magnum V8	1997-1999
Dodge	Dakota Quad Cab	2000-2002
Dodge	Dakota R/T V8 Club Cab	2002
Dodge	Dakota SLT	2000-2002
Dodge	Dakota SLT Club Cab	1994-2002
Dodge	Dakota SLT Plus Club Cab	2000-2002
Dodge	Dakota SLT Plus Quad Cab	2000-2002
Dodge	Dakota SLT Plus V8 Club Cab	1997-2002
Dodge	Dakota SLT Plus V8 Quad Cab	2000-2002
Dodge	Dakota SLT Quad Cab	2000-2002
Dodge	Dakota SLT V8 Club Cab	1993-2002
Dodge	Dakota SLT V8 Quad Cab	2000-2002

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Dodge	Dakota Sport	1991-1994, 2000-2002
Dodge	Dakota Sport Club Cab	1990-2002
Dodge	Dakota Sport Quad Cab	2000-2002
Dodge	Dakota Sport V8	1995-2002
Dodge	Dakota Sport V8 Club Cab	1991-2002
Dodge	Dakota Sport V8 Quad Cab	2000-2002
Dodge	Dakota SXT Club Cab	2002
Dodge	Dakota V8	1990-2002
Dodge	Dakota V8 Club Cab	1991-2002
Dodge	Dakota V8 Quad Cab	2000-2002
Dodge	Durango R/T	2000, 2001
Dodge	Durango SLT	1998-2001, 2004
Dodge	Durango SLT Plus	1998-2001
Dodge	Durango Sport	2000, 2001
Dodge	Grand Caravan	1989-2000
Dodge	Grand Caravan CV	1990-1994
Dodge	Grand Caravan ES	1992-2001
Dodge	Grand Caravan LE	1987-2000
Dodge	Grand Caravan SE	1987-2001
Dodge	Grand Caravan Sport	1988, 1994, 1997-2001
Dodge	Intrepid	1993, 1994
Dodge	Intrepid (US Model/modèle américain)	1995-1999
Dodge	Intrepid ES	1993-1995
Dodge	Intrepid ES (US Model/modèle américain)	1993-1999
Dodge	Intrepid SE (US Model/modèle américain)	2001-2004
Dodge	Neon	1995-1999
Dodge	Neon Competition	1998, 1999
Dodge	Neon EX	1995-1999
Dodge	Neon Highline	1995-1999
Dodge	Neon Sport	1995-1999
Dodge	Power Ram 1500	1995-2002
Dodge	Power Ram 1500 Club Cab	1997-1999
Dodge	Ram 1500	1990-2003
Dodge	Ram 1500 Club Cab	1995-2001
Dodge	Ram 1500 Laramie	2003
Dodge	Ram 1500 Laramie Quad Cab	2003
Dodge	Ram 1500 Laramie SLT	1990-1999
Dodge	Ram 1500 Laramie SLT Club Cab	1995-2001
Dodge	Ram 1500 Laramie SLT Quad Cab	1998-2003

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Dodge	Ram 1500 Quad Cab	1998-2003
Dodge	Ram 1500 SLT	1995-2003
Dodge	Ram 1500 SLT Club Cab	1998, 1999
Dodge	Ram 1500 SLT Quad Cab	1998, 1999, 2002, 2003
Dodge	Ram 1500 Sport Club Cab	1997
Dodge	Ram 1500 Sport Quad Cab	2002, 2003
Dodge	Ram 1500 ST	2000-2003
Dodge	Ram 1500 ST Quad Cab	1998-2003
Dodge	Ram 2500	1990-2003
Dodge	Ram 2500 Club Cab	1995-1999
Dodge	Ram 2500 Laramie Quad Cab	2003
Dodge	Ram 2500 Laramie SLT	1994-1999
Dodge	Ram 2500 Laramie SLT Club Cab	1995-1999
Dodge	Ram 2500 Laramie SLT Quad Cab	1998-2002
Dodge	Ram 2500 Quad Cab	1998-2003
Dodge	Ram 2500 SLT	1994, 2002, 2003
Dodge	Ram 2500 SLT Quad Cab	2001, 2003
Dodge	Ram 2500 SLT Sport Quad Cab	2003
Dodge	Ram 2500 ST Quad Cab	2000-2003
Dodge	Ram Van 1500	1995-1999
Dodge	Ram Van 1500 Short	1995-1999
Dodge	Ram Van 2500	1995-1999
Dodge	Ram Van 2500 Short	1995-1997
Dodge	Ram Van 3500	1995-1999
Dodge	Ram Wagon 1500	1995-1999
Dodge	Ram Wagon 2500	1995-1999
Dodge	Ram Wagon 3500	1995-1999
Dodge	Ram Wagon 3500 Maxi	1995-1999
Dodge	Ram Wagon 3500 Regular	1995-1999
Dodge	Ramcharger	1990-1992,1994
Dodge	Shadow	1987-1994
Dodge	Shadow ES	1987-1994
Dodge	Shadow ES Turbo	1987-1992
Dodge	Shadow Highline	1992
Dodge	Shadow S	1991-1994
Dodge	Shadow Turbo	1987-1992
Dodge	Shadow Youth	1991, 1992
Dodge	Spirit	1990-1994
Dodge	Spirit ES	1990-1993
Dodge	Spirit LE	1990-1993
Dodge	Stratus	1995-1999

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Dodge	Stratus ES	1995-1999
Dodge	600	1985-1988
Dodge	600 SE	1986-1988
Eagle	Talon	1990-1994
Eagle	Talon DL	1993, 1994
Eagle	Talon ES	1993, 1994
Eagle	Talon TSI	1990-1994
Eagle	Vision ESI	1995-1997
Eagle	Vision TSI	1995-1997
Ford	Explorer 2WD	1991-1997
Ford	Explorer 4WD	1991-1994, 1997
Ford	Explorer Eddie Bauer	1991-1997
Ford	Explorer Expedition	1995
Ford	Explorer Limited	1991-1997
Ford	Explorer Sport	1991-1997
Ford	Explorer XL	1991-1997
Ford	Explorer XLT	1991-1997
Ford	F150 FX4 Supercab	1997
Ford	F150 Lariat	1995-1998
Ford	F150 Lariat Supercab	1995-1998
Ford	F150 Pickup 2WD	1979 and earlier/et années antérieures, 1995-1998
Ford	F150 Pickup 4WD	1995-1998
Ford	F150 Supercab 2WD	1979 and earlier/et années antérieures, 1995-1998
Ford	F150 Supercab 4WD	1995-1998
Ford	F150 XL	1995-1998
Ford	F150 XL Supercab	1995-1998
Ford	F150 XLS Supercab	1996-1998
Ford	F150 XLT	1995-1998
Ford	F150 XLT Lariat Supercab	1995-1998
Ford	F150 XLT Supercab	1995-1998
Ford	F250 SD Lariat Crew Cab	2005-2007
Ford	F250 SD Lariat Supercab	2005-2007
Ford	F250 Super Duty	2005-2007
Ford	F250 Super Duty Crew Cab	2005-2007
Ford	F250 Super Duty Supercab	2005-2007
Ford	F250 Super Duty XL	2005-2007
Ford	F250 Super Duty XL Crew Cab	2005-2007
Ford	F250 Super Duty XL Supercab	2005-2007
Ford	F250 Super Duty XLT	2005-2007
Ford	F250 Super Duty XLT Crew cab	2005-2007

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Ford	F250 Super Duty XLT Supercab	2005-2007
Ford	Mustang	1994-1996
Ford	Mustang Cobra	1995
Ford	Mustang Cobra GT	1985-1993, 1996
Ford	Mustang GT	1985-1995
Ford	Mustang L	1988
Ford	Mustang LX	1985-1993
Ford	Mustang LX 5.0 L	1988-1993
Ford	Probe	1993, 1994
Ford	Probe GL	1989-1992
Ford	Probe GT	1989-1994
Ford	Probe GT Turbo	1989-1992
Ford	Probe LX	1989-1992
Ford	Probe SE	1993, 1994
Ford	Taurus GL	1986-1989, 1995-1998
Ford	Taurus L	1986-1989
Ford	Taurus LX	1986-1989, 1995-1999
Ford	Taurus MT5	1986-1998
Ford	Taurus SE	1995, 1998, 1999
Ford	Taurus SHO	1989, 1995-1997
GMC	C1500 Pickup	1985-1994
GMC	C1500 Pickup Diesel	1985-1989, 1993
GMC	C1500 Pickup 4+ Cab	1985-1994
GMC	C1500 Sierra	1985-1994
GMC	C1500 Sierra SLE	1988
GMC	C1500 Sierra SLE Ext Cab	1990-1994
GMC	C1500 Sierra SL Ext Cab	1991-1994
GMC	C1500 Suburban	1985, 1986, 1988-1994
GMC	Envoy	2005-2007
GMC	Envoy Denali	2005-2007
GMC	Envoy SLE	2005-2007
GMC	Envoy SLT	2005-2007
GMC	Envoy XL Denali	2005, 2006
GMC	Envoy XL SLE	2005, 2006
GMC	Envoy XL SLT	2005, 2006
GMC	Envoy XUX SLE	2005
GMC	Jimmy K	1985-1994
GMC	Jimmy S	1985-1999, 2005
GMC	Jimmy S15 Gypsy	1986-1988
GMC	Jimmy SL	1988, 1991, 1993, 1995-1999, 2005
GMC	Jimmy SLE	1991-1999

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
GMC	Jimmy SLS	1988, 1991-1999, 2005
GMC	Jimmy SLT	1991-1999
GMC	Jimmy SLX	1991
GMC	Jimmy T	1985-1999, 2005
GMC	Jimmy Typhoon	1993
GMC	Jimmy V	1985-1994
GMC	Jimmy V1500 4WD	1985-1989
GMC	K1500 Jimmy	1985-1989
GMC	K1500 Pickup	1985-1994
GMC	K1500 Pickup 4WD Diesel	1990-1994
GMC	K1500 Pickup 4+ Cab 2WD	1985-1994
GMC	K1500 Pickup 4+ Cab 4WD	1985, 1986, 1988-1994
GMC	K1500 Sierra SLE	1992-1994
GMC	K1500 Sierra SLE Ext Cab	1988, 1992-1994
GMC	K1500 Sierra SL Ext Cab	1992-1994
GMC	K1500 Suburban	1985-1994
GMC	K1500 Yukon	1992-1994
GMC	R1500 Pickup	1985-1994
GMC	R1500 Pickup 4+ Cab	1985-1994
GMC	R1500 Suburban	1990-1994
GMC	S15 Pickup	1985-1989
GMC	S15 Pickup 4+ Cab	1985-1989
GMC	Safari	1985-1994
GMC	Safari Cargo Van	1985-1994
GMC	Safari Cargo Van Ext	1990-1994
GMC	Safari SL	1985-1994
GMC	Safari SLE	1985-1994
GMC	Safari SLE Ext	1990-1994
GMC	Safari SLT	1988-1994
GMC	Safari SLT Ext	1990-1994
GMC	Safari SLX	1985-1994
GMC	Safari SLX AWD	1990-1994
GMC	Safari XLS Ext	1990-1994
GMC	Safari XT	1985-1994
GMC	Sonoma	1990-1994
GMC	Sonoma Ext Cab	1990-1994
GMC	Sonoma SLE	1991-1994
GMC	Sonoma SLE Ext Cab	1991-1994
GMC	Sonoma SLS Ext Cab	1991-1994
GMC	V1500 Pickup	1985-1994
GMC	V1500 Pickup 4+ Cab	1985-1994

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
GMC	V1500 Sierra SL Ext Cab	1992-1994
GMC	V1500 Sierra SLE	1992-1994
GMC	V1500 Sierra SLE Ext Cab	1988, 1992-1994
GMC	V1500 Suburban	1985-1994
GMC	Yukon	1995-1999
GMC	Yukon Denali	1999
GMC	Yukon GT	1995-1997
GMC	Yukon SLE	1995-1999
GMC	Yukon SLT	1995-1999
Honda	Accord	1985, 1986
Honda	Accord DX	1987-1989
Honda	Accord DX (US Model/modèle américain)	1988, 1989
Honda	Accord EX	1985, 1989-1994
Honda	Accord EXI	1986-1989
Honda	Accord EX-R	1990-1994
Honda	Accord Ltd	1988
Honda	Accord LX	1985-1994
Honda	Accord LX (US Model/modèle américain)	1990, 1992-1994
Honda	Accord LXI (US Model/modèle américain)	1987, 1989
Honda	Accord S	1985-1989
Honda	Accord SE	1991, 1993
Honda	Accord SEI	1985, 1989
Honda	Civic	1990, 1991
Honda	Civic CRX	1990, 1991
Honda	Civic CRX 1.5	1990, 1991
Honda	Civic CRX SI	1990, 1991
Honda	Civic CX	1990-1994
Honda	Civic Del Sol S	1993, 1994
Honda	Civic DX	1990-1994
Honda	Civic EX	1992-1994
Honda	Civic EX-V	1992, 1993
Honda	Civic LX	1990-1994
Honda	Civic LX-SE	1994
Honda	Civic SE	1990, 1991
Honda	Civic SI	1990-1994
Honda	Civic VX	1992-1994
Honda	Civic Wagon	1990, 1991
Honda	Prelude	1985-1987, 1992, 1994
Honda	Prelude S	1988-1991, 1993, 1994

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Honda	Prelude SE	1986, 1988, 1991
Honda	Prelude SI	1987-1994
Honda	Prelude SI 4WS	1988, 1989
Honda	Prelude SR	1990-1993
Honda	Prelude SR 4WS	1990, 1992-1994
Honda	Prelude SR-V	1993, 1994
Jeep	Cherokee 2WD	1985-1998
Jeep	Cherokee 4WD	1985-1989
Jeep	Cherokee Briarwood	1991, 1992
Jeep	Cherokee Chief	1985-1988
Jeep	Cherokee Chief (1986+)	1986-1988
Jeep	Cherokee Classic	1996-2001
Jeep	Cherokee Country	1993-1999
Jeep	Cherokee Country Classic	1993-1998
Jeep	Cherokee Laredo	1986-1992
Jeep	Cherokee Laredo (1986+)	1986-1992
Jeep	Cherokee Limited	1988-1992, 1998-2001
Jeep	Cherokee Pioneer	1985-1990
Jeep	Cherokee Pioneer (1986+)	1986-1990
Jeep	Cherokee SE	1995-1999
Jeep	Cherokee Sport	1990-2001
Jeep	CJ	1985, 1986
Jeep	CJ7	1985, 1986
Jeep	CJ7 Renegade	1985
Jeep	Comanche	1986-1989
Jeep	Comanche Eliminator	1986-1989
Jeep	Grand Cherokee	1993-1996
Jeep	Grand Cherokee Laredo	1993-1999
Jeep	Grand Cherokee Limited	1993-1999
Jeep	Grand Cherokee Orvis	1995-1998
Jeep	Grand Cherokee SE	1993-1996
Jeep	Grand Cherokee TSI	1996-1999
Jeep	Grand Cherokee Wagoneer	1993-1998
Jeep	TJ	1997-1999
Jeep	TJ Sahara	1997-1999
Jeep	TJ SE	1997-1999
Jeep	TJ Sport	1997-1999
Jeep	Wrangler Sahara	1995, 1997-1999
Jeep	Wrangler SE	1997-1999
Jeep	Wrangler Sport	1995, 1997-1999
Jeep	YJ	1987-1995

MAKE/MARQUE	MODEL/MODELE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Jeep	YJ Islander	1987-1994
Jeep	YJ Laredo	1987-1994
Jeep	YJ Renegade	1990-1994
Jeep	YJ S	1990-1995
Jeep	YJ Sahara	1987-1995
Jeep	YJ Sport	1990-1995
Jeep	YJ Wrangler	1987-1994
Mazda	MX-3	1992-1994
Mazda	MX-3 GS	1992-1994
Mazda	MX-3 Precidia GS	1992-1994
Mazda	MX-3 RS	1993, 1994
Mercury	Sable GS	1986-1989, 1995-1999
Mercury	Sable LS	1986-1989, 1995-1999
Nissan	Pathfinder 2WD	1990-1994
Nissan	Pathfinder 4WD	1990-1993
Nissan	Pathfinder LE	1994
Nissan	Pathfinder SE	1990-1994
Nissan	Pathfinder XE	1990-1994
Nissan	Pulsar NX	1988
Nissan	Pulsar NX DLX	1985, 1986
Nissan	Pulsar NX SE	1987-1989
Nissan	Pulsar NX XE	1987-1989
Oldsmobile	Calais	1985-1987
Oldsmobile	Calais Supreme	1985-1987
Oldsmobile	Cutlass	1974-1977, 1980-1981
Oldsmobile	Cutlass Brougham	1976, 1977, 1981
Oldsmobile	Cutlass Brougham LS	1980
Oldsmobile	Cutlass Calais	1978-1984, 1987-1991
Oldsmobile	Cutlass Calais International	1988-1991
Oldsmobile	Cutlass Calais S	1989-1991
Oldsmobile	Cutlass Calais SL	1988-1991
Oldsmobile	Cutlass Ciera	1982, 1986-1991
Oldsmobile	Cutlass Ciera Brougham	1982-1988
Oldsmobile	Cutlass Ciera Brougham Cruiser	1987
Oldsmobile	Cutlass Ciera GT	1987
Oldsmobile	Cutlass Ciera International	1988-1990
Oldsmobile	Cutlass Ciera LS	1982-1986
Oldsmobile	Cutlass Ciera S	1987, 1990-1994
Oldsmobile	Cutlass Ciera SL	1989-1994
Oldsmobile	Cutlass Cruiser	1978-1994
Oldsmobile	Cutlass Cruiser Brougham	1979-1981

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Oldsmobile	Cutlass Cruiser S	1990-1994
Oldsmobile	Cutlass Cruiser SL	1989-1994
Oldsmobile	Cutlass Custom Brougham	1980
Oldsmobile	Cutlass LS	1980, 1981
Oldsmobile	Cutlass S	1974-1977
Oldsmobile	Cutlass Salon	1976-1980, 1985-1987
Oldsmobile	Cutlass Salon Brougham	1978-1980
Oldsmobile	Cutlass Salon 442	1986
Oldsmobile	Cutlass S Class Brougham	1988
Oldsmobile	Cutlass S Classic	1988
Oldsmobile	Cutlass Supreme	1974-1994
Oldsmobile	Cutlass Supreme Brougham	1976-1988
Oldsmobile	Cutlass Supreme International	1988-1993
Oldsmobile	Cutlass Supreme SL	1988-1994
Oldsmobile	Delta 88	1974-1983
Oldsmobile	Delta 88 LS	1985
Oldsmobile	Delta 88 Royale	1974-1990
Oldsmobile	Delta 88 Royale Brougham	1980-1990
Oldsmobile	88/Delta 88 Royal	1974-1990
Oldsmobile	88/Delta 88 Royale Brougham	1989, 1990
Oldsmobile	Eighty Eight	1991-1994
Oldsmobile	Eighty Eight Brougham	1987-1991
Oldsmobile	Eighty Eight LS	1992-1994
Oldsmobile	Eighty Eight LSS	1994
Oldsmobile	98 Regency	1985-1989, 1992-1994
Oldsmobile	98 Regency Brougham	1985-1990
Oldsmobile	98 Regency Elite	1991-1994
Oldsmobile	98 Touring	1988-1993
Oldsmobile	Omega	1980-1984
Oldsmobile	Omega Brougham	1980-1984
Plymouth	Acclaim	1990-1994
Plymouth	Acclaim LE	1990, 1991
Plymouth	Acclaim LX	1990, 1991
Plymouth	Breeze	1996-1999
Plymouth	Caravelle	1985-1988
Plymouth	Caravelle Salon	1985-1989
Plymouth	Caravelle SE	1986-1988
Plymouth	Grand Voyager	1987, 1988, 1990-1999
Plymouth	Grand Voyager LE	1987-1999
Plymouth	Grand Voyager SE	1987-1999
Plymouth	Neon	1995-1999

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Plymouth	Neon EX	1996, 1998, 1999
Plymouth	Neon Expresso	1997-1999
Plymouth	Neon Highline	1995-1999
Plymouth	Neon Sport	1995-1998
Plymouth	Sundance	1987-1994
Plymouth	Sundance Duster	1992-1994
Plymouth	Sundance Highline	1992
Plymouth	Sundance RS	1988-1992
Plymouth	Sundance S	1992
Plymouth	Sundance Turbo	1987-1990
Plymouth	Sundance Youth	1992
Plymouth	Voyager	1985-1999
Plymouth	Voyager LE	1985-1999
Plymouth	Voyager LX	1991-1998
Plymouth	Voyager Rallye	1996, 1997
Plymouth	Voyager SE	1985-1999
Pontiac	Bonneville	1985-1994
Pontiac	Bonneville Brougham	1985, 1986
Pontiac	Bonneville LE	1985-1991
Pontiac	Bonneville SE	1987-1994
Pontiac	Bonneville SSE	1988-1994
Pontiac	Bonneville SSEi	1992-1994
Pontiac	Firebird	1985-1989, 1995-1999
Pontiac	Firebird Formula	1987-1989, 1995-1999
Pontiac	Firebird SE	1985, 1986
Pontiac	Firebird Trans Am	1985-1989, 1995-1999
Pontiac	Firebird Trans Am GTA	1987-1989
Pontiac	Grand Am	1985-1988, 1991
Pontiac	Grand Am GT	1992-1994, 2000-2005
Pontiac	Grand Am GTI	2000-2004
Pontiac	Grand Am LE	1985-1991
Pontiac	Grand Am SE	1986-1994, 2000-2005
Pontiac	Grand Am SEi	2000-2005
Pontiac	Grand Prix	1980-1989
Pontiac	Grand Prix Brougham	1981-1987
Pontiac	Grand Prix GT	1995-1999
Pontiac	Grand Prix GTP	1995-1999
Pontiac	Grand Prix LE	1984-1989
Pontiac	Grand Prix LJ	1980-1983
Pontiac	Grand Prix SE	1988, 1989, 1995-1999
Pontiac	Grand Prix SJ	1980

MAKE/MARQUE	MODEL/MODÈLE (If the model description does not specify 2WD, 4WD or AWD, all available drive-train options are included./Si la description ne précise pas qu'il s'agit d'un modèle 2WD [à deux roues motrices], 4WD [à quatre roues motrices] ou AWD [à traction intégrale], tous les groupes motopropulseurs offerts sont visés.)	MODEL YEARS IN MOST-AT-RISK CATEGORY/ANNÉES MODÈLES
Pontiac	Parisienne	1980-1986
Pontiac	Parisienne Brougham	1980-1986
Pontiac	Parisienne Safari	1980-1982, 1987
Pontiac	Sunbird	1985-1988
Pontiac	Sunbird Formula	1985
Pontiac	Sunbird GT	1986-1993
Pontiac	Sunbird GT Turbo	1987-1990
Pontiac	Sunbird LE	1985, 1989-1994
Pontiac	Sunbird S	1985-1987
Pontiac	Sunbird SE	1985-1994
Pontiac	Trans Sport	1990-1994
Pontiac	Trans Sport GT	1992
Pontiac	Trans Sport SE	1990-1994
Pontiac	6000	1982-1988
Pontiac	6000 LE	1982-1991
Pontiac	6000 SE	1986-1991
Pontiac	6000 STE	1983-1989
Saturn	SL	1991-1994
Saturn	SL1	1991-1994
Saturn	SL2	1991-1994
Toyota	Camry	1985-1989
Toyota	Camry DLX	1986-1989
Toyota	Camry LE	1985-1989
Toyota	Camry LE V6	1988, 1989
Toyota	Celica	1988, 1989
Toyota	Celica GT	1985-1989
Toyota	Celica GTS	1985-1989
Toyota	Celica GT-S	1985-1989
Toyota	Celica GTS 4WD T	1988, 1989
Toyota	Celica GT-S Turbo AWD	1988, 1989
Toyota	Celica ST	1985-1989
Toyota	Celica ST Sport	1985-1989
Toyota	Celica Supra	1985, 1986
Toyota	4Runner	1985-1989
Toyota	4Runner DLX	1988
Toyota	4Runner SR5	1985-1989
Toyota	4Runner SR5 V6	1988, 1989

MOTOR VEHICLE ALTERATIONS AND MODIFICATIONS

TABLE OF CONTENTS

GENERAL

	Section
Objective	1-1
Definitions	2-1 thru 2-5

BODY REQUIREMENTS

Defroster and Defogging Device	3-1
Door Latches	4-1
Floor Pan	5-1
Glazing	6-1,2
Driver Visibility, Hood scoopes	7-1,2
Hood Latches	8-1
Instrumentation and Controls	9-1,2,3
Rear View Mirrors	10-1
Seat Belts	11-1,2
Seat Securement	12-1,2,3,4
Windshield Wipers	13-1,2

CHASSIS REQUIREMENTS

Accelerator Control Systems	14-1
Brakes	15-1,2
Bumpers	16-1 thru 16-9
Exhaust System	17-1 thru 17-5
Frame	18-2
Fenders	18-1
Fuel System	19-1 thru 19-5
Steering and Suspension	20-1 thru 20-13
Tires	21-1,2,3,4,5

TABLE OF CONTENTS

ELECTRICAL SYSTEM REQUIREMENTS

Dimmer Switch	22-1
Head Lamp Switch	23-1
Head Lamp System	24-1
High Beam Indicator	25-1
Horn	26-1
Licence Plate Lamp	27-1
Parking Lamps	28-1
Stop Lamps	29-1
Tail Lamp System	30-1
Turn Signal Indicator	31-1
Turn Signal Lamps	32-1
Turn Signal Switch	33-1
Position of Controls	34-1,2

ENGINE

Replacement	35-1 thru 35-6
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APPENDIX

Minimal Standards for Passenger Seating	page 14
Converting a Passenger Car to a Pickup	page 15
Converting a Station Wagon to a Sedan Delivery Truck	page 16
Converting Truck to a Passenger Carrying Vehicle	page 17

**MINIMUM REQUIREMENTS FOR CONSTRUCTION
AND
EQUIPMENT OF SPECIAL MOTOR VEHICLES**

GENERAL

OBJECTIVE

- 1.1. To establish standards for the alteration and modification of vehicles from new or used parts, or kits to ensure that the vehicle meets standards described in the Highway Traffic Act and its regulations and the Canadian Motor Vehicle Safety Standards.

DEFINITIONS

- 2.1 Special Motor Vehicles * -passenger vehicles, trucks and buses which are intended for the use on public highways, The term "Special Motor Vehicle" shall include the following types:

TYPE 1 Vehicles which retain their original body configuration with changes made to the steering, brakes, power train or suspension systems.

TYPE 11 Vehicles changed from the recognized vehicle manufacture's original body configuration but which retain the general appearance, including changes to the body chassis or engine of the original vehicle. This type may also include changes and modifications to engine, chassis, brake system, power train, steering and suspension systems.

TYPE 111 All special vehicles which are custom built with fabricated parts, or parts taken from existing vehicles excluding Type 1 and Type 11 vehicles.

- 2.2 Recognized Manufacturer - Manufacturer means a person engaged in the manufacturing, assembly or importation of a Special Motor Vehicle

intended for use on the Public Highways, or for distribution and sale in the Province.

2.3 S.A.E.-Society of Automotive Engineers.

2.4 C.M.V.S.S.-Canada Motor Vehicle Safety Standards.

2.5 Certification of Compliance - The alterations and modifications done to a motor vehicles shall be certified for compliance by a Qualified Mechanic (Automotive).

* **An antique vehicle registered as an antique vehicle is not considered to be "Special Vehicle" and is not covered by this standard.**

BODY REQUIREMENTS

DEFROSTER AND DEFOGGING DEVICE

- 3.1 Every closed Special Motor Vehicle shall be equipped with a defrosting or defogging system capable of maintaining clear windshield area.

DOOR LATCHES

- 4.1 The doors on a Special Motor Vehicle leading directly into a compartment that contains one or more seating accommodations shall be equipped with mechanically actuated door latches which firmly and automatically secure the door when pushed closed and which allow each door to be opened from the inside and outside by the actuation of a convenient lever, handle or other suitable device.

FLOOR PAN

- 5.1 Every special vehicle shall be equipped with a floor pan under the entire passenger carrying compartment. The floor pan shall support the weight of the number of occupants that the vehicle is designed to carry. The floor pan shall be so constructed that it prevents the entry of exhaust fumes.

GLAZING

- 6.1 Windshields-every special vehicle shall be equipped with a laminated safety glass windshield that complies with the provisions appearing in the ANSI Z 26.1 standard*. The vertical height of the unobstructed windshield glass shall be not less than 2540 mm.(10 in.) or as originally equipped by a recognized manufacturer.
- 6.2 Side and Rear Glass - these items are not required, but if they are present they must comply with the provisions of the ANSI 26.1 Standard.*

- * American National Standards Institute Z 26.1 for Safety Glazing Materials for Motor Vehicles.

DRIVER VISIBILITY

- 7.1. The vehicle shall be provided with a windshield, and side windows or openings which allow the driver a clear unobstructed forward view 180 degrees measured from the line of the back of the driver's seat. This range of vision may be interrupted by window framing not exceeding two inches in width each, and windshield door post support areas not exceeding four inches in width at each side location, or as originally equipped by a recognized manufacturer.
- 7.2 A special motor vehicle shall have no obstruction forward of the windshield which extends more than two inches upward into the horizontally forward projected vision area of the windshield as measured from the rearmost part of the hood or bottom edge of the windshield glass whichever is the highest with the exception of windshield wiper components.

HOOD LATCHES

- 8.1 A front opening hood shall be equipped with a primary and secondary latching system to hold the hood in a closed position.

INSTRUMENTATION AND CONTROLS

- 9.1 Speedometer - every special vehicle shall be equipped with an operating speedometer calibrated to indicate as accurately possible the speed being travelled.
- 9.2 Odometer - every special vehicle shall be equipped with an operating odometer calibrated to indicated total distance driven.
- 9.3 Steering wheel - every special vehicle shall be equipped with a steering wheel with an outside diameter of not less than 330 mm.(13 in.)

REAR VIEW MIRROR

- 10.1 Every special motor vehicle shall be equipped with a rear view mirror. It shall be mounted in such a position that it affords the driver a clear view of the roadway and of any vehicle approaching from the rear. The mirror mounting shall provide for mirror adjustment by tilting in both horizontal and vertical directions. Each mirror shall have a minimum of 645 mm² (10 in.²) of mirror glass and any one of its diameters cannot be less than two inches.

SEAT BELTS

- 11.1 Seat belt requirements for the three types of special motor vehicles defined under section 3.1 are as follows:

All Special Motor Vehicles - shall be equipped with at least a Type 1 (lap belt) seat belt, in compliance with the Canadian Motor Vehicle Safety Standard number 209, for the driver and each passenger seating position for trucks and buses.

- 11.2 All seat belts shall be securely anchored.

SEAT SECUREMENT

Seat securement requirements for the three types of special motor vehicle defined under Section 2.1 are as follows:

- 12.1 An adequate seat shall be provided for the driver. The driver's seat shall be positioned to allow easy access to switches, and controls when the driver is seated in the normal driving position and restrained by a **Type 1** seat belt.
- 12.2 The driver's seat shall be adequately secured.
- 12.3 Provision for driver's seat adjustment is required. The seat adjustment device shall be securely locked into the desired driving position when the driver is seated.
- 12.4 An adequate seat shall be provided for each allowable passenger and it must be securely attached to the vehicle. (See Appendix for Minimum safety standards.)

WINDSHIELD WIPERS

- 13.1 Every windshield on a motor vehicle being driven on a highway shall be equipped with a windshield wiper in good working order for clearing rain,

snow or other moisture therefrom; and the device shall be such so that its operation shall not require any manual effort on the part of the driver for its control operation other than to activate the controls of the unit. The controls shall be in easy reach of the driver when in the driver's normal seating position and restrained by a Type 1 seat belt.

- 13.2 Special Motor Vehicle originally equipped with two windshield wipers, must retain two wipers. Type 111 Special Motor Vehicle shall have two windshield wipers.

CHASSIS REQUIREMENTS

ACCELERATOR CONTROL SYSTEM

- 14.1 Every special motor vehicle shall be equipped with an accelerator control system that returns the engine throttle to an idle position when the driver removes the actuating force from the accelerator control and the geometry of the throttle linkage shall be so designed that the throttle will not lock in an open position.

BRAKES

- 15.1 Service Brakes - every special motor vehicle shall be equipped with brakes acting on all wheels and shall be at all times in compliance with Section 41(8) of the Highway Traffic Act Manitoba, Power of Brakes.
- 15.2 Parking Brake - every special motor vehicle shall be equipped with parking brakes capable of effectively applying the brakes to wheels on the same axle

BUMPERS

- 16.1 Every special motor vehicle of the passenger car type shall be equipped with a bumper both on the front and rear of the vehicle.
- 16.2 The bumper width must cover the full track width of the vehicle.
- 16.3 The horizontal bumper of customized bumper or grill bar structure shall be at least 76 mm.(3 in.) in vertical height and centered on the vehicles centre line and securely fixed to the vehicle and designed to minimize damage.
- 16.4 The bumper shall have no sharp ends and the ends shall angle towards the body.
- 16.5 The bumper shall be constructed of a non-splintering material.
- 16.6 Original Car Manufacturers designs are acceptable.
- 16.7 **Bumper Height Measurement Procedure** measure on a level surface the height of both front and rear bumpers to both the top and bottom of the

horizontal bumper bars.

- 16.8 **Bumper Height Requirement** some part of the horizontal bumper bar must fall within 350mm.(13.7 in.) and 560mm.(22 in.) above the level ground surface.
- 16.9 Every modified vehicle that is a truck or multi-purpose passenger vehicle having a gross vehicle weight rating of 4500 kg or less, the following shall apply:
- (a) There shall be a front bumper of at least 100 mm.(4 in.) in vertical height and extending to the width of the vehicle manufacturer's track width.
 - (b) The bumper shall be of a non-splintering material with no sharp ends.
 - (c) Bumpers shall be of sufficient strength and so attached to the vehicle frame so as to effectively transfer impact loads to the frame.
 - (d) Dropped bumpers shall be horizontal, at least 100 mm.(4 in.) in vertical height and continuous across its normal width or shall consist of separated sections. Separated sections shall be not less than 100 mm.(4 in.) high and 100 mm.(4 in.) wide and shall be not more than 300mm.(12 in.) apart.
 - (e) All bumpers shall have a foremost contact point at the bottom of the bumper not to exceed a maximum height 740mm.(29 in.) above a flat surface upon which the vehicle stands at curb weight, unless originally equipped.

EXHAUST SYSTEM

- 17.1 Every special motor vehicle shall be equipped with a complete exhaust system to limit sound. The exhaust system shall not interfere with the operational components of the vehicle.
- 17.2 Exhaust systems on truck type vehicles may discharge the exhaust fumes to the midpoint but must discharge fumes beyond the rear of the passenger compartment.
- 17.3 Exhaust systems on passenger type vehicles shall discharge the exhaust fumes at a location to the rear of the vehicle body or at a car manufacturer's side exit design and it must not exit in vertical alignment to an operable window unless the exhaust is deflected downward.
- 17.4 No part of the exhaust system shall pass through any area of the vehicle that is used as a passenger carrying compartment.
- 17.5 Exhaust piping of a flexible type shall be that type which is approved for use in automotive systems.

FENDERS

- 18.1 Every special motor vehicle shall be equipped with fenders and/or adequate body coverage designed to cover the entire tread width that comes in contact with the road surface. Coverage of the tire tread circumference shall be from at least 15 degrees in front to at least 90 degrees to the rear of the vertical centre line at each wheel measured from the centre of wheel rotation. At no time shall the fender or adequate body coverage contact the tire.

FRAME

- 18.2 A special motor vehicle shall be equipped with a frame capable of supporting the vehicle to its maximum Gross Vehicle Weight rating and the torque produced by the power source under all conditions of operation.

FUEL SYSTEM

- 19.1 Every special motor vehicle shall have all fuel system components such as tank, tubing, hoses clamps, etc., securely fastened with fasteners designed for this purpose, to the vehicle so as not to interfere with the vehicle operation, and shall be leak proof.
- 19.2 Fuel lines shall be positioned so as not to be in contact with high temperature surfaces or moving components.
- 19.3 Every fuel tank shall have air vent.
- 19.4 Every fuel tank shall be installed in a location to afford maximum body protection.
- 19.5 Every fuel tank shall be constructed of materials which will meet the safety performance requirement as outlined in the Canada Motor Vehicle Safety Standard, Part IV, Section 301.

STEERING AND SUSPENSION

- 20.1 A special motor vehicle shall have no parts extending below the wheel rims in their lowest position, excepting tires and electric grounding devices designed for the purpose.
- 20.2 The steering system shall remain unobstructed when turned from lock to lock.
- 20.3 The steering wheel shall have not less than two turns or more than six turns when turning the road wheels from lock to lock.
- 20.4 While the vehicle is in a sharp turn at a speed between 8 km.(5 mph) and

24 km.(15 mph) release of the steering wheel shall result in a distinct tendency for the vehicle to increase its turning radius.

- 20.5 No special motor vehicle shall be constructed or loaded so that the weight on the wheels of any axle is less than 30% of the gross weight of the vehicle.
- 20.6 Special vehicles shall be equipped with a shock absorber at each wheel location allowing a minimum relative motion between the unsprung axle and wheel and the chassis body of plus and minus two inches. When each corner of the vehicle is depressed and released the shock absorber shall stop vertical body motion within two cycles.
- 20.7 The steering wheel shall have an outside diameter of not less than 330mm.(13 in.). Any enlargement of the outer perimeter to gain compliance respecting the required minimal diameter is acceptable only if the enlargement become an integral part of the steering wheel and is easily grasped.
- 20.8 The steering box shall be securely bolted to the vehicle frame.
- 20.9 The spring mounts and shackles shall be properly aligned and of sufficient strength so as to support the gross weight of the vehicle and provide free travel in an up and down movement under all condition.
- 20.10 A special motor vehicle shall have a suspension system that allows movement between the unsprung axles and wheels and the chassis body and shall be equipped with a shock absorber at each wheel location. The suspension system shall provide a minimum relative motion of plus and minus two inches. When any corner of the vehicle is depressed and released, the shock absorber shall stop vertical body motion within two cycles.
- 20.11 There shall be no heating or welding of coil springs, leaf springs or torsion bars.
- 20.12 A special motor vehicle shall be capable of stable, controlled operation while transversing a slalom-type path passing alternately to the left and right of at least four cones or markers arranged in a straight line and spaced 18 m (59 ft.) apart at a minimum velocity of 40 km (25mph).
- 20.13 In the case of any truck or multi-purpose passenger vehicle with a gross vehicle weight rating of 4500 k. less, the following shall apply:
- (a) **RAISED VEHICLE:** The front tread width divided by the sum of the frame height at its highest point, and any body lift shall not be less than 1.80 for vehicles with wheelbase of 254 cm. (100 in.) or more and not less than 2.00 for vehicles with a wheelbase of less than 254 cm.(100 in.).

ELECTRICAL SYSTEMS REQUIREMENTS

DIMMER SWITCH

- 22.1 The headlamp circuit shall be equipped with a driver controlled switch used to select the high or low beam.

HEADLAMP SWITCH

- 23.1 The headlamp switch must activate the headlamps, taillamps, licence plate lamp, parking lamps and the speedometer illumination lamp(s).

HEADLAMP SYSTEM

- 24.1 The headlamps shall be mounted not less than 560 mm.(22 in.) nor more than 1370 mm.(54 in.) above the road surface when measured to the headlamp centre. Lamp shall be constructed with adequate adjustment to afford proper aiming of the headlamp(s).

HIGHBEAM INDICATOR

- 25.1 An indicator shall be provided to show the driver when the upper beam of the headlamp system is energized. The indicator shall emit a light without glare and be plainly visible to the driver under normal driving conditions.

HORN

- 26.1 Have a horn capable of emitting sound audible from a distance of not less than 60 metres(197 ft.). The switch used to activate the horn shall be easily accessible to the driver when seated in the normal driving position and restrained by a Type 1 seat belt.

LICENCE PLATE LAMP

- 27.1 At least one white lamp shall be provided at the licence plate to illuminate the plate.

PARKING LAMPS

- 28.1 Two amber or white parking lamps in compliance with SAE J222 may be

mounted on the front of the horizontal centre line, one on each side and equidistant from the vertical centre line of the vehicle, at the same height, and as far apart as practicable. The parking lamps shall be mounted not less than 380 mm.(15 in.) nor more than 1830 mm.(72 in.) above the roadway.

STOP LAMPS*

- 29.1 Two red stop lamps in compliance with SAE Standard J586B shall be mounted on the rear, one on each side equidistant from the vertical centerline of the vehicle, at the same height, and as far apart as practicable. Type 1 vehicles, which were originally equipped with only one stop lamp need not be equipped with two stop lamps providing the original lamp is located in accordance with the original design configuration. The stop lamps shall be mounted no less than 380 mm.(15 in.) nor more than 1830 mm.(72 in.) above the roadway.

TAIL LAMP SYSTEM*

- 30.1 Two red lamps in compliance with SAE Standard J585C shall be mounted on the rear, one on each side equidistant from the vertical centerline, at the same height, and as far apart as practicable. The tail lamps shall be mounted not less than 380 mm.(15 in.) nor more than 1830 mm.(72 in.) above the roadway. Type 1 vehicles, which were originally equipped with only one tail lamp need not be equipped with two tail lamps providing the original lamp is located in accordance with the original design configuration.

TURN SIGNAL INDICATOR

- 31.1 If the operation of the signal lights are not visible to the driver there shall be an illuminating indicator to indicate to the driver that the signal lights are operating. The indicator may be of a one lamp or a two lamp design. If of the two lamp design, only that lamp which indicates the signal being made shall flash in unison with the signal.

TURN SIGNAL LAMPS*

- 32.1 Two Class A turn signal lamps in compliance with approved standards shall be mounted as follows:

At the front of the vehicle, one white or amber lamp on each side equidistant from the vertical centerline, at the same height and as far apart as practicable. At the rear of the vehicle, one amber or red lamp on each

side equidistant from the vertical centreline, at the same height and as far apart as practicable. All turn signal lamps shall be mounted not less than 380 mm.(15 in.) nor more than 1830 mm.(72 in.) above the roadway.

TURN SIGNAL SWITCH

33.1 Every special vehicle shall be equipped with a self cancelling turn signal switch controlled by the operator of the vehicle that shall cause the turn signal lamps to function.

POSITION OF CONTROLS

34.1 Every switch and control in a special motor vehicle necessary for the safe operation of that motor vehicle, shall be easily accessible to the driver when seated in the normal driving position and restrained by a type 1 seat belt.

34.2 **NEUTRAL SAFETY SWITCH** - A special motor vehicle if equipped with automatic transmission shall be equipped with a neutral safety switch that prevents the starter motor from being actuated except when the gear selector is in the neutral or parked position.

ENGINE REPLACEMENT

Vehicles which have had original engines replaced with engines of greater horsepower or of significant difference respecting physical size and shape shall have the following:

35.1 Power ratio compatibility with the remainder of the drive train (transmission, U-joints, drive shaft, differential, axles).

35.2 Must have adequate engine mounting to frame.

35.3 Must have sufficient space to accept normal engine torque movement without contacting frame or other adjacent components or body structure.

35.4 No part of the motor shall interfere with any steering component.

35.5 No frame shall be cut or notched to make room for the engine.

35.6 No part of the engine shall be at a height which intrudes the forward viewing area of the driver.