# **Vehicle Inspection Regulation**

# **2016 VEHICLE INSPECTION MANUAL**

Ministry of Transportation and Infrastructure

This is an Update Package for the existing 2016 Vehicle Inspection Manual which includes amendments effective March 1, 2018.

See instructions below for removing and inserting pages to construct an updated manual from your existing document.

# **INSTRUCTION LIST**

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Item and Method of Inspection	Reject If
3. Torsion Bar Suspension	
a) torsion bar	a) missing, broken, cracked, welded, sagged so as to lower the vehicle more than 38 mm (1 1/2 in.) from manufacturer's specified height
b) mounting brackets	b) missing, broken, loose, cracked, welded
c) control arms	c) bent, loose, cracked, broken, welded, bushings loose
d) torque arms (applicable units) (rear)	d) missing, bent, loose, broken, cracked, welded, bushings loose
e) stabilizer bar(s)/links (applicable units)	e) missing, bent, loose, disconnected, broken, welded, damaged, bushing brackets and bolts missing or loose
f) axial strut (applicable units)	f) missing, loose, broken, bent, cracked, welded, bushings loose
g) bump pad	g) missing, loose, split, badly deteriorated
h) road clearance (modified vehicles)	h) any vehicle part extends down below the lowest part of the wheel rim
	OUT OF SERVICE
	i) Any torsion bar is cracked and/or broken.
	ii) Any attaching and/or tracking component is missing, loose, cracked and/or broken.
4. MacPherson Strut	
a) coil spring	a) missing, welded, improperly seated in spring saddle, sagged so as to lower the vehicle more than 38 mm (1 1/2 in.) from manufacturer's specified height. Does not operate as intended.
b) control arm	b) bent, loose, cracked, welded, bushings loose
c) mounting tower	c) misaligned or modified, corrosion holes present, any area corroded to such a depth as to show evidence of metal fatigue, section repairs other than metal and sections welded in other than by an approved method,
	<ul> <li>attaching bolts are missing, loose, inferior type,</li> <li>bent and/or misaligned</li> <li>rusted through so that the strut could come detached</li> </ul>

Item and Method of Inspection	Reject If
d) stabilizer bar/links	d) missing, bent, disconnected, broken, loose, welded, damaged, bushings loose
e) upper strut bearing	e) loose, binding, worn, incorrectly positioned  – bushings, brackets and bolts missing or loose
f) bump pad	f) missing, loose, split, badly deteriorated
g) road clearance (applies to motor vehicles with a GVWR of less than 4,500 kg)	g) any part extends down below the lowest part of the wheel rim
	OUT OF SERVICE
	i) Any spring is broken.
	ii) Any attaching or tracking component is missing, loose, cracked and/or broken.
5. Multi-Link Independent Rear Suspension	
a) springs	a) missing, welded, improperly seated in saddle, sagged so as to lower the vehicle more than 38 mm (1 1/2 in.) from manufacture's specified height
b) ball joints	b) exceeds OEM tolerances, loose in knuckle or control arm
c) suspension members	c) missing, bent, disconnected, broken, loose, welded, damaged
d) stabilizer bar/links	d) missing, bent, broken, loose, disconnected, welded, damaged, bushing brackets and bolts missing or loose
e) bushings	e) loose, missing, deteriorated
	OUT OF SERVICE
	i) Any spring is broken.
	ii) Any attaching or tracking component is missing, loose, cracked, and/or broken.

Item and Method of Inspection	Reject If
4. Rack and Pinion Steering	
With vehicle on a level floor and with engine shut down, rock the steering wheel left and then right and observe movement in steering components. If movement is observed, grasp the tie rod and attempt to move it in the direction of the ball stud.	
a) tie rods	a) bent, welded
b) tie rod ends/inner socket assembly	b) wear is evident, does not meet OEM specifications, worn, bent, welded, injected, nuts or shank threads stripped, nuts loose or missing, locking device for nut missing, inferior locking device used
c) bellow, clamp and boot	c) leaking, split open, missing
	<ul> <li>bulging, swollen or discoloured due to oil leak from internal end seal</li> </ul>
d) clamps	d) missing, bent, welded, insecurely mounted
e) mounting bolts	e) threads stripped, missing, loose
f) mounting brackets	f) cracked, loose
g) alignment (move body up & down)	g) steering wheel moves
h) mounting bushings	h) any movement noted
i) housing	i) leaking, cracked, broken
	OUT OF SERVICE
	<ul> <li>i) Steering rack         <ul> <li>Any mounting bolts are loose or missing.</li> <li>Any frame or mounting bracket is loose.</li> </ul> </li> <li>ii) Ball and sockets         <ul> <li>Any linkage shows looseness in alignment with the shank or neck of the ball in excess of 6 mm (1/4 in.).</li> <li>Nuts loose on the tie rod ends.</li> </ul> </li> <li>iii) Any positioning parts allow movement from normal position.</li> </ul>

Item and Method of Inspection	Reject If
5. Ball Joints	
For ball joints check as per original equipment manufacturer's methods. Check with dial indicator vertical and horizontal movement as required. Cracked seals are not reason for rejection.	
Manually inspect:	
a) condition	<ul> <li>a) injected, loose in knuckle or control arm,</li> <li>wear exceeds manufacturer's specifications</li> <li>improper or loose retainer</li> </ul>
b) boot or seal	b) boot or seal torn, lubrication is contaminated
c) ball joints with wear indicators (inspect with ball joints loaded)	<ul><li>c) surface flush with or inside cover surface</li><li>wear exceeds manufacturer's specifications</li></ul>
d) MacPherson strut joint	d) loose broken, misaligned
Jack the vehicle so as to unload the strut joint. Inspect:	
i) horizontal movement	i) exceeds manufacturer's specifications
ii) vertical movement	ii) exceeds manufacturer's specifications
6. Kingpin Play	
Raise vehicle so as to unload kingpins (if equipped with brakes, they should be applied to eliminate wheel bearing looseness) and using a bar for leverage.	
a) horizontal movement	a) in excess of 3 mm (1/8 in.) and/or OEM standards
Attempt to rock in and out and observe movement at extreme top and bottom of tire.	
b) vertical movement	b) in excess of 2.5 mm (1/8 in.) and/or OEM standards
Place a bar under the tire and by prying vertically check for vertical movement between spindle support and axle.	
c) condition	c) binding, seized, thrust bearing seized or binding

### **Item and Method of Inspection**

## Reject If

### **Body Structural Integrity Inspection Standards**

- 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 comparable to the original protection.
- Non-repairable 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 manufacturer's recommendations.
- The assembly joints of the body must be located in the places recommended by the manufacturer or other agencies such as ICAR.
- 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 rust-proofing compound must have been applied to the areas repaired or replaced prior to the inspection.
- The components of the chassis of the unitized body must be assembled using methods that do not affect the mechanical and metallurgical properties of the materials of which they are made.

#### **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."

#### 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 so as 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 items

## Item and Method of Inspection Reject If 1. Hood a) latches a) broken, missing, seized, insecurely mounted, inoperative, will not close or open easily b) secondary latches b) broken, missing, inoperative, parts missing c) missing, broken, cracked, seized, inoperative, parts missing c) hinges d) safety retainer pins d) missing, inferior substitute e) hood reinforcement e) reinforced other than by a method approved by the manufacturer or an approved I-Car or equivalent process and standard any modifications to crush zones 2. Body a) sharp edges, torn in a manner as to reduce structural a) torn metal integrity of the panel - protrudes out in a manner that could be hazardous to passengers, pedestrians and/or cyclists b) moulding b) loose or protrudes out in a manner that could be hazardous to passengers, pedestrians and/or cyclists c) fenders, quarter panels and mudflaps c) so damaged or corroded that factory installed lamps cannot be secured as per factory installation NOTE: The following vehicles do not require fenders method, missing section torn or corroded away so and/or mudguards to receive a pass with caution: road spray is not controlled, not full-tread width of tire, fitted so that it could cause interference with 1. Manufactured vehicles in 1940 or earlier; steering mechanism or cause rubbing of tires when 2. Vehicles manufactured or designed to resemble suspension bottomed and steering moved stop to stop, 1940 or earlier vehicles; or includes rear wheels 3. Vehicles described in Motor Vehicle Act **Regulation 7.01 (4).** All other vehicles including modified collectors, vintage, ubilt, replicar, replikit and speciality vehicles require fenders/quarter panels. d) height of mud flaps from ground d) distance from ground to bottom of mud flap exceeds 1/3 of hoizontal distance from mud flap to centre of wheel where the 1/3 rule cannot be applied due to vehicle configuration, the bottom of mud flap is more than 14 in. from ground, measured when vehicle is not height loaded. distance

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

(vehicle unloaded)

Item and Method of Inspection	Reject If
e) centre (carrier) bearing and mount	e) cracked, damaged, loose, missing or abnormally worn
	<ul> <li>insecure mounting or mount is abnormally deteriorated</li> </ul>
f) slip joint	f) radial wear at joint exceeds manufacturer specification
g) hanger bracket and hardware, and metal guard or catch	g) cracked, loose, missing
REQUIRED ON ALL SCHOOL BUSES.	<ul> <li>mounted in a manner that fails to prevent drive shaft from falling to ground</li> </ul>
<ul> <li>required on buses over 3.8 m (150 in.) wheel base with engine mounted at front</li> </ul>	<ul> <li>on a bus, metal floor guard is missing or fails to protect occupant compartment</li> </ul>
or	
<ul> <li>equipped with a multi piece shaft</li> </ul>	
NOTE: Buses equipped with a multi piece driveshaft must have a guard on each section.	
	OUT OF SERVICE
	i) Any part is in a condition where it appears likely to become detached, or imminent failure appears likely.
	<u>Driveline/Driveshaft</u>
	ii) A yoke end has a visible crack.
	iii) Yoke mounting, or end fitting fastener hardware, is broken, loose, or missing.
	<u>Universal Joint</u>
	iv) Vertical movement between opposing yoke ends is greater than 3.0 mm.
	v) Bearing cap, or bearing cap bolt, is broken, loose, or missing.
	Centre Bearing (Carrier Bearing)
	vi) Mounting bracket, bracket bolt or hardware is broken, loose, or missing.
	vii) Mounting bracket has a crack longer than one-half of the original bracket width.
	viii) Vertical movement of the shaft in the centre bearing carrier is greater than 13 mm.
	Drive Shaft Tube
	ix) Twisted, or has a crack in the metal or any weld longer than 6 mm.

Item and Method of Inspection	Reject If
5. Clutch and Clutch Pedal	Truck   ✓   Trailer     Bus   ✓
Additional Inspection Procedure(s): Inspect clutch operation and adjustment according to manufacturer service instructions.	
a) operation	a) fails to operate in the manner prescribed by the manufacturer
b) adjustment	b) is not adjusted according to manufacturer instructions
c) pedal and linkage	c) broken, cracked, loose, missing or abnormally worn
	<ul> <li>welded or repaired in a way that does not meet</li> <li>OEM standard</li> </ul>
	<ul> <li>deteriorated or weakened by corrosion, or insecure</li> </ul>
	<ul> <li>anti-slip feature is ineffective, loose or missing</li> </ul>
d) clutch pedal hydraulic system	d) fluid reservoir is below minimum level indicated by manufacturer or level 2 leak of fluid at any point
e) clutch safety switch (if OEM equipped)	e) not functioning as per OEM
	OUT OF SERVICE
	i) Clutch fails to disengage transmission.
6. Engine/Transmission Mount	Truck   ✓   Trailer     Bus   ✓
a) condition/attachment	a) bent, loose or missing
	<ul> <li>a bolt or insulator is loose or missing</li> <li>an insulator is broken, deteriorated or swollen abnormally</li> </ul>
	<ul> <li>a mount or part of a mount is replaced with a product or material that is not equivalent to OEM standard</li> </ul>
	OUT OF SERVICE
	i) Imminent failure of a mount or bolt appears likely.

Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) Air tank is loose, allowing movement of more than 25 mm in any direction.
5. Air Tank Check Valves	Truck   ✓   Trailer     Bus   ✓
Additional Inspection Procedure(s): Test as outlined below, the operation of air tank check valves on each vehicle using a supply (wet) tank and primary/ secondary tank arrangement. Inspect a vehicle using an integral-type air dryer (and having no supply {wet} tank) according to manufacturer service instructions.	
NOTE: A "CMVSS/FMVSS '121'system" is one with a dual circuit brake system generally manufactured after 1976. A vehicle with single circuit brake system is to be inspected according to manufacturer service instructions.	
Additional Inspection Procedure(s): For a vehicle with a "CMVSS/ FMVSS '121'system". This inspection is to ensure proper function of the check valves which isolate the circuits and provide service and emergency braking in the case of a failure in one of the circuits. Inspect for proper operation as follows:	
<b>Step 1</b> – Begin with air system at normal operating pressure. Completely open the drain valve on the supply (wet) tank.	
a) one-way check valve (between supply (wet) tank and service tanks)	a) air pressure drops in either the primary or secondary air tank
<b>Step 2</b> – Completely open the drain valve on either the primary or secondary service tank.	
b) two-way check valve (between service tanks and brake system control valves)	b) air pressure drops on both the primary and secondary air tanks
<b>Step 3</b> – Close all drain valves and increase air system to normal operating pressure. Completely open the drain valve on the remaining service tank (primary or secondary) that was not drained in Step 2.	
c) two-way check valve (between service tanks and brake system control valves)	c) air pressure drops on both the primary and secondary air tanks

Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) Air tank check-valve is inoperative or missing.
6. Brake Pedal/Actuator	Truck   ✓   Trailer     Bus   ✓
a) pedal	a) broken, cracked, loose, missing or abnormally worn     welded or repaired in a way that does not meet OEM     standard
b) mount	b) deteriorated or weakened by corrosion, or insecure
c) anti-slip feature	c) ineffective, loose or missing
	OUT OF SERVICE
	i) Pedal is loose or missing, or an imminent failure appears likely.
7. Treadle Valve and Trailer Hand Valve	Truck   ✓   Trailer     Bus   ✓
a) operation	a) inoperative
Additional Inspection Procedure(s): Test the operation of the treadle valve and trailer hand valve by fully applying and then releasing the service brakes.	<ul> <li>pivot or plunger is binding or seized (fails to fully release brakes)</li> </ul>
b) condition	b) cracked, insecure or loose
	<ul> <li>mounting, mounting bracket or mounting fastener damaged, missing or stripped</li> </ul>
8. Brake Valves and Controls	Truck   ✓   Trailer   ✓   Bus   ✓
a) operation	a) any valve is inoperative
Additional Inspection Procedure(s): Test the operation of all valves and controls.	
b) condition	b) broken, damaged, repaired in a way that does not meet
Additional Inspection Procedure(s): Check the condition and security of all air brake system components.	OEM standard  - loose, insecure mounting, mounting bracket or mounting fastener damaged, stripped or missing

Item and Method of Inspection	Reject If
e) leakage	e) an air leak at any location
Additional Inspection Procedure(s): Monitor system for leaks.	
	OUT OF SERVICE
	i) An air line bulges under pressure.
	ii) Air line modification or repair does not meet industry standard or OEM standard.
	iii) Air line has damage extending through the outer reinforcement ply.
	iv) An inner layer of an air line is exposed due to abrasion or rubbing.
	v) Air leak at other than a proper connection.
	vi) Air line is damaged by heat, broken, or crimped in such a manner as to restrict airflow.
5. Brake Chamber	Truck   ✓   Trailer   ✓   Bus   ✓
a) brake chamber	a) improper type or size brake chamber is used
NOTE: Includes DD3 chamber on a bus.	
	<ul> <li>corroded, cracked, damaged, insecure mounting</li> </ul>
	<ul> <li>loose, missing, or leaking drain hole is not directed</li> </ul>
	<ul> <li>loose, missing, or leaking drain hole is not directed downward or is plugged</li> <li>mixed long-stroke and standard stroke chambers</li> </ul>
	<ul> <li>loose, missing, or leaking drain hole is not directed downward or is plugged</li> <li>mixed long-stroke and standard stroke chambers on an axle</li> </ul>
b) spring brake chamber	<ul> <li>loose, missing, or leaking drain hole is not directed downward or is plugged</li> <li>mixed long-stroke and standard stroke chambers on an axle</li> <li>mismatched chamber size on an axle</li> </ul>
b) spring brake chamber	<ul> <li>loose, missing, or leaking drain hole is not directed downward or is plugged</li> <li>mixed long-stroke and standard stroke chambers on an axle</li> <li>mismatched chamber size on an axle</li> <li>piston return spring is broken or binding</li> <li>b) park brake-apply spring is caged by caging bolt or</li> </ul>
b) spring brake chamber	<ul> <li>loose, missing, or leaking drain hole is not directed downward or is plugged</li> <li>mixed long-stroke and standard stroke chambers on an axle</li> <li>mismatched chamber size on an axle</li> <li>piston return spring is broken or binding</li> <li>b) park brake-apply spring is caged by caging bolt or made inoperative by other mechanical means</li> <li>chamber caging plate is misaligned or hung up</li> </ul>

Item and Method of Inspection	Reject If
d) type DD3 chamber  Additional Inspection Procedure(s): Apply the parking brake and deplete system pressure starting with the supply (wet) tank.	d) brake fails to remain fully applied at any wheel with Type DD3 chamber
	OUT OF SERVICE
	i) Air leak at a chamber.
	ii) Caging plate in a chamber is out of position or "hung up.'
	iii) Non-manufactured hole or crack in a chamber.
	iv) Insecure, loose or missing chamber.
	v) Mismatched chamber type or size on active or passive steer axle.
	vi) Improper type or size brake chamber is used on a steer axle.
16. Drum Brake System Components	Truck   ✓   Trailer   ✓   Bus   ✓
NOTE: Drums must be removed only when the camshaft rotation travel is 100 degrees or more.	
a) brake operation	a) a required brake is missing
	<ul> <li>a brake is inoperative</li> </ul>

Item and Method of Inspection	Reject If
1. Steering Control and Linkage	Truck   ✓   Trailer   ✓   Bus   ✓
Additional Inspection Procedure(s): Check the steering components listed below using tools and methods according to manufacturer service instructions.	
a) steering box or rack and pinion unit	a) loose or insecure mounting, mounting bolt loose or missing
	<ul> <li>housing broken, cracked, or level 2 leak of oil or fluid</li> </ul>
b) bellow, clamp and boot	b) insecure, missing, split or torn
	<ul> <li>bulging, swollen or discoloured due to oil leak from internal end seal</li> </ul>
	<ul> <li>clamp missing</li> </ul>
c) tie rod	c) bent, broken, cracked or welded, or repaired in a way that does not meet OEM standard
d) tie rod end, drag link and ball and socket joint	d) bent, insecure, loose or worn
	<ul> <li>threads stripped or repaired</li> </ul>
	<ul> <li>ball and socket joint is worn beyond manufacturer specifications</li> </ul>
	<ul> <li>damaged, welded or repaired in a way that does not meet OEM standard</li> </ul>
	<ul> <li>part is used that does not meet OEM standard</li> </ul>
e) pitman arm	e) bent, damaged, insecure or loose on spline
	<ul> <li>repaired by welding</li> </ul>
f) ball-joint in upper or lower control arm	f) loose in knuckle or control arm
	<ul> <li>wear exceeds limit shown by wear-indicator, OEM standard limit or industry standard limit, or is injected with repair materia</li> </ul>
	- insecure or loose
	<ul> <li>improper or loose retainer</li> </ul>
g) cotter pin or similar retaining device	g) missing, or deficient part is used that does not meet OEM standard

Item and Method of Inspection	Reject If
h) steering dampener	h) inoperative or missing
i) steering column	<ul> <li>level 2 leak of dampener fluid</li> <li>i) insecure mounting or loose</li> <li>mounting fastener loose or missing</li> </ul>
<ul> <li>j) telescopic/tilt steering</li> <li>Additional Inspection Procedure(s):</li> <li>Check the operation of locking device(s). With unit locked, grasp the steering column and attempt to move it horizontally and vertically on its mounts.</li> </ul>	j) movement exceeds manufacturer specification, or when specification is not available, is greater than 6 mm
k) steering shaft universal joint and yoke	<ul> <li>k) binding, loose, seized, welded or repaired in a way that does not meet OEM standard</li> <li>clamp bolt loose or missing, or spline loose or stripped</li> </ul>
l) steering column slip joint	l) rotational free play between splines exceeds 1.0 mm
Additional Inspection Procedure(s): Grasp the sections of the slip joint and check rotational free play by twisting in opposite directions. Then check the total side to side, or up and down movement of the slip joint perpendicular to the line of rotation.	- total side to side, or up and down movement exceeds 6 mm  rotational free play side to side, or up and down movement
m) adjusting sleeve	<ul> <li>m) bent, loose or welded or repaired in a way that does not meet OEM standard</li> <li>tightening bolt is in a position that interferes with normal steering</li> </ul>

Item and Method of Inspection	Reject If
c) frame and sub-frame	c) bulge caused by corrosion resulting in distortion of 10 mm or more (unless the condition or the repair is approved by the OEM, manufacturer or an engineer)
	<ul> <li>stress crack at side rail or rub-rail</li> </ul>
	<ul> <li>rivet is loose, missing, dimpled by corrosion</li> </ul>
	<ul> <li>bent, broken, cracked or insecure</li> </ul>
	<ul> <li>welded or repaired in a way that does not meet</li> <li>OEM standard</li> </ul>
d) cross-member	d) bent, broken, collapsed, cracked or missing
	<ul> <li>perforated or weakened by corrosion</li> </ul>
e) inner or outer side rail and body-long sills	e) bulge caused by corrosion resulting in distortion of 10 mm or more (unless the condition or the repair is approved by the OEM, manufacturer or an engineer
	<ul> <li>rivet is loose, missing</li> </ul>
	<ul> <li>bent, broken, cracked or insecure</li> </ul>
	<ul> <li>welded or repaired in a way that does not meet</li> <li>OEM standard</li> </ul>
f) stake pocket/tie down, cargo securing point or cargo	f) broken, cracked or insecure
securing device	<ul> <li>elongated or distorted</li> </ul>
	NOTE: When a cargo securing point or device is in any of the conditions described above, record the condition on the inspection report. Do not reject the vehicle for this condition alone.
g) tailgate, hopper, or end-dump door	g) broken, cracked or missing
	<ul> <li>hinge is broken, cracked or missing, or pin lock is missing</li> </ul>
	<ul> <li>insecure, or will not close and latch properly</li> </ul>
	<ul> <li>any gap exists that would allow leakage, loss or spillage of cargo</li> </ul>
	<ul> <li>welded or repaired in a way that does not meet manufacturer standard</li> </ul>

Item and Method of Inspection	Reject If
h) body to frame attachment	h) bent, broken, cracked, loose or missing
NOTE: Includes body to frame attachment device such as "U-bolt", pivot hinge, cheek plate mount, flex-mount hardware, body clamp and "J-Bar".	<ul><li>spring is broken</li><li>spacer or insulator is abnormally worn, crushed, dislodged or missing</li></ul>
i) body rail and structural member	<ul> <li>i) upper or lower cargo body rail is bent, buckled, has a crack longer than 25 mm, or has a fastener loose or missing</li> </ul>
	<ul><li>floor cross member is bent, loose or sagging</li><li>roof support is bent, loose or sagging</li></ul>
j) body panel	<ul> <li>j) any section has exposed sharp edge, is torn or protrudes out in a manner that could be hazardous to driver, passenger, pedestrian or cyclist</li> </ul>
	<ul> <li>panel or panel fastener is insecure, loose, missing, or corroded through</li> <li>rivet is loose</li> <li>repaired in a way that does not meet OEM standard</li> </ul>
	<ul> <li>any gap exists that would allow leakage, loss or spillage of cargo</li> </ul>
k) bunk and stake equipment	
i) bunks	<ul> <li>i) broken, cracked, mounted insecurely, loose bolts, bunk lash exceeds 5 mm or OEM specifications</li> </ul>
ii) bunk posts, stakes and extensions	ii) broken, cracked, insecure, loose bolts, angle exceeds 90°
iii) cup and saucer	iii) cracked, broken, worn beyond OEM
iv) stake cables	iv) less than 21 mm (7/8 in.), worn, frayed, pinched, anchor insecure, stake trip lever retainer missing, trip stake return spring missing or broken
v) bolster	v) loose, cracked, bolts loose, missing
vi) bunk air lock	vi) air leak, not functioning as per OEM

Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) Any component is so insecure or loose that it is an imminent hazard or it could become detached from vehicle.
	ii) Any section has exposed sharp edge, is torn or protrudes out in a manner that is hazardous to driver, passenger, pedestrian or cyclist.
	iii) Any body part or attachment is broken, cracked perforated, or sagging, in a manner that permits the body to contact any moving part, or imminent collapse appears likely.
	iv) Any gap exists allowing leakage, loss or spillage of cargo.
	v) A cargo body upper or lower rail is buckled, bowed, cracked through, sagging or has two or more adjacent loose or missing fasteners.
	vi) Two or more adjacent floor cross members are bent, loose or sagging.
	vii) Two or more adjacent roof supports are bent, loose or sagging.
6. Trailer Body types	Truck     <b>Trailer   ✓</b>   Bus
a) low boy	
i) tie downs	<ul> <li>i) missing, broken, cracked, worn beyond load security specifications</li> </ul>
ii) loading ramp (if equipped)	ii) hinges broken, insecurely mounted
iii) equipment rails or pads (floor not required)	iii) loose, insecure
iv) side rails (if equipped)	iv) loose, cracked, broken, corroded through, insecure, improper or inadequate repair
	OUT OF SERVICE
	i) Any component is so loose or insecure that it could become disconnected from vehicle.

	Item and Method of Inspection		Reject If
b) tim	ber/log/pole trailers		
Flo	oring not required.		
i)	bunks/bunk lash NOTE: All bolts must be torqued to OEM specifications.	i)	broken, cracked, mounted insecurely, loose bolts, bunk lash exceeds 5 mm (3/16 in.) or OEM specifications
ii)	bunk posts, stakes and extensions	ii)	broken, cracked, insecure, loose bolts, angle exceeds 90°
iii)	cup and saucer	iii)	cracked, broken, does not meet OEM standards
iv)	stake cables	iv)	less than 21 mm (7/8 in.), worn, frayed, pinched anchor insecure, stake trip lever retainer missing trip stake return spring missing or broken
v)	bolster	v)	loose, cracked, bolts loose, missing
vi)	reach (entire length of reach must be inspected)	vi)	cracked, worn more than 20%, bent, repairs do not meet OEM specifications
vii)	compensator	vii)	live (stops missing), bushings ineffective, cracke welded, worn more than 20%
viii	viii) adjustable reach (trailers manufactured after January 1, 1993) – must be fully extended for inspection	viii	) weld, bolts or positive means other than a friction clamp to prevent movement, missing
		OUT OF	SERVICE
		1	component is loose or insecure so that it could ne disconnected from vehicle.
c) catt	tle liner		
i)	sides		cracked, corroded through, severely corroded as to weaken the member (check by tapping with hammer)  – rivets at drop center front and back are missing loose, working

Item and Method of Inspection	Reject If
ii) floor Particular attention should be given at drop center area.	<ul> <li>ii) cracked, corroded through, severely corroded as to weaken the member (check by tapping with hammer)</li> <li>rivets at drop center front and back are missing, loose, working</li> </ul>
iii) side supports (visually check inside)	iii) missing, broken, cracked, corroded through, corroded so as to weaken the support
iv) side rails	<ul><li>iv) bulges indicating corrosion evident, stress cracks at rails</li><li>- rivets dimpled, rivets missing (check by tapping rivets with hammer)</li></ul>
	OUT OF SERVICE
	i) Any component is so loose or insecure that it could become disconnected from vehicle.
. Frame, Rails and Mounts	Truck   ✓   Trailer   ✓   Bus   ✓
a) condition  NOTE: Some rust and corrosion on the outer surface of exposed metal parts is normal. When a high amount of rust or corrosion is present and visibly reduces the thickness of the material, structural deterioration is possible.	a) welded, modified or repaired in a way that does not meet OEM standard  - bent, broken or cracked  - perforated or separated due to corrosion between mount and frame member  - rusted or corroded to a depth sufficient to become weakened  - bulge caused by corrosion resulting in distortion of 10 mm or more (unless the condition or the repair is approved by the OEM, manufacturer or an engineer)  - any condition of the frame assembly allows a frame component, or a part of the body or power train, out of its normal position, or to contact a moving part

Item and Method of Inspection	Reject If
c) cross-member	c) bent, broken, cracked, loose or missing
	<ul> <li>cut, notched, rusted or corroded to a depth sufficient to cause weakness</li> </ul>
	<ul> <li>repaired using material or method, that does not meet OEM standard or industry standard</li> </ul>
	<ul> <li>any condition of a cross member allows a frame component, or a part of the body or power train, out of its normal position, or to contact a moving part</li> </ul>
d) sub-frame assembly	d) bent, broken, cracked, loose or missing
NOTE: This only applies to a structural frame assembly that is not part of the main frame	<ul> <li>cut, notched, rusted or corroded to a depth sufficient to cause weakness</li> </ul>
assembly, and carries a load or provides strength to the vehicle structure, i.e.: engine cradle, or suspension sub-frame.	<ul> <li>repaired using material or method that does not meet OEM standard or industry standard any condition of the sub-frame assembly allows a frame component, or a part of the body or power train, out of its normal position, or to contact a moving part</li> </ul>
	OUT OF SERVICE
	i) Any frame side-rail or cross-member is cracked as follows:
	- longer than 38 mm
	- longer than 25 mm in the bottom flange
	<ul> <li>from the web extending around the radius and into the bottom flange</li> </ul>
	ii) Any condition of the frame allows a frame component, or a part of the body or power train, to be more than 38 mm out of its normal position, or to contact a moving part.
	iii) Imminent failure appears likely due to a frame member that is damaged or deteriorated, or has been repaired using material or method, that does not meet OEM standard or industry standard.

Item and Method of Inspection	Reject If
8. Unitized Body Elements	Truck   ✓   Trailer   ✓   Bus   ✓
a) load carrying panel, bulkhead, structural element and mounts	a) bent, broken, cracked, loose or missing or rusted or corroded to a depth sufficient to cause weakness
NOTE: Some rust and corrosion on the outer surface of exposed metal parts is normal. When a high amount of rust or corrosion is present and visibly reduces the thickness of the material, structural deterioration is possible.	<ul> <li>welded or repaired in a way that does not meet OEM standard</li> <li>any rivet is loose or missing</li> <li>any condition of the unitized body allows a part of the body or power train, out of its normal position, or to contact a moving part</li> </ul>
	OUT OF SERVICE
	i) Any component is so insecure or loose that it could become detached from the vehicle.
	ii) Structural body component has a crack, cut or notch longer than 38 mm.
	iii) Any condition of a unitized body component allows a part of the body or power train to be more than 38 mm out of its normal position, or to contact a moving part.
	iv) Imminent failure appears likely due to a body component that is damaged or deteriorated, or has been repaired using material or method, that does not meet OEM standard or industry standard.
9. Cab or Cargo door	Truck   ✓   Trailer   ✓   Bus
a) condition and operation	a) binds or fails to lock securely
NOTE: This includes a partition door between the occupant and cargo area.	<ul> <li>insecure mounting to hinge, insecure hinge or severely corroded in hinge area</li> <li>panel is corroded through</li> <li>welded or repaired in a way that does not meet OEM standard</li> <li>door fails to operate or latch on both primary and secondary latches</li> <li>gap exists that may allow exhaust gases to enter cab, passenger compartment, and/or sleeper</li> <li>seal is out of position, damaged or missing, and is able to allow exhaust gases to enter cab, passenger compartment, and/or sleeper</li> <li>any gap exists that would allow leakage, loss or spillage of cargo</li> </ul>

Item and Method of Inspection	Reject If
b) interior and exterior door openers and handles	b) broken, inoperative or missing catch or latch is broken, loose or missing
	<ul> <li>OUT OF SERVICE</li> <li>i) Cab door fails to latch on both primary and secondary latches.</li> <li>ii) Cargo door fails to latch.</li> <li>iii) Gap exists and exhaust gases are entering cab, passenger compartment or sleeper.</li> </ul>
	iv) Any gap exists allowing leakage, loss or spillage of cargo.
10. Cargo Tank or Vessel	Truck   ✓   Trailer   ✓   Bus
NOTE: Code, (e.g.: dangerous goods CSA B620, edible product, dry bulk) cargo tanks are frequently subject to additional inspection requirements. Inspections conducted in accordance with this standard address only a limited portion of the compliance requirements.	
This inspection does not include any procedure that requires operation of any valve, hatch or product handling item. Authorized inspector must take precautions to avoid exposure to any cargo or residual material.	
a) condition	a) welded or repaired in a way that does not meet OEM standard  - loose on mounts - level 2 leak of any liquid transported by the tank or vessel - crack or broken weld in tank, frame or support - movement, bulge or weakness caused by corrosion between tank and frame
b) valve	<ul><li>b) cap loose or missing</li><li>level 2 leak of any liquid transported by the tank or vessel</li></ul>
c) hose	c) loose or improperly secured

Item and Method of Inspection	Reject If
d) hatch	d) insecure, loose or missing
	<ul> <li>latch inoperative</li> </ul>
	<ul> <li>hinge, broken or inoperative</li> </ul>
	OUT OF SERVICE
	i) Any component is so insecure or loose that it could become detached from vehicle.
	ii) Required internal valve is missing.
	iii) Internal valve remains open when it is required to be closed.
	iv) Access/fill/inspection opening cover is improperly secured or missing.
	v) Required venting device, emergency device, or discharge valve, is missing.

#### 11. Body, Device or Equipment Attached or Mounted to the Vehicle

Truck | ✓ | Trailer | ✓ | Bus |

NOTE: This section applies primarily to external devices or equipment attached to a vehicle. Examples include a crane, cargo lifting and transporting machine, load covering equipment, cargo dispensing equipment, Auxiliary Power Unit, refrigeration-heater (reefer) unit, generator, ready-mix unit, sander body, feed and grain body, snow plow, service/utility body, vacuum tank, flatbed, roll- on/roll-off, lugger, container chassis, etc.

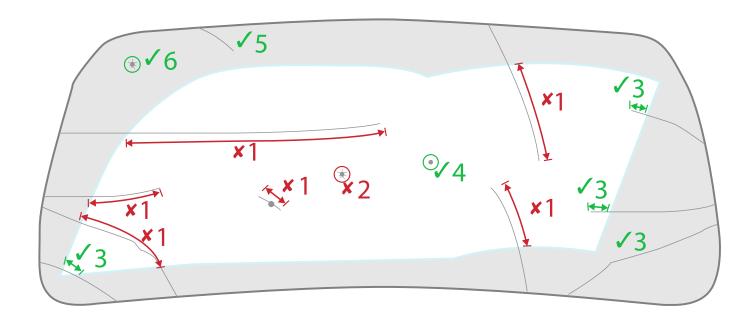
The criteria in this section only apply to a mounted body, device or equipment to the extent that the condition could affect the safe operation of the vehicle on the highway. The functionality of the mounted equipment does not need to be tested or inspected.

Item and Method of Inspection	Reject If
a) security and condition  Additional Inspection Procedure(s): Check security of attached body, device or equipment visually, manually and using suitable tools as necessary. No functional test is to be conducted	<ul> <li>a) equipment or device is in such an unsafe condition that is a risk to other motorists, the driver, a passenger, pedestrian or cyclist</li> <li>equipment or device is insecure or loose, or in danger of shifting in a way that could impede normal operation of the vehicle</li> <li>any section has an exposed sharp edge, is torn or protrudes out in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist</li> <li>level 3 leak of any oil, hydraulic fluid or liquid product</li> <li>OUT OF SERVICE</li> <li>i) Any article, component or device is so insecure or loose that it could become detached from vehicle.</li> <li>ii) Equipment or device is in such an unsafe condition</li> </ul>
12. Refrigeretion/Heater Unit Fuel System (Reefer or Auxilia	that is a risk to other motorists, the driver, a passenger, pedestrian or cyclist.  iii) Any section has an exposed sharp edge, is torn or protrudes out in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist.  ary Power Unit [APU]) Truck   ✓   Trailer   ✓   Bus
a) fuel system	-,
i) cap(s)	i) missing, does not prevent spillage
ii) tank(s)	<ul><li>ii) leaking, insecurely mounted, cracked, broken welds, not designed for the storage of fuel, inferior vent, repair on any tank other than metal</li></ul>
iii) tank mount(s)	iii) missing, cracked, broken, loose, fasteners missing or loose
iv) strap(s)	iv) cracked, broken, loose, inappropriate substitute (i.e. chain)

Item and Method of Inspection	Reject If
v) lines	v) cracked, chafing, leaking, insecurely mounted, frayed, cracked to cord layer  – steel braided lines are rusted at steel layer  – not approved type
vi) pump	vi) level 1 leak, insecurely mounted, physically damaged
	OUT OF SERVICE
	i) Level 1 leak at any point, including auxiliary equipment.
	ii) Fuel cap missing.
	iii) Tank(s) insecure (tanks mounted with cushioning devices will have some movement).
b) securement	
i) mounts	<ul><li>i) missing, cracked, broken, loose fasteners</li><li>– missing or loose, broken welds</li></ul>
13. Bumper	Truck   ✓   Trailer     Bus   ✓
NOTE: Applies only to the front bumper on a truck or truck- tractor. Applies to the front and rear bumper on a bus.	
a) condition	a) broken, loose or missing
	<ul> <li>any section has exposed sharp edge, is torn or protrudes in a manner that could be hazardous the the driver, a passenger, pedestrian or cyclist</li> </ul>
b) design	b) replacement part does not meet OEM standard, or is weaker than OEM design
	<ul> <li>solid portion does not extend from one frame ra to the other (except for a unitized body design)</li> </ul>
c) height	c) lowest part of front bumper higher than 750 mm (29 in.) from ground or OEM

Item and Method of Inspection	Reject If
	<ul> <li>OUT OF SERVICE</li> <li>i) Imminent failure appears likely.</li> <li>ii) Any section has exposed sharp edge, is torn or protrudes in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist.</li> </ul>
14. Windshield	Truck   ✓   Trailer     Bus   ✓
a) obstruction  NOTE: Forward/rearward facing camera safety devices may be mounted up to 50 mm from the outer edge of the area swept by OEM wipers.  NOTE: Wipers must be OEM length.	<ul> <li>a) decal or device obscures vision in the area swept by OEM windshield wipers</li> <li>clouded, damaged or deteriorated in such a way that driver's normal vision is materially impaired in the area swept by OEM windshield wipers</li> <li>aftermarket tinting</li> <li>tint or sunscreening other than that allowed by ANSI/SAE Z26.1 standards</li> </ul>
b) crack  NOTE: See following image for examples of pass and fail windshield crack conditions.	<ul> <li>b) a crack extends through both layers of glass</li> <li>a crack of any length extends more than 50 mm within the area swept by OEM windshield wipers</li> <li>a crack over 300 mm (12 in.) long in any part</li> </ul>

Item and Method of Inspection	Reject If
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# **Examples of Windshield Pass and Reject Conditions:**

Reject condition 1	Crack through one layer that extends more than 50 mm into the area swept by wipers
Reject condition 2	Star chip larger than 13 mm in diameter in area swept by wipers
Pass condition 3	Crack extends less than 50 mm into the area swept by wipers
Pass condition 4	Star chip smaller than 13 mm in diameter in area swept by wipers
Pass condition 5	Crack through one layer that is more than 50 mm long, but outside the area swept by wipers
Pass condition 6	Star chip larger than 13 mm in diameter, but outside the area swept by wipers

- c) chip
- d) discolouration

- c) a chip that is larger than 13 mm in diameter within the area swept by OEM windshield wipers
- d) more than 10% of total glass area is discoloured due to age or other deterioration

Item and Method of Inspection	Reject If
e) tinting	e) tint or sunscreening other than that allowed by the original vehicle manufacturer
	<ul> <li>after market tinting extends more than 75mm</li> <li>(3 in.) from top of windshield</li> </ul>
	<ul> <li>any tint is of a silver or reflective type</li> </ul>
f) material type	f) is not marked as type AS-1 or AS-10 BUS ONLY – not marked as type AS-1 or AS-10 or AS-20
g) condition	g) missing
	<ul> <li>vision is obscured or limited due to surface condition</li> </ul>
	OUT OF SERVICE
	i) Windshield is missing.
	ii) Windshield is damaged or deteriorated in such a way that driver's normal vision is materially impaired in the area swept by OEM windshield wipers.
15. Side Windows	<b>Truck</b>   ✓   Trailer     Bus
a) operation	a) cannot be opened or closed readily on driver's side
	<ul> <li>emergency and driver's window cannot be opened or closed readily</li> </ul>
b) condition	b) cracked in such as way as to restrict vision, broken, single pane glass cracked, dual pane windows cracked on inside, exposed sharp edges
	<ul> <li>cracked or stone bruised through both layers of glass</li> </ul>
	<ul> <li>exposed edges not banded</li> </ul>
	<ul> <li>Not equipped per OEM</li> </ul>
	<ul> <li>glass pane or frame insecure</li> </ul>
c) type	
c1) front side windows	c1) other than safety glass type AS-1, 2, 10 & 11
c2) rear side and rear window	c2) other than safety glass type AS-1, 2, 3, 10 & 11

Item and Method of Inspection	Reject If
d) tinting	d) any tinting (by film) of any driver's side window or front passenger side window  - any tinting on a rear window if the motor vehicle is not equipped with outside rear-view mirrors of the left and right side of the motor vehicle  - any film is a reflective (silvered) type  - aftermarket tinting or sunscreening on driver's side windows other than that allowed by ANSI/ SAE Z26.1
	OUT OF SERVICE
	i) Emergency exits cannot be opened.
16. Rear Window	Truck   ✓   Trailer     Bus   ✓
a) condition	a) broken or exposed sharp edge
b) material type  NOTE: Rigid material may be used in place of glass or rigid plastic, when the vehicle is equipped with an outside rear-view mirror on each side.	b) is not marked as glass type AS-1, AS-2, AS-10 or AS-11, or rigid plastic AS-4 or AS-5
17. Interior Sun Visor	Truck   ✓   Trailer     Bus   ✓
a) location	a) missing on driver's side
b) attaching parts	b) bent, broken, loose or missing
c) adjustment	c) cannot be maintained in a set position
d) modified or non-OEM sun visor on a school bus	d) does not meet applicable standard
18. Exterior Windshield Sun Visor	Truck   ✓   Trailer     Bus   ✓
a) obstructed view	a) any part of an exterior visor, at any point:
a) obstructed view	

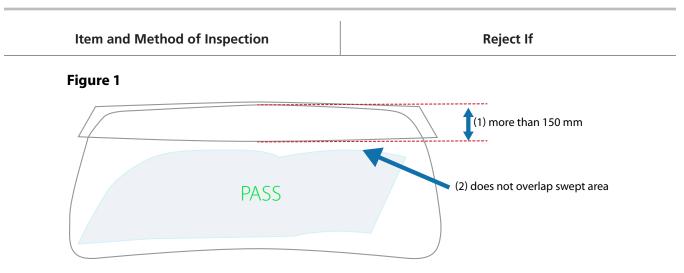


Figure 2



Figure 3

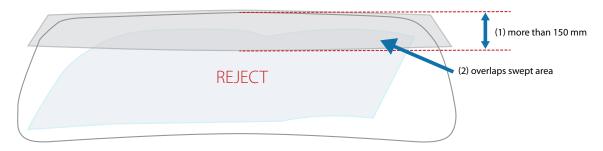
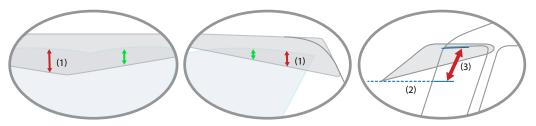


Figure 4



Item and Method of Inspection	Reject If
Sun Visor Measurement Location and Method:	
1. Identify the location where the sun visor vertically overlaps furthest over the swept area of the wiper.	
2. Extend a level line to the surface of the windshield from the location identified in step (1).	
3. Measure upwards along the surface of the windshield.	- reject if measurement is greater than 150 mm
NOTE: "Swept area" means the portion of the windshield swept by an OEM wiper blade attached to an OEM wiper arm.	
	OUT OF SERVICE
	i) Any part of an exterior visor, at any point:
	<ul> <li>extends more than 150 mm below the upper edge of the windshield; and</li> </ul>
19. Rear-view Mirror	<b>Truck</b>   ✓   Trailer     Bus
From driver's position:	
a) location	a) none located on the left side
	<ul> <li>none located on the right side if not equipped with unobstructed rear window with inside mirror</li> </ul>
b) view	b) not a clear view of highway to rear
	- obstructed
c) mounts	c) loose, broken, insecure
	<ul> <li>will not allow the mirror to maintain adjustment</li> </ul>
d) glass condition	d) cracked, pitted, clouded as to obscure vision
e) area of each mirror	e) less than 325 cm² (50 in²) (measurement approximate) on vehicles greater than 4,536 kg and includes convex mirror when installed on surface
20. Interior Rear-view Mirror on a Bus	Truck     Trailer     <b>Bus   ✓</b>
a) presence	a) missing
b) view	b) obstructed, not clear view of the interior and rear of bus

Item and Method of Inspection	Reject If
c) mounts	c) loose, broken, insecure
d) glass condition	d) cracked, pitted or broken as to obscure vision, not safety glass and so marked (buses must meet applicable D-250 standard for year of manufacture)
e) adjustment	e) will not maintain adjustment, not adjustable
21. Bus Exterior Rear-view Mirrors	Truck     Trailer     <b>Bus</b>   ✓
a) left and right side rearview mirrors	
i) presence	i) either one missing
ii) view	ii) not a clear view of highway to rear  – obstructed
iii) mounts	iii) loose, broken, insecure
iv) glass condition	iv) cracked or pitted so as to obscure vision
v) area	v) less than 0.03 m <sup>2</sup> (50 in <sup>2</sup> ) on vehicles over 2.05 m (80 in.) in width
	<ul> <li>less than 16,000 mm² (24 in²) on vehicles 2.05 m</li> <li>(80 in.) or less in width</li> </ul>
vi) location	vi) creates blind spot
vii) adjustment	vii) will not maintain adjustment
	OUT OF SERVICE
	i) Missing, obscured or insecure or seized.
22. Passenger Seat	<b>Truck   ✓  </b> Trailer     Bus
a) condition	a) mounted insecurely, loose, frame broken, covering material torn and exposing a metal component or spring, seat pedestal removed or seat assembly not OEM or CMVSS equivalent
b) seat track locks	b) adjusting mechanism does not operate, adjustable seats will not lock into position, loose

Item and Method of Inspection	Reject If
c) seat back locks	c) missing, loose, broken, inoperative, do not hold seat back in locked position
d) head restraints (headrest) if OEM equipped	d) missing, broken, does not function as OEM, not CMVSS compliant
e) location	e) not in OEM, certified or CMVSS compliant location
23. Drivers seat	Truck   ✓   Trailer     Bus   ✓
a) condition	a) mounted insecurely, loose, frame broken
	<ul> <li>springs exposed and/or broken, cover material removed</li> </ul>
	- material torn more than 75 mm (3 in.) in length or 6,400 mm <sup>2</sup> (9 in <sup>2</sup> ) in area or 6.5 mm (1/4 in.) deep
	<ul> <li>adjusting mechanism does not operate, will not lock in position</li> </ul>
	<ul> <li>driver cannot reach all controls</li> </ul>
b) seat track locks	b) driver's seat adjustment mechanism does not operate
	<ul> <li>adjustable seats will not lock into position</li> </ul>
c) location	c) not in OEM, certified or CMVSS compliant location
	<ul> <li>missing, broken, does not function as OEM, not CMVSS compliant</li> </ul>
d) head restraints (headrest) if OEM equipped	
	OUT OF SERVICE
	i) Driver's seat is rejected or defective.
24. Seat Belt/Occupant Restraint	Truck   ✓   Trailer     Bus   ✓
Seat belts and occupant restraint system must comply with CMVSS 208, 209 and 210 for year of manufacture.	
Additional Inspection Procedure(s): Confirm the operation of each seat belt latch and retractor.	

Item and Method of Inspection	Reject If
a) type and condition	a) missing or not equipped at each seating position as originally required to meet applicable CMVSS
	<ul> <li>webbing material is broken, cut frayed or torn</li> <li>air ride, hydraulic or spring seat does not have lap belts attached to the seat, or is not equipped with a secondary belt from the seat to the floor</li> <li>compliance label missing</li> </ul>
b) anchor	b) broken, insecure mounting or missing
	<ul> <li>location in non OEM position</li> </ul>
c) retractor	c) broken, insecure mounting or missing
	<ul> <li>fails to allow belt to extend to its maximum length or fails to retract properly</li> </ul>
d) belt release and buckle	d) broken, insecure mounting or missing
Additional Inspection Procedure(s): Buckle each seatbelt assembly and extend the belt to test the belt retractor.	<ul> <li>any part is not properly attached to the belt material</li> <li>latch fails to lock in position or fails to release easily when belt is under tension</li> </ul>
e) supplemental restraint system (SRS)  Additional Inspection Procedure(s): Cycle the ignition off and on and check the status of the SRS indicator lamps.	<ul> <li>e) an air bag is disconnected, inoperative, missing or not re-installed to OEM service instructions</li> <li>the air bag indicator (SRS) lamp indicates a malfunction or fails to operate according to OEM service instructions</li> <li>air bag has been deactivated permanently without a provision to turn off and on by a key lock, or does not have an illuminated message to indicate when the air bag has been switched off</li> </ul>
f) pre-tensioner and load limiter	<ul> <li>f) pre-tensioner has been activated and system not repaired or replaced to meet OEM standard</li> <li>load limiter has been activated and system not repaired or replaced to meet OEM standard</li> </ul>
	OUT OF SERVICE
	i) A required seat belt is inoperative or missing.

## **Item and Method of Inspection**

## Reject If

#### 25. Fender/Mudflaps

Truck | ✓ | Trailer | ✓ | Bus | ✓ |

NOTE: A mud flap is required behind every wheel or axle group, where the full width of the tire is not enclosed by a body element, such as a fender, down at least as far as the wheel's horizontal centre line. Unless exempt as noted below, the mud flap must meet the following dimensions when the vehicle is not loaded/laden.

Mud flap width – at least as wide as the tires.

Bottom of mud flap – no more than 210 mm (8.25") from the ground.

Top of mud flap – must extend upward at least as high as the top of the tire(s), or up to a body element that extends below the top of the tire.

#### Mud flap exemptions:

A mud flap is not required where the body overhang is more than three times the underbody height.

**Overhang** = (**A**) the distance from the vertical centre line of the tire to the end of the body

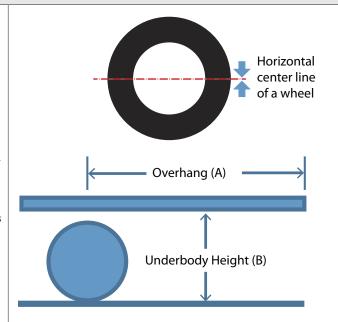
**Underbody height** = **(B)** the distance from the bottom of the body overhang to the ground

## Mud flap exemption for unique or highly specialized vehicles:

Where there is inadequate room for a full-size mud flap, or where the mud flap will interfere with vehicle mechanical operation, variances from the standards may be considered.

Authorized inspectors must ensure where a unique or specialized vehicle does not meet the required mud flap standards, that the spray and splash of water and mud to the rear of the vehicle is minimized as required by Motor Vehicle Act Regulation Division 7.06 – Mudguards.

Specific questions should be directed to your local Area Vehicle Inspector.



Item and Method of Inspection	Reject If
a) condition and location	a) fender or mud flap is broken, has insecure mounting, is loose or missing
	<ul> <li>fender or mud flap has a tear or wear hole exists that is larger than 100 mm across the longest dimension, or the aggregated longest dimensions of multiple holes in a single mud flap equal more than 100 mm</li> </ul>
	<ul> <li>the distance from the bottom of the mud flap to the ground exceeds 210 mm</li> </ul>
	<ul> <li>the mud flap does not cover the full tread width of the tire(s)</li> </ul>
	<ul> <li>the top of the mud flap does not reach up to the top of the tires or a body element</li> </ul>
	OUT OF SERVICE
	i) Required mud flap is missing.
26. Landing Gear on Trailer	Truck     <b>Trailer   ✓</b>   Bus
a) operation	a) binding, inoperative or seized
Additional Inspection Procedure(s): Test the operation of the landing gear in all speed settings.	
b) condition	b) landing gear or brace is bent, broken or cracked
	<ul> <li>insecure mounting</li> </ul>
	<ul> <li>pad broken, insecure or loose, or missing</li> </ul>
c) crank handle	c) cannot be stowed or secured so that it remains within the outer dimensions of the vehicle
	OUT OF SERVICE
	i) Any part of the landing gear is insecure or loose or so as to become detached from vehicle.

Item and Method of Inspection	Reject If
27. Sliding Axle Assembly (Sliding Bogie) on Trailer	Truck     Trailer   ✓   Bus
a) frame and sub-frame rail	<ul> <li>a) welded or repaired in a way that does not meet OEM standard</li> <li>bent, broken or cracked</li> <li>any attaching weld is broken or cracked</li> <li>perforated or separated due to corrosion between mount and frame member</li> <li>rusted or corroded to a depth sufficient to become weakened</li> </ul>
b) slider-guide/hold-down bracket and locking device	<ul> <li>b) cracked or missing</li> <li>inoperative or fails to lock securely</li> <li>any lock pin is broken, cracked, disengaged or missing</li> <li>locking device (pin) is worn causing 25% or greater reduction in diameter</li> <li>locking-pin hole measures more than 25 mm larger than its original size</li> </ul>
c) stop	c) bent, cracked, loose or missing

Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) More than one-fourth of the slider locking pins or locking pin holes that are in use have any one of the following conditions:
	a. locking pin is missing or not engaged
	b. locking-pin hole measures more than 25 mm larger than its original size
	c. the material from the hole in use to an adjacent hole, or the material from the hole in use to the edge of the rail, is torn or split
	ii) More than one-fourth of the slider-guide/hold- down brackets are missing or disengaged.
	iii) The sliding suspension attachment member (undercarriage body rail) on either side has a crack of any length in more than 50 percent of its attachment welds.
	iv) A sliding suspension member's (undercarriage body rail) attachment welds are cracked completely through along a 1.2 m continuous length of the body rail.
	v) A sliding suspension attachment member (undercarriage body rail) is cracked completely through along a 1.2 m continuous length.
28. Aerodynamic Device and Attachment	Truck   ✓   Trailer   ✓   Bus   ✓
a) condition and security	a) insecure or loose
	<ul> <li>any section has exposed sharp edge, is torn or protrudes out that could be hazardous to driver, passenger, pedestrian or cyclist</li> </ul>
	OUT OF SERVICE
	i) Aerodynamic device is so insecure or loose it is likely to become detached from the vehicle.
	ii) Any section has exposed sharp edge, is torn or protrudes out that could be hazardous to driver, passenger, pedestrian or cyclist.

Item and Method of Inspection	Reject If
29. Rear Impact Guard (RIG) on a Trailer	Truck     <b>Trailer   ✓</b>   Bus
NOTE: Every trailer with a GVWR of 4,536 kg or greater manufactured on or after September 1, 2007, except as noted below, must be fitted with a rear impact guard (RIG) that meets the requirements of CMVSS 223.	
Trailers not required by CMVSS to have RIG include:	
pole trailer	
pulpwood trailer	
wheels-back trailer	
trailer designed to be used as temporary living quarters	
low chassis trailer	
<ul> <li>trailer designed to interact with, or having, work performing equipment located in or moving through the area that would be occupied by a RIG</li> </ul>	
a) dimensions  NOTE: All RIG dimensions are based on the trailer being in an unloaded condition, suspension at normal ride height and tires properly inflated.	a) RIG does not conform to dimensions shown in figure 1 below (based on industry standard – TMC RP 732)
b) condition	b) broken, loose or missing
	<ul> <li>has cracked welds in the horizontal or vertical member or in the supporting structure or any attachment to vehicle structure</li> </ul>
NOTE: Multiple bends are permitted.	- the horizontal member is bent inward, downward
When there is visible damage to the RIG, also carefully inspect the trailer frame and floor for structural damage.	upward or outward, beyond 75 mm as shown in figure 2 below
	<ul> <li>the vertical supports and/or supporting structure are weakened, bent or distorted (See figure 3 below</li> </ul>

# Item and Method of Inspection Reject If

Figure 1 – Rear Impact Guard Dimensions

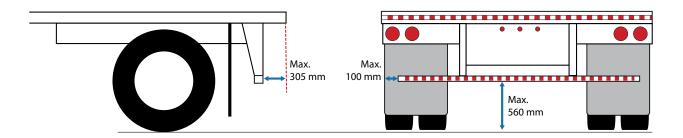


Figure 2 – Limits of Damage to Horizontal RIG Member

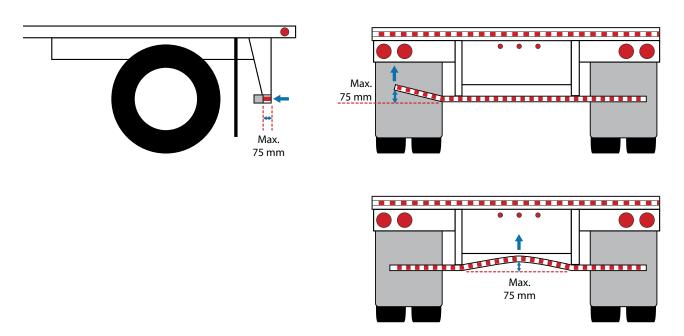
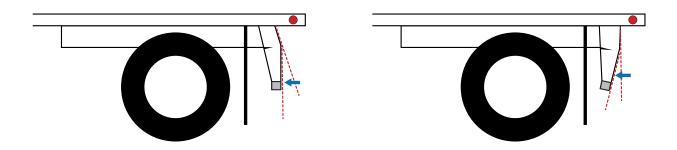


Figure 3 – Example of Damaged Vertical RIG Member



Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) Any part of the RIG is so insecure or loose it is likely to become detached from the vehicle.
30. Floor Plan/Baggage Floor/Step Well on a Bus	Truck     Trailer     Bus   🗸
a) floor condition	a) bent or deformed in a way that causes unevenness in any aisle, improper attachment of any seat or interferes with any system or control
	<ul> <li>cracked, split or has any non-manufactured hole that is not properly patched rusted or corroded sufficiently to result in structural weakness</li> <li>allows exhaust gases to enter occupant compartment</li> <li>any rivet is loose or missing</li> </ul>
b) floor covering	b) cracked, torn or worn through, or not sealed at seams
NOTE: Slip resistant covering is required on the passenger compartment floors and aisles of all buses. Floor covering is not required in baggage areas.	<ul> <li>loose or curled and posing a tripping hazard</li> <li>missing or improper type</li> <li>not a smooth surface material under the seats</li> <li>on a school bus, not a ribbed surface material in the aisle, or</li> <li>required ribbed surface of floor covering is worn smooth</li> </ul>
c) step well condition	c) bent or deformed in a way that causes unevenness on
NOTE: Slip resistant covering is required on all step tread surfaces.	<ul> <li>any step surface</li> <li>cracked, split or has any non-manufactured hole that is not properly patched</li> <li>rusted or corroded sufficiently to result in structural weakness</li> <li>nose of tread does not have band of contrasting colour (only applicable where a contrasting colour was originally equipped by OEM)</li> </ul>
d) step-well light	d) missing, not functioning as OEM

Item and Method of Inspection	Reject If
31. Interior Body and Fixtures on a Bus	Truck     Trailer     <b>Bus</b>   🗸
a) stanchion and guard rail	a) OEM equipped stanchion is missing
	<ul> <li>loose, support or fastener missing</li> </ul>
	<ul> <li>energy absorbing material is missing and exposing any area of metal with the longest dimension greater than 25 mm</li> </ul>
	<ul> <li>energy-absorbing material deeper than 6 mm, is missing on any one element, on one or more sections that equal more than 100 mm, when the longest dimension of all such areas are added together</li> </ul>
b) grab handle	b) OEM equipped grab handle is missing
	<ul> <li>broken or loose</li> </ul>
	<ul> <li>on a school bus, drawstring block or security block (that prevents draw strings from being caught) is missing</li> </ul>
c) retainer barrier on a school bus	c) missing, not located forward of any seat
NOTE: A school bus must be equipped with a seat or retainer barrier forward of each passenger seat. A seat acts as a retainer barrier to the seat immediately behind it.	<ul> <li>any part is not padded on the rear face on the upper 300 mm</li> </ul>
d) metal condition	d) any metal is torn in a way that could be hazardous to a person
32. Service and Exit Door on a Bus	Truck     Trailer     <b>Bus   ✓  </b>
a) condition and operation	a) binds or fails to lock securely
Additional Inspection Procedure(s): Test the operation of each door.	<ul> <li>insecure mounting, or severely corroded in hinge area</li> </ul>
	- panel is corroded through
	<ul> <li>welded or repaired in a way that does not meet</li> <li>OEM standard</li> </ul>
	<ul> <li>door fails to operate or fails to latch on both primary and secondary latches</li> </ul>
	<ul> <li>gap exists that allows exhaust gases to enter occupant compartment</li> </ul>

Item and Method of Inspection	Reject If
b) door openers and handles	b) broken, inoperative or missing
	<ul> <li>catch or latch is broken, loose or missing</li> </ul>
c) remote door operator	c) inoperative, missing or not equipped
	<ul> <li>binds, jams or malfunctions</li> <li>manual override device on power operated door is</li> <li>inoperative or missing</li> <li>control is not accessible from seated driving position</li> </ul>
d) door edge material	d) material is loose or torn
	<ul> <li>strip seal along the bottom edge of the door is missing or torn</li> </ul>
	<ul> <li>missing or improper type of material</li> </ul>
e) window of school bus door	e) has fog or visible moisture between panes
NOTE: Applies to school bus only.	Fails to meet any of the following requirements:
	- OEM type and size
	<ul> <li>double paned or equipped with a means of keeping glass clear of frost</li> </ul>
	- marked as type AS-1, AS-2, AS-10 or AS-11
	OUT OF SERVICE
	i) Door is inoperative or fails to remain in the closed position.
33. Emergency Exit (Door, Window and Roof Hatch) on a E	Bus Truck     Trailer     Bus   ✓
NOTE: School buses must meet Applicable CSA D250 for year of Manufacture.	
a) condition and operation	a) passage to any emergency exit door is blocked
Additional Inspection Procedure(s): Confirm that each exit (door, window and roof hatch) opens, closes and latches as intended.	<ul> <li>release or latch fails to operate normally from the inside or outside</li> <li>hinge fails to operate normally</li> <li>fails to open fully and smoothly</li> <li>emergency exit door hold mechanism does not operate as required per applicable CSA D250 standard</li> </ul>

Item and Method of Inspection	Reject If
b) label and signage  NOTE: Inspection must be conducted according to	b) fails to display required label or sign identifying emergency exit
the applicable requirements.	<ul> <li>fails to display required label or sign displaying operating instructions</li> </ul>
c) emergency door and roof hatch	c) interlock system on emergency door or roof hatch fails to operate as intended
d) emergency exit window warning on a school bus	d) warning device inoperative or missing on emergency window
	OUT OF SERVICE
	i) Required and or marked emergency exits are inoperative, missing, or obstructed.
	ii) Vehicle operates with emergency door locked.
34. Passenger Compartment Window on a Bus (Except Em	ergency Exit Window) Truck     Trailer     Bus   🗸
NOTE: School buses must meet Applicable CSA D250 for year of Manufacture.	
NOTE: Items a), b) and c) below apply to all passenger compartment side windows.	
a) operation	a) fails to open, close or latch as intended
Additional Inspection Procedure(s): Test the operation of each opening side window.	
b) condition	b) broken, exposed sharp edge, single pane glass is cracked or dual pane window is cracked on inside
	<ul> <li>exposed edge is not banded</li> </ul>
	<ul> <li>on a school bus, double-paned windows or windows equipped with frost shields, are not fitted where required by the applicable requirements</li> </ul>
	<ul> <li>push out windows do not latch and release when handle in selected position</li> </ul>
	NOTE: double paned glass is on many bus entrance door glass and drivers side windows
c) material type	c) not marked as one of the two material listed below:
	- glass type AS-1, AS-2, AS-3, AS-10 or AS-11
	- rigid plastic type AS-4, AS-5 or AS-12

Item and Method of Inspection	Reject If
d) window tint  NOTE: This item applies only to the windows directly to the left and right of the driver.	d) aftermarket tint or sun screen is applied to the windows directly to the left and right of the driver (including windows in doors)
e) window tint on a school bus	e) aftermarket tint or sun screen is applied to any window that is required to be double-paned
35. School Bus Exterior Mirror (Except Standard Left and F	Right Side Mirror) Truck     Trailer     Bus   ✓
NOTE: School buses must meet Applicable CSA D250 for year of Manufacture.	
a) left and right side convex rear-view mirror	a) required convex mirror is broken, insecure, loose,     missing
b) cross-over convex mirror  NOTE: A school bus manufactured after Nov. 29, 1997 requires two cross-over mirrors.	<ul> <li>b) not equipped with required (one or two) fendermounted (OEM or equivalent) cross-over mirrors</li> <li>mirrors fail to provide the driver with the required view of the front, and front-left and front-right sides of the school bus</li> <li>mirror, or mirror mounting, is insecure or loose, or fails to maintain adjustment</li> <li>power operated mirror fails to operate as intended</li> <li>mirror is broken, cracked or pitted, on an aggregated area larger than 5% of the mirror surface</li> <li>has any condition that deteriorates, or interferes with, the normal view from the mirror</li> </ul>
c) mirror heating and controls  Additional Inspection Procedure(s): Test the operation of exterior mirror heaters.  NOTE: Confirm compliance based on vehicle age with the applicable requirements. Any amount of heat produced by the mirror is sufficient to indicate functionality.	c) does not function as intended
	OUT OF SERVICE
	i) Mirror is insecure, loose, missing, obsured or seized.

Item and Method of Inspection	Reject If
36. Passenger Seat on a Bus	Truck     Trailer     <b>Bus   ✓</b>
1) passenger seat location and position must be in compliance with the Motor Vehicle Safety Act (Canada) or FMVSS; and	1) seat location or position not in compliance with standards
2) seating capacity must be in compliance with the Motor Vehicle Safety Act (Canada) or FMVSS	2) seating capacity exceeds maximum number indicated by the vehicle primary or secondary manufacturer
Additional Inspection Procedure(s): Manually check the condition and security of each passenger seat.	
a) frame and mounting	a) broken, loose or not securely attached to the floor or wall as required
b) seating surface	b) covering material is torn, exposing the seat base or springs
	<ul> <li>padding or energy absorbing material thickness is reduced by more than 25%, over an aggregated area greater than 10% of the seating surface</li> </ul>
	<ul> <li>a tear in the covering is longer than 75 mm</li> </ul>
	<ul> <li>covering has a hole, or covering is missing, where the longest measurement across the area is more than 100 mm</li> </ul>
	<ul> <li>on a school bus, seat bottom is not secured to the frame</li> </ul>
c) seat back and barrier surface	c) loose or missing
	<ul> <li>a tear in the covering is longer than 75 mm</li> </ul>
	<ul> <li>covering has a hole, or covering is missing, where the longest measurement across the area is more than 50 mm</li> </ul>
	<ul> <li>energy-absorbing material is reduced in thickness by more than 25%, where the longest measurement across the area is more than 75 mm</li> </ul>
d) seat spacing [SCHOOL BUS ONLY]	d) exceeds 737 mm (29 in.) center to center
	OUT OF SERVICE
	i) Seat frame not bolted to floor.

Item and Method of Inspection	Reject If
37. School Bus Body Exterior	Truck     Trailer     Bus   🗸
NOTE: Applies to school bus only as per D250 requirements for year of manufacture.	
a) paint	a) body is not the required colour
	<ul> <li>hood is not the required colour</li> </ul>
	<ul> <li>bumper is not the required colour</li> </ul>
b) rub rail	<ul> <li>b) broken, corroded, cracked, loose or torn sections, missing, removed, repaired other than industry standard</li> </ul>
	<ul> <li>any rivet is loose or missing</li> </ul>
	<ul> <li>bent and protruding from the side of the bus</li> </ul>
	<ul> <li>does not comply with applicable CSA D250 standard for year of manufacture</li> </ul>
c) signs	<ul> <li>c) any required sign is missing, not clearly visible and legible, damaged or fails to comply with an applicable requirement of the relevant jurisdiction</li> </ul>
d) stop arm and control	d) fails to operate in the intended manner
Additional Inspection Procedure(s): Actuate the stop arm control to confirm it operates in the manner intended by the manufacturer.	<ul> <li>red paint has faded to less than 70% of original intensity (minimum intensity is equivalent to Pantone* PMS 7607U)</li> </ul>
	NOTE: Use an industry standard colour- reference chart as necessary.
e) stop arm lamp	e) inoperative or fails to comply with an applicable
Additional Inspection Procedure(s): Check in conjunction with stop arm.	requirement of the relevant jurisdiction
f) pedestrian crossing arm	f) bent, broken or inoperative
Additional Inspection Procedure(s): Actuate the pedestrian crossing arm to confirm it operates in the manner intended by the manufacturer.	<ul> <li>incorrect length</li> </ul>

Item and Method of Inspection	Reject If
	OUT OF SERVICE
	i) Rub rail is protruding from the side of the bus.
	ii) Any section has exposed sharp edge, is torn or protrudes out in a manner that could be hazardous to driver, passenger, pedestrian or cyclist.
38. Auxiliary Compartment on a Bus	Truck     Trailer     <b>Bus</b>   ✓
a) access and baggage doors	a) fails to open or close normally
Additional Inspection Procedure(s): Operate all baggage compartment doors.	<ul> <li>latch fails to hold</li> <li>hinge is broken, inoperative, missing or seized</li> <li>hinge mounting area is insecure</li> <li>counter balance cable is frayed or will not maintain open position</li> </ul>
b) passenger compartment baggage area partition	b) does not have a securely attached barrier, separating baggage from occupant seating area
c) overhead shelf/parcel rack	<ul> <li>c) insecure or loose</li> <li>mounting fastener is broken, insecure or missing</li> <li>has no means of preventing articles from unintentionally falling out</li> </ul>
	OUT OF SERVICE
	i) Access or baggage door latch fails to hold door in closed position.
39. Load Securement Points	Truck   ✓   Trailer   ✓   Bus
a) attachment points	a) cracked, elongated or broken
b) securement equipment	b) inoperative