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# CVSA Enhanced Commercial Motor Vehicle Inspection Standard (for motor carrier operations)



## Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

*(for motor carrier operations)*

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

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## Inspection Guidance

Any hidden components of the listed inspection items are not required to be inspected during the North American Enhanced Vehicle Inspection Standard. Any defect found in the “Dispatch” or “In-Transit” column will fail a point of origin “dispatch” inspection. Only defects found in the “In-Transit” column fail an “In-Transit” inspection.

## Glossary of Terms

**The following words are used throughout the document. Below are definitions of what these words mean in relation the component in the standard.**

**“damaged”** means any unintended condition, or condition caused by means other than normal use, that is likely to impair normal function.

**“inoperative”** means a vehicle component or system does not operate the way it ordinarily operates; it operated when the vehicle was manufactured; or it is required to operate for normal and safe vehicle operation.

**“insecure”** means that an item is beginning to become detached due to deterioration of the means of mounting. This can also mean that a method of attachment has been used that is itself unsafe by being unable to withstand normal vehicle operation or is not at least equivalent to the OEM standard method of attachment.

**“loose”** means that an item is detached, or no longer fully attached, due to failure or deterioration of one or more means of attachment.

**“missing”** means that an item is absent (such as “removed” or “detached”) that is ordinarily present on the vehicle; was present on the vehicle when the vehicle was manufactured; or is required for normal and safe vehicle operation.

**“operate as intended”** means the manner in which a vehicle component or system ordinarily operates; operated when the vehicle was manufactured; or is required to operate for normal and safe vehicle operation.

## Categorization of Fluid (Liquid) Leaks

Every reference to a fluid (or liquid) leak listed as a reject condition is categorized with respect to the level of severity of the leak. The level of severity is categorized as either Level 1, Level 2 or Level 3, and each category is defined below.

A vehicle with a leak that meets the defined level, or leaking more severely than this level, will cause the vehicle to fail inspection.

**“Level 1 leak”** means seepage of fluid that is not great enough to form drops.

**“Level 2 leak”** means seepage of fluid that is great enough to form drops, but not great enough to cause the drops to fall during inspection.

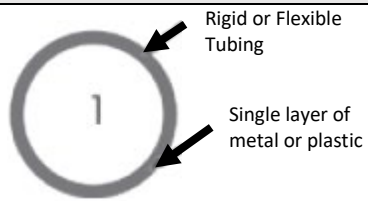
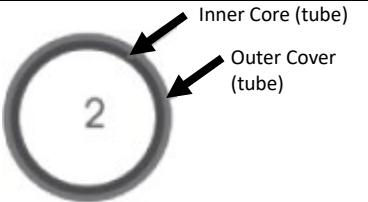
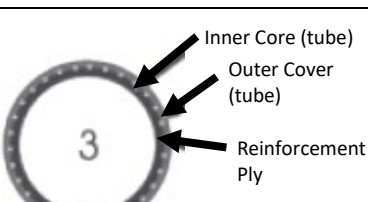
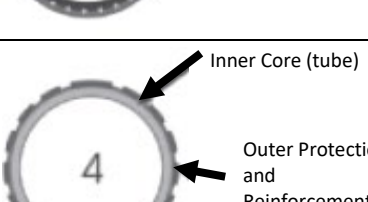
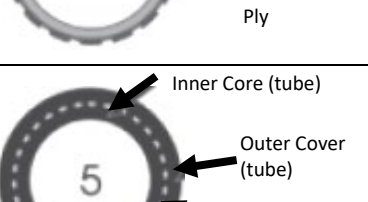
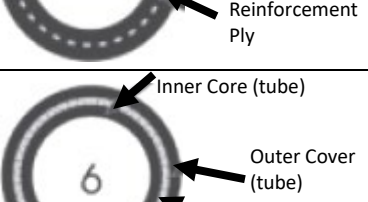
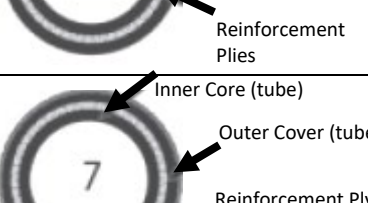
**“Level 3 leak”** means seepage of fluid that forms drops, and those drops fall during inspection.

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## Defective Conditions of Hose, Tubing and Lines used on Commercial Motor Vehicles

Hose or Tubing	Characteristics	Defective Condition
 <p>1</p>	<p>Type 1: Copper, steel or plastic tubing used for liquid or vapor</p> <p>Made of a single layer of material</p>	<ul style="list-style-type: none"> <li>• Damage is visible on the outside that is reducing the wall thickness</li> </ul>
 <p>2</p>	<p>Type 2: Plastic (usually nylon) tubing commonly used in air brake systems.</p> <p><u>No reinforcement ply</u>; inner core and outer cover are usually different color</p>	<ul style="list-style-type: none"> <li>• Wear or damage resulting in reduction in the diameter of the air line</li> </ul>
 <p>3</p>	<p>Type 3: Plastic (usually Nylon) tubing commonly used in air brake systems.</p> <p><u>With reinforcement ply</u>; inner and outer core are different color</p> <p>(Note: Types 2 and 3 may appear identical externally.)</p>	<ul style="list-style-type: none"> <li>• Wear or damage resulting in reduction in the diameter of the air line</li> </ul>
 <p>4</p>	<p>Type 4: Stainless steel outer cover with inner layer of tubing</p>	<ul style="list-style-type: none"> <li>• Damage through the outer cover</li> </ul>
 <p>5</p>	<p>Type 5: Synthetic rubber hose with inner reinforcement ply</p>	<ul style="list-style-type: none"> <li>• Wear or damage resulting in reduction in the diameter of the air line</li> </ul>
 <p>6</p>	<p>Type 6: Synthetic rubber hose with multiple reinforcement plies</p>	<ul style="list-style-type: none"> <li>• Wear or damage resulting in reduction in the diameter of the air line</li> </ul>
 <p>7</p>	<p>Type 7: Flexible hose with one or more reinforcement plies that may be fabric or steel, and an outer protective layer</p>	<ul style="list-style-type: none"> <li>• Wear or damage resulting in reduction in the diameter of the air line</li> </ul>

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## Any Condition in Dispatch/In-Transit Column — Fails Dispatch Inspection

Section 1: Power Train		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Accelerator Pedal</b>	<b>Truck ✓ Trailer</b>	<b>Truck ✓ Trailer</b>
a) Pedal/actuator	<ul style="list-style-type: none"> <li>Binding, <u>inoperative</u>, or <u>missing</u>, modified, or repaired by welding</li> </ul>	
b) Anti-slip feature	<ul style="list-style-type: none"> <li>Ineffective, <u>loose</u> or <u>missing</u></li> </ul>	
c) Mount	<ul style="list-style-type: none"> <li>Deteriorated or weakened by corrosion, or <u>insecure</u></li> </ul>	
d) Springs	<ul style="list-style-type: none"> <li>Broken, corroded, deteriorated, missing, or stretched</li> </ul>	
<b>2. Exhaust System</b>	<b>Truck ✓ Trailer</b>	<b>Truck ✓ Trailer</b>
a) Manifold	<ul style="list-style-type: none"> <li>Broken, cracked, leaking, loose or missing</li> </ul>	
b) Muffler or resonator	<ul style="list-style-type: none"> <li>Cracked, perforated or leaking</li> <li>Bypassed, missing or removed</li> <li>Patched in any manner other than by welding</li> </ul>	
c) Exhaust pipe	<ul style="list-style-type: none"> <li>Cracked, collapsed or pinched, missing, perforated or leaking</li> <li>Patched in any manner other than by welding</li> </ul>	
d) Mounting hardware	<ul style="list-style-type: none"> <li>Broken, insecure or loose, or missing</li> </ul>	
e) Heat shields	<ul style="list-style-type: none"> <li>A required heat shield is broken, insecure or loose, or missing</li> </ul>	
f) Location		<ul style="list-style-type: none"> <li>Any part of the exhaust system is less than 2" (51 mm) away from a brake system component, any combustible material, electrical wiring or any part of the fuel system except a diesel or gasoline fuel tank, and is not protected by a heat shield</li> <li>Any part of the exhaust system is less than 1" (25 mm) away from a diesel or gasoline fuel tank and is not protected by heat shield</li> <li>Exhaust discharges below fuel tank or filler pipe</li> </ul>
g) Turbocharger	<ul style="list-style-type: none"> <li>Leaking exhaust gases</li> <li><u>Level 2</u> leak of engine oil</li> <li>Exhaust gases are expelled into cab, passenger compartment, and/or sleeper</li> <li>Exhaust gases are expelled within the perimeter of the cab, passenger compartment, and/or sleeper</li> </ul>	

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<b>Section 1: Power Train</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>3. Drive Shaft and Differential</b> a) U-joint	Truck ✓ Trailer <ul style="list-style-type: none"> <li>Rotational free-play is present</li> </ul>	Truck ✓ Trailer <ul style="list-style-type: none"> <li>Horizontal or vertical movement within the u-joint can be detected by hand</li> <li>U-joint cap, cap fastener or fastener locking device is <u>loose</u> or <u>missing</u></li> <li>U-joint bearing seal is damaged, <u>missing</u></li> </ul>
b) Drive shaft yoke <b>Note:</b> This includes slip yoke, shaft yoke, input yoke, output yoke, tube yoke and end yoke		<ul style="list-style-type: none"> <li>Cracked or mounting hardware is loose</li> <li>Yoke can be moved by hand vertically or horizontally more than 1/8" (3 mm)</li> <li>Yoke end fitting has broken, loose, or missing fastener</li> </ul>
c) Drive shaft tube		<ul style="list-style-type: none"> <li>Crack in weld or tube</li> <li>Twisted tube</li> </ul>
d) Center (carrier) bearing and mount		<ul style="list-style-type: none"> <li>Cracked, <u>damaged</u>, <u>loose</u>, <u>missing</u> or <u>abnormally worn</u></li> <li><u>Insecure</u> mounting or mount is abnormally deteriorated</li> </ul>
e) Hanger bracket and hardware, and metal guard or catch — <i>Where equipped</i>	<ul style="list-style-type: none"> <li>Mounted in a manner that <u>fails to</u> prevent drive shaft from falling to ground</li> </ul>	<ul style="list-style-type: none"> <li>Cracked or <u>loose</u></li> </ul>
<b>4. Gasoline or Diesel Fuel System</b> <b>Note:</b> This includes the fuel system for any auxiliary equipment or device a) Filler cap	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>Allows spillage, improper type or <u>missing</u></li> </ul>
b) Tank, filler neck/tube and vent tube	<ul style="list-style-type: none"> <li>Repair to any non-metallic tank</li> </ul>	<ul style="list-style-type: none"> <li>Cracked, <u>insecure</u> mounting or weld is broken</li> </ul>
c) Tank mount and strap		<ul style="list-style-type: none"> <li>Broken, cracked, <u>loose</u> or <u>missing</u></li> <li>Fastener is <u>loose</u> or <u>missing</u></li> </ul>
d) Line, hose, fitting and connection	<ul style="list-style-type: none"> <li>Drains or fittings extend more than 3/4" (20 mm) below fuel tank</li> </ul>	<ul style="list-style-type: none"> <li>Chafing, cracked or <u>insecure</u></li> <li>Any section of a line, hose or tube is worn or damaged as shown in the "Defective Conditions of the Types of Hose, Tubing and Lines used on Vehicles Chart" — page 5</li> <li>fuel line is more than 2" (51 mm) below the fuel tank</li> </ul>
e) Leakage		<ul style="list-style-type: none"> <li><u>Level 1 leak</u> of gasoline anywhere in a gasoline fuel system</li> <li><u>Level 2 leak</u> of diesel fuel anywhere in a diesel fuel system</li> </ul>

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Section 2: Suspension		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Suspension and Frame Attachments</b> a) Frame bracket, mounting bracket and hanger	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>Broken, cracked, <u>damaged</u>, <u>loose</u>, <u>missing</u>, or perforated due to corrosion or deterioration</li> </ul>
b) Mounting fasteners		<ul style="list-style-type: none"> <li>Broken, cracked, <u>loose</u> or <u>missing</u></li> </ul>
<b>2. Axle Attaching and Tracking Components</b> a) Axle attachment	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>Bent, broken, cracked, <u>loose</u> or <u>missing</u></li> <li>Axle has shifted from its normal position</li> </ul>
b) Bushing (rubber or composite material)		<ul style="list-style-type: none"> <li><u>Loose</u> or shifted out of place, or <u>missing</u></li> <li>Wear or damage permits axle or wheel to shift out of position</li> </ul>
c) Suspension connecting component, (e.g., arm, torque rod, radius rod, strut, track rod, control arm)		<ul style="list-style-type: none"> <li>Bent, broken, cracked, <u>loose</u>, or <u>missing</u>, or perforated due to corrosion or deterioration</li> <li>Wear or damage permits axle or wheel to shift out of position</li> </ul>
d) Stabilizer/anti-sway bar or link		<ul style="list-style-type: none"> <li>Bent, broken, cracked, <u>loose</u>, or <u>missing</u></li> </ul>
e) Equalizer or “walking” beam		<ul style="list-style-type: none"> <li>Broken, cracked or bushing mounting holes are elongated</li> <li>Wear in suspension allows tires to contact frame axles do not align correctly</li> </ul>
<b>3. Axle and Axle Assembly</b> a) Condition	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>Axle is bent or <u>damaged</u></li> <li>Axle material or a weld is cracked</li> <li><u>Loose</u> or shifted out of normal position</li> </ul>
<b>4. Spring and Spring Attachment</b> a) Leaf spring	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>Any spring leaf is broken, cracked, <u>missing</u>, or is shifted out of place</li> <li>leaf is shifted and contacting another vehicle part</li> </ul>
b) Composite spring		<ul style="list-style-type: none"> <li>Broken, crack of any length visible on both sides of a spring,</li> <li>Splintered, delaminating or <u>not</u> the same type on each side of vehicle</li> </ul>
c) Shackle, pin, bushing		<ul style="list-style-type: none"> <li>Broken, <u>loose</u> or <u>missing</u></li> <li>Shifted out of normal position</li> <li>Fastener <u>loose</u> or <u>missing</u></li> </ul>



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Section 2 – Suspension		
Inspection Component	Dispatch Inspection	In-Transit Inspection
d) U-bolt and hardware		<ul style="list-style-type: none"> <li>Broken, cracked, <u>loose</u>, <u>missing</u>, or shifted out of normal position</li> <li>.</li> </ul>
e) Spring contact area of hanger (slipper)		<ul style="list-style-type: none"> <li>Repaired by welding (except installation of wear plates)</li> <li>.</li> </ul>
f) Coil spring		<ul style="list-style-type: none"> <li>Broken, or shifted out of normal position</li> <li>Spacer is used between the coils and the springs</li> </ul>
g) Torsion bar		<ul style="list-style-type: none"> <li>Broken, cracked or <u>missing</u></li> <li><u>Repaired by welding</u></li> </ul>
h) Rubber load cushion		<ul style="list-style-type: none"> <li>Rubber block or vertical pin is broken, <u>loose</u>, <u>missing</u>, or split</li> </ul>
<b>5. Air Suspension</b>	<b>Truck ✓ Trailer ✓</b>	<b>Truck ✓ Trailer ✓</b>
a) Ride height		<ul style="list-style-type: none"> <li>Vehicle leans to one side or air spring pressure is unequal</li> </ul>
b) Air spring (airbag)		<ul style="list-style-type: none"> <li>Improperly seated, missing, patched or reinforcing ply is exposed due to damage or deterioration</li> <li>Air leak</li> <li>Deflated</li> </ul>
c) Air spring base, mounting plate		<ul style="list-style-type: none"> <li>Broken, detached, cracked or <u>missing</u></li> <li>Perforated by corrosion or deterioration</li> </ul>
d) Air line, connection and fitting	<ul style="list-style-type: none"> <li>Fitting, line, repair method, installation or modification does <u>not</u> meet industry standards (DOT fitting)</li> </ul>	<ul style="list-style-type: none"> <li>Tubing or hose is defective as shown in the “Defective Conditions of the Types of Hose, Tubing and Lines used on Vehicles Chart” — page 5</li> <li>Fitting or connection is broken, cracked, flattened or leaking</li> <li><u>Damaged</u> in a way (such as: melting, flattening, deformation or kinking) as to restrict air flow</li> </ul>
<b>6. Shock Absorber</b>	<b>Truck ✓ Trailer ✓</b>	<b>Truck ✓ Trailer ✓</b>
a) Condition		<ul style="list-style-type: none"> <li><u>Damaged</u>, detached, or <u>missing</u></li> </ul>
b) Mount and hardware		<ul style="list-style-type: none"> <li>Broken, <u>loose</u>, <u>detached</u> or <u>missing</u></li> </ul>
c) Oil leak	<ul style="list-style-type: none"> <li><u>Level 2</u> leak of oil</li> </ul>	

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Section 3 – Air Brakes		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Air Compressor</b>	Truck <input type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input type="checkbox"/>
a) Operation		<ul style="list-style-type: none"> <li>• <u>Inoperative</u></li> </ul>
b) Belt		<ul style="list-style-type: none"> <li>• Broken, frayed, missing, or oil-contaminated</li> </ul>
c) Mounting		<ul style="list-style-type: none"> <li>• Broken, cracked, <u>loose</u> or bolts <u>missing</u></li> </ul>
<b>2. Air Supply System</b>	Truck <input checked="" type="checkbox"/> Trailer <input type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input type="checkbox"/>
a) Air pressure build-up time	<ul style="list-style-type: none"> <li>• Exceeds two minutes</li> </ul>	
<ul style="list-style-type: none"> <li>• Wheels chocked</li> <li>• Spring brakes released</li> <li>• Pressure at 80 psi (552 kPa)</li> <li>• Engine at 600–800 rpm</li> <li>• Time to build pressure from 85 to 100 psi (587–690 kPa)</li> </ul>		
b) Governor		<ul style="list-style-type: none"> <li>• <u>Inoperative</u>, <u>missing</u> or <u>loose</u></li> <li>• Governor cut-out pressure is over 145 psi (1,000 kPa)</li> </ul>
c) Low-pressure warning	<ul style="list-style-type: none"> <li>• Visible warning is <u>inoperative</u> or <u>missing</u></li> <li>• Visible warning is not clearly identified, lamp lens is <u>missing</u></li> <li>• Audible warning, if equipped, is <u>inoperative</u> or <u>missing</u></li> </ul>	<ul style="list-style-type: none"> <li>• Warning device fails to activate or operate continuously when air pressure is lowered below 60 psi (414 kPa)</li> </ul>
d) Air-pressure gauge	<ul style="list-style-type: none"> <li>• Gauge is <u>inoperative</u> or has inaccurate reading</li> </ul>	
e) Pressure drop/reserve		<ul style="list-style-type: none"> <li>• Pressure drops more than 20 psi (138 kPa) when a full service brake application is made</li> </ul>
f) Air leakage		<ul style="list-style-type: none"> <li>• Detectable leak at any location</li> </ul>
g) Air-loss rate test	<ul style="list-style-type: none"> <li>• Pressure drops more than 1 psi (7 kPa) per minute (tractor only) — engine off</li> </ul>	<ul style="list-style-type: none"> <li>• Air pressure cannot be maintained with the engine running and service brakes applied/spring brakes released</li> </ul>
<ul style="list-style-type: none"> <li>• Spring brakes off/service brakes on</li> <li>• Pressure at 80 psi (552 kPa)</li> <li>• Ensure all air systems are charged (e.g., air suspension)</li> </ul>		
<b>3. Air System Leakage on a Trailer</b>	Truck <input type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input type="checkbox"/> Trailer <input checked="" type="checkbox"/>
a) Air leakage		<ul style="list-style-type: none"> <li>• Detectable leak at any location</li> </ul>
b) Air loss rate test	<ul style="list-style-type: none"> <li>• Trailer is attached to a towing vehicle and total leakage exceeds 4 psi (28 kPa) in one minute — engine off</li> </ul>	
<ul style="list-style-type: none"> <li>• Spring brakes off/service brakes on</li> <li>• Pressure at 80 psi (552 kPa)</li> <li>• Ensure all air systems are charged (e.g., air suspension)</li> </ul>		

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<b>Section 3 – Air Brakes</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>4. Air Tank</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Air tank condition	<ul style="list-style-type: none"> <li>Welding other than original factory weld on air tank</li> </ul>	<ul style="list-style-type: none"> <li>Corroded or <u>damaged</u> to the extent that structural integrity is compromised, leaking or <u>loose</u></li> </ul>
b) Air tank bracket and/or strap		<ul style="list-style-type: none"> <li>Broken, cracked or <u>missing</u></li> </ul>
c) Air tank drain valve		<ul style="list-style-type: none"> <li><u>Inoperative</u>, leaking, <u>loose</u> or <u>missing</u></li> </ul>
<b>5. Brake Pedal/Actuator</b>	<b>Truck</b> ✓ <b>Trailer</b>	<b>Truck</b> ✓ <b>Trailer</b>
a) Pedal	<ul style="list-style-type: none"> <li>broken, cracked, <u>loose</u>, <u>missing</u> or <u>abnormally worn</u></li> </ul>	
b) Mount	<ul style="list-style-type: none"> <li>deteriorated or weakened by corrosion, or <u>insecure</u></li> </ul>	
c) Anti-slip feature	<ul style="list-style-type: none"> <li>ineffective, <u>loose</u> or <u>missing</u></li> </ul>	
<b>6. Treadle Valve</b>	<b>Truck</b> ✓ <b>Trailer</b>	<b>Truck</b> ✓ <b>Trailer</b>
a) Operation	<ul style="list-style-type: none"> <li><u>Inoperative</u></li> </ul>	<ul style="list-style-type: none"> <li>Pivot or plunger is binding or seized (fails to fully release brakes)</li> </ul>
b) Condition	<ul style="list-style-type: none"> <li>Cracked, <u>insecure</u> or <u>loose</u></li> <li>Mounting, mounting bracket or mounting fastener <u>damaged</u>, <u>missing</u> or stripped</li> </ul>	
<b>7. Brake Valves and Controls</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Condition	<ul style="list-style-type: none"> <li>Broken, <u>damaged</u>, <u>loose</u>, <u>insecure</u> mounting, mounting bracket or mounting fastener <u>damaged</u>, stripped or <u>missing</u></li> </ul>	
<b>8. Towing Vehicle (Tractor) Protection System</b>	<b>Truck</b> ✓ <b>Trailer</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Towing vehicle (tractor) protection valve operation		<ul style="list-style-type: none"> <li>Air flows out of the trailer service line during the test</li> </ul>
b) Trailer supply valve operation		<ul style="list-style-type: none"> <li>Either air pressure gauge is below 20 psi (140 kPa) when the trailer supply valve closes or the valve fails to close</li> </ul>
c) Bleed-back system (valve) on trailer		<ul style="list-style-type: none"> <li>Air flows back from trailer gladhand when air lines are disconnected</li> </ul>
<b>9. Parking Brake and Emergency Application on Truck</b>	<b>Truck</b> ✓ <b>Trailer</b>	<b>Truck</b> ✓ <b>Trailer</b>
a) Parking brake application		<ul style="list-style-type: none"> <li>Brake does <u>not</u> apply on any wheel required to have parking brake</li> </ul>
b) Manual application		<ul style="list-style-type: none"> <li>Parking (spring) brakes do <u>not</u> immediately apply automatically</li> </ul>

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<b>Section 3 – Air Brakes</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b><u>10. Parking Brake and Emergency Application on Trailer</u></b> a) Parking brake application b) Emergency application	Truck    Trailer    ✓	Truck    Trailer    ✓ <ul style="list-style-type: none"> <li>• Brake does <u>not</u> apply on any wheel required to have parking brake</li> </ul>
		<ul style="list-style-type: none"> <li>• Parking brakes do not immediately apply automatically</li> </ul>
<b><u>11. Air System Components</u></b> a) Gladhand b) Air line, connection and fitting c) Leakage	Truck    ✓    Trailer    ✓	Truck    ✓    Trailer    ✓ <ul style="list-style-type: none"> <li>• Corroded or <u>insecure</u> mounting, cracked or <u>damaged</u></li> <li>• Seal <u>damaged</u> or <u>missing</u></li> </ul>
	<ul style="list-style-type: none"> <li>• Missing spring guard on thermoplastic gladhand line that is at least 2" (51 mm) in length</li> </ul>	<ul style="list-style-type: none"> <li>• Tubing or hose is defective as shown in the "Defective Conditions of the Types of Hose, Tubing and Lines used on Vehicles Chart"</li> <li>• Fitting or connection is broken, cracked, flattened or leaking, <u>damaged</u> in a way (such as melting, flattening, deformation or kinking) so as to restrict air flow</li> <li>• Fitting, line, repair method, installation or modification <u>does not</u> meet industry standard (DOT fitting)</li> </ul>
		<ul style="list-style-type: none"> <li>• An air leak at any location</li> </ul>
<b><u>12. Brake Chamber</u></b> a) Brake chamber b) Spring brake chamber c) Chamber mounting bracket	Truck    ✓    Trailer    ✓	Truck    ✓    Trailer    ✓ <ul style="list-style-type: none"> <li>• Corroded, cracked, <u>damaged</u>, <u>insecure</u> mounting,</li> <li>• <u>Loose</u>, <u>missing</u>, or leaking</li> <li>• Mixed long-stroke and standard stroke chambers on an axle</li> <li>• Mismatched chamber size on an axle</li> </ul>
	<ul style="list-style-type: none"> <li>• Drain hole is <u>not</u> directed downward or is plugged</li> </ul>	<ul style="list-style-type: none"> <li>• Park brake-apply spring is caged by caging bolt or made <u>inoperative</u> by other mechanical means</li> <li>• Park brake apply spring is broken</li> </ul>
		<ul style="list-style-type: none"> <li>• Broken, cracked, deformed, <u>loose</u> or <u>missing</u></li> </ul>

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<b>Section 3 – Air Brakes</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>13. Drum Brake System Components</b>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>
a) Brake operation		<ul style="list-style-type: none"> <li>• A required brake is <u>missing</u></li> <li>• A brake is <u>inoperative</u></li> </ul>
b) Brake shoe lining condition (service brakes)	<ul style="list-style-type: none"> <li>• A crack extending partially through, or completely through the lining from the friction surface to the metal backing, passing from any rivet hole to the edge</li> </ul>	<ul style="list-style-type: none"> <li>• A crack in the edge of the lining that is wider than 1 mm or longer than 1-1/2" (38 mm)</li> <li>• A piece of the lining is broken off, exposing a rivet or bolt</li> <li>• Lining is contaminated by oil or grease</li> </ul>
<p>The diagram illustrates two brake shoe lining cross-sections. The left shoe shows various crack conditions: 'x3' (crack in edge), 'x4' (crack from rivet hole to edge), 'x6' (crack from rivet hole to edge), 'x8' (crack in edge), and 'x9' (crack in edge). The right shoe shows 'x1' (crack from rivet hole to edge), 'x2' (crack from rivet hole to edge), 'x5' (crack from rivet hole to edge), 'x6' (crack from rivet hole to edge), and 'x7' (crack in edge). Green checkmarks (7, 8, 9) indicate pass conditions for minor cracks or spalling.</p>		
<p>Examples of Brake Shoe Lining Pass and Reject Conditions:</p> <ul style="list-style-type: none"> <li>Reject condition 1: A partial crack in the lining, extending from a rivet hole to the edge</li> <li>Reject condition 2: A crack completely through the lining, extending from a rivet hole to the edge</li> <li>Reject condition 3: A crack in the edge of the lining wider than 1/32" (1 mm)</li> <li>Reject condition 4: A crack in the edge of the lining longer than 1-1/2" (38 mm)</li> <li>Reject condition 5: A piece of the lining is broken off exposing a rivet</li> <li>Reject condition 6: Lining is distorted or separating from shoe</li> <li>Pass condition 7: Minor crack or spalling of the lining material</li> <li>Pass condition 8: Crack in edge of lining shorter than 1-1/2" (38 mm)</li> <li>Pass condition 9: Crack in edge of lining less than 1/32" (1 mm)</li> </ul>		
c) Brake shoe lining thickness		<ul style="list-style-type: none"> <li>• Bonded or riveted continuous strip brake shoe lining thickness is less than 3/16" (5 mm) at any point</li> <li>• Bolted or riveted block type brake shoe lining thickness is less than 5/16" (8 mm) at any point</li> </ul>
d) Brake drum condition <b>Note:</b> Heat checks and some surface cracks on the friction surface are normal.		<ul style="list-style-type: none"> <li>• Surface crack longer than 75% of the width of the friction surface</li> <li>• Surface crack within 25 mm (1") of the open edge</li> <li>• Friction surface is contaminated by grease or oil</li> <li>• External crack</li> </ul>
e) Wheel seal		<ul style="list-style-type: none"> <li>• <u>Level 2 leak</u> of bearing lubricant</li> </ul>
<b>14. S-Cam Drum Brake System</b>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>
a) Camshaft condition		<ul style="list-style-type: none"> <li>• Camshaft is bent, twisted, repaired by welding</li> </ul>

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<b>Section 3 – Air Brakes</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
b) Camshaft mounting		<ul style="list-style-type: none"> <li>• Mounting bracket broken or <u>loose</u></li> </ul>
c) Pushrod, clevis yoke, clevis pin and locking device  <b>NOTE:</b> Brake stroke indicators are required on vehicles manufactured on or after: <ul style="list-style-type: none"> <li>• U.S.: Oct. 20, 1994</li> <li>• Canada: May 31, 1996</li> </ul>	<ul style="list-style-type: none"> <li>• Brake stroke indicator is <u>missing</u></li> </ul>	<ul style="list-style-type: none"> <li>• Bent, binding, broken, cracked, or <u>missing</u></li> <li>• Clevis yoke lock nut is <u>loose</u></li> <li>• Linkage is misaligned to slack adjuster or brake chamber</li> <li>• Missing clevis pin and/or cotter pin or other locking device</li> </ul>
d) Brake adjuster  <b>NOTE:</b> Self-Adjusting brake adjusters required on vehicles manufactured on or after: <ul style="list-style-type: none"> <li>• U.S.: Oct. 20, 1994</li> <li>• Canada: May 31, 1996</li> </ul>		<ul style="list-style-type: none"> <li>• <u>Not</u> equipped with self-adjuster as required</li> <li>• Adjuster is <u>inoperative</u> or improperly installed</li> <li>• Improper type/size adjuster is used</li> <li>• Any part is bent, broken or <u>abnormally worn</u></li> <li>• The self-locking sleeve on a manual slack adjuster is seized or fails to lock</li> </ul>
e) Slack adjuster effective length		<ul style="list-style-type: none"> <li>• The distance from the center of a camshaft to the center of the clevis pin is <u>not</u> the same on all brakes of an axle</li> </ul>
f) Brake stroke  Chamber types not listed in the table (e.g., roto/bolt-type chambers), the stroke must not be greater than 80% of the rated stroke or more than the readjustment limit marked on the chamber by the <u>manufacturer</u>		<ul style="list-style-type: none"> <li>• Clamp-type chambers — stroke is at or beyond the limit of the brake chamber as shown in the chart below</li> <li>• Other than clamp-type chambers — stroke is greater than 80% of the rated stroke or beyond the readjustment limit marked on the chamber</li> </ul>
<b>15. Brake Stroke Limits for Clamp-Type Brake Chambers</b>		
a) adjustment measurements		
<b>Chamber Type (Size)</b>	<b>Stroke Limit (mm)</b>	<b>Stroke Limit (in.)</b>
6	32 mm	1- 1/4"
9	35 mm	1 -3/8"
12	35 mm	1 -3/8 "
12 LS	44 mm	1 -3/4"
16	44 mm	1- 3/4"
16 LS	51 mm	2"
20	44 mm	1-3/4"
20 LS	51 mm	2"
20 LS3	64 mm	2-1/2"
24	44 mm	1-3/4"
24 LS	51 mm	2"
24 LS3	64 mm	2-1/2"
30	51 mm	2"
30 LS	64 mm	2-1/2"
30 DD3	57 mm	2-1/4"
36	64 mm	2-1/2"

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**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 3 – Air Brakes</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b><u>16. Brake Shoe Travel (Wedge Brakes)</u></b> a) Brake shoe movement	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>Brakes fail to operate; shoes do <u>not</u> move or shoe movement exceeds 1/16" (2 mm)</li> </ul>
<b><u>17. Disc Brake System Components</u></b> a) Brake operation	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>A required brake is <u>missing</u></li> <li>A brake is <u>inoperative</u></li> </ul>
b) Disc (rotor) condition	<ul style="list-style-type: none"> <li>Contact pattern of the pad on solid rotor material, (i.e., not rusted) is less than 75% of the radial width, around the entire rotor, on one side</li> </ul>	<ul style="list-style-type: none"> <li>Section is broken off or missing</li> <li>Crack extends from the friction surface through to the cooling vent</li> <li>Any surface crack is longer than 75% of the radial width, within the friction surface</li> <li>Any surface crack extends to an outer edge</li> <li>Friction surface of the rotor is contaminated by grease or oil</li> </ul>
c) Caliper		<ul style="list-style-type: none"> <li>Any part is binding, broken, seized, or missing</li> <li>Pad retainer is bent, <u>damaged</u>, <u>insecure</u> or <u>missing</u></li> </ul>
d) Pad condition		<ul style="list-style-type: none"> <li>Broken, cracked, <u>damaged</u>, or <u>abnormally worn</u></li> <li>Friction material is contaminated by oil or grease</li> <li>Rivet <u>loose</u> on pad, pad <u>loose</u> on bonded lining, pad is <u>missing</u>, or pad is installed incorrectly</li> </ul>
e) Pad (friction material) thickness		<ul style="list-style-type: none"> <li>Metal to metal contact between shoe and rotor</li> <li>Bonded pad thickness is less than 1/8" (3 mm) at any point</li> <li>Riveted pad thickness is less than 3/16" (5 mm) at any point</li> </ul>
<b><u>18. Anti-Lock Brake System (ABS) on Truck</u></b> a) Indicator lamp <i>ABS Lamp — For Power Unit            Manufactured            U.S.: on/after Mar.1, 1997            CAD: on/after Apr.1, 2000</i>  <i>ABS Lamp — For Trailer on Dash            Manufactured            U.S.: on/after Mar.1, 2001            CAD: on/after Mar.1, 2001</i>	Truck ✓ Trailer	Truck ✓ Trailer <ul style="list-style-type: none"> <li><u>Inoperative</u> or <u>missing</u></li> <li>Fails to turn on during bulb-check cycle when ignition is turned on</li> <li>Indicates the presence of an active malfunction by staying on after the bulb-check cycle</li> </ul>

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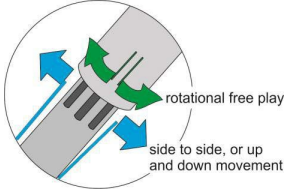
Section 3 – Air Brakes		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<p>b) Constant ABS power n auxiliary circuit</p> <p><i>U.S.: Man. on/after Apr.1, 1997 CAD: Man. on/after Apr.1, 2000 Every vehicle equipped for towing another vehicle with air brakes must supply constant power to the trailer auxiliary circuit (center pin, blue wire) while the ignition is in the "on" position</i></p>		<ul style="list-style-type: none"> <li>Power is <b>not</b> continuously supplied to the auxiliary circuit when ignition is "on"</li> </ul>
<p><b>19. Anti-Lock Brake System (ABS) on Trailer</b></p> <p>a) Indicator lamp</p> <p><i>U.S.: Man. on/after Apr.1, 1997 CAD: Man. on/after Apr.1, 2000</i></p>	<p>Truck      Trailer ✓</p> <ul style="list-style-type: none"> <li>Is <b>not</b> marked "ABS" on the lamp itself, or not marked "ABS" within 6" (150 mm) of the lamp</li> <li>Is not between 6" (150 mm) and 24" (600 mm) away from the left rear red side marker lamp</li> <li>Missing, not amber in color</li> </ul>	<p>Truck      Trailer ✓</p> <ul style="list-style-type: none"> <li>Fails to turn on during bulb-check cycle when power is supplied to auxiliary circuit (center pin, blue wire)</li> <li>Indicates the presence of an active malfunction by staying on after the bulb-check cycle</li> </ul>
<p><b>20. Stability Control System on Truck</b></p> <p>a) Indicator lamp</p>	<p>Truck ✓      Trailer</p>	<p>Truck ✓      Trailer</p> <ul style="list-style-type: none"> <li>Fails to illuminate or lamp remains illuminated</li> <li>Fault or malfunction is indicated</li> </ul>
<p><b>21. Electronic Stability Control [ESC] or Roll Stability System [RSS] on Trailer</b></p> <p>a) Operation</p>	<p>Truck      Trailer ✓</p>	<p>Truck      Trailer ✓</p> <ul style="list-style-type: none"> <li>The system has an active fault (light or indicator)</li> </ul>



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Section 4 - Steering		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Steering Control and Linkage</b>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>
a) Steering box or rack and pinion unit		<ul style="list-style-type: none"> <li>• <u>Loose</u> or <u>insecure</u> mounting, mounting bolt <u>loose</u> or <u>missing</u> housing broken, cracked, or <u>Level 2 leak</u> of oil or fluid</li> </ul>
b) Tie rod		<ul style="list-style-type: none"> <li>• Bent, broken, cracked or welded</li> </ul>
c) Tie rod end, drag link and ball and socket joint		<ul style="list-style-type: none"> <li>• Bent, <u>insecure</u>, <u>loose</u> or worn</li> <li>• Threads stripped or repaired</li> <li>• A ball and socket joint has motion, other than rotational, sufficient to allow movement with hand pressure</li> <li>• Damaged including any repair by welding</li> </ul>
d) Pitman arm		<ul style="list-style-type: none"> <li>• Bent, <u>damaged</u>, <u>insecure</u> or <u>loose</u> on spline</li> <li>• Repaired by welding</li> </ul>
e) Cotter pin or similar retaining device	<ul style="list-style-type: none"> <li>• <u>Missing</u></li> </ul>	
f) Steering column		<ul style="list-style-type: none"> <li>• <u>Insecure</u> mounting or <u>loose</u></li> <li>• Mounting fastener <u>loose</u> or <u>missing</u></li> </ul>
g) Telescopic/tilt steering		<ul style="list-style-type: none"> <li>• Movement is greater than 1/4" (6 mm)</li> </ul>
h) Steering shaft universal joint and yoke		<ul style="list-style-type: none"> <li>• Binding, <u>loose</u>, seized or welded</li> <li>• Horizontal or vertical movement within the universal joint can be detected by hand</li> <li>• Clamp bolt <u>loose</u> or <u>missing</u>, or spline <u>loose</u> or <u>stripped</u></li> </ul>
i) Steering column slip joint		<ul style="list-style-type: none"> <li>• Rotational free play between splines exceeds 1/32" (1 mm)</li> <li>• Total side to side, or up and down movement exceeds 1/4" (6 mm)</li> </ul>  <p>The diagram shows a cross-section of a steering column slip joint. It features a central shaft with splines. Green arrows indicate rotational free play between the splines. Blue arrows indicate side-to-side, up, and down movement of the shaft relative to the housing.</p>
<b>2. Power Steering System (Hydraulic/Electric)</b>	Truck <input checked="" type="checkbox"/> Trailer <input type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input type="checkbox"/>
a) Fluid		<ul style="list-style-type: none"> <li>• Below indicated minimum level or fluid is contaminated</li> </ul>
b) Hose		<ul style="list-style-type: none"> <li>• Cracked, worn by or is in contact with moving parts</li> <li>• <u>Level 2 leak</u> of power steering fluid</li> </ul>
c) Pump		<ul style="list-style-type: none"> <li>• <u>Inoperative</u>, <u>insecure</u> mounting, or <u>loose</u></li> <li>• <u>Level 2 leak</u> of power steering fluid</li> </ul>

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<b>Section 4 - Steering</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
d) Cylinder		<ul style="list-style-type: none"> <li>• <u>Inoperative</u>, <u>insecure</u> mounting, <u>loose</u>, or <u>missing</u></li> <li>• <u>Level 2 leak</u> of power steering fluid</li> </ul>
e) Mounting bracket		<ul style="list-style-type: none"> <li>• Broken, cracked or <u>loose</u></li> <li>• Bolt <u>loose</u> or <u>missing</u></li> </ul>
f) Assist		<ul style="list-style-type: none"> <li>• Does not <u>operate</u> as intended (i.e., power-assist provided is noticeably reduced, requiring more than normal steering effort to turn the wheels left or right)</li> </ul>
<b>3. Steering Operation</b>	<b>Truck</b> <input checked="" type="checkbox"/> <b>Trailer</b>	<b>Truck</b> <input checked="" type="checkbox"/> <b>Trailer</b>
a) Steering wheel		<ul style="list-style-type: none"> <li>• Broken, <u>damaged</u>, <u>loose</u> on spline or modified</li> </ul>
b) Rotation and travel		<ul style="list-style-type: none"> <li>• Binds or jams during rotation</li> </ul>
c) Steering lash or free-play		<ul style="list-style-type: none"> <li>• Steering lash or free-play is greater than the distance shown below</li> <li>• Maximum permissible lash (free-play) for <b>power steering</b> system <ul style="list-style-type: none"> <li>• steering wheel diameter 19.5" (500 mm) or less: 3" (75 mm)</li> <li>• steering wheel diameter of <u>more than</u> 19.5" (500 mm): 3 ½" (87 mm)</li> </ul> </li> </ul>
d) Tire clearance		<ul style="list-style-type: none"> <li>• Evidence of tire contact with any part of the vehicle</li> </ul>

**CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD**  
*(for motor carrier operations)*  
**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 5 – Instruments and Auxiliary Equipment</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>1. Fire Extinguisher</b> a) Presence and type	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• <u>Missing</u> or incorrect type</li> <li>• <u>Not</u> in a quick-release holder</li> <li>• Not F.M.-, U.L.- or U.L.C.-approved and labeled with visual gauge</li> </ul>	<b>Truck ✓ Trailer</b>
b) Condition	<ul style="list-style-type: none"> <li>• <u>Insecure</u> or <u>loose</u></li> <li>• Seal is broken or gauge shows less than minimum charge</li> <li>• Safety pin is <u>missing</u></li> </ul>	
<b>2. Hazard Warning Kit</b> a) Presence and type	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• Missing (3 required)</li> <li>• Incorrect type</li> <li>• Triangle reflectors are broken, damaged and inoperative, missing or insecurely mounted</li> </ul>	<b>Truck ✓ Trailer</b>
<b>3. Horn</b> a) Operation	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• <u>Inoperative</u> or <u>not</u> clearly audible</li> </ul>	<b>Truck ✓ Trailer</b>
b) Control	<ul style="list-style-type: none"> <li>• <u>Not</u> identified and readily accessible to the driver</li> <li>• Does <u>not</u> reliably function as intended</li> </ul>	
<b>4. Speedometer</b> a) Operation	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• <u>Missing</u></li> <li>• <u>Not</u> clearly visible from the primary driving position</li> </ul>	<b>Truck ✓ Trailer</b>
<b>5. Odometer</b> a) Operation	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• <u>Missing</u></li> </ul>	<b>Truck ✓ Trailer</b>
<b>6. Windshield Wiper/Washer</b> a) Operation	<b>Truck ✓ Trailer</b> <ul style="list-style-type: none"> <li>• Fail to operate properly in any speed or position</li> <li>• <u>Fail</u> to park</li> </ul>	<b>Truck ✓ Trailer</b>
b) Wiper blade	<ul style="list-style-type: none"> <li>• Hardened, <u>missing</u> or torn</li> <li>• Fails to contact windshield properly</li> </ul>	
c) Wiper arm	<ul style="list-style-type: none"> <li>• Bent, broken or <u>missing</u></li> </ul>	
d) Windshield washer	<ul style="list-style-type: none"> <li>• <u>Inoperative</u> or <u>missing</u></li> <li>• Fails to direct sufficient washer fluid at correct position on windshield</li> </ul>	

# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

(for motor carrier operations)

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

Section 5 – Instruments and Auxiliary Equipment		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>7. Heater and Windshield Defroster</b> a) Operation	Truck <input checked="" type="checkbox"/> Trailer <ul style="list-style-type: none"> <li>• <u>Inoperative</u> at any setting</li> <li>• Low air flow or fails to deliver heated air</li> </ul>	Truck <input checked="" type="checkbox"/> Trailer
b) Heater core	<ul style="list-style-type: none"> <li>• <u>Level 2 leak</u> of coolant</li> </ul>	
<b>8. Fuel-Burning Auxiliary Heater</b> a) Condition	Truck <input checked="" type="checkbox"/> Trailer <ul style="list-style-type: none"> <li>• <u>Insecure</u> or <u>loose</u></li> </ul>	Truck <input checked="" type="checkbox"/> Trailer
<b>9. Chain/"Headache" Rack</b> a) Condition	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• <u>Insecure</u> or <u>loose</u>, mounting fastener <u>loose</u> or <u>missing</u>, broken or weld cracked</li> </ul>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>
<b>10. Automated Driving System (ADS)</b> a) System	Truck <input checked="" type="checkbox"/> Trailer	Truck <input checked="" type="checkbox"/> Trailer <ul style="list-style-type: none"> <li>• Does not meet standards set by OEM</li> </ul>

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**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 6 – Lamps</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<p><b>1. Required Lamps</b>            a) Operation of all required lamps</p> <p><b>Note:</b> See the lighting charts at the end of this section for details on CMVSS/FMVSS 108 requirements for lamps, lamp location and color</p>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• Fails to illuminate fully and correctly in response to the switch or control</li> <li>• Fails to turn off in response to the switch or control</li> <li>• Broken, cracked, <u>insecure</u> mounting or <u>missing</u>, lens is clouded or reduces transmission of light</li> <li>• Is <u>not</u> clearly visible or is covered in any manner</li> <li>• 25% or more of LEDs of any one lamp assembly are <u>inoperative</u></li> </ul>
b) Headlamp	<ul style="list-style-type: none"> <li>• Headlamp switch, or beam (high and low) selector, is broken, inoperative, or missing</li> <li>• High beam indicator lamp on instrument panel is <u>inoperative</u></li> </ul>	<ul style="list-style-type: none"> <li>• A non-functional diode in LED headlamp</li> <li>• The headlamps fail to meet any of the following requirements:               <ul style="list-style-type: none"> <li>• two or four facing front as far apart as practical</li> <li>• white in color</li> <li>• illuminate correctly when operated by headlamp control on high and low beam</li> <li>• not steady burning</li> </ul> </li> </ul>
c) Tail lamp	<ul style="list-style-type: none"> <li>• Tail lamps are combined with clearance lamps</li> </ul>	<ul style="list-style-type: none"> <li>• Broken, cracked, <u>inoperative</u> or missing</li> <li>• The tail lamps <u>fail to meet</u> any of the following requirements:               <ul style="list-style-type: none"> <li>• minimum of two lamps facing the rear, located at rear of vehicle and as far apart as practical, red in color</li> <li>• illuminate correctly when operated by headlamp control</li> <li>• not steady-burning</li> </ul> </li> </ul>
d) Stop (brake) lamp	<ul style="list-style-type: none"> <li>• Stop lamps and turn signals are combined and the stop lamps do not deactivate when the turn signals are applied</li> </ul>	<ul style="list-style-type: none"> <li>• Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>• The stop lamps <u>fail to meet</u> any of the following requirements:               <ul style="list-style-type: none"> <li>• minimum of two lamps facing the rear, located at rear of vehicle and as far apart as practical, red in color</li> <li>• steady-burning, unless exempt</li> <li>• illuminate correctly when service brakes are applied</li> </ul> </li> </ul>

# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

(for motor carrier operations)

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

Section 6 – Lamps		
Inspection Component	Dispatch Inspection	In-Transit Inspection
e) Turn signal lamp	<ul style="list-style-type: none"> <li>Control <u>fails to hold</u> selected position</li> <li>Turn signal indicator lamp on instrument panel is <u>inoperative</u></li> <li>Turn signal is combined with another lamp and the other lamp produces a greater intensity of light</li> <li>Turn signal and stop lamp are combined and the turn signal lamps do not deactivate when the stop lamps are applied</li> </ul>	<ul style="list-style-type: none"> <li>Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>Control is broken, <u>inoperative</u> or <u>missing</u></li> <li>On a vehicle less than 80" (2.05 m) wide, control <u>fails to cancel</u> automatically when steering returns to center</li> <li>The turn signal lamps <u>fail to meet</u> any of the following requirements:                             <ul style="list-style-type: none"> <li>minimum of two facing the front, as far apart as practical, amber in color</li> <li>minimum of two facing the rear, as far apart as practical, amber or red in color</li> <li>illuminate correctly when operated by turn signal control</li> </ul> </li> </ul>
f) Hazard warning lamp <b>Note:</b> Can operate same lamps as turn signals	<ul style="list-style-type: none"> <li>Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>Control is broken, <u>inoperative</u> or <u>missing</u></li> <li>Hazard warning indicator lamp on instrument panel is <u>inoperative</u></li> <li>The hazard warning lamps <u>fail to meet</u> any of the following requirements:                             <ul style="list-style-type: none"> <li>minimum of two facing the front, as far apart as practical, amber in color</li> <li>minimum of two facing the rear, as far apart as practical, amber or red in color</li> <li>illuminate correctly and flash simultaneously when operated by hazard warning control</li> </ul> </li> </ul>	
g) Side marker lamp	<ul style="list-style-type: none"> <li>Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>Amber intermediate side marker lamps are <u>inoperative</u> or <u>missing</u> on a vehicle over 30' (9.1 m) in length</li> <li>The side marker lamps <u>fail to meet</u> any of the following requirements:                             <ul style="list-style-type: none"> <li>minimum of four in total, two at the rear and two at the front, facing the side</li> <li>located as close to corners as practical</li> <li>not steady-burning</li> <li>Front are not amber in color</li> <li>Rear are not red in color</li> </ul> </li> </ul>	

**CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD**  
*(for motor carrier operations)*  
**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 6 – Lamps</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
h) Clearance lamp  NOTE: <i>As high as practicable but may be lower only if rear ID lamps are at the top</i>	<ul style="list-style-type: none"> <li>• Broken, cracked, inoperative or missing</li> <li>• The clearance lamps fail to meet any of the following requirements:               <ul style="list-style-type: none"> <li>• minimum of four in total, located as far apart as practical at the widest point of the vehicle</li> <li>• two facing the front, as high as practical, amber in color</li> <li>• two facing the rear, red in color</li> <li>• not steady-burning</li> </ul> </li> <li>• Clearance and identification lamps or tail lamps are combined</li> </ul>	
i) Identification lamp	<ul style="list-style-type: none"> <li>• Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>• The identification lamps <u>fail to meet</u> any of the following requirements:               <ul style="list-style-type: none"> <li>• minimum of six in total</li> <li>• three facing the front, amber in color</li> <li>• three facing the rear, red in color</li> <li>• not steady-burning</li> </ul> </li> <li>• Clearance and identification lamps are combined</li> </ul>	
j) Backup lamp/reverse lamp	<ul style="list-style-type: none"> <li>• Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>• <u>Not</u> white in colour or <u>not</u> located at rear</li> <li>• Fail to illuminate with engine running and transmission in reverse gear</li> </ul>	
k) License plate lamp	<ul style="list-style-type: none"> <li>• Broken, cracked, <u>inoperative</u> or <u>missing</u></li> <li>• <u>Not</u> white, fails to illuminate license plate</li> </ul>	
l) Projecting load lamp/flag	<ul style="list-style-type: none"> <li>• A required flag is not the required size</li> </ul>	<ul style="list-style-type: none"> <li>• A required lamp/flag on an overhanging load of more than 4' (122 cm) is <u>inoperative</u> or <u>missing</u></li> </ul>
<b><u>2. Reflex Reflector</u></b>	<b>Truck ✓ Trailer ✓</b>	<b>Truck ✓ Trailer ✓</b>
a) Required reflectors	<ul style="list-style-type: none"> <li>• Any required reflex reflector, or part of a reflex reflector, is broken, <u>missing</u>, obscured or <u>not</u> clearly visible</li> </ul>	
b) Rear reflector	<ul style="list-style-type: none"> <li>• Rear reflectors fail to meet any of the following requirements:</li> <li>• Minimum of two, located as far apart as practical, red in color, between 15" and 60" (380 mm and 1530 mm) from center of reflector to the ground</li> </ul>	

**CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD**  
*(for motor carrier operations)*  
**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 6 – Lamps</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
c) Front and rear side, and intermediate reflex reflector	<ul style="list-style-type: none"> <li>• Amber intermediate reflex reflector is missing on a vehicle over 30' (9.1 m) in length</li> <li>• Front and rear reflex reflectors <u>fail to meet</u> any of the following requirements:               <ul style="list-style-type: none"> <li>• minimum of four in total, located as far apart as practical, between 15" and 60" (380 mm and 1,530 mm) from center of reflector to the ground</li> <li>• two at the front, amber in color</li> <li>• two at the rear, red in color</li> </ul> </li> </ul>	
<b>3. Retro-Reflective Marking</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Presence	<ul style="list-style-type: none"> <li>• Any required section is <u>missing</u></li> </ul>	
b) Type/markings	<ul style="list-style-type: none"> <li>• Consist of <u>anything other than</u> alternating red and white retro-reflective sheeting that is marked DOT-C2 (2" – 51 mm wide), DOT-C3 (3" – 75 mm wide) or DOT-C4 (4" – 100 mm wide) or solid white, where applicable</li> </ul>	
c) Condition	<ul style="list-style-type: none"> <li>• Peeling off or reflective properties are compromised by dirt or wear on an area exceeding 12 inches<sup>2</sup> (77 cm<sup>2</sup>) of the entire surface of the required reflective material</li> </ul> <p><b>Note:</b> On 2" (51 mm) wide material, this means a total length of 6" (15 cm) having some loss of reflective property</p>	
d) Location and type	<ul style="list-style-type: none"> <li>• Retro-reflective markings <u>fail to meet</u> FMVSS/CMVSS 108 requirements as follows:               <p>Tractor:</p> <ul style="list-style-type: none"> <li>• white chevrons on back of cab</li> <li>• red/white markings on fenders/mudflaps</li> </ul> <p>Trailer:</p> <ul style="list-style-type: none"> <li>• red/white markings along 50% of the length of the trailer</li> <li>• red/white markings across the bottom of the trailer</li> <li>• red/white markings across the rear impact guard</li> <li>• white chevrons on the back of the van trailer</li> </ul> </li> </ul>	
	<p><b>Note:</b> See the tables at the end of this section for details on CMVSS/FMVSS 108 requirements for retro-reflective location and color</p>	



# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD (for motor carrier operations)

## Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

### CMVSS/FMVSS LIGHTING REQUIREMENTS Section 6—Lamps

**IMPORTANT NOTE:** Every lamp, reflex reflector and conspicuity treatment must be permanently attached in the location specified below and must comply with all applicable requirements prescribed for it by FMVSS/CMVSS 108. The face of any device on the front/rear and sides should be, respectively perpendicular and parallel to the vehicle centerline, unless it is photometrically certified at installation angle. No part of the vehicle shall prevent any device from meeting its prescribed requirements unless an auxiliary device meeting all prescribed requirements is installed.

**IN CANADA:** Manufacturers and importers of vehicles must have the proper certification test records demonstrating compliance of lighting components with all prescribed requirements.

#### BASIC EQUIPMENT REQUIRED ON ALL TRUCKS, BUSES AND MPVS

Area	DESCRIPTION			MANDATORY REQUIREMENTS			
	Equipment	SAE Lens Coding	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
1	<b>Headlamps - Lower Beam</b> US requires "DOT" lettering on lens US and Canada - light source code required on Lens	(H, HR)	Forward road illumination	Minimum 2	White	On the front - symmetrical as far apart as practicable If 4 lamp system - outboard or above upper beams	560-1370 (22-54)
	<b>Headlamps - Upper Beam</b> US requires "DOT" lettering on lens US and Canada - light source code required on Lens	(H, HR)	Forward road illumination	Minimum 2	White	On the front - symmetrical If 4 lamp system - inboard or above upper beams	560-1370 (22-54)
	<b>Parking Lamps</b> Vehicles less than 80" (2.05 m) wide	(P)	Indicate parked vehicle	Minimum 2	White or amber	On the front - symmetrical as far apart as practicable	560-1370 (22-54)
	<b>Daytime Running Lamps (DRL)</b> Canada - required / US - Option US requires "DRL" lettering on lens if not headlamp	(Y2)	Indicate in use vehicle	Minimum 2	White or amber	On the front - symmetrical as far apart as practicable	380 (15) min. Max. depends on type of DRL
2	<b>Front Turn Signal / Hazard Warning Lamps</b>	(I)	Indicate direction of turn/ identify disabled vehicle	Minimum 2	Amber	On the front - symmetrical as far apart as practicable	380-2110 (15-83)
	<b>Front Clearance Lamps</b> Vehicles 80" (2.05 m) wide or wider *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Show vehicle's width	Minimum 2	Amber	At widest point - symmetrical on the front or near the front facing forward	As high as practicable
3	<b>Front Identification Lamps (ID)</b> Vehicles 80" (2.05 m) wide or wider	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Amber	On the front - center horizontally spaced 6" (150 mm) to 12" (300 mm) apart	As high as practicable or on top of the cab
4	<b>a Front Side Marker Lamps</b> *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Front and rear side marker lamps / side reflex reflectors indicate vehicle's presence and length	Minimum 2	Amber	Each side at front as far forward as practicable	380 (15) minimum
	<b>b Front Side Reflex Reflectors</b>	(A)		Minimum 2	Amber	Each side at front as far forward as practicable facing sideward	380-1530 (15-60)
5	<b>a Rear Side Marker Lamps**</b> *photometrically certified at installation angle	(P2, PC* or P3, PC2*)		Minimum 2	Red	Each side at rear as far back as practicable	380 (15) minimum
	<b>b Rear Side Reflex Reflectors**</b> **not required on truck tractors	(A)		Minimum 2	Red	Each side at rear as far back as practicable facing sideward	380-1530 (15-60)
6	<b>Rear Clearance Lamps</b> Vehicles 80" (2.05 m) wide or wider Not required on truck tractors *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Show vehicle's width MAY NOT be combined with tail lamps	Minimum 2	Red	At widest point - symmetrical on the rear or near the rear facing rearward	As high as practicable may be lower only if rear ID lamps are at the top
7	<b>Rear Identification Lamps (ID)</b> Vehicles 80" (2.05 m) wide or wider Not required on truck tractors	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Red	On the rear - center horizontally spaced 6" (150 mm) to 12" (300 mm) apart facing rearward	At the top may be lower if door header narrower than 1" (25 mm)
8	<b>Tail Lamps</b>	(T)	Indicate vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
	<b>Stop Lamps</b>	(S)	Indicate braking	Minimum 2	Red	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
	<b>Rear Turn Signal/ Hazard Warning Lamps</b>	(I)	Indicate direction of turn/ identify disabled vehicle	Minimum 2	Red or amber	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
	<b>Rear Reflex Reflectors</b>	(A)	Show vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
9	<b>Backup Lamp</b>	(R)	Illuminates ground behind the vehicle and alert road users	Minimum 1	White	Rear	No requirement
10	<b>License Plate Lamp(s)</b>	(L)	Illuminates license plate	Minimum 1	White	On the rear - above or at the sides of the license plate	No requirement
11	<b>Center High Mounted Stop Lamp</b> Vehicles less than 80" (2.05m) wide and 10,000 lbs. (4536 kg)	(U3)	Indicates braking	1	Red	On the rear - centerline of the vehicle	860 (34) minimum

#### ADDITIONAL EQUIPMENT FOR SPECIFIC VEHICLES VEHICLES 30' (9.1 m) LONG OR LONGER

Area	DESCRIPTION			MANDATORY REQUIREMENTS			
	Equipment	SAE Lens Coding	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
12	<b>a Intermediate Side Marker Lamps</b>	(P2 or P3)	Indicate presence of a long vehicle	Minimum 2	Amber	Each side near center	380 (15) minimum
	<b>b Intermediate Side Reflex Reflectors</b>	(A)	Indicate presence of a long vehicle	Minimum 2	Amber	Each side near center facing sideward	380-1530 (15-60)

#### TRUCK TRACTORS

Area	DESCRIPTION		Quantity	Color	MANDATORY REQUIREMENTS		Options
	Conspicuity Treatment	DOT Coding			Location	Height	
13	<b>Rear Upper Body Markings</b>	DOT-C DOT-C2	Exactly 2 pairs of 12" (300 mm) long strips	White	Rear upper corners of cab facing rearward	As high as practicable excluding fairings	
14	<b>Rear Marking</b>	DOT-C3 DOT-C4	Exactly 2 sections of min. 24" (600 mm) each	Red/White	Rear - facing rearward - on fenders, on mud flap brackets, or within 12" (300 mm) below the top of mud flaps	As horizontal as practicable and not higher than 60" (1525 mm) from the ground	If mud flaps not used on the cab or frame mounted brackets

**NOTE:** The edge of red conspicuity tape shall not be closer than 3" (75 mm) to the edge of any amber lamp and the edge of white conspicuity tape shall not be closer than 3" (75 mm) to the edge of any lamp

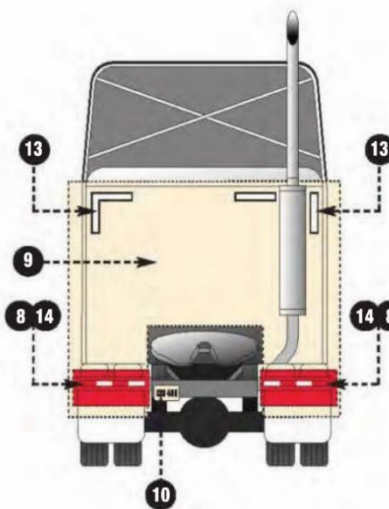
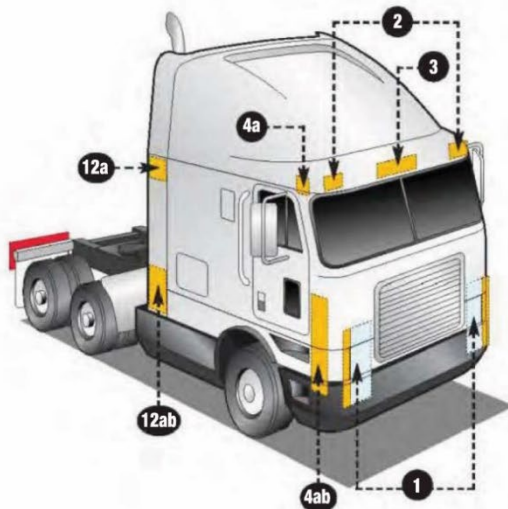
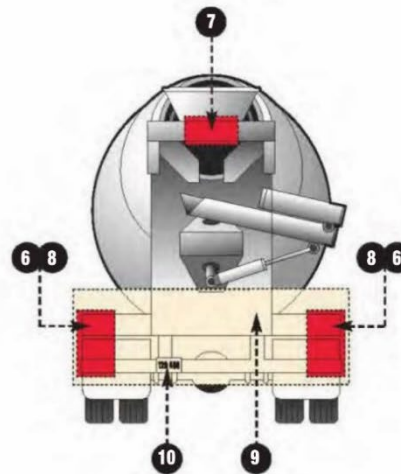
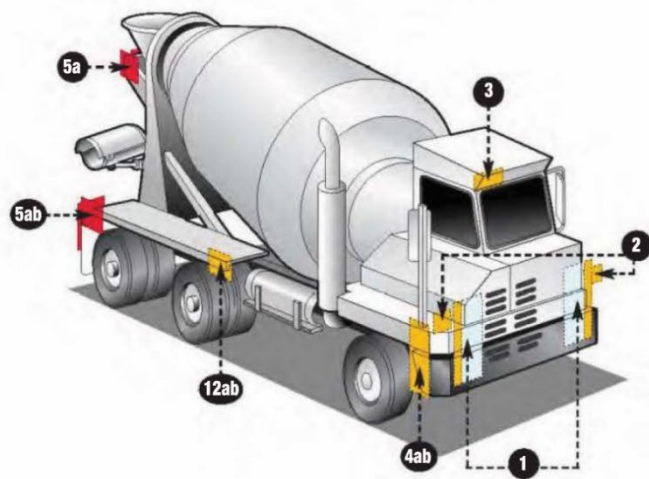
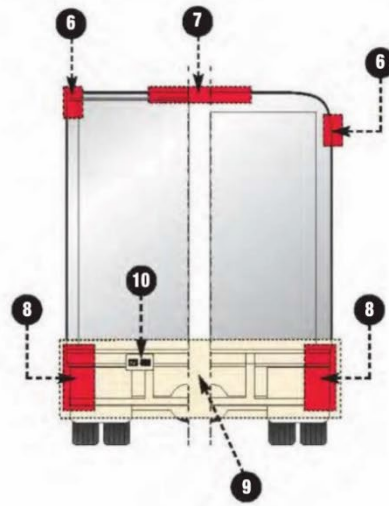
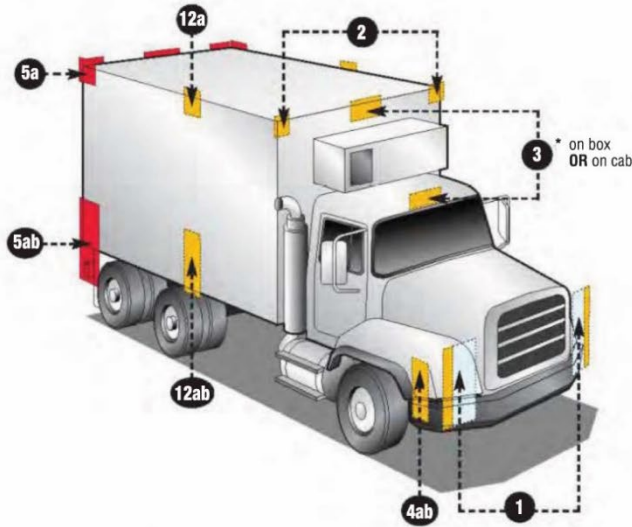
# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

(for motor carrier operations)

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

## CMVSS/FMVSS LIGHTING REQUIREMENTS

## Section 6—Lamps



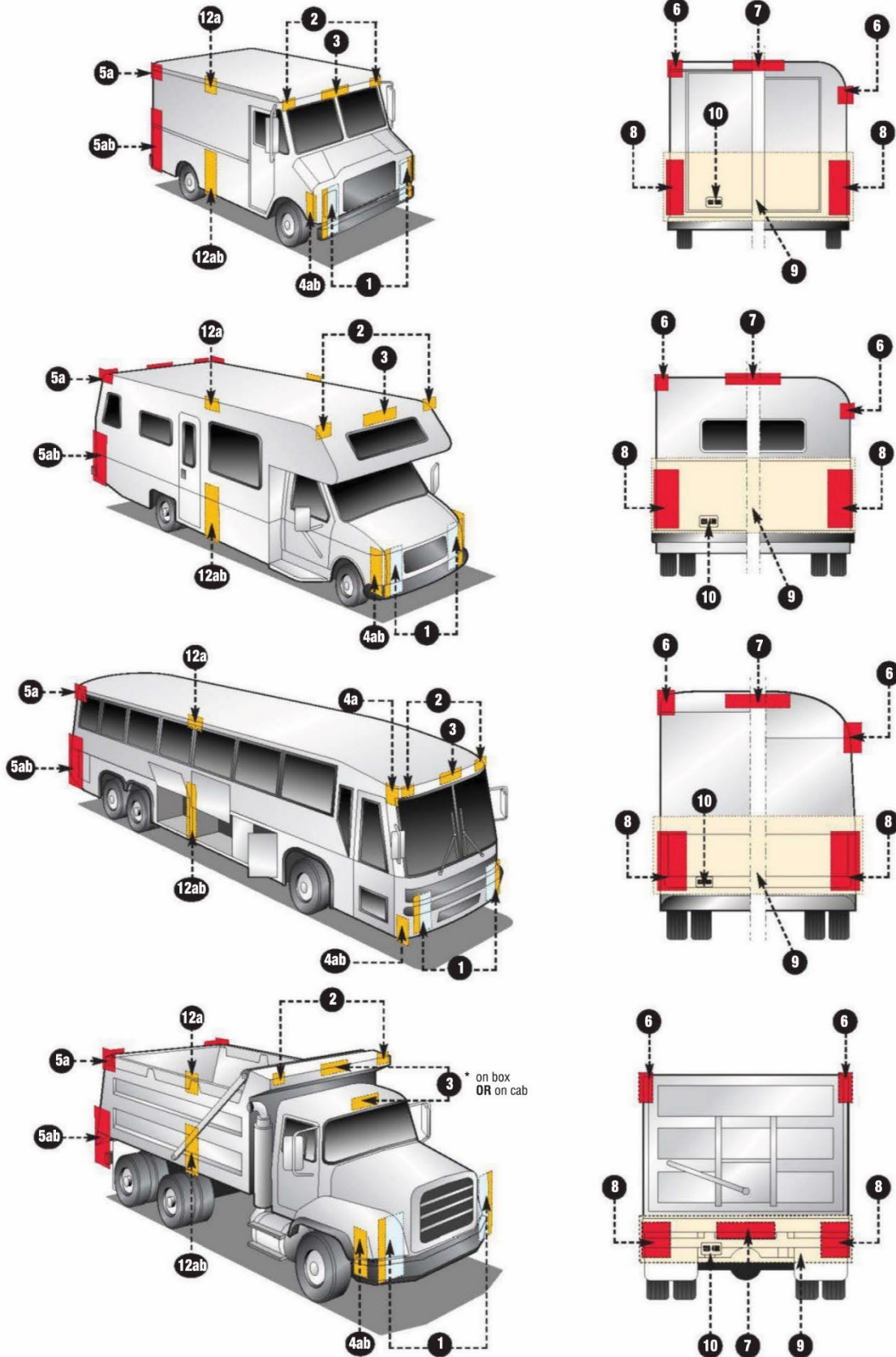
# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

(for motor carrier operations)

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

## CMVSS/FMVSS LIGHTING REQUIREMENTS

## Section 6—Lamps



# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

## (for motor carrier operations)

### Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

#### CMVSS/FMVSS LIGHTING REQUIREMENTS Section 6–Lamps

**IMPORTANT NOTE:** Every lamp, reflex reflector and conspicuity treatment must be permanently attached in the location specified below and must comply with all applicable requirements prescribed for it by FMVSS/CMVSS 108. The face of any device on the front/rear and sides should be, respectively perpendicular and parallel to the vehicle centerline, unless it is photometrically certified at installation angle. No part of the vehicle shall prevent any device from meeting its prescribed requirements unless an auxiliary device meeting all prescribed requirements is installed.

**IN CANADA:** Manufacturers and importers of vehicles must have the proper certification test records demonstrating compliance of lighting components with all prescribed requirements.

#### BASIC EQUIPMENT REQUIRED ON ALL TRAILERS

Area	DESCRIPTION			MANDATORY REQUIREMENTS			
	Equipment	SAE Lens Coding	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
<b>1</b>	Tail Lamps	(T)	Indicate vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
	Stop Lamps	(S)	Indicate braking	Minimum 2	Red	On the rear - symmetrical as far apart as practicable	380-1830 (15-72)
	Rear Turn Signal Lamps	(I)	Indicate direction of turn	Minimum 2	Red or amber	On the front - symmetrical as far apart as practicable	380-2110 (15-83)
	Rear Reflex Reflectors	(A)	Indicate vehicle's presence and width	Minimum 2	Red	On the front - symmetrical as far apart as practicable facing rearward	380-1830 (15-60)
<b>2</b>	License Plate Lamp(s)	(L)	Illuminates license plate	Minimum 1	White	On the rear - above or at the sides of license plate	No requirement
<b>3</b>	Rear Side Marker Lamps* *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Front and rear side marker lamps / side reflex reflectors indicate vehicle's presence and length	Minimum 2	Red	Each side at rear as far back as practicable	380-1830 (15-60) no max. for veh. under 80" (2.05 m)
	Rear Side Reflex Reflectors	(A)		Minimum 2	Red	Each side at rear as far back as practicable facing sideward	380-1830 (15-60)
<b>4</b>	<b>a</b> Front Side Marker Lamps *photometrically certified at installation angle	(P2, PC* or P3, PC2*)		Minimum 2	Amber	Each side at front as far forward as practicable	380 (15) minimum
	<b>b</b> Front Side Reflex Reflectors	(A)		Minimum 2	Amber	Each side at front as far forward as practicable facing sideward	380-1530 (15-60)

#### ADDITIONAL EQUIPMENT FOR TRAILERS EXCEEDING THE FOLLOWING PARAMETERS LENGTH 30' (9.1 m) OR LONGER

Area	DESCRIPTION			MANDATORY REQUIREMENTS			
	Equipment	SAE Lens Coding	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
<b>5</b>	<b>a</b> Intermediate Side Marker Lamps *photometrically certified at installation angle	(P2, P3, PC* or PC2*)	Indicate presence of a long vehicle	Minimum 2	Amber	Each side near center facing sideward	380 (15) minimum
	<b>b</b> Intermediate Side Reflex Reflectors	(A)	Indicate presence of a long vehicle	Minimum 2	Amber	Each side near center facing sideward	380-1530 (15-60)

#### WIDTH 80" (2.05 m) or wider

Area	DESCRIPTION			MANDATORY REQUIREMENTS			
	Equipment	SAE Lens Coding	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
<b>6</b>	Rear Clearance Lamps *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Show vehicle's width MAY NOT be combined with tail lamps	Minimum 2	Red	At widest point - symmetrical on the rear or near the rear facing rearward	As high as practicable may be lower only if rear ID lamps are at the top
<b>7</b>	Rear Identification (ID) Lamps	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Red	On the rear - center horizontally spaced 6" (150 mm) to 12" (300 mm) apart facing rearward	At the top may be lower if door header narrower than 1" (25 mm)
<b>8</b>	Front Clearance Lamps *photometrically certified at installation angle	(P2, PC* or P3, PC2*)	Show vehicle's width	Minimum 2	Amber	At widest point - symmetrical on the front or near the front facing forward	As high as practicable

#### WIDTH 80" (2.05 m) or wider AND GVWR 10,000 lbs. (4536 kg) or more

Area	DESCRIPTION		MANDATORY REQUIREMENTS				Options
	Conspicuity Treatment	DOT Coding	Quantity	Color	Location	Height	
<b>9</b>	Rear Upper Body Markings		Exactly 2 pairs of 12" (300 mm) long strips	White	On the rear upper corners facing rearward	At the top	<b>Optional in Canada:</b> Rear lower body and side conspicuity treatment may also be solid white, solid yellow or white and yellow.
<b>10</b>	Bumper Bar Marking		Continuous	Red/White	On the rear bumper bar's horizontal element full width - facing rearward	No requirement	
<b>11</b>	Rear Lower Body Marking	DOT-C DOT-C2 DOT-C3 DOT-C4	Continuous	Red/White (see options)	On the rear full width of the vehicle facing rearward	As horizontal as practicable and as close as practicable to the range of 15" to 60" (375 to 1525 mm) from the ground	
<b>12</b>	Side Marking		(see location)	Red/White (see options)	Each side - facing sideward continuous, or evenly spaced over minimum of 50% of length starts and ends as close to the front and rear of the vehicle as practicable	As horizontal as practicable and as close as practicable to the range of 15" to 60" (375 to 1525 mm) from the ground	

**NOTE:** The edge of red conspicuity tape shall not be closer than 3" (75 mm) to the edge of any amber lamp and the edge of white conspicuity tape shall not be closer than 3" (75 mm) to the edge of any lamp

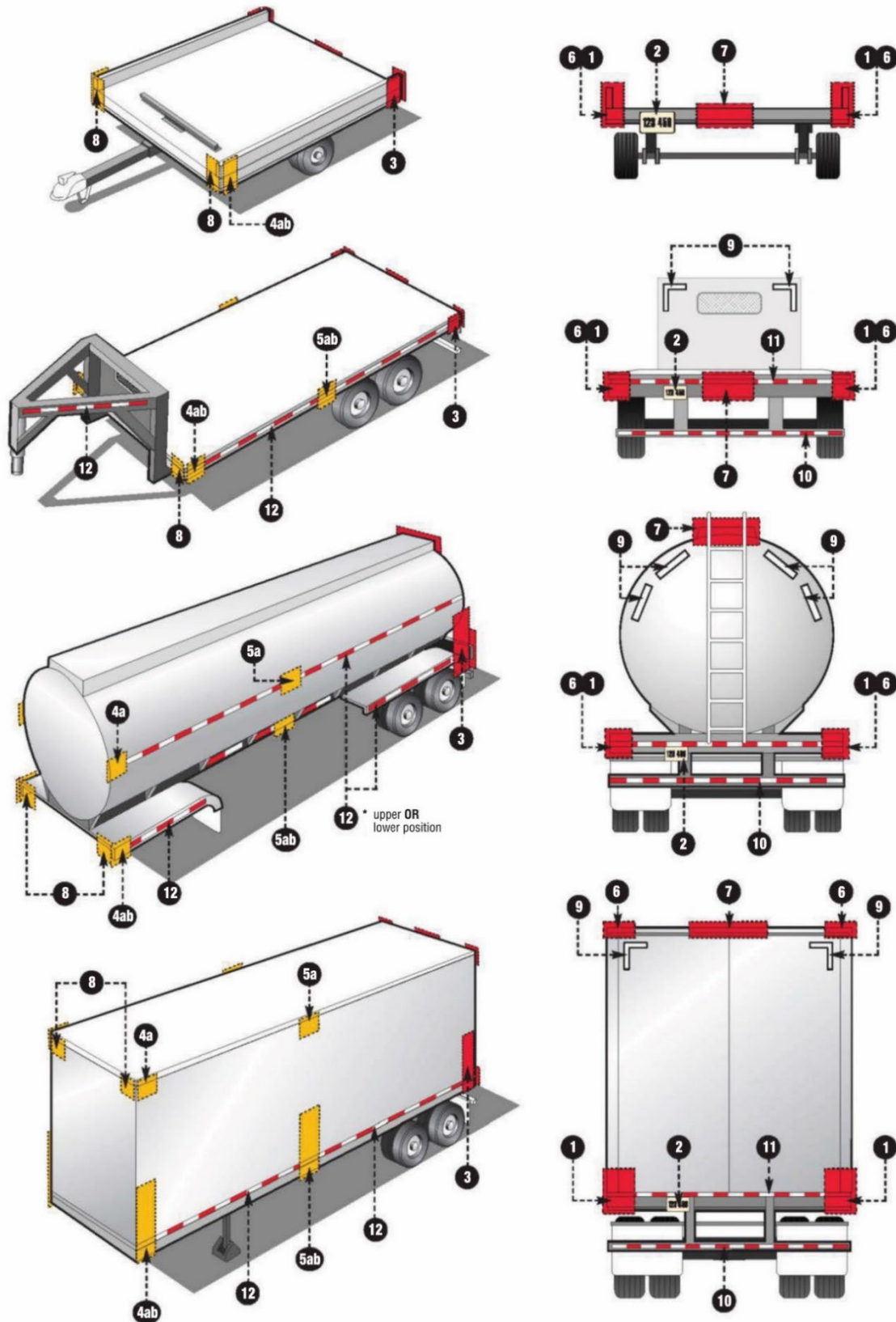
# CVSA ENHANCED COMMERCIAL MOTOR VEHICLE INSPECTION STANDARD

(for motor carrier operations)

## Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

### CMVSS/FMVSS LIGHTING REQUIREMENTS

### Section 6—Lamps



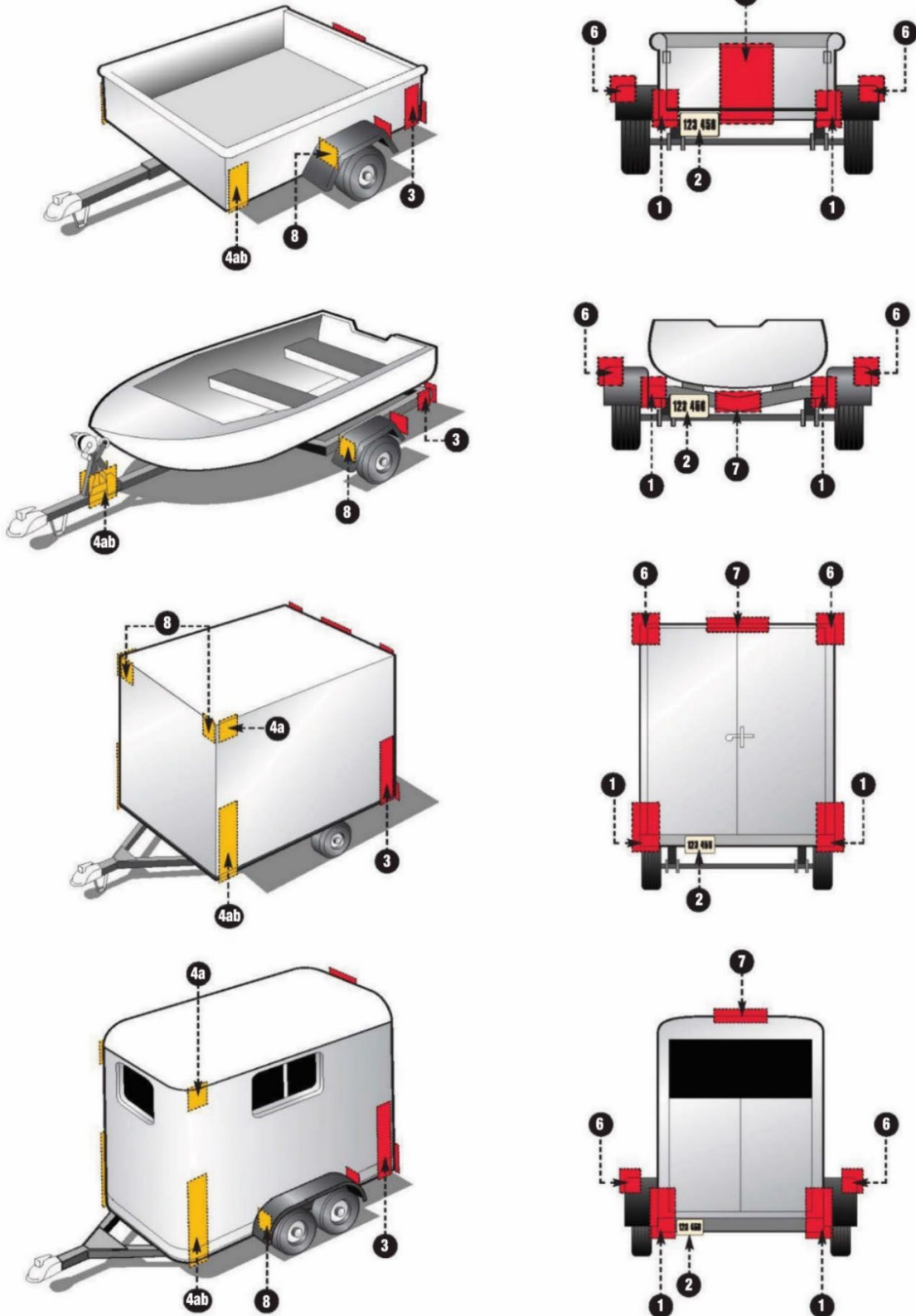
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(for motor carrier operations)

Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

Section 7 – Electrical System		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Wiring</b>	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓
a) Security		<ul style="list-style-type: none"> <li>• <u>Loose</u> or improperly supported, and able to contact moving parts</li> <li>• Chafed section resulting from contact with vehicle parts</li> <li>• Not secured at least every 70" (180 cm)</li> </ul>
b) Insulation		<ul style="list-style-type: none"> <li>• Conductor is exposed, other than at a proper connector</li> </ul>
c) Condition		<ul style="list-style-type: none"> <li>• Cut, exposed, shorted or deteriorated</li> <li>• Connection is <u>loose</u>, abnormally corroded, burnt</li> </ul>
<b>2. Battery</b>	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓
a) Posts and connections		<ul style="list-style-type: none"> <li>• Corrosion or deterioration is present that prevents proper electrical contact, <u>loose</u> or burnt</li> </ul>
b) Mount	<ul style="list-style-type: none"> <li>• Cracked or <u>missing</u>, perforated or weakened due to corrosion</li> </ul>	
c) Cover and hold down	<ul style="list-style-type: none"> <li>• <u>Insecure</u> or <u>missing</u></li> <li>• Battery is not secured in place</li> </ul>	
d) Condition		<ul style="list-style-type: none"> <li>• <u>Level 2 leak</u> of battery fluid</li> </ul>
<b>3. Trailer Cord (output to towed vehicle)</b>	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓
a) Insulation		<ul style="list-style-type: none"> <li>• Cut, cracked, deteriorated or melted through to wire conductor</li> </ul>
b) Connection	<ul style="list-style-type: none"> <li>• Cracked, ends split, improper repair or connection</li> </ul>	

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**Tractor/Semitrailer (Air Brake-Diesel/Gasoline)**

<b>Section 8 – Body</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>1. Hood or Engine Enclosure</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
a) Condition		<ul style="list-style-type: none"> <li>• <u>Damaged</u>, <u>insecure</u>, or deteriorated in a manner that it is likely to become detached or <u>missing</u></li> </ul>
b) Latch (primary and secondary)	<ul style="list-style-type: none"> <li>• Broken, <u>inoperative</u>, <u>insecure</u> mounting, <u>missing</u> or seized</li> <li>• Effectiveness is compromised due to deteriorated condition, (e.g., rubber or similar type of latch)</li> <li>• Fails to open or close normally</li> </ul>	
c) Safety cable, assist spring, support/dampener	<ul style="list-style-type: none"> <li>• Broken, insecurely attached or <u>missing</u></li> </ul>	
d) Hinge and support spring	<ul style="list-style-type: none"> <li>• Hinge or hinge part is broken, cracked, <u>missing</u>, seized or <u>abnormally worn</u></li> </ul>	
<b>2. Air-Suspended Cab</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
a) Airbag	<ul style="list-style-type: none"> <li>• Leaking, cracked to reinforcing layer, <u>damaged</u> or patched</li> </ul>	<ul style="list-style-type: none"> <li>• Not properly inflating or cab tilts to one side</li> </ul>
b) Air line, connection and fitting	<ul style="list-style-type: none"> <li>• Tubing or hose is defective as defined “Defective Conditions of the Types of Hose, Tubing and Lines used on Vehicles Chart”</li> </ul>	<ul style="list-style-type: none"> <li>• Fitting or connection is broken, cracked, flattened or leaking</li> <li>• <u>Damaged</u> in a way (such as melting, flattening, deformation or kinking) that can restrict air flow</li> </ul>
c) Mount, rod and attachment	<ul style="list-style-type: none"> <li>• Bent, broken, loose or welded</li> </ul>	
d) Shock absorber	<ul style="list-style-type: none"> <li>• Broken, <u>damaged</u>, disconnected, <u>loose</u> or <u>missing</u></li> <li>• <u>Level 2 leak</u> of oil</li> </ul>	
<b>3. Cab and Passenger-Vehicle Body</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
a) Condition	<ul style="list-style-type: none"> <li>• Hole is present in panel or floor</li> <li>• Floor is permeated with oil/slippery</li> </ul>	
b) Body mount/support	<ul style="list-style-type: none"> <li>• Allows abnormal amount of movement broken, cracked, <u>loose</u> or <u>missing</u> parts</li> <li>• Improper mount used</li> <li>• Support cracked, broken or bulging</li> </ul>	
c) Body molding or trim	<ul style="list-style-type: none"> <li>• Is in a condition that could be hazardous to driver, passenger, pedestrian, or cyclist due to being loose, protruding, torn or having an exposed sharp edge</li> </ul>	



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 Tractor/Semitrailer (Air Brake-Diesel/Gasoline)

<b>Section 8 – Body</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
d) Fender		<ul style="list-style-type: none"> <li>• <u>Missing, damaged</u> so that road spray is <u>not</u> controlled</li> <li>• Corroded or <u>damaged</u> in a manner that required lamps <u>cannot</u> be properly secured</li> <li>• <u>Not</u> the full width of the tire(s)</li> </ul>
<b>4. Cargo Body</b> a) Sheet metal	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• Any section has exposed sharp edge(s), is torn, or protrudes in a manner that could be hazardous to driver, passenger, pedestrian or cyclist</li> <li>• Panel is <u>insecure, loose</u> or corroded through</li> <li>• Rivet is <u>missing</u></li> </ul>
b) Floor and deck		<ul style="list-style-type: none"> <li>• Has any condition that allows a person or cargo to fall through</li> <li>• Has a hole larger than 8" (200 mm) across the longest dimension</li> </ul>
c) Frame and subframe		<ul style="list-style-type: none"> <li>• Bulge caused by corrosion resulting in distortion of 3/8" (9.5 mm) or more</li> <li>• Stress crack at side rail or rub-rail</li> <li>• Rivet is <u>loose, missing</u>, dimpled by corrosion, bent, broken, cracked or insecure</li> </ul>
d) Crossmember		<ul style="list-style-type: none"> <li>• Bent, broken, collapsed, cracked or <u>missing</u></li> <li>• Perforated or weakened by corrosion</li> </ul>
e) Inner or outer side rail		<ul style="list-style-type: none"> <li>• Bulge caused by corrosion resulting in distortion of 3/8" (9.5 mm) or more</li> <li>• Rivet is <u>loose, missing, bent</u>, broken, cracked or <u>insecure</u></li> </ul>
f) Stake pocket/tiedown, cargo securing point or cargo securing device (including portable anchors)	<ul style="list-style-type: none"> <li>• Broken, cracked or <u>insecure</u>, elongated or distorted.</li> </ul>	
g) Body to frame attachment <b>Note:</b> Includes body to frame attachment device such as "U- bolt," pivot hinge, cheek plate mount, flex- mount hardware, body clamp and "J-Bar"		<ul style="list-style-type: none"> <li>• Bent, broken, cracked, <u>loose</u> or <u>missing</u></li> <li>• Spring is broken</li> <li>• Spacer or insulator is abnormally worn, crushed, dislodged or missing</li> </ul>

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<b>Section 8 – Body</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
h) Body rail and structural member		<ul style="list-style-type: none"> <li>• Upper or lower cargo body rail is bent, buckled, has a crack longer than 1" (25 mm), or has a fastener <u>loose</u> or <u>missing</u></li> <li>• Floor crossmember is bent, <u>loose</u> or sagging roof support is bent, <u>loose</u> or sagging</li> </ul>
i) Body panel		<ul style="list-style-type: none"> <li>• Any section has exposed sharp edge(s), is torn or protrudes in a manner that could be hazardous to driver, passenger, pedestrian or cyclist</li> <li>• Panel or panel fastener is <u>insecure</u>, <u>loose</u>, <u>missing</u>, or corroded through</li> <li>• Any gap exists that would allow leakage, loss or spillage of cargo</li> </ul>
<b>5. Frame, Rails and Mounts</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Condition		<ul style="list-style-type: none"> <li>• Bent, broken or cracked</li> <li>• Perforated or separated due to corrosion between mount and frame member</li> <li>• Bulge caused by corrosion resulting in distortion of 3/8" (9.5 mm) or more</li> <li>• Any condition that causes a component, or a part of the body or power train, to be more than 1" (25 mm) out of its normal position, or to contact a moving part</li> </ul>
b) Sub-frame assembly		<ul style="list-style-type: none"> <li>• Bent, broken, cracked, <u>loose</u> or <u>missing</u></li> <li>• Any condition of the sub-frame assembly allows a frame component, or a part of the body or power train, to be more than 1" (25 mm) out of its normal position, or to contact a moving part</li> </ul>
<b>6. Unitized Body Elements</b>	<b>Truck</b> <b>Trailer</b> ✓	<b>Truck</b> <b>Trailer</b> ✓
a) Load-carrying panel, bulkhead, structural element and mounts		<ul style="list-style-type: none"> <li>• Bent, broken, cracked, <u>loose</u> or <u>missing</u></li> <li>• Cut or notched more than 1" (25 mm), or rusted or corroded to a depth sufficient to cause weakness</li> <li>• Any rivet is <u>loose</u> or <u>missing</u></li> <li>• Any condition of the unitized body allows a part of the body or power train, to be more than 1" (25 mm) out of its normal position, or to contact a moving part</li> </ul>

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Section 8 – Body		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>7. Cab or Cargo Door</b> a) Condition and operation	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <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, <u>damaged</u> or <u>missing</u>, and is able to allow exhaust gases to enter cab, passenger compartment, and/ or sleeper</li> </ul>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>Binds, sags, or <u>fails</u> to lock securely</li> <li><u>Insecure</u> mounting to hinge, <u>insecure</u> hinge or severely corroded in hinge area</li> <li>Panel is corroded through</li> <li>Any gap exists that would allow leakage, loss or spillage of cargo</li> <li>Door fails to open, close or is wired shut</li> </ul>
	b) Door openers and handles <ul style="list-style-type: none"> <li>Broken, <u>inoperative</u> or <u>missing</u></li> <li>Catch or latch is broken, <u>loose</u> or <u>missing</u></li> </ul>	
<b>8. Equipment Attached or Mounted to the Vehicle</b> a) Security and condition	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>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 <u>insecure</u> or <u>loose</u>, 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(s), is torn or protrudes in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist</li> <li>ADS equipment is insecure or not operational as per OEM specs</li> </ul>
	<b>9. Refrigeration/Heater Unit System (Reefer or Auxiliary Power Unit [APU])</b> a) Security and condition	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>

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<b>Section 8 – Body</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>10. Bumper</b> a) Condition <b>Note:</b> Applies only to the front bumper on a truck or truck- tractor	Truck <input checked="" type="checkbox"/> Trailer	Truck <input checked="" type="checkbox"/> Trailer <ul style="list-style-type: none"> <li>• Broken, <u>loose</u> or <u>missing</u></li> <li>• Any section has exposed sharp edge(s), is torn or protrudes in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist</li> </ul>
b) Design		<ul style="list-style-type: none"> <li>• Solid portion does not extend from one frame rail to the other (except for a unitized body design)</li> </ul>
<b>11. Windshield</b> a) Obstruction	Truck <input checked="" type="checkbox"/> Trailer <ul style="list-style-type: none"> <li>• Decal or device obscures vision in the area swept by the windshield wipers</li> <li>• Clouded, <u>damaged</u> or deteriorated in such a way that driver’s normal vision is materially impaired in the area swept by the windshield wipers</li> </ul>	Truck <input checked="" type="checkbox"/> Trailer
b) Crack (CAD)  <b>Note:</b> See image below for examples of pass and fail windshield crack conditions	<ul style="list-style-type: none"> <li>• A crack extends through both layers of glass</li> </ul>	
<b>Examples of Windshield Pass and Reject Conditions:</b> Reject condition 1: Crack through one layer that extends more than 2" (51 mm) into the area swept by wipers Reject condition 2: Star chip larger than 1/2" (13 mm) in diameter in area swept by wipers Pass condition 3: Crack extends less than 2" (51 mm) into the area swept by wipers Pass condition 4: Star chip smaller than 1/2" (13 mm) in diameter in area swept by wipers Pass condition 5: Crack through one layer that is more than 2" (51 mm) long, but outside the area swept by wipers Pass condition 6: Star chip larger than 1/2" (13 mm) in diameter, but outside the area swept by wipers		

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<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
b) Crack (U.S.)	<ul style="list-style-type: none"> <li>Any intersecting cracks in the area extending upward from the height of the top of the steering wheel (excluding a 2" (51 mm) border at the top of the windshield) and 1" (25 mm) from either side of the windshield or windshield panel)</li> </ul>	
c) Chip (CAD)	<ul style="list-style-type: none"> <li>A chip that is larger than 1/2" (13 mm) in diameter within the area swept by OEM windshield wipers</li> </ul>	
c) Chip (U.S.)	<ul style="list-style-type: none"> <li>A chip that is 3/4" (19 mm) or larger in diameter within the area swept by OEM windshield wipers</li> <li>Two chips that are less than 3" (76 mm) away from each other</li> </ul>	
d) Discoloration	<ul style="list-style-type: none"> <li>More than 10% of total glass area is discolored due to age or other deterioration</li> </ul>	
e) Tinting	<ul style="list-style-type: none"> <li>Driver's normal vision is materially impaired</li> <li>Any aftermarket tint is applied</li> <li>Tint allows less than 70% transmittance</li> </ul>	
f) Condition	<ul style="list-style-type: none"> <li>Missing</li> <li>Vision is obscured or limited due to surface condition</li> </ul>	
<b>12. Side Windows</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
a) Operation	<ul style="list-style-type: none"> <li>Fails to open or close normally</li> </ul>	
b) Condition	<ul style="list-style-type: none"> <li>Clouded, <u>damaged</u> or deteriorated in such a way that normal driver vision is materially impaired</li> <li>Window has an exposed sharp edge, is broken or part of window is missing</li> <li>Tint allows less than 70% transmittance</li> <li>Window originally fitted with metal banding has any damaged or missing banding</li> </ul>	
<b>13. Rear Window</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck      Trailer</b>
a) Condition	<ul style="list-style-type: none"> <li>Broken or exposed sharp edge</li> </ul>	
<b>14. Interior Sun Visor</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
a) Location	<ul style="list-style-type: none"> <li><u>Missing</u> on driver's side</li> </ul>	
b) Attaching parts	<ul style="list-style-type: none"> <li>Bent, broken, <u>loose</u> or <u>missing</u></li> </ul>	
c) Adjustment	<ul style="list-style-type: none"> <li>Cannot be maintained in a set position</li> </ul>	

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<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b><u>15. Exterior Windshield Sun Visor</u></b> a) Obstructed view	<b>Truck <input checked="" type="checkbox"/> Trailer</b> <ul style="list-style-type: none"> <li>Any part of an exterior visor, at any point:               <ol style="list-style-type: none"> <li>extends more than 6" (150 mm) below the upper edge of the windshield; <u>and</u></li> <li>overlaps the portion of the windshield swept by the OEM wiper arm and wiper blade</li> </ol> </li> </ul>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
<b><u>16. Rear-view Mirror</u></b> a) Location	<b>Truck <input checked="" type="checkbox"/> Trailer</b> <ul style="list-style-type: none"> <li>Required rearview mirror is <u>missing</u></li> </ul>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
b) View	<ul style="list-style-type: none"> <li>View to the rear is obstructed on a required mirror</li> </ul>	
c) Mount	<ul style="list-style-type: none"> <li>Broken, <u>insecure</u> or <u>loose</u></li> <li>Fails to hold mirror in correct position</li> </ul>	
d) Glass condition	<ul style="list-style-type: none"> <li>Cracked</li> <li>Vision is obscured due to condition of glass or reflective surface, over 5% of total surface area of mirror</li> </ul>	
<b><u>17. Seat</u></b> a) Condition	<b>Truck <input checked="" type="checkbox"/> Trailer</b> <ul style="list-style-type: none"> <li><u>Loose</u> or <u>insecure</u> mounting</li> <li>Frame broken</li> <li>Covering material torn and exposing a metal component or spring</li> <li>Driver seat cannot be adjusted forward or backward</li> <li>driver seat back recline mechanism fails to adjust</li> <li>Seat pedestal removed</li> </ul>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>
b) Seat position lock	<ul style="list-style-type: none"> <li>Driver seat adjustment fails to lock into position</li> </ul>	
<b><u>18. Seat Belt/Occupant Restraint</u></b> a) Type and condition	<b>Truck <input checked="" type="checkbox"/> Trailer</b> <ul style="list-style-type: none"> <li><u>Missing</u> or <u>not</u> equipped at each seating position as originally required</li> <li>Webbing material is broken, cut frayed or torn</li> <li>Air ride, hydraulic or spring seat <u>does not</u> have lap belts attached to the seat, or is <u>not</u> equipped with a secondary belt from the seat to the floor</li> </ul>	<b>Truck <input checked="" type="checkbox"/> Trailer</b>

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<b>Section 8 – Body</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
b) Anchor	<ul style="list-style-type: none"> <li>Broken, <u>insecure</u> mounting or <u>missing</u></li> </ul>	
c) Retractor	<ul style="list-style-type: none"> <li>Broken, <u>insecure</u> mounting or <u>missing</u></li> <li><u>Fails to</u> allow belt to extend to its maximum length or <u>fails to</u> retract properly</li> </ul>	
d) Belt release and buckle	<ul style="list-style-type: none"> <li>Broken, <u>insecure</u> mounting or <u>missing</u></li> <li>Any part is <u>not</u> properly attached to the belt material</li> <li>Latch <u>fails to</u> lock in position or fails to release easily when belt is under tension</li> </ul>	
<b>19. Fender/Mud Flap</b> a) Condition and location	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓ <ul style="list-style-type: none"> <li>The mud flap must meet the following dimensions. <ul style="list-style-type: none"> <li>Mud flap width: At least as wide as the tires</li> <li>Bottom of mud flap: No more than 8-1/4" (210 mm) from the ground</li> <li>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</li> </ul> </li> <li>Fender or mud flap is broken, has <u>insecure</u> mounting, is <u>loose</u> or <u>missing</u></li> <li>Fender or mud flap has a tear or wear hole exists that is larger than 4" (100 mm) across the longest dimension, or the aggregated longest dimensions of multiple holes in a single mud flap equal more than 4" (100 mm)</li> <li>The distance from the bottom of the mud flap to the ground exceeds 8-1/4" (210 mm)</li> <li>The mud flap does not cover the full tread width of the tire(s)</li> <li>The top of the mud flap does not reach up to the top of the tires or a body element</li> </ul>

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Section 8 – Body				
Inspection Component	Dispatch Inspection		In-Transit Inspection	
<b>20. Landing Gear on Trailer</b> a) Operation	Truck	Trailer ✓	Truck	Trailer ✓
b) Condition				<ul style="list-style-type: none"> <li>• Binding, <u>inoperative</u> or seized</li> </ul>
c) Crank handle				<ul style="list-style-type: none"> <li>• Landing gear or brace is bent, broken or cracked</li> <li>• <u>Insecure</u> mounting</li> <li>• Pad broken, <u>insecure</u> or <u>loose</u>, or <u>missing</u></li> </ul>
<b>21. Sliding Axle Assembly (Sliding Bogie) on Trailer</b> a) Frame and sub-frame rail	Truck	Trailer ✓	Truck	Trailer ✓
b) Slider-guide/hold-down bracket & locking device				<ul style="list-style-type: none"> <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> </ul>
c) Stop, if equipped				<ul style="list-style-type: none"> <li>• Cracked or <u>missing</u></li> <li>• <u>Inoperative</u> or <u>fails to lock</u> securely</li> <li>• Any lock pin is broken, cracked, disengaged or <u>missing</u></li> <li>• Locking device (pin) is worn causing 25% or greater reduction in diameter</li> <li>• Locking-pin hole measures more than 1" (25 mm) larger than its original size</li> <li>• Hold-down bracket is bent to the extent it is ineffective</li> </ul>
<b>22. Aerodynamic Device and Attachment</b> a) Condition and security	Truck ✓	Trailer ✓	Truck ✓	Trailer ✓
				<ul style="list-style-type: none"> <li>• <u>Insecure</u> or <u>loose</u></li> <li>• Any section has exposed sharp edge(s), is torn or protrudes in a manner that could be hazardous to driver, passenger, pedestrian or cyclist</li> </ul>
<b>23. Rear Impact Guard (RIG)</b> a) Dimensions  <b>Note:</b> All RIG dimensions are based on the trailer being in an unloaded condition, suspension at normal ride height and tires properly inflated	Truck ✓	Trailer ✓	Truck ✓	Trailer ✓
				<ul style="list-style-type: none"> <li>• RIG does not conform to dimensions (figure 1-based on industry standard — TMC RP 732)</li> </ul>



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Section 8 – Body		
Inspection Component	Dispatch Inspection	In-Transit Inspection
b) Condition  <b>Note:</b> Multiple bends are permitted; when there is visible damage to the RIG, also carefully inspect the trailer frame and floor for structural damage	<ul style="list-style-type: none"> <li>Missing certification label (U.S. only)</li> </ul>	<ul style="list-style-type: none"> <li>Broken, <u>loose</u> or <u>missing</u></li> <li>Has cracked welds in the horizontal or vertical member or in the supporting structure or any attachment to vehicle structure</li> <li>The horizontal member is bent inward, downward, upward or outward, beyond 3" (75 mm) (Figure 2)</li> <li>The vertical supports and/or supporting structure are weakened, bent or distorted (Figure 3)</li> </ul>

These rear impact guard requirements are for trailers manufactured after January 23, 1998 in the U.S. or September 23, 2007 in Canada.

Figure 1: Rear Impact Guard Dimensions

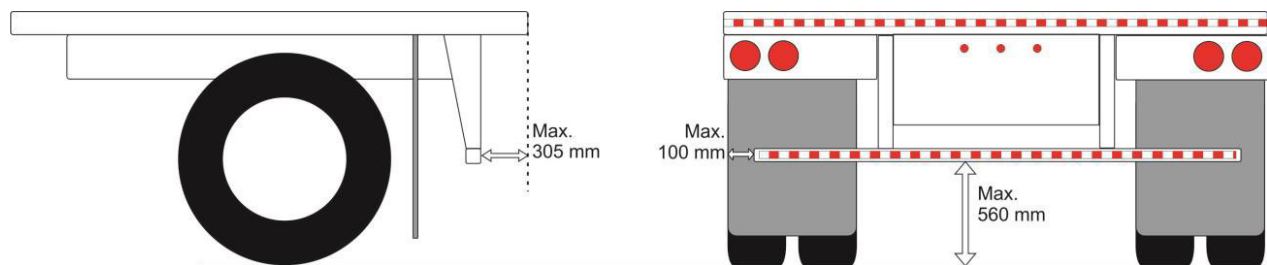
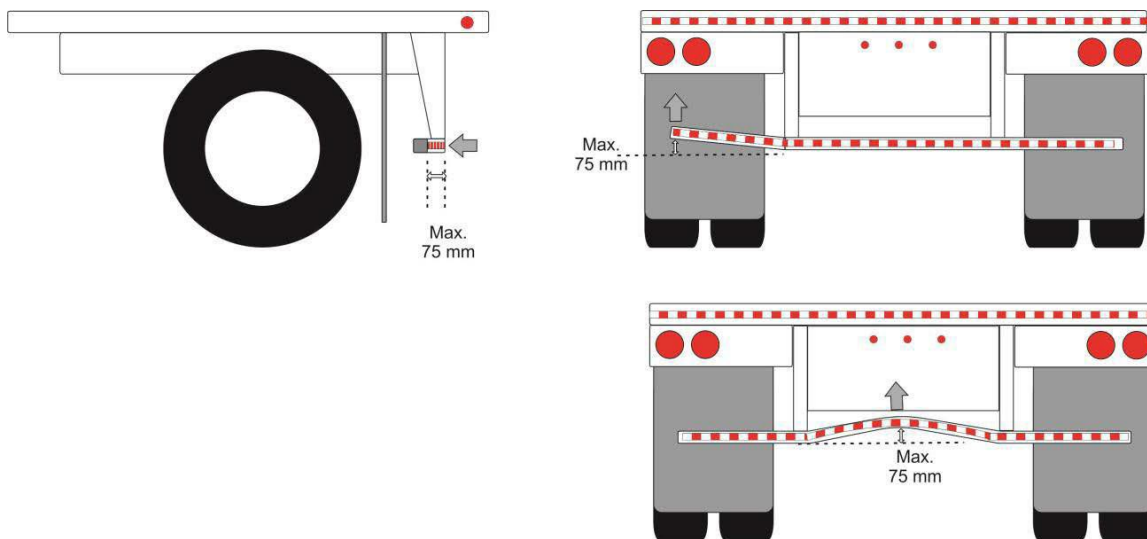
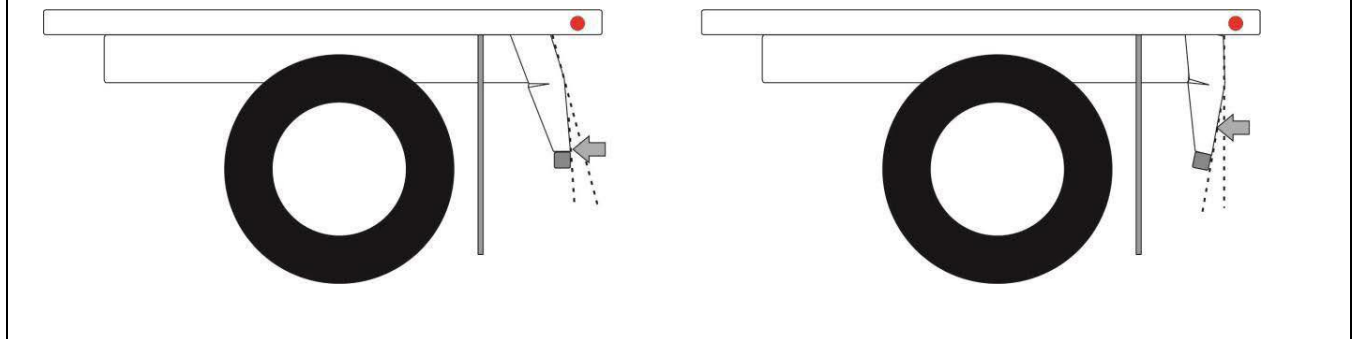


Figure 2: Limits of Damage to Horizontal RIG Member



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Figure 3: Example of Damaged Vertical RIG member



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Section 9 – Tires and Wheels		
Inspection Component	Dispatch Inspection	In-Transit Inspection
<b>1. Tire Tread Depth</b> a) Tires on any active steering axle(s) of a motor vehicle b) All other tires	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ • Tread depth is less than 4/32" (3 mm) • Tread depth is less than 2/32" (2 mm)
<b>2. Tire Tread Condition</b> a) Retread (re-capped or rebuilt tire) installation <b>Note:</b> An active steering axle is one that is directly controlled by the steering wheel, while a passive steering axle responds to lateral force to turn wheels b) Retread condition c) Tread condition d) regrooving	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ • Retreaded tire is installed on any active steering axle • Retread material is <u>loose, missing</u> , or separated at the interface where the retread is bonded to the tire casing • Crack or cut, that is greater than 1" (25 mm) long, that extends deeper than a major tread groove • Crack or cut, extends into body cord, or any body cord is exposed • Any piece of original tire tread is <u>missing</u> and the longest dimension across the missing section is greater than 1" (25 mm) • Regrooving has been performed on a tire not marked "Regroovable" • Regrooved tire on a steering axle over 2,232 kg (4,920 lbs.)
<b>3. Tire Sidewall and Manufacturer Markings</b> a) Matching and application b) Condition	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ • Required tire is <u>missing</u> • Radial tire is mixed with non-radial on an axle • Any tire is labeled "Not for Highway Use" or in any way that indicates the tire is not intended for on-road use • Tire is exceeding the tire weight rating • Ply separation is evident or body cords are exposed • Tire has a bump or bulge caused by tread or sidewall separation • Casing is broken or distorted • Presence of plug-type repair, or rubber coated or cured rubber plug is used in the sidewall • UV degradation damage more than 1/8" (3 mm) deep • An object is lodged between a set of dual tires

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<b>Section 9 – Tires and Wheels</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>4. Tire Inflation Pressure</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Inflation pressure		<ul style="list-style-type: none"> <li>• More than 50% below sidewall rating</li> </ul>
b) Valve stem	<ul style="list-style-type: none"> <li>• Valve stem cap is <u>damaged</u> or <u>missing</u></li> </ul>	<ul style="list-style-type: none"> <li>• Cracked, <u>damaged</u> or inaccessible preventing gauging of pressure or re-inflation, or leaking</li> </ul>
c) Tire inflation system		<ul style="list-style-type: none"> <li>• Is in a condition that any part of it could be hazardous to a person, or is in danger of falling off</li> <li>• Leaking air</li> </ul>
<b>5. Wheel Hub</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Condition		<ul style="list-style-type: none"> <li>• Repaired by welding</li> </ul>
b) Stud/bolt hole		<ul style="list-style-type: none"> <li>• Any stud/bolt hole is enlarged or <u>damaged</u> in a way that prevents proper fitting and retention of studs</li> </ul>
c) Wheel seal		<ul style="list-style-type: none"> <li>• <u>Level 2 leak</u> of bearing lubricant from oil lubricated hub</li> <li>• Seal is allowing grease to be lost from hub</li> </ul>
d) Lubricant (oil lubricated)		<ul style="list-style-type: none"> <li>• Lubricant level is below indicated minimum</li> <li>• <u>Level 2 leak</u> of bearing lubricant from hub or hub cap</li> </ul>
e) Lubricant (grease lubricated)		<ul style="list-style-type: none"> <li>• Grease is leaking from hub</li> <li>• Hub cap is cracked, <u>loose</u> or <u>missing</u></li> </ul>
<b>6. Wheel/Rim (applies to all wheel types)</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Condition		<ul style="list-style-type: none"> <li>• Wheel/rim is bent, broken, cracked, <u>damaged</u> or distorted</li> <li>• Wheel/rim has been welded</li> <li>• Wheel/rim is <u>damaged</u> or discolored as a result of heating</li> </ul>
<b>7. Spoke Wheel/ Demountable Rim System/Multi-Piece Rim</b>	<b>Truck</b> ✓ <b>Trailer</b> ✓	<b>Truck</b> ✓ <b>Trailer</b> ✓
a) Condition		<ul style="list-style-type: none"> <li>• There is evidence of rim slippage or incorrect positioning of rim on spokes</li> <li>• There is less than 4/32" (3 mm) clearance between butt ends of the lock ring</li> </ul>
b) Rim clamp		<ul style="list-style-type: none"> <li>• Any rim clamp is broken, cracked, missing, repaired by welding, mismatched or twisted</li> <li>• Any heelless clamp is bottomed or gap between clamp and spoke is more than 3/8" (9.5 mm)</li> <li>• Gap between clamp and spoke of a heel-type clamp is more than 1/4" (6 mm)</li> </ul>

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<b>Section 9 – Tires and Wheels</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
c) Spacer band		<ul style="list-style-type: none"> <li>Any spacer is collapsed, cracked, distorted, <u>missing</u>, the incorrect size or type or welded</li> </ul>
<b>8. Disc Wheel System</b> a) Condition	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	<b>Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/></b> <ul style="list-style-type: none"> <li>There is evidence of a <u>loose</u> or ineffective fastener</li> <li>There is evidence of damage or deterioration, foreign material, excessive or uncured paint on a hub, drum or wheel mounting face</li> <li>Bolt/stud hole is elongated</li> </ul>
<b>9. Wheel Fasteners (Nuts, Bolts and Studs)</b> a) Installation	Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/>	<b>Truck <input checked="" type="checkbox"/> Trailer <input checked="" type="checkbox"/></b> <ul style="list-style-type: none"> <li>Incorrect fastener type, thread direction or style is installed</li> <li>Any nut is <u>not</u> fully engaged with the stud or bolt</li> </ul>
b) Condition		<ul style="list-style-type: none"> <li>Any fastener is bent, broken, <u>damaged</u> or <u>missing</u></li> </ul>

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<b>Section 10 – Coupling Devices</b>		
<b>Inspection Component</b>	<b>Dispatch Inspection</b>	<b>In-Transit Inspection</b>
<b>1. Fifth Wheel Play</b> a) Between upper and lower halves	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>• Horizontal movement between the upper and lower fifth wheel halves exceeds 3/8" (9.5 mm)</li> </ul>
<b>2. Automated Coupling Device</b> a) Condition	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>• <u>Inoperative</u></li> <li>• Repair welded</li> </ul>
<b>3. Fifth Wheel Coupler</b> a) Upper coupler (pick up plate) <u>on trailer</u>	Truck ✓ Trailer ✓	Truck ✓ Trailer ✓ <ul style="list-style-type: none"> <li>• Cracked, <u>loose</u>, warped or worn so that the area in contact with the lower fifth wheel is less than 75% of the surface of the lower coupler</li> <li>• Upper coupler's attachment or a structural member is corroded, <u>damaged</u> or in a condition that the plate is weakened</li> <li>• Mounting bolt or rivet is broken, corroded, <u>loose</u> or <u>missing</u></li> <li>• Bulge is present in attaching and mating surface due to corrosion</li> <li>• Rivet is dimpled due to corrosion</li> <li>• Rivet area bulged due to corrosion</li> </ul>
b) Kingpin <u>on trailer</u> (or on towing vehicle)		<ul style="list-style-type: none"> <li>• Bent, broken, cracked, deformed or loose</li> <li>• Repaired by welding</li> <li>• Length is incorrect to properly fit into fifth wheel jaws</li> </ul>
c) Lower coupler (fifth wheel) top plate		<ul style="list-style-type: none"> <li>• Any part is broken, cracked, <u>damaged</u>, distorted, <u>missing</u> or welded</li> <li>• Missing or worn pivot pin or bushing resulting in 1/4" (6 mm) movement</li> </ul>
d) Latching mechanism		<ul style="list-style-type: none"> <li>• Broken, cracked or <u>inoperative</u></li> <li>• Stiffness or seizing of the latch mechanism is felt</li> <li>• Modified or improperly repaired</li> <li>• Release handle is bent, modified or has anything attached to it</li> <li>• Handle not latched and locked</li> </ul>
e) Slider assembly and locking mechanism		<ul style="list-style-type: none"> <li>• Any part is bent, broken, cracked, <u>damaged</u> or <u>inoperative</u></li> <li>• Fails to lock securely</li> <li>• Slider stop is <u>missing</u> or <u>insecure</u></li> <li>• Play in slider components exceeds 3/8" (9.5 mm)</li> </ul>

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## Section 10 – Coupling Devices

Inspection Component	Dispatch Inspection	In-Transit Inspection
f) Upper and lower coupler attachment to frame		<ul style="list-style-type: none"> <li>Any part is broken, cracked, <u>damaged</u>, distorted or <u>missing</u></li> <li>Any fastener is cracked, ineffective, <u>loose</u> or <u>missing</u></li> <li>Fasteners used to attach coupler assembly to frame do not meet the minimum requirements shown in the table below</li> </ul>

### Minimum Number of Bolts per Side Based on Type & Size of Bolt

Maximum Trailer GVWR	ASTM A325 Type 1, 2 and 3 (Metric 5.8)		SAE J429 Grade 5 (Metric 8.8)		SAE J429 Grade 8 (Metric 10.9)	
	1/2" (12 mm)	5/8" (16 mm) or larger	1/2" (12 mm)	5/8" (16 mm) or larger	1/2" (12 mm)	5/8" (16 mm) or larger
68,000 lbs. (30,844 kg) or less	6	4	6	4	5	4
68,001–85,000 lbs. (30,845–38,555 kg)	8	5	8	5	7	5
85,001–105,000 lbs. (38,556–47,627 kg)	10	6	10	6	8	5

Bolt size refers to the outside diameter of the thread.

1/2" bolts have 3/4 inch heads and nuts

5/8" bolts have 15/16 inch heads and nuts

12 mm bolts have 19 mm heads and nuts

16 mm bolts have 24 mm heads and nuts

### BOLT HEAD GRADE IDENTIFICATION MARKING

ASTM A325 Type 1	ASTM A325 Type 2	ASTM A325 Type 3	SAE J429 Grade 5	SAE J429 Grade 8	Metric 5.8	Metric 8.8	Metric 10.9
