

What you'll learn

After reading this chapter you'll be able to:

- explain the importance of conducting a pre-trip inspection
- explain how to perform an air brake system inspection
- list what to include in required reports
- complete a trip inspection report.

You're responsible

Vehicle manufacturers have done their best to design safe, efficient vehicles. It's the responsibility of the driver to ensure that all the safety features are operating properly.

To ensure that the vehicle you'll be driving is safe, you'll be expected to know how and when to conduct several types of inspections.

If you're applying for a commercial licence or heavy trailer endorsement, you'll be required to conduct a pre-trip inspection as part of your road test.

If the vehicle has air brakes, or if you're applying for an air brake endorsement, you'll be required to conduct a pre-trip inspection of the vehicle's air brake system. If tested on a vehicle equipped with manual slack adjusters, you'll also be required to demonstrate your ability to adjust a brake for proper pushrod travel. If your vehicle has automatic slack adjusters, you'll be asked to explain how to adjust manual slack adjuster brakes for proper pushrod travel.

fast fact

The National Safety Code (NSC) applies to most commercial vehicles and requires the vehicle you'll be driving to be inspected daily.

You're responsible for ensuring your vehicle is safe every time you drive it.

The pre-trip inspection is designed to help you do this.



fast fact

The NSC sets out minimum safety standards for all commercial carriers and drivers operating in Canada.

fast fact

Copies of the NSC regulations that apply in Yukon are available at Government weigh scales and at <http://www.gov.yk.ca>.

fast fact

You may be fined if you fail to carry a trip inspection report.

If you operate an unsafe vehicle, you may also be fined and/or your vehicle may be placed out of service.

Vehicle condition

You must determine that your vehicle is in safe operating condition before you drive it. This is part of your job and your responsibility as a professional driver. If you operate your vehicle when it's not safe, you're putting yourself and others at risk.

Taking the time for pre-trip inspections can prevent costly en route delays and reduce the chances of a crash caused by a mechanical failure.

All commercial vehicles that fall under the National Safety Code (NSC) must be inspected before they're used each day (pre-trip inspections) or at the end of the final trip of each day (post-trip inspections). These inspections are required under the *Motor Vehicle Act Regulations*.

Either you or another person specified by the carrier must do these inspections. Both you (the driver) and the carrier share the responsibility to ensure these inspections are done properly.

If you drive any of these vehicles, you must complete daily written inspection reports:

- bus, school bus, special activity bus, special vehicle or limousine with a seating capacity of more than 10 including the driver
- two-axle truck or truck-tractor with a licensed GWW greater than 14,600 kg
- truck or truck-tractor towing a trailer that has a licensed GWW greater than 8,200 kg.

Cargo securement

Under the NSC, all vehicles transporting cargo on a highway regardless of the gross vehicle weight must be inspected for cargo securement.

This includes all articles or materials carried by a vehicle, including those used in its operation.

You must inspect the vehicle prior to driving it to:

- confirm that the equipment used in the vehicle's operations (such as tailgate, tailboard, doors, tarpaulins and spare tire) are secured
- ensure that cargo doesn't interfere with safe operation of the vehicle
- ensure that cargo doesn't interfere with exiting the vehicle, and
- make any necessary adjustments to the cargo and cargo securement system.

Make this a part of your inspection routine.

You must also re-inspect the cargo securement system within 80 km from the point where the cargo was loaded, and on a regular basis during the trip at the earliest of:

- a change in duty status of the driver
- three hours of driving, or
- 240 km of driving since the last inspection.

You're required to record cargo securement inspections on your daily logs. You don't need to inspect cargo if it's sealed and you've been ordered not to inspect it, or if the cargo is inaccessible.

fast fact

All trip inspection reports must be given to the carrier within 20 days.

driving tip

To conduct a pre-trip inspection use:

- a flashlight to inspect components
- tire pressure gauge to check tires
- chalk or other marker, and a ruler or other measuring device to check pushrod free stroke
- a tool to pry on the air brake chamber pushrod to check for free stroke
- a wrench to adjust air brakes
- a watch or other timing device to check air brake leakage and buildup time.

You should also wear sturdy clothing, a hard hat and eye protection.

Written report requirements

Every written trip inspection report must:

- include the licence plate or unit numbers for the commercial vehicle and/or trailers
- specify all defects that may affect the safe operation of the vehicle, or
- state that no defect was discovered, if that was the case
- include the date and the vehicle's odometer reading
- be signed by the person making the report
- be completed prior to the first trip of the day.

If a trip lasts more than one day, new inspection reports must be completed no later than the first rest stop of every subsequent day of the trip.

If you couple to another trailer during the day, you must obtain and carry the trip inspection report completed for that trailer that day. If a trip inspection report for that trailer hasn't been done, you must complete one.

You, or the carrier's agent, must use your written trip inspection report to record all defects found during your trip inspection. For each defect you find, you must state on the form that either the defect has been corrected or that no correction is necessary.

When more than one driver is sharing a vehicle during a trip, only one of the drivers is required to sign the trip inspection report, provided there's no disagreement. All drivers must agree about which, if any, defects are to be reported and how these defects are to be reported (for example, have they been repaired or whether they need immediate repair).

If there's a disagreement over the defects to be reported, all drivers must sign and indicate the nature of the disagreement.

Pre-trip inspection report for your road test

During the pre-trip portion of your road test, your driver examiner will give you a copy of the trip inspection report form found on the next page.

This sample has been filled in as if a driver had found some minor defects during a pre-trip inspection. In this case, the driver also filled out the Carrier/Agent's Report. The report shows that all defects that could have made the vehicle unsafe have been fixed. The driver signed the report to say the vehicle is now safe to use. If the vehicle had no defects, the Carrier/Agent's Report section would have been left blank.

Your driver examiner will give you a blank form to complete and return during your test. Part of your grade will be based on how completely and accurately you fill out this trip inspection report.

fast fact


If any defect was identified and repaired during your pre-trip inspection, your report must note the defect and show a signature that certifies the defect was corrected.

If a defect does not affect you operating your vehicle safely, repairs may wait but the defect must still be recorded and it must be noted that the defect doesn't require immediate repair.

warning!

You may not be able to safely inspect all components on vehicles with low ground clearance or air suspension. The components that you can't inspect or access should be checked by a mechanic as part of regular preventative maintenance of your vehicle.

**Pre-trip Inspection Test
SAMPLE REPORT**



Yukon
Government

2222222
DRIVER'S LICENCE NO.

TRIP INSPECTION REPORT

Type of Inspection: Pre-trip Inspection Post-trip Inspection

Bus/Truck/Tractor # 409 **Odometer Reading** 87654 Km Miles

I detected no defect or deficiency in this commercial motor vehicle.
 I found the following defects as noted below:

<input type="checkbox"/> Air Compressor	<input type="checkbox"/> Drive Lines	<input type="checkbox"/> Load Security Devices
<input type="checkbox"/> Air Lines	<input type="checkbox"/> Emergency Equipment	<input type="checkbox"/> Lubrication System(s)
<input type="checkbox"/> Axles	<input type="checkbox"/> Emergency Windows/Exits	<input type="checkbox"/> Mirrors
<input type="checkbox"/> Battery(s)	<input type="checkbox"/> Engine	<input type="checkbox"/> Mud Flaps
<input type="checkbox"/> Belts/Hoses	<input type="checkbox"/> Exhaust System	<input type="checkbox"/> Oil Pressure
<input type="checkbox"/> Body/Frame	<input type="checkbox"/> Fire Extinguishers	<input type="checkbox"/> Rear End
<input checked="" type="checkbox"/> Brakes/Adjustment	<input type="checkbox"/> First Aid Kit	<input type="checkbox"/> Recording Device(s)
<input type="checkbox"/> Brakes - Service System	<input type="checkbox"/> Fluid Leaks	<input type="checkbox"/> Seats
<input type="checkbox"/> Brakes - Parking System	<input type="checkbox"/> Frame	<input type="checkbox"/> Suspension
<input type="checkbox"/> Charging System	<input type="checkbox"/> Fuel System	<input type="checkbox"/> Steering Mechanism
<input type="checkbox"/> Clutch	<input type="checkbox"/> Heaters/Defrosters	<input type="checkbox"/> Transmission(s)
<input type="checkbox"/> Cooling System	<input type="checkbox"/> Horns	<input type="checkbox"/> Wheels/Tires/Studs
<input type="checkbox"/> Coupling Devices	<input type="checkbox"/> Inspection Decal/Licence Plates	<input type="checkbox"/> Windows/Visibility
<input type="checkbox"/> Documents (insurance, permits, etc.)	<input type="checkbox"/> Interior Lights	<input type="checkbox"/> Wipers/Washers
<input type="checkbox"/> Doors/Compartments	<input type="checkbox"/> Lights/Reflectors	<input checked="" type="checkbox"/> Other

Trailer(s) #1 54 **#2** _____

<p>#1 #2</p> <input type="checkbox"/> Air Lines/Glad Hands <input type="checkbox"/> Axles <input type="checkbox"/> Body/Frame <input type="checkbox"/> Brakes/Adjustment <input type="checkbox"/> Coupling Devices	<p>#1 #2</p> <input type="checkbox"/> Coupling - Kingpin <input type="checkbox"/> Doors/Compartments <input type="checkbox"/> Inspection Decal/Plates <input type="checkbox"/> Landing Gear <input checked="" type="checkbox"/> Lights/Reflectors	<p>#1 #2</p> <input type="checkbox"/> Load Security/Dunnage <input type="checkbox"/> Mud Flaps <input type="checkbox"/> Suspension <input type="checkbox"/> Wheels/Tires/Studs <input type="checkbox"/> Other
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remarks: Adjusted left brake on rear axle
Replaced left rear taillight
Fuel gauge not working - not corrected

Dave Driver
SIGNATURE OF PERSON INSPECTING VEHICLE

January 10, 2011
DATE

9:10
TIME

AM
 PM

Carrier/Agent's Report

Above defects corrected.
 Above defects need not be corrected for safe operation of vehicle.

Dave Driver
SIGNATURE

Driver
TITLE

January 10, 2011
DATE

9:10
TIME

AM
 PM

MV2930 (02/2009)

driving tip

By conducting a good pre-trip inspection, you can avoid dangerous situations and legal and job-related consequences.

Conducting a pre-trip inspection

The following pages show detailed pre-trip inspection procedures for a Class 1 tractor-trailer combination including air brakes, a Class 2 or 4 bus, a Class 3 single-unit truck including air brakes and a Class 4 taxi. The various pre-trip inspections are colour-coded for ease of reference.

If you're applying only for an air brake endorsement, you'll need to complete an air brake pre-trip inspection. **The air brake inspection portions of the Class 1 and 3 pre-trip inspections are shown in red.**

Study and practise the one that applies to the class of licence or endorsement you're working toward. Practise your pre-trip inspection on the vehicle you bring for your road test.

The procedures included here are guidelines for you to follow during your road test. Your vehicle may require you to check different items than those listed. Each pre-trip inspection has been given an allotted time. You should be able to complete your inspection within that time.

You may conduct a pre-trip inspection in any order, but you should get in the habit of conducting it in the same order every time to avoid missing items. The pre-trip inspections shown on the next pages show a good order to follow. They begin with checking under the hood, then walking around the vehicle to do a circle check to inspect certain items, then getting into the cab to check gauges, etc. The final step is to pull ahead slowly to check for brake and steering response.

Before you begin

- Choose a safe location to park your vehicle away from traffic. Park on level ground if possible.
- Set the parking brakes. Shut off the engine.
- If it's a large commercial vehicle, block the wheels securely by placing a block in front of and behind the tire on the same axle of the tractor. Ensure the blocks will keep your vehicle from moving.
- You should walk in a counter-clockwise direction when you do the circle check, so you're facing oncoming traffic.



Tractor-trailer combination pre-trip inspection — Class 1

You should be able to complete this pre-trip inspection in less than 45 minutes.

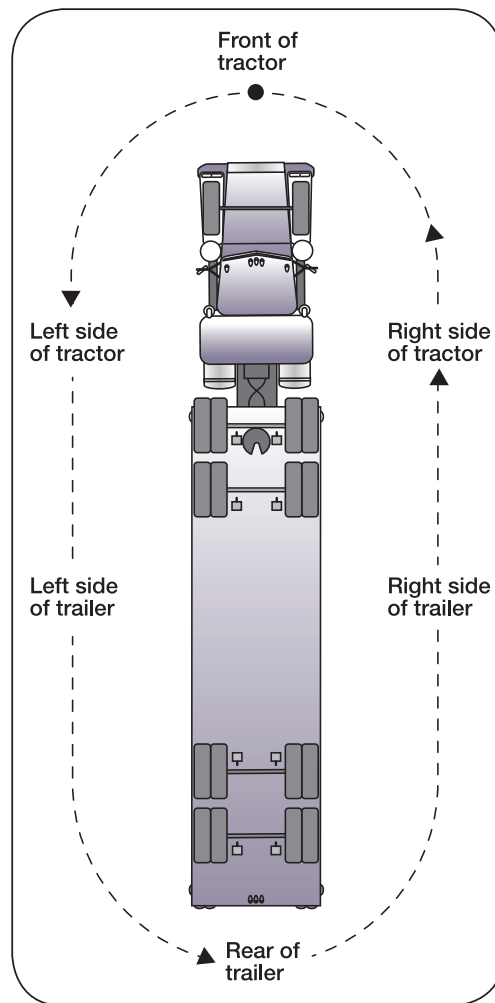
You must demonstrate your ability to set up a slack adjuster during your pre-trip inspection test. Refer to **chapter 9, air brake adjustment** for more information on setting up slack adjusters.

If you're applying for a heavy trailer endorsement, follow the Class 1 pre-trip inspection, deleting the air brake inspection steps.

fast fact

As part of your road test, Class 1 pre-trip inspection, you'll be tested on your ability to complete a pre-trip inspection. If the vehicle has air brakes with manual slack adjusters, you'll also be tested on your ability to perform a brake adjustment.

You should assume that the vehicle hasn't been operated on the day of your test and that a pre-trip inspection hasn't been done. During the test, point to or touch the things you're inspecting, and tell the driver examiner what you're looking for: for example, "I'm checking the front clearance lights to make sure they work, the lenses are clean and not cracked, and for correct colour."



Before you begin:

- set the parking brakes
- shut off the engine
- block the wheels.

**Class 1
pre-trip inspection**

driving tip

It's often easier to spot leaks and body damage as you approach your vehicle than when you're right beside it.

fast fact

All reservoirs should be drained daily.

It can be hard to tell the supply reservoir from the primary and secondary reservoirs. Checking the air pressure gauges while draining the reservoirs may help you to tell which reservoir is which.

driving tip

As you're circling the vehicle conducting the pre-trip inspection, check each tire, wheel and mud flap. Also check suspension and frame, brake lines, brake chambers and slack adjusters. Measure air brake chamber pushrod travel.

Also remove the keys from the ignition to ensure that nobody tries to move the vehicle while you're checking underneath.

1. Under hood

As you approach, look under the vehicle for leaks.

Drain the reservoirs (for your road test, you're only required to drain the supply reservoir).

Check the following:

<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> • check for licence plate and valid decal
<input type="checkbox"/> Fluids	<ul style="list-style-type: none"> • check fluid levels and condition (for example, colour, smell) including: engine oil, engine coolant, power steering fluid and windshield washer fluid
<input type="checkbox"/> Belts	<ul style="list-style-type: none"> • ensure any drive belts have good tension with no cracks, frayed cord or missing teeth
<input type="checkbox"/> Hoses	<ul style="list-style-type: none"> • ensure hose connections are secure with no kinks, leaks, cuts, abrasions or cracks
<input checked="" type="checkbox"/> Compressor	<ul style="list-style-type: none"> • ensure lines are securely attached with no kinks, leaks, cuts or abrasions • compressor is securely mounted
<input type="checkbox"/> Steering components	<ul style="list-style-type: none"> • check steering shaft, steering box, tie-rods, idler arm and connections • ensure they're secure • no bends or cracks
<input type="checkbox"/> Suspension	<p>As you inspect the vehicle, check the suspension at all wheels:</p> <ul style="list-style-type: none"> • ensure there are no cracked, missing or broken springs, torsion bars or walking beams • no loose, missing or broken U-bolts • if air suspension, no cracked, worn or inoperative airbags • mounts are secure
<input type="checkbox"/> Frame	<p>As you inspect the vehicle, check the frame:</p> <ul style="list-style-type: none"> • ensure there are no cracks, broken welds, holes or other damage to the frame including cross members and floor

**Class 1
pre-trip inspection**

fast fact

A peace officer may place your vehicle out of service if drum brake linings are less than 1/4 inch (6.4 mm) thick or air disc brake pads are less than 1/16 inch (1.6 mm) thick.

<input type="checkbox"/> Tires/wheels/mud flaps	<p>As you inspect the vehicle, check all tires, wheels and mud flaps:</p> <ul style="list-style-type: none"> • check tires for inflation, signs of bulges, sidewall separation, cuts to cord, exposed or frayed belts • adequate tread depth • tire wear is even • duals aren't touching and nothing is stuck between them • check wheels/rims for cracks, missing pieces or bends • ensure wheel lugs and nuts are secure, not missing, broken or loose (rust streaks may indicate loose wheel nuts) • with spoke wheels, also check that rims are securely fastened to the spokes (polished or shiny areas at flanges or clamps may indicate rim slippage from loose fasteners) • check wheel hub oil level by viewing through sight glass (if present) • check that mud flaps are secure • mud flaps don't rub tires
<input type="checkbox"/> Foundation brakes	<p>As you inspect the vehicle, check each foundation brake including brake chambers, slack adjusters, air hoses, s-cams, brake drums and linings:</p> <ul style="list-style-type: none"> • brake chamber mounting and retention clamps are secure • no signs of cracks, corrosion or holes • nothing will obstruct the mechanism • no audible air leaks • pushrod travel is within tolerance • check slack adjuster, s-cam and bushings for mechanical condition and wear • air lines are secure • no leaks, abrasions, cuts or cracks • no kinks • brake drums aren't cracked or broken • linings or drums not contaminated • lining thickness is within tolerance (if visible)

Close and secure hood.

Close supply reservoir.

2. In cab

Turn ignition to the "on" position. Check the following:

<input type="checkbox"/> Gauges/warning lights	<ul style="list-style-type: none"> • check oil pressure warning light or gauge
-------------------------------------------------------	-----------------------------------------------------------------------------------------------

Depress clutch, shift transmission to neutral and start engine.

**Class 1
pre-trip inspection**

While air pressure is building, check the following:

<input type="checkbox"/> Air pressure gauges	<ul style="list-style-type: none"> • check gauges to confirm that only the supply reservoir air was drained (if other reservoirs have lost pressure, this may indicate that a one-way check valve is not functioning)
<input type="checkbox"/> Instrument panel	<p>Ensure that all gauges and warning lights are working properly, and that they respond properly as the engine warms up:</p> <ul style="list-style-type: none"> • charge rate indicator or gauge — ensure voltmeter or ammeter works properly and the charge is good • oil pressure indicator or gauge — ensure that it indicates normal pressure soon after engine starts • coolant temperature indicator or gauge — check that indicator rises to normal operating temperature — light should go off after engine starts • fuel gauge — ensure it's working properly — indicates sufficient fuel • instrument lights — ensure they work
<input type="checkbox"/> Windshield wipers/washers	<ul style="list-style-type: none"> • ensure wipers and washers work
<input type="checkbox"/> Heater/defroster	<ul style="list-style-type: none"> • ensure heater and defroster controls work including fan, in heater and defroster positions
<input type="checkbox"/> Interior lights	<ul style="list-style-type: none"> • ensure they work
<input type="checkbox"/> Horns (air and electric)	<ul style="list-style-type: none"> • ensure they work
<input type="checkbox"/> Emergency equipment	<ul style="list-style-type: none"> • warning devices — ensure they're in working condition • fire extinguisher (if required or present) — ensure the date on the label is valid
<input type="checkbox"/> Four-way flashers	<ul style="list-style-type: none"> • check that both indicators on dashboard work (the exterior lights will be checked later as part of checking the turn signals)
<input type="checkbox"/> Seats, seatbelts	<ul style="list-style-type: none"> • ensure driver's seat and seatbelt are adjusted for you • fastening devices are in working order and accessible

Class 1
pre-trip inspection

driving tip

On some air brake systems, one service reservoir may begin to fill first. When pressure reaches approximately 85 to 95 p.s.i., (586 to 655 kPa) the other reservoir will begin to fill, then pressure in both service reservoirs will build to full pressure.

Regardless of the type of system, pressure must build from 50 to 90 p.s.i. (345 to 620 kPa) within three minutes.

<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> ensure they're adjusted for you and are clean and free of cracks
<input type="checkbox"/> Windows/windshield	<ul style="list-style-type: none"> ensure they're clean and free of cracks and that they open and close
<input type="checkbox"/> Documentation	<p>Ensure that all documentation is in the vehicle, valid and up-to-date including:</p> <ul style="list-style-type: none"> vehicle licence, registration and insurance (including trailers) logbook (if required) PMVI inspection report (if required) PMVI inspection decal on windshield (if required)
<input type="checkbox"/> Engine noises	<ul style="list-style-type: none"> listen for unusual sounds

Check that compressor stops pumping between 105 and 135 p.s.i. (724 and 931 kPa).

Release all parking brakes and charge trailer air system.

3. Air brake system test

Start lowering the air pressure by pumping the brake pedal.

Perform these steps:

1. Pump down to approximately 80 per cent of maximum pressure (for example, if maximum is 125 p.s.i., pump down to 100 p.s.i.). Pause and check that air pressure begins to build (to confirm governor cut-in pressure). In all cases, the governor must cause the compressor to cut in before pressure falls below 80 p.s.i. (552 kPa).
2. Pump down farther. Check that low-air warning device(s) activate at or above 60 p.s.i. (414 kPa).
3. Pump down farther. Check that trailer air supply valve closes when the highest reservoir pressure gauge reads between 20 to 45 p.s.i. (138 to 310 kPa).
Note: Parking brake control valve may — or may not — also close.
4. Shut off engine.
5. Go to trailer. Check to ensure that trailer brakes have applied.
6. Go to the rear of the tractor. Disconnect supply and control line glad hands. Check that no air escapes from either the tractor or the trailer through the glad hands.
7. Go to cab. Make a foot brake application. Listen to ensure that no air escapes through either the supply line or control line.
8. Exit cab. Reconnect supply and control line glad hands. Also check trailer electrical connection, and that air and electrical lines aren't damaged, tangled, or chafing, and that there's sufficient slack for turns.

Go to cab.

Start engine.

9. Check that air reservoir pressure builds from 50 to 90 p.s.i. (345 to 620 kPa) within three minutes at a fast idle (1,000 to 1,200 r.p.m.).

**Class 1
pre-trip inspection**

driving tip

Carry a rag with you to wipe all lenses as you make sure the lights are working. Also use it to clean reflective tape to make sure it's visible to other road users.

fast fact

Typical emergency equipment on a commercial vehicle includes:

- flags or flares
- first aid kit
- fire extinguisher.

4. Circle check for lights

Turn on left turn signal, low-beam headlights and clearance lights.

Conduct circle check by walking counter-clockwise to face traffic. Be particularly cautious when you're walking with your back to traffic.

Lights

As you inspect the vehicle, check all lights:

- ensure they work
- lenses are clean and not cracked
- lenses are correct colour

1. Check left-turn signals, low-beam headlights, tail lights, licence plate lights and clearance lights.

Return to cab.

Turn off left turn signal. Turn on high-beam headlights and right-turn signal.

2. Check that right-turn signal and high-beam headlights are working.
3. Check that brake lights are working.

Turn off lights.

Release all parking brakes.

Turn off engine.

5. Mechanical circle check

Leave cab and begin circle check.

Left side of tractor

<input type="checkbox"/> Mirrors	• ensure they're securely attached
<input type="checkbox"/> Steps and hand rails	• ensure they're secure
<input type="checkbox"/> Fuel tanks	• ensure tanks, fuel caps and fuel lines are securely fastened
<input type="checkbox"/> Exhaust system	• ensure it's in good condition • no leaks • mufflers, pipes and shields securely fastened
<input type="checkbox"/> Battery compartments	• batteries securely fastened to battery compartment and battery compartments securely fastened • no corrosion on batteries • no battery leaks • battery cables secure
<input type="checkbox"/> Storage compartments	• ensure compartments are securely fastened • doors open and close properly • contents are secure
<input type="checkbox"/> Body	• check for body damage

**Class 1
pre-trip inspection**

<input type="checkbox"/> Frame	• check frame
<input type="checkbox"/> Fifth wheel connection	• plate is flush to the trailer apron (no daylight is visible between fifth wheel and apron) • ensure slider is locked and secure with sufficient space for trailer to turn without striking tractor • locking jaws are closed around trailer kingpin
<input type="checkbox"/> Other type of trailer connection	• ensure pintle hitch or ball hitch is not worn • locking mechanism is closed and secure • chains or cables (if equipped) have no stress cracks or weld breaks and are securely attached to truck and trailer
<input type="checkbox"/> Suspension	• check tractor rear suspension
<input type="checkbox"/> Tires/wheels/mud flaps	• check tractor drive wheels
<input type="checkbox"/> Cargo lift (if equipped)	• fully retracted • securely latched • no leaks, or damaged or missing parts
<input type="checkbox"/> Cab protector (if equipped)	• secure to frame • free of damage
<input type="checkbox"/> Licence plate	• check for licence plate

Left side of trailer

<input type="checkbox"/> Load security devices	• load is secured • adequate load security devices are in place and are tight
<input type="checkbox"/> Landing gear	• fully raised • no missing parts • crank handle is secured
<input type="checkbox"/> Frame	• check frame
<input type="checkbox"/> Suspension	• check trailer suspension including sliding axle assembly (if equipped)
<input type="checkbox"/> Tires/wheels/mud flaps	• check trailer wheels
<input type="checkbox"/> Trailer body	• check for body damage

**Class 1
pre-trip inspection**

driving tip

Make sure the load you're carrying is secure.

Rear of trailer

<input type="checkbox"/> Load security devices	• load is secured • adequate load security devices are in place and are tight
<input type="checkbox"/> Licence plate	• check for licence plate and valid decal

Open trailer rear doors (if applicable).

<input type="checkbox"/> Cargo	• load is secured • adequate load security devices are in place and are tight
<input type="checkbox"/> Trailer doors/ lift/ tailgate	• doors are securely mounted • securely closed or latched • lift is fully retracted • lift has no leaks, damage or missing parts

Right side of trailer

<input type="checkbox"/> Load security devices	• load is secured • adequate load security devices are in place and are tight
<input type="checkbox"/> Frame	• check frame
<input type="checkbox"/> Suspension	• check trailer suspension including sliding axle assembly (if equipped)
<input type="checkbox"/> Tires/wheels/mud flaps	• check trailer wheels
<input type="checkbox"/> Trailer body	• check for body damage • check for PMVI inspection decal

Underside of tractor and trailer

<input checked="" type="checkbox"/> Foundation brakes	• check brakes
<input type="checkbox"/> Axle assembly	• ensure there are no breaks, bends, cracks, holes, broken seals or leaks • securely fastened to tractor or trailer
<input type="checkbox"/> Frame	• check frame
<input type="checkbox"/> Tanks	• ensure any tanks such as air reservoirs are securely mounted
<input type="checkbox"/> Suspension	• check tractor and trailer suspension including trailer sliding axle assembly (if equipped)
<input type="checkbox"/> Drive line	• check u-joints for free play • check for leaks

driving tip

Check brake adjustment when you're underneath the truck and trailer.

Class 1
pre-trip inspection

Right side of tractor

<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they're securely attached
<input type="checkbox"/> Steps and hand rails	<ul style="list-style-type: none"> • ensure they're secure
<input type="checkbox"/> Fuel tanks	<ul style="list-style-type: none"> • ensure tanks, fuel caps and fuel lines are securely fastened
<input type="checkbox"/> Exhaust system	<ul style="list-style-type: none"> • ensure it's in good condition • no leaks • mufflers, pipes and shields are securely fastened
<input type="checkbox"/> Battery compartments	<ul style="list-style-type: none"> • batteries securely fastened to battery compartment and compartments securely fastened • no corrosion on batteries • no battery leaks • battery cables secure
<input type="checkbox"/> Storage compartments	<ul style="list-style-type: none"> • ensure compartments are securely fastened • doors open and close properly • contents are secure
<input type="checkbox"/> Body	<ul style="list-style-type: none"> • check for body damage • check for valid PMVI inspection decal
<input type="checkbox"/> Frame	<ul style="list-style-type: none"> • check frame
<input type="checkbox"/> Fifth wheel connection	<ul style="list-style-type: none"> • plate is flush to the trailer apron (no daylight is visible between fifth wheel and apron) • ensure slider is locked and secure • locking jaws are closed around trailer kingpin
<input type="checkbox"/> Other type of trailer connection	<ul style="list-style-type: none"> • ensure pintle hitch or ball hitch is not worn • locking mechanism is closed and secure • chains or cables (if equipped) have no stress cracks or weld breaks and are securely attached to truck and trailer
<input type="checkbox"/> Suspension	<ul style="list-style-type: none"> • check tractor rear suspension
<input type="checkbox"/> Tires/wheels/mud flaps	<ul style="list-style-type: none"> • check tractor drive wheels

driving tip

Use a flashlight to check the fifth wheel connection from both the left and right sides of the tractor, and from underneath the trailer.

Return to cab.

Check that air pressure is at least 100 p.s.i. (690 kPa).

Check that parking brakes are released.

Class 1 pre-trip inspection

driving tip

Check for air leakage with the engine off. This allows you to listen for leaks.

driving tip

Make sure the spring brakes are released before making a heavy brake application to avoid compounding the brakes.

Make a full brake application (90 to 100 p.s.i., 620 to 690 kPa) and hold it for one minute:

- *Check to ensure that, after the initial pressure drop, air loss is not more than 4 p.s.i. (27.6 kPa) per minute. 6 p.s.i. (41.4 kPa) per minute with two trailers.*
- *Check that there are no audible air leaks.*

Set parking brakes. Remove wheel blocks.

6. Brake response, tug and steering wheel slack tests

Perform these steps:

1. Depress clutch. Shift transmission into neutral and start engine.
2. Ensure air pressure is up to operating range.
3. Release tractor parking brakes and apply the trailer brakes.
4. In low gear, gently tug against the trailer parking brakes. The brakes should prevent the combination from moving.
5. Apply the tractor parking brakes. Open the trailer supply valve to charge the trailer and release the trailer brakes.
6. In low gear, gently tug against the tractor parking brakes. The brakes should prevent the combination from moving.
7. Release all brakes.
8. Move the vehicle ahead slowly and gently apply the foot brake to check brake response.
9. Move the vehicle ahead slowly and gently apply the hand valve to check trailer brake response.
10. Move the steering wheel to check for excessive slack or lash (play).

Note: If the trailer isn't equipped with air brakes, check that the trailer brakes will apply in a trailer breakaway situation. For most electric trailer brakes, this can be checked by disconnecting the trailer electrical cable. Then, pull the pin from the trailer breakaway switch housing, and check that the trailer brakes have applied. Then reinstall the pin in the trailer breakaway switch housing and reconnect the trailer electrical cable.

Inspecting double trailers

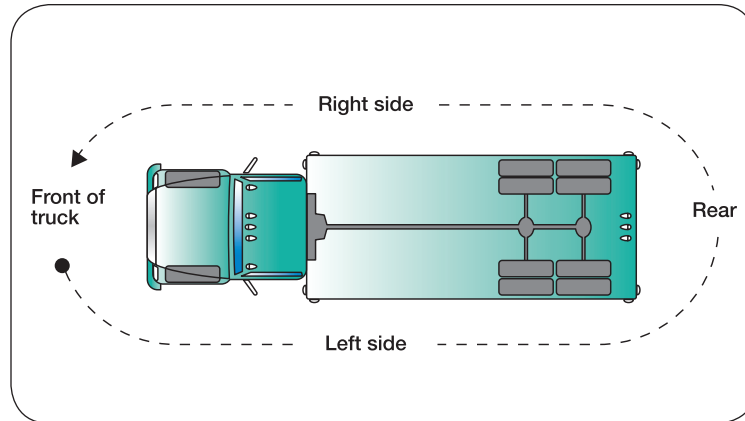
Inspect double trailers and their couplers and air brake systems in the same way as the preceding inspection.

Single unit truck pre-trip inspection — Class 3

The next pages detail the suggested pre-trip inspection of a truck with air brakes.

You should be able to complete this pre-trip inspection in less than 30 minutes.

If the truck you're using is equipped with air brakes, you must demonstrate your ability to set up a slack adjuster during your pre-trip inspection test. Refer to **chapter 9, air brake adjustment** for more information.



Before you begin:

- set the parking brakes
- shut off the engine
- block the wheels.

**Class 3
pre-trip inspection**

driving tip

It's often easier to spot leaks and body damage as you approach your vehicle than when you're right beside it.

fast fact

All reservoirs should be drained daily.

It can be hard to tell the supply reservoir from the primary and secondary reservoirs. Checking the air pressure gauges while draining the reservoirs may help you to tell which reservoir is which.

driving tip

As you circle the vehicle conducting the pre-trip inspection, check each tire, wheel and mud flap. Also, check suspension and frame, brake lines, brake chambers and slack adjusters. Measure air brake chamber pushrod travel.

Also, remove the keys from the ignition to ensure that nobody tries to move the vehicle while you're checking underneath.

1. Under hood

As you approach, look under the vehicle for leaks.

Drain the reservoirs (for your road test, you're only required to drain the supply reservoir).

Check the following:

<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> • check for licence plate and valid decal
<input type="checkbox"/> Fluids	<ul style="list-style-type: none"> • check fluid levels and condition (for example, colour, smell) including: engine oil, engine coolant, power steering fluid and windshield washer fluid
<input type="checkbox"/> Belts	<ul style="list-style-type: none"> • ensure any drive belts have good tension with no cracks, frayed cord or missing teeth
<input type="checkbox"/> Hoses	<ul style="list-style-type: none"> • ensure hose connections are secure with no kinks, leaks, cuts, abrasions or cracks
<input checked="" type="checkbox"/> Compressor	<ul style="list-style-type: none"> • ensure lines are securely attached with no kinks, leaks, cuts or abrasions • compressor is securely mounted
<input type="checkbox"/> Steering components	<ul style="list-style-type: none"> • check steering shaft, steering box, tie-rods, idler arm and connections • ensure they're secure • no bends or cracks
<input type="checkbox"/> Suspension	<p>As you inspect the vehicle, check the suspension at all wheels:</p> <ul style="list-style-type: none"> • ensure there are no cracked, missing or broken springs, torsion bars or walking beams • no loose, missing or broken U-bolts • if air suspension, no cracked, worn or inoperative airbags • mounts are secure
<input type="checkbox"/> Frame	<p>As you inspect the vehicle, check the frame:</p> <ul style="list-style-type: none"> • ensure there are no cracks, broken welds, holes or other damage to the frame including cross members and floor

Class 3
pre-trip inspection

fast fact

A peace officer may place your vehicle out of service if drum brake linings are less than 1/4 inch (6.4 mm) thick or air disc brake pads are less than 1/8 inch (3.2 mm) thick.

Tires/wheels/mud flaps

As you inspect the vehicle, check all tires, wheels and mud flaps:

- check tires for inflation, signs of bulges, sidewall separation, cuts to cord, exposed or frayed belts • adequate tread depth
- tire wear is even • duals aren't touching and nothing is stuck between them
- check wheels/rims for cracks, missing pieces or bends • ensure wheel lugs and nuts are secure, not missing, broken or loose (rust streaks may indicate loose wheel nuts) • with spoke wheels, also check that rims are securely fastened to the spokes (polished or shiny areas at flanges or clamps may indicate rim slippage from loose fasteners)
- check wheel hub oil level by viewing through sight glass (if present)
- check that mud flaps are secure • mud flaps don't rub tires

Foundation brakes

As you inspect the vehicle, check each foundation brake including brake chambers, slack adjusters, air hoses, s-cams, brake drums and linings:

- brake chamber mounting and retention clamps are secure • no signs of cracks, corrosion or holes • nothing will obstruct the mechanism • no audible air leaks
- pushrod travel is within tolerance • check slack adjuster, s-cam and bushings for mechanical condition and wear
- air lines are secure • no leaks, abrasions, cuts or cracks • no kinks
- brake drums aren't cracked or broken
- linings or drums not contaminated • lining thickness is within tolerance (if visible)

Close and secure hood.

Close supply reservoir.

2. In cab

Turn ignition to the "on" position. Check the following:

Gauges/warning lights

- check oil pressure warning light or gauge

Depress clutch, shift transmission to neutral and start engine.

**Class 3
pre-trip inspection**

While air pressure is building, check the following:

<input type="checkbox"/> Air pressure gauges	<ul style="list-style-type: none"> • check gauges to confirm that only the supply reservoir air was drained (if other reservoirs have lost pressure, this may indicate that a one-way check valve isn't functioning)
<input type="checkbox"/> Instrument panel	<p>Ensure that all gauges and warning lights are working properly, and that they respond properly as the engine warms up:</p> <ul style="list-style-type: none"> • charge rate indicator or gauge — ensure voltmeter or ammeter works properly and the charge is good • oil pressure indicator or gauge — ensure that it indicates normal pressure soon after engine starts • coolant temperature indicator or gauge — check that indicator rises to normal operating temperature — light should go off after engine starts • fuel gauge — ensure it's working properly — indicates sufficient fuel • instrument lights — ensure they work
<input type="checkbox"/> Windshield wipers/washers	<ul style="list-style-type: none"> • ensure wipers and washers work
<input type="checkbox"/> Heater/defroster	<ul style="list-style-type: none"> • ensure heater and defroster controls work including fan, in heater and defroster positions
<input type="checkbox"/> Interior lights	<ul style="list-style-type: none"> • ensure they work
<input type="checkbox"/> Horns (air and electric)	<ul style="list-style-type: none"> • ensure they work
<input type="checkbox"/> Emergency equipment	<ul style="list-style-type: none"> • warning devices — ensure they're in working condition • fire extinguisher (if required or present) — ensure the date on the label is valid
<input type="checkbox"/> Four-way flashers	<ul style="list-style-type: none"> • check that both indicators on dashboard work (the exterior lights will be checked later as part of checking the turn signals)
<input type="checkbox"/> Engine noises	<ul style="list-style-type: none"> • listen for unusual sounds

Class 3
pre-trip inspection

<input type="checkbox"/> Seats, seatbelts	<ul style="list-style-type: none"> • ensure driver's seat and seatbelt are adjusted for you • fastening devices are in working order and accessible
<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they're adjusted for you and are clean and free of cracks
<input type="checkbox"/> Windows/windshield	<ul style="list-style-type: none"> • ensure they're clean and free of cracks and that they open and close
<input type="checkbox"/> Documentation	<p>Ensure that all documentation is in the vehicle, valid and up-to-date including:</p> <ul style="list-style-type: none"> • vehicle licence, registration and insurance • logbook (if required) • PMVI inspection report (if required) • PMVI inspection decal on windshield (if required)

Check that the compressor stops pumping between 105 and 135 p.s.i. (724 and 931 kPa).

Release all brakes.

driving tip

On some air brake systems, one service reservoir may begin to fill first. When pressure reaches approximately 85 to 95 p.s.i. (586 to 655 kPa), the other reservoir will begin to fill, then pressure in both service reservoirs will build to full pressure.

Regardless of the type of system, pressure must build from 50 to 90 p.s.i. (345 to 620 kPa) within three minutes.

3. Air brake system test

Start lowering the air pressure by pumping brake pedal.

Perform the following steps:

1. Pump down to approximately 80 per cent of maximum pressure (for example, if maximum is 125 p.s.i., pump down to 100 p.s.i.). Pause and check that air pressure begins to build (to confirm governor cut-in pressure). In all cases, the governor must cause the compressor to cut in before pressure falls below 80 p.s.i. (552 kPa).
2. Pump down farther. Check that low-air warning device(s) activate at or above 60 p.s.i. (414 kPa).
3. Pump down to below 50 p.s.i. (345 kPa).
4. Rebuild air pressure. Check that air pressure builds from 50 to 90 p.s.i. (345 to 620 kPa) within three minutes at fast idle (1,000 to 1,200 r.p.m.).
5. Release spring parking brakes (if they had previously applied).

4. Circle check for lights

Turn on left turn signal, low-beam headlights, and clearance lights.

- Conduct circle check by walking counter-clockwise to face traffic. Be particularly cautious when you're walking with your back to traffic.

driving tip

Carry a rag with you to wipe all lenses as you make sure the lights are working.

<input type="checkbox"/> Lights	<p>As you inspect the vehicle, check all lights:</p> <ul style="list-style-type: none"> • ensure they work • lenses are clean and not cracked • lenses are correct colour
----------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Class 3
pre-trip inspection**

1. Check that left-turn signal, low-beam headlights, tail lights, licence plate lights, and clearance lights are working.

Turn off left-turn signal. Turn on high-beam headlights and right-turn signal.

2. Check that right-turn signal and high-beam headlights are working.
3. Check that brake lights are working.

Return to cab. Turn off lights. Turn off engine.

5. Mechanical circle check

Leave cab and begin circle check.

Left side of truck

driving tip

Check for air leakage with the engine off. This allows you to listen for leaks.

<input type="checkbox"/> Mirrors	• ensure they're securely attached
<input type="checkbox"/> Steps and hand rails	• ensure they're secure
<input type="checkbox"/> Fuel tanks	• ensure tanks, fuel caps and fuel lines are securely fastened
<input type="checkbox"/> Exhaust system	• ensure it's in good condition • no leaks • mufflers, pipes and shields securely fastened
<input type="checkbox"/> Battery compartments	• batteries securely fastened to battery compartment and compartments securely fastened • no corrosion on batteries • no battery leaks • battery cables secure
<input type="checkbox"/> Storage compartments	• ensure compartments are securely fastened • doors open and close properly • contents are secure
<input type="checkbox"/> Body	• check for body damage
<input type="checkbox"/> Frame	• check frame
<input type="checkbox"/> Load security devices	• load is secured • adequate load security devices are in place and are tight
<input type="checkbox"/> Suspension	• check rear suspension
<input type="checkbox"/> Tires/wheels/mud flaps	• check truck drive wheels
<input type="checkbox"/> Cab protector (if equipped)	• secure to frame • free of damage

fast fact

Typical emergency equipment on a commercial vehicle includes:

- flags or flares
- first aid kit
- fire extinguisher.

**Class 3
pre-trip inspection**

driving tip

Make sure the load you're carrying is secure.

Rear of truck

<input type="checkbox"/> Cargo doors/lift/tailgate	<ul style="list-style-type: none"> doors are securely mounted securely closed or latched lift is fully retracted lift has no leaks, or damaged or missing parts
<input type="checkbox"/> Cargo	<ul style="list-style-type: none"> load is secured adequate load security devices are in place and are tight
<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> check for licence plate

Underside of rear of truck

<input checked="" type="checkbox"/> Foundation brakes	<ul style="list-style-type: none"> check truck brakes
<input type="checkbox"/> Axle assembly	<ul style="list-style-type: none"> ensure there are no breaks, bends, cracks, holes, broken seals or leaks securely fastened to truck
<input type="checkbox"/> Drive line	<ul style="list-style-type: none"> check u-joints for free play check for leaks
<input type="checkbox"/> Frame	<ul style="list-style-type: none"> check frame for damage or loose or missing cross members no holes, bends, cracks or weld separations

Right side of truck

<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> ensure they are securely attached
<input type="checkbox"/> Steps and hand rails	<ul style="list-style-type: none"> ensure they're secure
<input type="checkbox"/> Fuel tanks	<ul style="list-style-type: none"> ensure tanks, fuel caps and fuel lines are securely fastened
<input type="checkbox"/> Exhaust system	<ul style="list-style-type: none"> ensure it's in good condition no leaks mufflers, pipes and shields securely fastened
<input type="checkbox"/> Battery compartments	<ul style="list-style-type: none"> batteries securely fastened to battery compartment and compartments securely fastened no corrosion on batteries no battery leaks battery cables secure
<input type="checkbox"/> Storage compartments	<ul style="list-style-type: none"> ensure compartments are securely fastened doors open and close properly contents are secure
<input type="checkbox"/> Body	<ul style="list-style-type: none"> check for body damage check for valid PMVI inspection decal
<input type="checkbox"/> Suspension	<ul style="list-style-type: none"> check rear suspension
<input type="checkbox"/> Tires/wheels/mud flaps	<ul style="list-style-type: none"> check drive wheels

**Class 3
pre-trip inspection**

driving tip

Make sure the spring brakes are released before making a heavy brake application to avoid compounding the brakes.

driving tip

Check brake adjustment when you are underneath the truck.

Return to cab.

Check that air pressure is at least 100 p.s.i. (690 kPa).

Check that parking brakes are released.

Make a full brake application (90 to 100 p.s.i., 620 to 690 kPa) and hold it for one minute:

- *Check to ensure that, after the initial pressure drop, air loss is not more than three p.s.i. (20.7 kPa) per minute.*
- *Check that there are no audible air leaks.*

Set parking brakes. Remove wheel blocks.

6. Brake response, tug and steering wheel slack tests

Perform these steps:

1. *Depress clutch. Shift transmission into neutral and start engine.*
2. *Ensure air pressure is up to operating range.*
3. *In low gear, gently tug against the parking brakes. The brakes should prevent the truck from moving.*
4. *Release all brakes.*
5. *Move the truck ahead slowly and apply the foot brake to check brake response.*
6. *Move the steering wheel to check for excessive slack or lash (play).*

Bus pre-trip inspection — Class 2 or Class 4

The next pages detail the suggested pre-trip inspection of a bus. **If the bus is equipped with air brakes, you should also refer to the Class 3 pre-trip procedures to check the air brake system.**

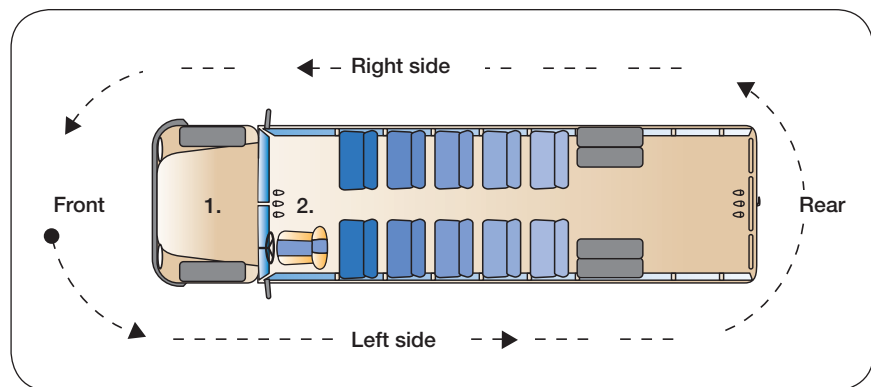
On some types of buses, you may not be able to access all of the components listed.

You should be able to complete a Class 2 pre-trip inspection in less than 30 minutes, or a Class 4 pre-trip inspection in less than 20 minutes.

If the bus is equipped with air brakes, you must demonstrate your ability to set up a slack adjuster during your pre-trip inspection test. Refer to [chapter 9, air brake adjustment](#) for more information on this.

driving tip

It is often easier to spot leaks and body damage as you approach your vehicle than when you're right beside it.



Before you begin:

- set the parking brakes
- shut off the engine
- block the wheels.

Class 2 or Class 4 pre-trip inspection

driving tip

As you are circling the vehicle conducting the pre-trip inspection, check each tire, wheel and mud flap. Also check suspension and frame, brake lines, brake chambers and slack adjusters. Measure air brake chamber pushrod travel.

Also remove the keys from the ignition to ensure that nobody tries to move the vehicle while you're checking underneath.

1. Engine compartment

As you approach, look under the vehicle for leaks.

Check the following:

<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> • check for licence plate and valid decal
<input type="checkbox"/> Fluids	<ul style="list-style-type: none"> • check fluid levels and condition (for example, colour, smell) including: engine oil, engine coolant, power steering fluid, brake fluid and windshield washer fluid
<input type="checkbox"/> Belts	<ul style="list-style-type: none"> • ensure any drive belts have good tension with no cracks, frayed cord or missing teeth
<input type="checkbox"/> Hoses	<ul style="list-style-type: none"> • ensure hose connections are secure with no kinks, leaks, cuts, abrasions or cracks
<input type="checkbox"/> Steering components	<ul style="list-style-type: none"> • check steering shaft, steering box, tie-rods, idler arm and connections • ensure they're secure • no bends or cracks
<input type="checkbox"/> Suspension	<p>As you inspect the vehicle, check the suspension at all wheels:</p> <ul style="list-style-type: none"> • ensure there are no cracked, missing or broken springs, torsion bars or walking beams • no loose, missing or broken U-bolts • if air suspension, no cracked, worn or inoperative airbags • mounts are secure
<input type="checkbox"/> Frame	<p>As you inspect the vehicle, check the frame:</p> <ul style="list-style-type: none"> • ensure there are no cracks, broken welds, holes or other damage to the frame including cross members and floor
<input type="checkbox"/> Tires/wheels/mud flaps	<p>As you inspect the vehicle, check all tires, wheels and mud flaps:</p> <ul style="list-style-type: none"> • check tires for inflation, signs of bulges, sidewall separation, cuts to cord, exposed or frayed belts • adequate tread depth • tire wear is even • duals are not touching and nothing is stuck between them • check wheels/rims for cracks, missing pieces or bends • ensure wheel lugs and nuts are secure, not missing, broken or loose (rust streaks may indicate loose wheel nuts) • with spoke wheels, also check that rims are securely fastened to the spokes (polished or shiny areas at flanges or clamps may indicate rim slippage from loose fasteners) • check wheel hub oil level by viewing through sight glass (if present) • check that mud flaps are secure • mud flaps don't rub tires

**Class 2 or Class 4
pre-trip inspection**

fast fact

A peace officer may place your vehicle out of service if drum brake linings are less than 1/4 inch (6.4 mm) thick or air disc brake pads are less than 1/8 inch (3.2 mm) thick.

Brakes

As you inspect the vehicle, check each brake:

- for leaks
- for missing or loose brake parts
- for brake lines with cracks or leaks

Close and secure engine compartment.

2. In cab

Seats, seatbelts

- ensure driver's seat and seatbelt are adjusted for you
- fastening devices are in working order and accessible

Mirrors

- ensure they're adjusted for you and are clean and free of cracks

Windows/windshield

- ensure they're clean and free of cracks and that they open and close

Documentation

Ensure that all documentation is in the vehicle, valid and up-to-date including:

- vehicle licence, registration and insurance
- logbook (if required)
- PMVI inspection report (if required)
- PMVI inspection decal on windshield (if required)
- school bus permit (if required)

Turn ignition to the "on" position. Check the following:

Gauges/warning lights

- check oil pressure warning light or gauge

Start engine.

Instrument panel

Ensure that all gauges and warning lights are working properly, and that they respond properly as the engine warms up:

- charge rate indicator or gauge — ensure voltmeter or ammeter works properly and the charge is good
- oil pressure indicator or gauge — ensure that it indicates normal pressure soon after engine starts

**Class 2 or Class 4
pre-trip inspection**

<input type="checkbox"/> Instrument panel (cont.)	<ul style="list-style-type: none"> • coolant temperature indicator or gauge — check that indicator rises to normal operating temperature — light should go off after engine starts • fuel gauge — ensure it's working properly — indicates sufficient fuel • instrument lights — ensure they work
<input type="checkbox"/> Windshield wipers/washers	<ul style="list-style-type: none"> • ensure wipers and washers work
<input type="checkbox"/> Heater/defroster	<ul style="list-style-type: none"> • ensure heater and defroster controls work including fan, in heater and defroster positions
<input type="checkbox"/> Interior lights	<ul style="list-style-type: none"> • ensure they all work including dome lights, courtesy lights and step lights
<input type="checkbox"/> Horn	<ul style="list-style-type: none"> • ensure it works
<input type="checkbox"/> Four-way flashers	<ul style="list-style-type: none"> • check that both indicators on dashboard work (the exterior lights will be checked later as part of checking the turn signals)
<input type="checkbox"/> Emergency equipment	<ul style="list-style-type: none"> • warning devices — ensure they are in working condition • fire extinguisher — ensure the date on the label is valid • first aid kit — check that the contents are adequate
<input type="checkbox"/> Engine noises	<ul style="list-style-type: none"> • listen for unusual sounds
<input type="checkbox"/> School bus stop sign (if equipped)	<ul style="list-style-type: none"> • ensure that it works and is secure

Shut off engine. Leave key in the "on" or "accessory" position so that the lights may be turned on.

**Class 2 or Class 4
pre-trip inspection**

driving tip

Carry a rag with you to wipe all lenses as you make sure the lights are working.

driving tip

As you circle the vehicle conducting the pre-trip inspection, check each tire, wheel, mud flap and brake.

3. Circle check

Turn on left-turn signal, low-beam headlights, clearance lights and school bus lights.

- Conduct circle check by walking counter-clockwise to face traffic. Be particularly cautious when you're walking with your back to traffic.

<input type="checkbox"/> Lights	As you inspect the vehicle, check all lights: <ul style="list-style-type: none"> • ensure they work • lenses are clean and not cracked • lenses are correct colour
----------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Left side of bus

<input type="checkbox"/> Lights	<ul style="list-style-type: none"> • check low-beam headlights, left front turn signal, clearance lights and school bus lights
<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they're securely attached
<input type="checkbox"/> Fuel cap	<ul style="list-style-type: none"> • ensure fuel cap is securely fastened
<input type="checkbox"/> Exhaust system	<ul style="list-style-type: none"> • ensure it's in good condition • no leaks • mufflers, pipes and shields securely fastened
<input type="checkbox"/> Battery compartments (if accessible)	<ul style="list-style-type: none"> • batteries securely fastened to battery compartment and compartments securely fastened • no corrosion on batteries • no battery leaks • battery cables secure
<input type="checkbox"/> Storage compartments	<ul style="list-style-type: none"> • ensure compartments are securely fastened • doors open and close properly • contents are secure
<input type="checkbox"/> Body	<ul style="list-style-type: none"> • check for body damage
<input type="checkbox"/> Frame	<ul style="list-style-type: none"> • check frame
<input type="checkbox"/> Suspension	<ul style="list-style-type: none"> • check bus rear suspension
<input type="checkbox"/> Drive line	<ul style="list-style-type: none"> • check u-joints for free play • check for leaks
<input type="checkbox"/> Tires/wheels/mud flaps	<ul style="list-style-type: none"> • check bus wheels
<input type="checkbox"/> Brakes	<ul style="list-style-type: none"> • check brakes

**Class 2 or Class 4
pre-trip inspection**

Rear of bus

<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> • check for licence plate
<input type="checkbox"/> Lights	<ul style="list-style-type: none"> • check left rear turn signal, clearance lights, school bus lights, licence plate light and brake lights
<input type="checkbox"/> Axle assembly	<ul style="list-style-type: none"> • ensure there are no breaks, bends, cracks, holes, broken seals or leaks • securely fastened to bus
<input type="checkbox"/> Rear emergency exit door	<ul style="list-style-type: none"> • check that it opens and closes from the outside

Return to cab.

Turn off left-turn signal and school bus lights.

Turn on high-beam headlights and right-turn signal.

Exit cab and go to right side of bus.

Right side of bus

<input type="checkbox"/> Lights	<ul style="list-style-type: none"> • check right-turn signals
<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they're securely attached
<input type="checkbox"/> Steps and hand rails	<ul style="list-style-type: none"> • ensure they're secure
<input type="checkbox"/> Fuel cap	<ul style="list-style-type: none"> • ensure fuel cap is securely fastened
<input type="checkbox"/> Exhaust system	<ul style="list-style-type: none"> • ensure it's in good condition • no leaks • mufflers, pipes and shields securely fastened
<input type="checkbox"/> Battery compartments (if accessible)	<ul style="list-style-type: none"> • batteries securely fastened to battery compartment and battery compartments securely fastened • no corrosion on batteries • no battery leaks • battery cables secure
<input type="checkbox"/> Storage compartments	<ul style="list-style-type: none"> • ensure compartments are securely fastened • doors open and close properly • contents are secure
<input type="checkbox"/> Body	<ul style="list-style-type: none"> • check for body damage • check for valid PMVI inspection decal
<input type="checkbox"/> Tires/wheels/mud flaps	<ul style="list-style-type: none"> • check drive wheels
<input type="checkbox"/> Lights	<ul style="list-style-type: none"> • check right-turn signals, clearance lights and high-beam headlights

**Class 2 or Class 4
pre-trip inspection**

Remove wheel blocks, making sure that parking brakes are set.

Return to cab.

4. Passenger compartment check

<input type="checkbox"/> Passenger seats	<ul style="list-style-type: none">• ensure all are securely fastened• no broken seat frames• check seatbelts (if equipped)• check for cleanliness
<input type="checkbox"/> Passenger doors and entrances	<ul style="list-style-type: none">• ensure doors open and close properly• ensure step lights are working properly• hand rails are secure
<input type="checkbox"/> Windows	<ul style="list-style-type: none">• ensure emergency windows are secure
<input type="checkbox"/> Emergency exits	<ul style="list-style-type: none">• ensure emergency exits are secure• open emergency exits (where feasible) to ensure that emergency alarm sounds

Start engine.

5. Brake response, tug and steering wheel slack tests

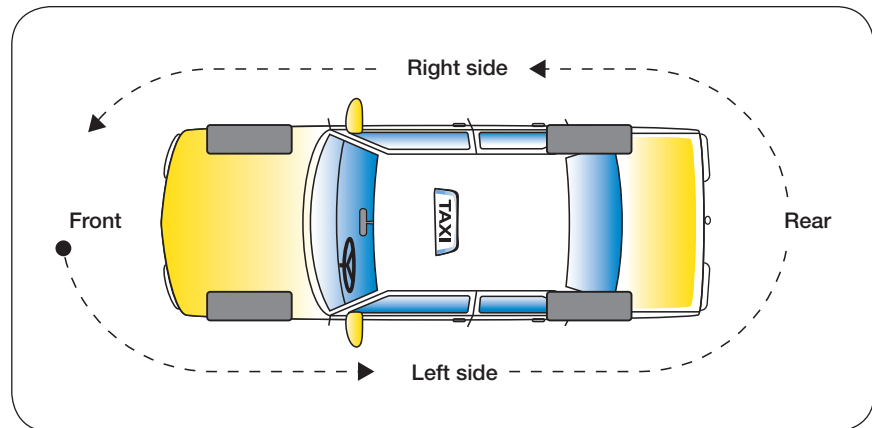
Perform these steps:

1. In low gear, gently tug against the parking brakes. The brakes should prevent the bus from moving.
2. Release brakes.
3. Move the bus ahead slowly and apply the foot brake to check brake response.
4. Move the steering wheel to check for excessive slack or lash (play).

Passenger vehicle pre-trip inspection — Class 4

The next pages detail the suggested pre-trip inspection of a taxi.

You should be able to complete this pre-trip inspection in less than 15 minutes.



1. Under hood

As you approach, look under the vehicle for leaks. Check the following:

<input type="checkbox"/> Licence plate	<ul style="list-style-type: none"> • check for licence plate
<input type="checkbox"/> Fluids	<ul style="list-style-type: none"> • check fluid levels and condition (for example, colour, smell) including: engine oil, engine coolant, power steering fluid, brake fluid and windshield washer fluid
<input type="checkbox"/> Belts	<ul style="list-style-type: none"> • ensure any drive belts have good tension with no cracks, frayed cord or missing teeth
<input type="checkbox"/> Hoses	<ul style="list-style-type: none"> • ensure hose connections are secure with no kinks, leaks, cuts, abrasions or cracks
<input type="checkbox"/> Battery	<ul style="list-style-type: none"> • check for visible corrosion or leaks • terminal connections are secure • battery is securely mounted • battery fluid level (if accessible)
<input type="checkbox"/> Engine compartment	<ul style="list-style-type: none"> • check for fuel, oil or coolant leaks

Close and secure hood.

**Class 4
pre-trip inspection**

2. In passenger compartment

<input type="checkbox"/> Seats, seatbelts	<ul style="list-style-type: none"> • check driver's seat is adjusted for you and that seatbelt is in working order • check that all seatbelts are in good condition and work well • seats and passenger compartment is clean
<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they're adjusted for you and that they're clean and free of cracks
<input type="checkbox"/> Windows/windshield	<ul style="list-style-type: none"> • ensure they're clean and free of cracks and that they open and close
<input type="checkbox"/> Documentation	<p>Ensure that all documentation is in the vehicle and is valid and up-to-date including:</p> <ul style="list-style-type: none"> • vehicle licence, registration and insurance • logbook (if required) • PMVI inspection report (if required) • PMVI inspection decal on windshield (if required)

Start engine, check the following:

<input type="checkbox"/> Instrument panel	<p>Ensure that all gauges and warning lights are working properly, and that they respond properly as the engine is started and warms up:</p> <ul style="list-style-type: none"> • charge rate indicator or gauge — ensure voltmeter or ammeter works properly and the charge is good • oil pressure indicator or gauge — ensure that it indicates normal pressure soon after engine starts • coolant temperature indicator or gauge — check that indicator rises to normal operating temperature — light should go off after engine starts • fuel gauge — indicates sufficient fuel • instrument lights — ensure they work
<input type="checkbox"/> Windshield wipers/washers	<ul style="list-style-type: none"> • ensure wipers and washers work
<input type="checkbox"/> Heater/defroster	<ul style="list-style-type: none"> • ensure heater and defroster controls work including fan, in heater and defroster positions

**Class 4
pre-trip inspection**

<input type="checkbox"/> Interior lights	<ul style="list-style-type: none"> • ensure they work
<input type="checkbox"/> Four-way flashers	<ul style="list-style-type: none"> • check that both indicators on dashboard work (the exterior lights will be checked later as part of checking the turn signals)
<input type="checkbox"/> Horn	<ul style="list-style-type: none"> • ensure it works
<input type="checkbox"/> Engine noises	<ul style="list-style-type: none"> • listen for unusual sounds

3. Circle check

Turn on left-turn signal and low-beam headlights.

Walk to the front of vehicle to begin circle check.

- Conduct circle check by walking counter-clockwise to face traffic. Be particularly cautious when you're walking with your back to traffic.

<input type="checkbox"/> Lights	<p>As you inspect the vehicle, check all lights:</p> <ul style="list-style-type: none"> • ensure they work • lenses are clean and not cracked • lenses are correct colour
----------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. Check that left-turn signal, low-beam headlights, tail lights and licence plate lights are working.

Return to cab.

Turn on right-turn signal and high-beam headlights.

<input type="checkbox"/> Lights	<ul style="list-style-type: none"> • check right-turn signals, high-beam headlights, licence plate light and brake lights
<input type="checkbox"/> Mirrors	<ul style="list-style-type: none"> • ensure they are securely attached
<input type="checkbox"/> Doors	<ul style="list-style-type: none"> • ensure they open and close securely
<input type="checkbox"/> Exhaust system	<ul style="list-style-type: none"> • ensure it's in good condition • no leaks • muffler is securely fastened
<input type="checkbox"/> Fuel cap	<ul style="list-style-type: none"> • ensure it's present and secure
<input type="checkbox"/> Body	<ul style="list-style-type: none"> • check for body damage

Class 4
pre-trip inspection

driving tip

As you circle the vehicle conducting the pre-trip inspection, check each tire and wheel.

<input type="checkbox"/> Tires/wheels	<ul style="list-style-type: none">• check tires for inflation, signs of bulges, sidewall separation, cuts to cord, exposed or frayed belts• adequate tread depth• check wheels for damage• ensure wheel lugs are secure, not missing, broken or loose (if visible)
<input type="checkbox"/> Licence plate	<ul style="list-style-type: none">• check for licence plate and decal
<input type="checkbox"/> Trunk	<ul style="list-style-type: none">• ensure trunk lid opens and closes securely• check spare tire and jack• ensure propane tank, if present, is secure and not leaking

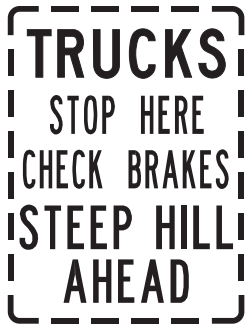
Return to cab. Turn off headlights and right-turn signal.

4. Brake response tests

Perform these steps:

1. Depress brake pedal.
2. Shift transmission into low gear.
3. In low gear, gently tug against the parking brake. The brake should hold the vehicle.
4. Release the parking brake.
5. Move the vehicle ahead and apply the foot brake to check brake response.

Note: Whenever possible, have an assistant check the brake lights for you.



fast fact

You may be fined for failing to stop to conduct a brake pre-hill inspection.

driving tip

While drivers of heavy non-commercial vehicles such as motorhomes and truck-RV trailer combinations are not required by law to stop, they may use these pullout areas to check their brakes, too.

Pre-hill inspections

It's important to understand when and how to do pre-hill inspections. Yukon has many mountainous roads. For your safety and the safety of others on the road, you must know how to perform these inspections properly, and do them frequently.

In some areas of the Territory, signs are posted in advance of steep or long downgrades.

You must stop the vehicle in the pullout area and inspect the vehicle's braking system before proceeding. Check load security at the same time.

Check that:

- the compressor maintains full reservoir pressure
- there are no audible air leaks
- glad hands and air lines are secure
- brake drums and hubs are not overheated
- pushrod travel is within limits.

Note: You must check pushrod travel even if your vehicle is equipped with automatic slack adjusters.

If your vehicle is equipped with hydraulic brakes, check before you start down the hill that:

- there's adequate pedal reserve
- brake drums aren't over-heated
- there are no hydraulic fluid leaks

In-service brake checks

You need to be aware of the condition of the vehicle's braking system at all times. You can do this by:

1. Checking air pressure gauges frequently.
2. Checking the dashboard to see if the low-air warning indicator is on.
3. Feeling the braking response when you make a brake application.

En route inspections

Your pre-trip inspection should ensure your vehicle is safe before you start your day's trip. As you drive, the condition of your vehicle may change. It's important that you inspect your vehicle at regular intervals so you can identify any problems as soon as possible.

As well, the NSC requires you to re-inspect the cargo securement system within 80 km from the point where the cargo was loaded, and on a regular basis during the trip at the earliest of:

- a change in your duty status
- three hours of driving, or
- 240 km of driving since the last inspection.

You must record cargo securement on your daily log. You don't need to inspect cargo if it's sealed and you've been ordered not to inspect it, or if the cargo is inaccessible.

Stop your vehicle in a rest area or pull over to a safe area on the side of the highway. Then, take a careful walk around your vehicle. Walk counter-clockwise so that you're facing oncoming traffic.

Check the following:

warning!

Don't continue driving a vehicle if there's smoke coming from an oil-filled hub, or where the hub is too hot to touch.

<input type="checkbox"/> Tires and wheels	<ul style="list-style-type: none"> • check tires for inflation • excessive heat build-up • signs of damage such as bulges, sidewall separation, cuts to cord, exposed or frayed belts • tire wear is even • duals aren't touching and nothing is stuck between them • check that wheels, wheel nuts and clamps are secure, not broken or loose or missing • signs of damage such as cracks or dents • rim slippage on spoke wheels
<input type="checkbox"/> Brakes and hubs	<ul style="list-style-type: none"> • check that brake drums and hubs aren't overheated • air lines are secure
<input type="checkbox"/> Trailer coupling	<ul style="list-style-type: none"> • ensure fifth wheel or other coupling device is securely fastened
<input type="checkbox"/> Cargo and dangerous goods signs	<ul style="list-style-type: none"> • check that blocks, bracing, ties or chains are secure • header board (if present) is secure • sideboards or stakes are secure • canvas or tarp (if used) is secure • cargo doors are securely latched • dangerous goods signs (if required) are securely fastened and in the appropriate places
<input type="checkbox"/> Suspension and driveline	<ul style="list-style-type: none"> • check that axles aren't leaking • check that springs, shock absorbers, struts, etc., are in good condition

driving tip

Commercial trailers with an overall width of 2.05 m or more are required to have reflective markings to the rear and sides.

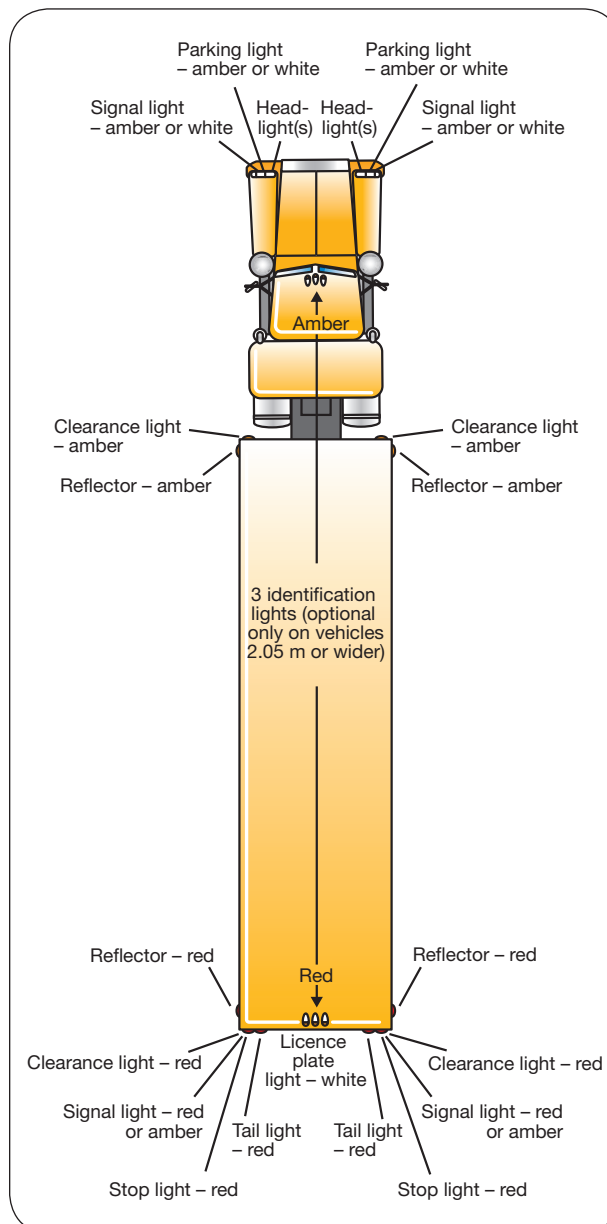
Reflective markings, in addition to the required lights and reflectors, help improve the visibility of large commercial vehicles.

Post-trip inspections

At the end of the final trip of the day you must inspect the commercial vehicle you've been driving and complete a trip inspection report. This report must note any defects you find during your inspection. Your post-trip inspection report may be added to the pre-trip inspection report you completed for the same vehicle earlier that day.

Lights and reflectors

Examine your lights and reflectors every time you inspect your vehicle to ensure they're in good condition. Check for proper colour, operation, mounting and visibility. Refer to the *Motor Vehicle Act Regulations* for the specific light and reflector requirements for your vehicle.



This illustration shows the general position and colour of lights and reflectors you will find on most vehicles.

Review questions

1. Why are drivers required to complete a trip inspection report?
2. Under what circumstance are both drivers of a vehicle required to sign a trip inspection report?
3. When and why are you required to complete a pre-hill inspection?
4. How often are you required to inspect your vehicle during a trip?
5. Regardless of maintenance policies, who's responsible for ensuring that the brakes of a vehicle are in working order before the vehicle is placed into operation?
6. What's the advantage of doing a regular pre-trip vehicle inspection?
7. Is it always necessary that drivers of large trucks stop and check their brakes if a sign requiring drivers to stop and check their brakes is posted?
8. How often should you inspect your vehicle?
9. How do you check for air leakage during an air brake pre-trip inspection?
10. How do you check that the compressor and governor are operating correctly?
11. How do you check the brake chamber pushrod travel?
12. What parts of the air brake system should you check at a brake check stop?
13. What components should be checked during an en route inspection?