Vehicle Inspection Test

This Section Covers

- **Internal Inspection**
- **External Inspection**

During the Vehicle inspection, you must show that the vehicle is safe to drive. You will have to walk around the vehicle and point to or touch each item and explain to the examiner what you are checking and why. You will NOT have to crawl under the hood or under the vehicle.

11.1 All Vehicles

Study the following vehicle parts for the type of vehicle you will be using during the CDL skills tests. You should be able to identify each part and tell the examiner what you are looking for or inspecting.

11.1.1 Engine Compartment (Engine Off)

Leaks/Hoses

Look for puddles on the ground.

Look for dripping fluids on underside of engine and transmission.

Inspect hoses for condition and leaks.

Oil Level

Indicate where dipstick is located.

See that oil level is within safe operating range. Level must be above refill mark.

Coolant Level

Inspect reservoir sight glass, or

(If engine is not hot), remove radiator cap and check for visible coolant level.

Power Steering Fluid

Indicate where power steering fluid dipstick is located.

Check for adequate power steering fluid level. Level must be above refill mark.

Engine Compartment Belts

Check the following belts for snugness (up to 3/4 inch play at center of belt), cracks, or frays:

Power steering belt.

Water pump belt.

Alternator belt.

Air compressor belt.

Note: If any of the components listed above are not belt driven, you must:

Tell the examiner which component(s) are not belt driven.

Make sure component(s) are operating properly, are not damaged or leaking, and are mounted securely.

Safe Start

Depress clutch.

Place gearshift lever in neutral (or park, for automatic transmissions).

Start engine, then release clutch slowly.

11.1.2 – Cab Check/Engine Start

Oil Pressure Gauge

Make sure oil pressure gauge is working.

Check that pressure gauge shows increasing or normal oil pressure or that the warning light goes off.

If equipped, oil temperature gauge should begin a gradual rise to the normal operating range.

Temperature Gauge

Make sure the temperature gauge is working.

Temperature should begin to climb to the normal operating range or temperature light should be off.

Air Gauge

Make sure the air gauge is working properly.

Build air pressure to governor cut-out, roughly 120-140 psi.

Ammeter/Voltmeter

Check that gauges show alternator and/or generator is charging or that warning light is off.

Mirrors and Windshield

Mirrors should be clean and adjusted properly from the inside.

Windshield should be clean with no illegal stickers, no obstructions, or damage to the glass.

Emergency Equipment

Check for spare electrical fuses.

Check for three red reflective triangles, 6 fusees or 3 liquid burning flares.

Check for a properly charged and rated fire extinguisher.

Note: If the vehicle is not equipped with electrical fuses, you must mention this to the examiner.

Wipers/Washers

Check that wiper arms and blades are secure, not damaged, and operate smoothly.

If equipped, windshield washers must operate correctly.

Lights/Reflectors/Reflector Tape Condition (Sides & Rear)

Test that dash indicators work when corresponding lights are turned on:

Left turn signal.

Right turn signal.

Four-way emergency flashers.

High beam headlight.

Anti-lock Braking System (ABS) indicator.

Check that all external lights and reflective equipment are clean and functional. Light and reflector checks include:

Clearance lights (red on rear, amber elsewhere).

Headlights (high and low beams).

Taillights.

Backing lights.

Turn signals.

Four-way flashers.

Brake lights.

Red reflectors (on rear) and amber reflectors (elsewhere).

Reflector tape condition

Note: Checks of brake, turn signal and four-way flasher functions must be done separately.

Horn

Check that air horn and/or electric horn work.

Heater/Defroster

Test that the heater and defroster work.

Parking Brake Check

With the parking brake engaged (trailer brakes released on combination vehicles), check that the parking brake will hold vehicle by gently trying to pull forward with parking brake on.

With the parking brake released and the trailer parking brake engaged (combination vehicles only), check that the trailer parking brake will hold vehicle by gently trying to pull forward with the trailer parking brake on.

Hydraulic Brake Check

Pump the brake pedal three times, then hold it down for five seconds. The brake pedal should not move (depress) during the five seconds.

If equipped with a hydraulic brake reserve (back-up) system, with the key off, depress the brake pedal and listen for the sound of the reserve system electric motor.

Check that the warning buzzer or light is off.

Air Brake Check (Air Brake Equipped Vehicles Only)

Failure to perform all three components of the air brake check correctly will result in an automatic failure of the vehicle inspection test. Air brake safety devices vary. However, this procedure is designed to see that any safety device operates correctly as air pressure drops from normal to a low air condition. For safety purposes, in areas where an incline is present, you will use wheel chocks during the air brake check. The proper procedures for inspecting the air brake system are as follows:

1. With the air pressure built up to governor cutoff (120 – 140 psi), shut off the engine, chock your wheels if necessary, release the parking brake (all vehicles), and the tractor protection valve (combination vehicle) and fully apply the foot brake. Hold the foot brake for one minute. Check the air gauge to see if the air pressure drops more than three pounds in one minute (single vehicle) or four pounds in one minute (combination vehicle).
2. Without re-starting the engine, turn electrical power to the “on” or “battery charge” position. Begin fanning off the air pressure by rapidly applying and releasing the foot brake. Low air warning devices (buzzer, light, flag) should activate before air pressure drops below 60 psi or level specified by the manufacturer..
3. Continue to fan off the air pressure. At approximately 40 psi on a tractor-trailer combination vehicle (or level specified by the manufacturer), the tractor protection valve and parking brake valve should close (pop out). On

other combination vehicle types and single vehicle types, the parking brake valve should close (pop out).

Service Brake Check

You will be required to check the application of air or hydraulic service brakes**.** This procedure is designed to determine that the brakes are working correctly and that the vehicle does not pull to one side or the other.

Pull forward at 5 mph, apply the service brake and stop. Check to see that the vehicle does not pull to either side and that it stops when brake is applied.

Safety Belt

Check that the safety belt is securely mounted, adjusts, latches properly and is not ripped or frayed.

11.2 – External Inspection (All Vehicles)

11.2.1– Steering

Steering Box/Hoses

Check that the steering box is securely mounted and not leaking. Look for any missing nuts, bolts, and cotter keys.

Check for power steering fluid leaks or damage to power steering hoses.

Steering Linkage

See that connecting links, arms, and rods from the steering box to the wheel are not worn or cracked.

Check that joints and sockets are not worn or loose and that there are no missing nuts, bolts, or cotter keys.

11.2.2 – Suspension

Springs/Air/Torque

Look for missing, shifted, cracked, or broken leaf springs.

Look for broken or distorted coil springs.

If vehicle is equipped with torsion bars, torque arms, or other types of suspension components, check that they are not damaged and are mounted securely.

Air ride suspension should be checked for damage and leaks.

Mounts

Look for cracked or broken spring hangers, missing or damaged bushings, and broken, loose, or missing bolts, u-bolts or other axle mounting parts. (The mounts should be checked at each point where they are secured to the vehicle frame and axle[s]).

Shock Absorbers

See that shock absorbers are secure and that there are no leaks.

Note: Be prepared to perform the same suspension components inspection on every axle (power unit and trailer, if equipped).

11.2.3 – Brakes

Slack Adjustors and Pushrods

Look for broken, loose, or missing parts.

For manual slack adjustors, the brake pushrod should not move more than one inch (with the brakes released) when pulled by hand.

Brake Chambers

See that brake chambers are not leaking, cracked, or dented and are mounted securely.

Brake Hoses/Lines

Look for cracked, worn, or leaking hoses, lines, and couplings.

Drum Brake

Check for cracks, dents, or holes. Also check for loose or missing bolts.

Check for contaminates such debris or oil/grease.

Brake linings (where visible) should not be worn dangerously thin.

Brake Linings

On some brake drums, there are openings where the brake linings can be seen from outside the drum. For this type of drum, check that a visible amount of brake lining is showing.

Note: Be prepared to perform the same brake components inspection on every axle (power unit and trailer, if equipped).

11.2.4 – Wheels

Rims

Check for damaged or bent rims. Rims cannot have welding repairs.

Tires

The following items must be inspected on every tire:

Tread depth: Check for minimum tread depth (4/32 on steering axle tires, 2/32 on all other tires).

Tire condition: Check that tread is evenly worn and look for cuts or other damage to tread or sidewalls. Also, make sure that valve caps and stems are not missing, broken, or damaged.

Tire inflation: Check for proper inflation by using a tire gauge. Note: You will not get credit if you simply kick the tires to check for proper inflation.

Hub Oil Seals/Axle Seals

See that hub oil/grease seals and axle seals are not leaking and, if wheel has a sight glass, oil level is adequate.

Lug Nuts

Check that all lug nuts are present, free of cracks and distortions, and show no signs of looseness such as rust trails or shiny threads.

Make sure all bolt holes are not cracked or distorted.

Spacers or Budd Spacing

If equipped, check that spacers are not bent, damaged, or rusted through.

Spacers should be evenly centered, with the dual wheels and tires evenly separated.

Note: Be prepared to perform the same wheel inspection on every axle (power unit and trailer, if equipped).

11.2.5 – Side of Vehicle

Door(s)/Mirror(s)

Check that door(s) are not damaged and that they open and close properly from the outside.

Hinges should be secure with seals intact.

Check that mirror(s) and mirror brackets are not damaged and are mounted securely with no loose fittings.

Fuel Tank

Check that tank(s) are secure, cap(s) are tight, and that there are no leaks from tank(s) or lines.

Drive Shaft

See that drive shaft is not bent or cracked.

Couplings should be secure and free of foreign objects.

Exhaust System

Check system for damage and signs of leaks such as rust or carbon soot.

System should be connected tightly and mounted securely.

Frame

Look for cracks, broken welds, holes or other damage to the longitudinal frame members, cross members, box, and floor.

11.2.6 – Rear of Vehicle

Splash Guards

If equipped, check that splash guards or mud flaps are not damaged and are mounted securely.

Doors/Ties/Lifts

Check that doors and hinges are not damaged and that they open, close, and latch properly from the outside, if equipped.

Ties, straps, chains, and binders must also be secure.

If equipped with a cargo lift, look for leaking, damaged or missing parts and explain how it should be checked for correct operation.

Lift must be fully retracted and latched securely.

11.2.7 – Tractor/Coupling

Air/Electric Lines

Listen for air leaks. Check that air hoses and electrical lines are not cut, chafed, spliced, or worn (steel braid should not show through).

Make sure air and electrical lines are not tangled, pinched, or dragging against tractor parts.

Catwalk/Steps

Check that the catwalk is solid, clear of objects, and securely bolted to tractor frame.

Check that steps leading to the cab entry and catwalk (if equipped) are solid, clear of objects, and securely bolted to tractor frame.

Mounting Bolts

Look for loose or missing mounting brackets, clamps, bolts, or nuts. Both the fifth wheel and the slide mounting must be solidly attached.

On other types of coupling systems (i.e., ball hitch, pintle hook, etc.), inspect all coupling components and mounting brackets for missing or broken parts.

Hitch Release Lever

Check to see that the hitch release lever is in place and is secure.

Locking Jaws

Look into fifth wheel gap and check that locking jaws are fully closed around the kingpin.

On other types of coupling systems (i.e., ball hitch, pintle hook, etc.), inspect the locking mechanism for missing or broken parts and make sure it is locked securely. If present, safety cables or chains must be secure and free of kinks and excessive slack.

5th Wheel Skid Plate

Check for proper lubrication and that 5th wheel skid plate is securely mounted to the platform and that all bolts and pins are secure and not missing.

Platform (Fifth Wheel)

Check for cracks or breaks in the platform structure which supports the fifth wheel skid plate.

Release Arm (Fifth Wheel)

If equipped, make sure the release arm is in the engaged position and the safety latch is in place.

Kingpin/Apron/Gap

Check that the kingpin is not bent.

Make sure the visible part of the apron is not bent, cracked, or broken.

Check that the trailer is lying flat on the fifth wheel skid plate (no gap).

Locking Pins (Fifth Wheel)

If equipped, look for loose or missing pins in the slide mechanism of the sliding fifth wheel. If air powered, check for leaks.

Make sure locking pins are fully engaged.

Check that the fifth wheel is positioned properly so that the tractor frame will clear the landing gear during turns.

Sliding Pintle

Check that the sliding pintle is secured with no loose or missing nuts or bolts and cotter pin is in place.

Tongue or Draw-bar

Check that the tongue/draw-bar is not bent or twisted and checks for broken welds and stress cracks.

Check that the tongue/draw-bar is not worn excessively.

Tongue Storage Area

Check that the storage area is solid and secured to the tongue.

Check that cargo in the storage area i.e. chains, binders, etc. are secure.

11.3 – School Bus Only

Emergency Equipment

In addition to checking for spare electrical fuses (if equipped), three red reflective triangles, and a properly charged and rated fire extinguisher, school bus drivers must also inspect the following emergency equipment:

Emergency Kit

Body Fluid Cleanup Kit

Lighting Indicators

In addition to checking the lighting indicators listed in Section 10.2 of this manual, school bus drivers must also check the following lighting indicators (internal panel lights):

Alternately flashing amber lights indicator, if equipped.

Alternately flashing red lights indicator.

Strobe light indicator, if equipped.

Lights/Reflectors
In addition to checking the lights and reflective devices listed in Section 10.2 of this manual, school bus drivers must also check the following (external) lights and reflectors:

Strobe light, if equipped.

Stop arm light, if equipped.

Alternately flashing amber lights, if equipped.

Alternately flashing red lights.

Student Mirrors

In addition to checking the external mirrors, school bus drivers must also check the internal and external mirrors used for observing students:

Check for proper adjustment.

Checks that all internal and external mirrors and mirror brackets are not damaged and are mounted securely with no loose fittings.

Checks that visibility is not impaired due to dirty mirrors.

Stop Arm

If equipped, check the stop arm to see that it is mounted securely to the frame of the vehicle. Also, check for loose fittings and damage.

Passenger Entry/Lift

Check that the entry door is not damaged, operates smoothly, and closes securely from the inside.

Hand rails are secure and the step light is working, if equipped.

The entry steps must be clear with the treads not loose or worn excessively.

If equipped with a handicap lift, look for leaking, damaged, or missing parts and explain how lift should be checked for correct operation. Lift must be fully retracted and latched securely.

Emergency Exit

Make sure that all emergency exits are not damaged, operate smoothly, and close securely from the inside.

Check that any emergency exit warning devices are working.

Seating

Look for broken seat frames and check that seat frames are firmly attached to the floor.

Check that seat cushions are attached securely to the seat frames.

11.4 – Trailer

11.4.1 – Trailer Front

Air/Electrical Connections

Check that trailer air connectors are sealed and in good condition.

Make sure glad hands are locked in place, free of damage or air leaks.

Make sure the trailer electrical plug is firmly seated and locked in place.

Header Board

If equipped, check the header board to see that it is secure, free of damage, and strong enough to contain cargo.

If equipped, the canvas or tarp carrier must be mounted and fastened securely.

On enclosed trailers, check the front area for signs of damage such as cracks, bulges, or holes.

11.4.2 – Side of Trailer

Landing Gear

Check that the landing gear is fully raised, has no missing parts, crank handle is secure, and the support frame is not damaged.

If power operated, check for air or hydraulic leaks.

Doors/Ties/Lifts

If equipped, check that doors are not damaged. Check that doors open, close, and latch properly from the outside.

Check that ties, straps, chains, and binders are secure.

If equipped with a cargo lift, look for leaking, damaged or missing parts and explain how it should be checked for correct operation.

Lift should be fully retracted and latched securely.

Frame

Look for cracks, broken welds, holes or other damage to the frame, cross members, box, and floor.

Tandem Release Arm/Locking Pins

If equipped, make sure the locking pins are locked in place and release arm is secured.

11.4.3 – Remainder of Trailer

Remainder of Trailer

Please refer to Section 11.2 of this manual for detailed inspection procedures regarding the following components:

Wheels.

Suspension system.

Brakes.

Doors/ties/lift.

Splash guards.

11.5 – Coach/Transit Bus

11.5.1 – Passenger Items

Passenger Entry/Lift

Check that entry doors operate smoothly and close securely from the inside.

Check that hand rails are secure and, if equipped, that the step light(s) are working.

Check that the entry steps are clear, with the treads not loose or worn excessively.

If equipped with a handicap lift, look for any leaking, damaged or missing part, and explain how it should be checked for correct operation.

Lift should be fully retracted and latched securely.

Emergency Exits

Make sure that all emergency exits are not damaged, operate smoothly, and close securely from the inside.

Check that any emergency exit warning devices are working.

Passenger Seating

Look for broken seat frames and check that seat frames are firmly attached to the floor.

Check that seat cushions are attached securely to the seat frames.

11.5.2 – Entry/ Exit

Doors/Mirrors

Check that entry/exit doors are not damaged and operate smoothly from the outside. Hinges should be secure with seals intact.

Make sure that the passenger exit mirrors and all external mirrors and mirror brackets are not damaged and are mounted securely with no loose fittings.

11.5.3 – External Inspection of Coach/ Transit Bus

Level/Air Leaks

See that the vehicle is sitting level (front and rear), and if air-equipped, check for audible air leaks from the suspension system.

Fuel Tank(s)

See that fuel tank(s) are secure with no leaks from tank(s) or lines.

Baggage Compartments

Check that baggage and all other exterior compartment doors are not damaged, operate properly, and latch securely.

Battery/Box

Wherever located, see that battery(s) are secure, connections are tight, and cell caps are present.

Battery connections should not show signs of excessive corrosion.

Check that battery box and cover or door is not damaged and is secure.

11.5.4 – Remainder of Coach/ Transit Bus

Remainder of Vehicle

Please refer to Section 11.2 of this manual for detailed inspection procedures for the remainder of the vehicle.

Remember, the Vehicle Inspection must be passed before you can proceed to the Basic Control Skills test.

11.6 – Taking the CDL Vehicle Inspection Test

11.6.1 – Class A Vehicle Inspection Test

If you are applying for a Class A CDL, you will be required to perform one of the four versions of a Vehicle inspection in the vehicle you have brought with you for testing. Each of the four tests are equivalent and you will not know which test you will take until just before the testing begins.

All of the tests include an engine start, an in-cab-inspection, and an inspection of the coupling system. Then, your test may require an inspection of the entire vehicle or only a portion of the vehicle which your CDL Examiner will explain to you.

11.6.2 – Class B and C Vehicle Inspection Test

If you are applying for a Class B CDL, you will be required to perform one of the three versions of a Vehicle inspection in the vehicle you have brought with you for testing. Each of the three tests are equivalent and you will not know which test you will take until just before the testing begins.

All of the tests include an engine start and an in-cab inspection. Then, your test may require an inspection of the entire vehicle or only a portion of the vehicle which your CDL Examiner will explain to you. You will also have to inspect any special features of your vehicle (e.g, school or transit bus).