

CDL Pre-Trip Inspection Checklist



Studying the Class-A CDL pre-trip inspection checklist is an important part of truck driver training. Before obtaining your Class A commercial driver's license and getting a truck driving job, most states require students to pass a DOT pre-trip inspection test and a CDL general knowledge test.

There are many parts to learn but the test is not as difficult as it seems. Studying our simplified Class-A pre-trip inspection checklist, taking classes at a local CDL training school, and watching videos will prepare you.

Each company's pre-trip inspection varies slightly. Most likely you will have to do the coupling system, light check and in-cab inspections plus one of the remaining three sections.

CDL Pre-Trip Inspection Checklist:

- Engine Compartment
- Driver Door Fuel Area
- Coupling Area
- Trailer
- Light Check
- In-Cab Inspection and Brake Tests

Visit the complete pre trip inspection study guide: <https://cdltrainingtoday.com/cdl-training-resources/cdl-study-guide/cdl-pre-trip-inspection/>

Pre-Trip Inspection Checklist: Engine Compartment

- **Belt Driven Alternator** - Make sure all of the wires are connected. The belt should not be cracked or frayed and the free play on the belt should be between $\frac{1}{2}$ to $\frac{3}{4}$ of an inch.
- **Belt Driven Water Pump** - The free play on the belt should be between $\frac{1}{2}$ to $\frac{3}{4}$ of an inch. Also check all the hoses running to and from the water pump to make sure nothing is leaking.
- **Brake Chamber** - The brake chamber should not be leaking air.
- **Brake Drum** - The brake drum should be properly mounted and secure.
- **Brake Hose** - The brake hose is rubber, so it is important to make sure it is not leaking air.
- **Brake Lining** - Check for oil or debris on the lining. There should be at least $\frac{1}{4}$ of an inch of friction material.
- **Caste Nuts and Cotter Pins** - Make sure all three caste nuts and cotter pins are present.
- **Coolant Reservoir** - The reservoir should not leaking and must be filled to the manufacturer's specifications.
- **Drag Link** - Make sure the drag link is properly mounted and secure, and not cracked, bent or broken.
- **Gear Box and Hoses** - The gear box and hoses should have no abrasions, bulges or cuts, and should not be leaking.
- **Gear Driven Air Compressor** - Although the air compressor is hard to see, you must make sure it is properly mounted and does not leak.
- **Gear Driven Power Steering Pump** - The steering pump is located in the same place as the air compressor and is also gear driven. Ensure the steering pump is not leaking.
- **General Hoses (Passenger and Driver's Side)** - The hoses should be secure at both ends. There should be no abrasions, bulges or cuts. Fluids run through these hoses, so it is important to make sure they are not leaking.
- **Hub Seal** - The hub seal (or axle seal) should not be leaking and should be filled to the manufacturer's specifications.
- **Leaf Springs** - Make sure none of the leaf springs have shifted.
- **Leaks** - Check for leaks under the truck
- **Lug Nuts** - There should be no lug nuts missing. Look for rust trails, powder residue and cracks around the bolt holes.
- **Oil Level** - The oil level should be filled to the manufacturer's specifications.
- **Pitman Arm** - Make sure the pitman arm is properly mounted and secure. It should be not cracked, bent or broken.
- **Power Steering Fluid Reservoir** - Make sure this reservoir is not leaking and filled to the manufacturer's specifications.
- **Rim** - The rim cannot have any unauthorized welds.
- **Shock Absorber** - Make sure the shock absorber is not leaking. If it is leaking, the leak will be at the point where the top and bottom portion of the shock meet.
- **Slack Adjuster and Push Rod** - With the brakes released and pulled by hand, the push rod should never move more than one inch.
- **Spring Hanger** - The spring hanger should be properly mounted and secure.
- **Steering Column** - Make sure the steering column is properly mounted and secure. It should not be cracked, bent or broken.
- **Steer Tire** - Look for abrasions, bulges or cuts on the tread or sidewalls. Tread depth should have a depth no less than $\frac{4}{32}$ of an inch. Tires must be properly filled to the manufacturer's specifications. This can be checked with an air gauge.
- **Tie Rod** - Make sure the tie rod is properly mounted and secure, not cracked, bent or broken.
- **U-Bolts** - Make sure all are accounted for.

Pre-Trip Inspection Checklist: Driver Door Fuel Area

- **Airbag** - The actual airbag is rubber, so it is important to check for abrasions, bulges, cuts and leaks, in addition to any missing mounting bolts.
- **Axle Seal** - The axle seal should not be leaking and should be filled to the manufacturer's specifications.
- **Brake Chamber** - Make sure to mention the brake chamber is not leaking air.
- **Brake Drum** - Make sure the brake drum is secured properly. Also look for cracks, bends and breaks.
- **Brake Hose** - Check the brake hose at both ends to make sure it is not leaking air.
- **Brake Lining** - There should be no oil or debris on the brake lining. There should be at least ¼ of an inch of friction material.
- **Catwalk and Steps** - The catwalk and steps should be clear of any loose objects.
- **Door and Hinges** - Physically demonstrate that the doors open, close and latch properly. Door seals should not be worn, torn or rotten.
- **Drive Shaft** - The drive shaft should not be twisted and the u-joints should be free of any debris.
- **Drive Tire** - The tread and sidewalls should have no abrasions, bulges or cuts. The tread depth should be no less than 2/32 of an inch. Tires should be properly filled to the manufacturer's specifications. This can be checked with an air gauge.
- **Exhaust System** - The exhaust system should show no signs of leaks.
- **Frame and Cross Members** - There should be no unauthorized holes or welds. Bundle up the cross members to ensure none are missing.
- **Fuel Tank** - Fuel should not be leaking from the tank and the cap should always be on tight
- **Lug Nuts** - Rust trails could indicate loose bolts, while powder residue and racks around the bolts could mean the bolts have been over-tightened.
- **Mirrors** - Mirrors should be clean for best visibility.
- **Mud Flap** - Make sure the mud flap is secured properly. Also look for cracks, bends and breaks.
- **Rim** - Make sure to mention there should be never be any unauthorized welds.
- **Shock Absorber** - The shock absorber should be secure at both ends and not leaking. If it does leak, it will leak in the middle.
- **Slack Adjuster and Push Rod** - With the brakes released and pulled by hand, the push rod should not move more than one inch.
- **Spacing** - If you are equipped with duals, check to see there is proper spacing between the tires and there is nothing stuck.
- **Spring Arm** - The spring arm should be secure at both ends.
- **Spring Mount** - The spring mount should be secure at both ends.
- **Torque Arm** - Make sure the torque arm is secured properly. Also look for cracks, bends and breaks.
- **U-Bolts** - Make sure to check and mention that no u-bolts are missing.

Pre-Trip Inspection Checklist: Coupling Area

- **Air Lines** - Air lines should be secure at both ends with no abrasions, bulges or cuts. They should not be leaking, dragging or tangled.
- **Apron** - Make sure the apron is properly mounted and secure. Look for cracks, bends and breaks.
- **Clearance** - Make sure there is enough space between the tractor mudflap and the trailer landing gear so that they don't hit each other when making a turn.
- **Electric Line** - The electric line should be secure at both ends. There should be no abrasions, bulges, cuts or exposed wires.
- **Gap** - The gap is not an actual item, however there should be no space between the apron and the skid plate.
- **Glad Hands** - The seals should be in good condition with no cracks, signs of rotting, or leaking air.
- **King Pin** - Make sure the king pin is properly mounted and secure. Look for cracks, bends and breaks.
- **Locking Jaws** - You must physically check that the locking jaws is fully locked around the king pin.
- **Mounting Bolts** - No mounting bolts should be missing.
- **Platform** - Make sure the platform is properly mounted and secure. Look for cracks, bends and breaks.
- **Release Arm** - The release arm should be in the fully locked position.
- **Skid Plate** - The skid plate needs to be properly lubed.
- **Sliding Fifth Wheel Locking Pin** - The pin must be in the fully locked position.

Pre-Trip Inspection Checklist: Trailer

- **Airbag** - Again make sure the airbag has no abrasions, bulges, cuts or leakings. The airbag should not be missing any mounting bolts.
- **Axle Seal** - The axle seal should not be leaking and should be filled to the manufacturer's specifications.
- **Brake Chamber** - The brake chamber should be properly mounted so that it does not leak air.
- **Brake Drum** - The brake drum should be properly mounted and secure.
- **Brake Hose** - The brake hose should be secure at both ends with no abrasions, bulges, cuts or leaks.
- **Brake Lining** - Check for oil or debris on the brake lining. There should be at least $\frac{1}{4}$ of an inch of friction material.
- **Frame and Cross Members** - There cannot be any missing cross members.
- **Header Board** - The header board cannot have any holes or missing rivets.
- **Landing Gear** - The landing gear must be fully raised and the cradle handle secure.
- **Lug Nuts** - Rust trails indicate loose bolts. Powder residue and cracks around the bolt holes could be an indication of over-tightened bolts.
- **Rim** - The rims cannot have any unauthorized welds.
- **Rear Door and Hinges** - The rear door should open, close and latch properly. Door seals should not be worn, torn or dry rotten.
- **Shock Absorber** - The shock absorber should be checked at both ends for leaks.
- **Slack Adjuster and Push Rod** - When the brakes are released and pulled by hand, the push rod should not move more than one inch.
- **Tandem Frame and Release** - Release handle and locking pins should be in the fully locked position.
- **Trailer Tire** - There should be no abrasions, bulges or cuts to the tread or sidewalls. Tread depth should be no less than $\frac{2}{32}$ of an inch. The tire should be properly filled to manufacturer's specifications and checked with an air gauge.

Pre-Trip Inspection Checklist: Light Check

- Front of the truck
- Both sides of the truck
- Rear of the truck
- Both sides of the trailer
- Rear of the trailer

The five functions are:

- Left turn signal
- Right turn signal
- Four way flashers
- High/low beams
- Brake lights

Also check the license plate lights. And make sure any reflector tape is in good condition.

Pre-Trip Inspection Checklist: In Cab Inspection & Brake Check

- **Air Brake Test** - There are three stages to an air brake test:
 - **Applied Pressure Test** – When doing the Applied Pressure Test, you will want to build the air pressure to governor cut out. Put the truck in the lowest gear, turn the engine off and immediately turn it back on. Push in the tractor and trailer valves which will then release the parking brakes. Push and hold the brake pedal, allowing the gauges to stabilize. When the gauges have stabilized, announce the Primary and Secondary PSI. Listen for air leaks while doing this.
 - **Warning Light and Buzzer** – Pump down on the brake pedal until the warning light and buzzer comes on. This is typically at or before 60 PSI.
 - **Tractor/Trailer Protection Valve Pop Out** – Pump down on the brake pedal until the tractor and trailer protection valves pop out, this will be between 20 and 40 PSI.
- **Air Pressure Gauges** - The air pressure gauges should build to governor cut out.
- **Emergency Equipment** - Your truck should have a fire extinguisher, three red reflective triangles and spare electrical fuses.
- **Heater and Defroster** - Demonstrate both the heater and defroster are working properly.
- **Horns (Air Horn and City Horn)** - Blow both horns to make sure they are working.
- **Lighting Indicators** - Check the left turn, right turn, four way flashers and high beams; also point these out on the dashboard.
- **Safe Start** - Make sure transmission is in neutral and then fully depress the clutch. Turn the key on, check the ABS light, announce when it comes on and off, and start the engine.
- **Seat Belt** - The seat belt should not be ripped or frayed and should adjust and latch properly.
- **Oil Pressure Gauge** - The engine oil pressure gauge should rise to normal operating range.
- **Parking Brakes** - Two parts
 - **Trailer Parking Brakes** – Set the trailer brake, release the tractor brake, then tug lightly on the trailer.
 - **Tractor Parking Brakes** – Set the tractor brake, release the trailer brake and tug lightly on the trailer.
- **Service Brake Check** - Release both the tractor and trailer brakes. Drive at idle speed. Apply the service brake to make sure you come to a complete stop and that it doesn't pull to the left or right when applying the brakes.
- **Voltmeter** - The voltmeter should be charging between 13 and 14 volts.
- **Water Temperature Gauge** - The water temperature gauge should also rise to normal operating range.
- **Windshield and Mirrors** - The windshield and mirrors must be clean, with no obstructions and in proper adjustment.
- **Windshield Wipers and Washers** - Demonstrate the wipers and washers are working properly by spraying the windshield.