



PRE-TRIP Inspection

Engine Compartment + 1 Axle
Side and Back of Truck + 1 Axle
Connections and Trailer + 1 Axle
External Light Check
In-Cab with Brake Check

Our YouTube videos are very popular. Go to YouTube and search for **'cdl college playlist'**



Engine Compartment + 1 Axle

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **3 Fluids, 3 Components, Belts and Hoses; Axle Last**

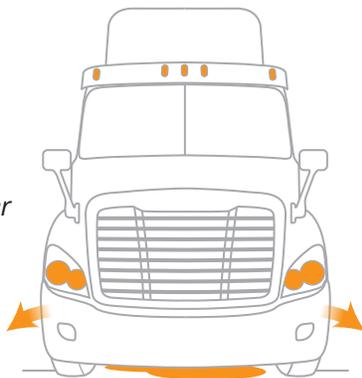
Leaks, Leans, Lights (3 L's)

Stand in front of the truck. Ensure there are no **LEAKS** underneath the engine compartment.

Next, make sure the truck isn't **LEANING** to one side which could indicate a suspension problem or low tire pressure.

Last, verify that the **LIGHTS** on the front of the truck are the proper color, securely mounted, not cracked or dirty, and have no moisture inside.

Check front of truck for any other damage. Tell the tester that you'll note all damage on your Inspection Report.



3 Fluids

Coolant: verify proper level through sight glass or dipstick; reservoir is properly mounted not cracked; check the **hoses** for splits or cuts and ensure they are securely mounted at both ends.

Oil: indicate where the dipstick is located and that the oil is at the proper level.

Power Steering: verify proper level through sight glass or dipstick; reservoir is securely mounted and not cracked; check the **hoses** for splits or cuts and ensure they are securely mounted at both ends.



3 Components

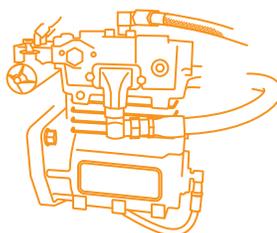
Alternator: securely mounted to engine; wires are properly fastened and not frayed. Belt or gear driven: belt has no more than 1/2" to 3/4" of play, and no cuts.

Water Pump: (follow large hose from bottom of radiator to find w.p.) properly mounted and not broken; no visible leaks: belt or gear driven, belt has no more than 1/2" to 3/4" inch of play and has no splits or cuts.

Air Compressor: no audible leaks and securely mounted to engine; not broken or cracked and belt or gear driven. If belt-driven, belt has no more than 1/2" to 3/4" inch of play and has no splits or cuts.



Not all water pumps look the same. Follow the large hose from the bottom of the radiator.



Belts and Hoses

After properly inspecting the **power steering hose** and the **coolant hose**, tell the tester that you would inspect all remaining hoses the same way.

After properly inspecting the **alternator belt**, tell the tester that you will inspect all remaining belts the same way.

Engine Compartment cont'd

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **3 Fluids, 3 Components, Belts and Hoses; Axle Last**

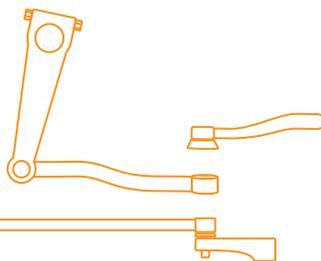
Steering

Power Steering Box: properly mounted to frame and not cracked or leaking, all hardware present; **hose** has no leaks and is properly mounted at both ends.

Pitman Arm: not cracked and securely mounted, all hardware is present. Castle nuts and cotter pins in place.

Drag Link: properly mounted at both ends, all hardware present. Rubber bushings: not split or cut and properly greased.

Upper and Lower Control Arms and Tie Rod: not broken and securely mounted, all hardware present.



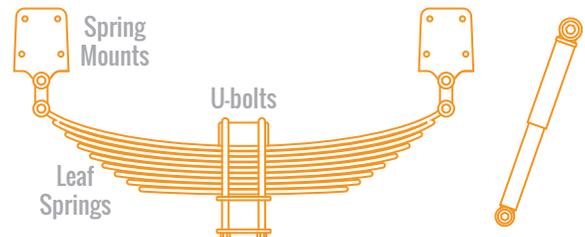
Suspension

Spring mounts: spring mounts and hardware are not cracked or broken and properly mounted to frame.

Leaf Springs: not shifted or scissoring; properly mounted to spring hangers.

U-bolts: not cracked or broken, no loose parts, and all hardware present.

Shock absorber: not bent or broken and mounted securely; no visible leaks, rubber bushings not worn.



Brakes

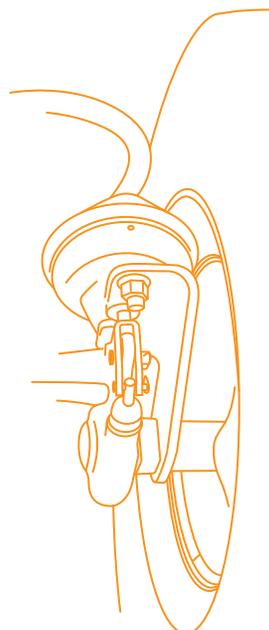
Brake Hose: hose to brake chamber not split or cut, and no audible leaks, securely mounted at both ends.

Brake Chamber: not cracked or broken, securely mounted, no audible leaks, all hardware is present.

Slack Adjuster: no missing hardware and properly mounted; push rod has no more than 1" of play and is at a 90° angle to brake chamber.

Brake Drum: not broken, no bluing from heat, and no missing hardware.

Brake Pads: not worn dangerously thin (less than 1/4"), securely mounted.



Wheel/Tire

Wheel inside: not broken, securely mounted; no welding repairs.

Tire: sidewalls have no cuts or bulges; tread depth is 4/32" min., evenly worn, check inflation w/ air gauge (do not kick tires); no re-treads on steers.

Wheel outside: not broken, securely mounted.

Valve Stem: properly secured and has a metal cap, not broken

Lug Nuts: all lug nuts are present and tight; no rust trails or spidering.

Hub Seal: not cracked or broken, not loose or leaking, all hardware is present.



Side and Back of Truck + 1 Axle

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **Inspect from Top to Bottom, Front to Rear; Axle Last**

Side and Back of Truck

Mirror bracket: properly attached to truck and not broken, all hardware in place.

Door: securely mounted and opens and closes; hinges not broken and securely mounted; rubber seal not split or cut and is properly mounted.

Steps: hold my weight, not loose, no debris.

Fuel tank: not leaking and no loose hardware; cap is tight, seal intact and chain present.

Exhaust: not loose, all hardware present, no evidence of leaks (exterior soot).

Cat Walk and Steps: properly mounted and not excessively dirty.

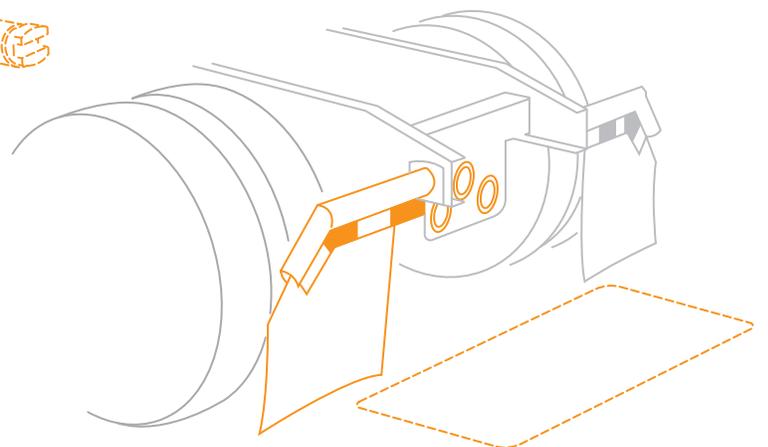
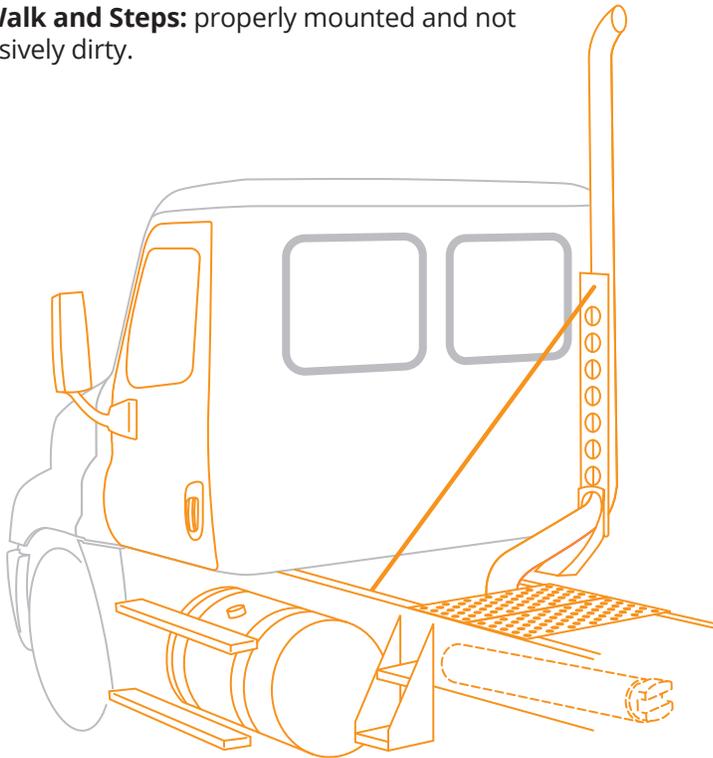
Frame: not twisted or broken and no illegal welds.

Drive Shaft: not cracked or broken, U-joints not broken and have no foreign objects.

Rear truck lights: proper color, all lights are present, not cracked or dirty, no moisture inside the lens.

Mud Flap: bracket is securely mounted and not cracked, all hardware in place; mud flap not split or cut. **DOT tape** is securely mounted, not dirty, covers 100% of rear.

Space: enough space between rear of truck and landing gear for turns.



Side and Back of Truck cont'd

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **Inspect from Top to Bottom, Front to Rear; Axle Last**

Axle

Note—not all axles are the same. You must determine which suspension components are present and inspect those components. Axles consist of **suspension, brakes, wheels, and tires.**

Spring mounts: spring mounts and hardware are securely mounted to frame, all hardware present.

Leaf Springs: securely mounted, not broken or scissored.

U-bolts: not cracked or broken, no loose parts, and all hardware present.

Shock Absorber: not bent, mounted securely; no visible leaks, rubber bushings not worn.

Air Bags: not split or cut, no audible leaks; mounts are not loose or broken, all hardware is present.

Brake Hose: hose to brake chamber not split or cut, no audible leaks, securely mounted at both ends.

Brake Chamber: not cracked, securely mounted, no audible leaks, all hardware is present.

Slack Adjuster: no missing hardware and properly mounted; push rod has no more than 1" of play and is at a 90° angle to brake chamber.

Brake Drum: not broken, no bluing from heat, and no missing hardware.

Brake Pads: not worn dangerously thin (less than 1/4"), securely mounted and no cracks.

Wheel inside: not cracked, securely mounted, no welding repairs.

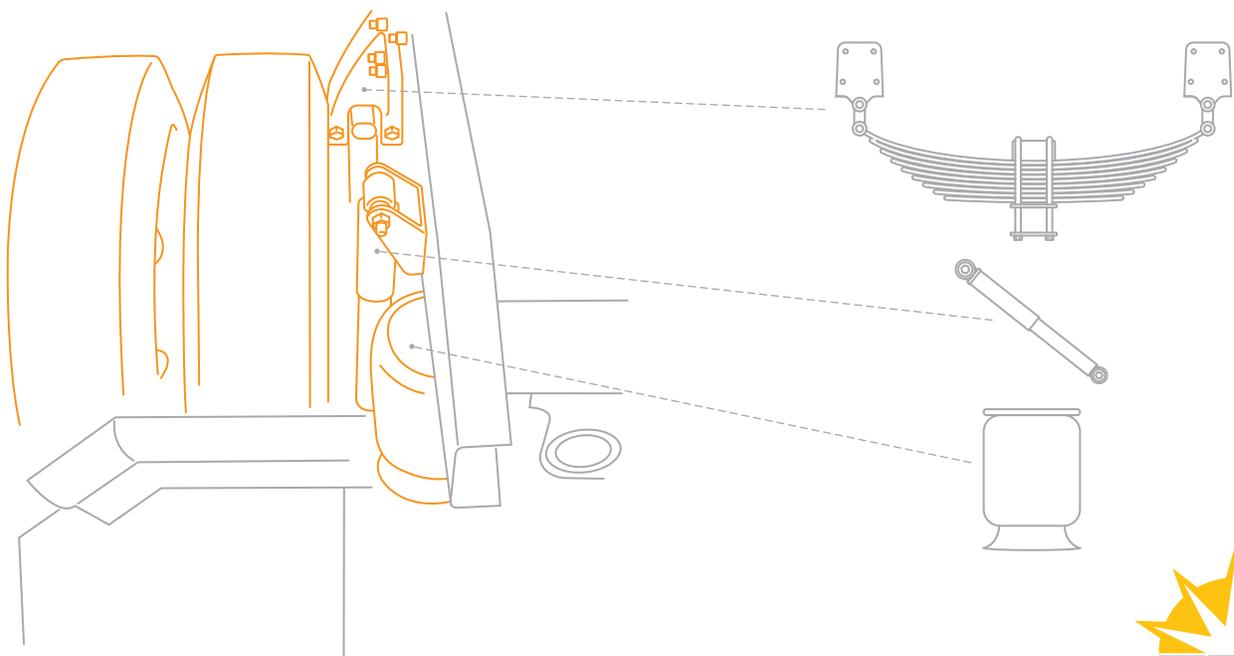
Tires: sidewalls have no cuts or bulges; tread depth is 2/32" min., evenly worn, check inflation w/ air gauge (do not kick tires); can be re-treads; **dual tires**—no foreign objects between tires, no gap between wheels.

Wheel Outside: not cracked, securely mounted, no welding repairs.

Valve Stem: properly mounted, not broken and has a metal cap and not leaking.

Lug Nuts: all lug nuts are present and tight; no rust trails or spidering.

Hub Seal: not cracked or broken, not loose and no leaks, all hardware present.



Connections and Trailer + 1 Axle

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **Connections—Start at Rear of Cab, end with Kingpin**

Connections

Air Lines should be securely mounted at BOTH ends. All hardware must be present, nothing is broken. Lines have no cuts or splits. No audible leaks. Glad hands are locked in place, not broken, and seals are intact.

Electrical line is securely mounted at BOTH ends. All hardware is present and tight. Lines have no cuts or splits. Safety latches are in place. Lines are not tangled or dragging on catwalk.

Fifth Wheel Assembly

Apron: securely mounted, not cracked or broken. No gap between apron and skid plate.

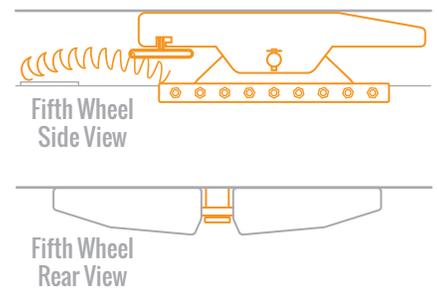
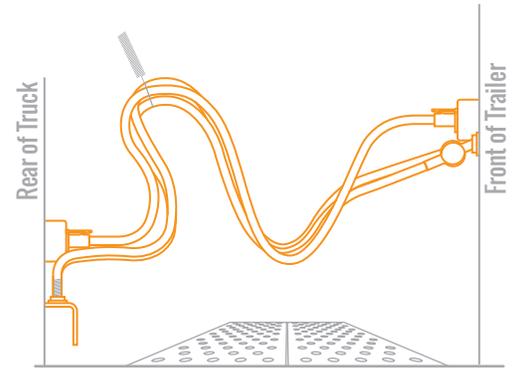
Skid Plate: properly greased, securely mounted, not cracked. All hardware present, none missing. Pivot pin is present, not cracked or broken.

Platform: is securely mounted to frame and not broken, all hardware is present, nothing is loose.

Release Handle: not broken and in locked position.

Kingpin and Locking Jaws: securely mounted and not worn. Locking jaws are secure around kingpin, both are properly greased.

(**SLIDING FIFTH WHEEL:** all hardware is present; air line is securely mounted, no audible leaks, no cuts or splits).



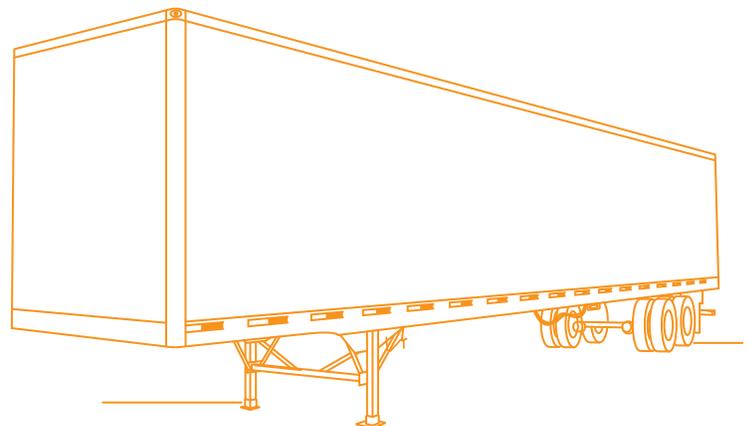
Trailer

TRAILER Inspection:

Front of Trailer: clearance lights are proper color; not loose, cracked, or dirty, no moisture inside lens. Front of trailer has no holes, all rivets present.

Side of Trailer: no holes in side, all rivets in place.

DOT tape is properly fastened, not dirty, covers at least 50% of the side. **Frame** is not twisted or broken, all hardware present and tight. **Cross members** are in place, not loose or broken, and none missing; **floor** has no holes, securely mounted. **Landing gear** is raised, not broken, properly mounted, no missing hardware; **handle** not broken, securely mounted, and operational; **clearance light** not loose, proper color, not cracked or dirty, gasket not split or cut; **hoses** underneath are securely mounted, no audible leaks, not dragging on ground; **tandem slide** not bent, properly mounted, pins locked in place; **release arm** securely mounted, not broken, and in locked position; **mud flaps** securely mounted, no cuts, and proper distance from tire and ground; **ABS light** not cracked or dirty, proper color, no moisture inside.



Connections and Trailer cont'd

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **Trailer-Inspect from Top to Bottom, Front to Rear; Axle Last**

Trailer, cont'd

Back of Trailer: clearance lights are proper color, not cracked or dirty, no moisture inside lens; **hinges** are securely mounted, all are present, hardware is tight; **doors** not broken, no holes; **door seal** intact, no cuts, securely mounted; **door handles and rods** not bent, securely mounted, and operational; **lights** are proper color, securely mounted, not cracked or dirty, no moisture inside lens; **DOT tape** is securely mounted, not dirty, covers 100% of rear; **bumper** is properly secured, not cracked or broken.

Axle

Note-not all axles are the same. You must determine which suspension components are present and inspect those components. Axles consist of **suspension, brakes, wheels, and tires.**

Trailing arm mount: securely mounted to frame and hardware not loose or broken.

Spring Mounts: mounted securely to frame, all hardware present and tight.

Leaf Springs: securely mounted, not cracked or broken, no scissoring.

U-bolts: not cracked or broken, no loose parts, and all hardware present.

Shock Absorber: not bent, mounted securely; no visible leaks, rubber bushings not worn.

Air Bags: bags not split or cut, no audible leaks; mounts are secure, not broken, all hardware present and tight.

Brake Hose: hose to brakes chamber not split or cut, no audible leaks, properly mounted at both ends.

Brake Chamber: not broken, securely mounted, no audible leaks, all hardware is present.

Slack Adjuster: no missing hardware and properly mounted; push rod has no more than 1" of play and is at a 90° angle to brake chamber.

Brake Drum: not cracked and securely mounted, no bluing from heat.

Brake Pads: not worn dangerously thin (less than 1/4"), securely mounted and not cracked.

Wheel inside: not broken, securely mounted, no welding repairs.

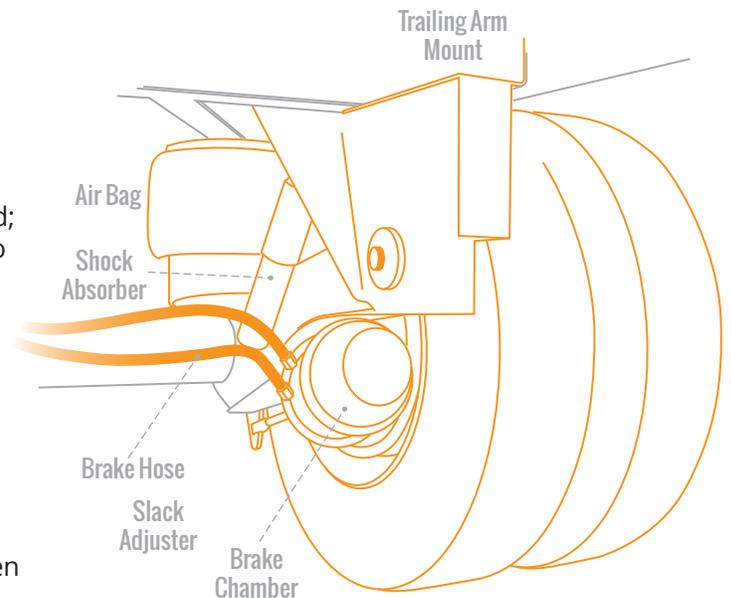
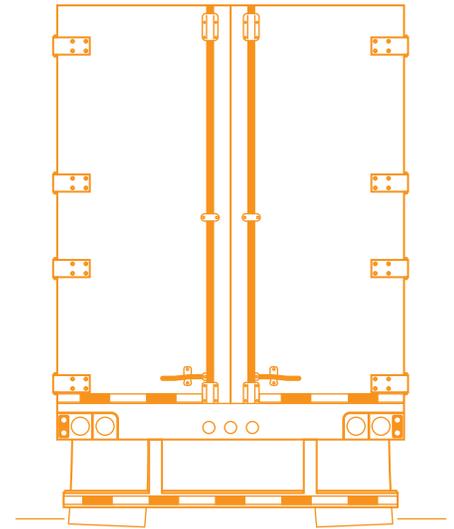
Tires: sidewalls have no cuts or bulges; tread depth is 2/32" min., evenly worn, check inflation w/ air gauge (do not kick tires); can be re-treads; **dual tires**-no foreign objects between tires, no gap between wheels.

Wheel outside: not broken, securely mounted, no welding repairs.

Valve Stem: not loose or broken, has a metal cap, no leaks.

Lug Nuts: all lug nuts are present and tight; no rust trails or spidering.

Hub Seal: not cracked or broken, not loose and no leaks, all hardware in place.



External Light Check

You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **Truck first, then trailer**

TRUCK

Front of truck:

clearance lights
headlights, high beams
left turn, right turn
4-way flashers

Left side of truck:

clearance light
left turn
4-way flasher

Rear of Truck:

tail lights, brake lights
left turn
right turn
4-way flasher

Right side of truck:

clearance light
right turn
4-way flasher

TRAILER

Front of trailer:

clearance lights

Left side of trailer:

clearance light
left turn
4-way flasher

Rear of trailer:

clearance lights
tail lights, brake lights
left turn, right turn
4-way flasher

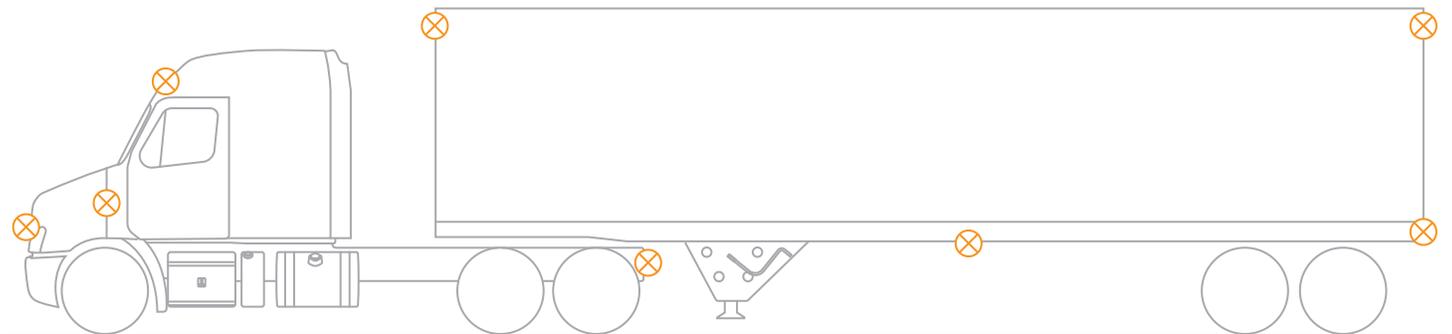
Right side of trailer:

clearance light
right turn
4-way flasher

Group similar lights together (headlights and high beams; turn signals and 4-way flashers; brake lights and tail lights).

Follow the flow and you shouldn't miss any:

4 sides for the truck, 4 sides for the trailer.



In-Cab/Brake Check



You must say at least 2 things about every item you inspect. Point to, or touch, every item that you inspect. You must point out any damaged items that you find to the tester.

Make It Easy: **All 5's**

Seat belt: securely mounted, belt has no cuts or frays, adjusts properly, and latches and unlatches.

Horns: ensure that both horns are operational.

5 **Fire extinguisher:** properly charged and rated, securely mounted, pin in place.

Triangles: must have 3, not broken, proper color.

Fuses: must have spare fuses or circuit breakers; if vehicle does not use fuses, mention to tester.



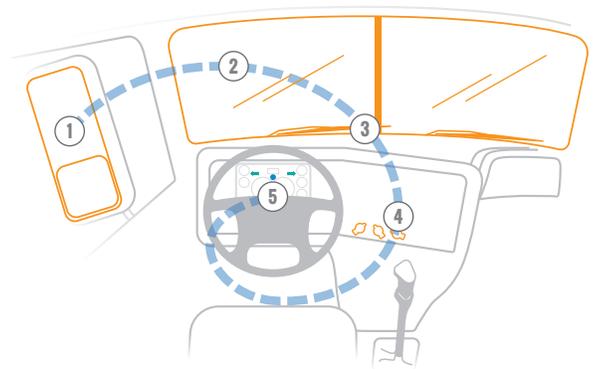
After inspecting your safety items, **turn the key on** and continue your inspection.

Mirrors & windshield: glass not dirty or cracked, no illegal stickers, mirrors properly adjusted.

5 **Windshield wipers:** arms properly mounted, not broken, blades have no splits or cuts, wipers and fluid are operational.

Heater/defroster: demonstrate both are operational.

Dashboard light indicators: (turn lights on) high beams, right and left turn signals, 4-way flashers.



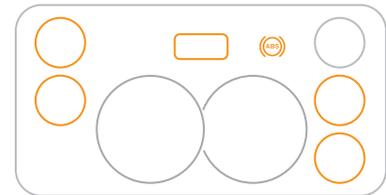
Safe Start. Tell the examiner these 3 steps before you perform them: parking brake is set, transmission in neutral, and the clutch is depressed. Start the engine and look for the **ABS light** on the dash to come on and then go off. With the vehicle started, check the gauges.

Oil gauge: operational, rising to proper operating range, no warning light.

5 **Temperature gauge:** operational, rising to proper operating range, no warning light.

Voltmeter: operational, proper operating range, 12-14 volts.

Air gauges (2): building air to proper operating range, no warning lights.



(Explain each step before performing them.)

Parking Brake: release trailer brake (**push RED valve IN**), tug lightly against it.

Service Brake: (brake pedal) release parking brake (**BOTH valves should be IN**), pull forward to 5 mph, depress clutch and brake while lightly gripping the steering wheel; check if vehicle pulls to the left or right.



Air Brake Test! (THE NEXT 4 STEPS MUST BE PERFORMED to avoid an automatic fail on the Pre-Trip.)
Pay special attention to the notes below regarding the engine and the key.

- 1. Air Compressor check:** **With the engine on.** Perform a Safe Start. Next, fast idle the truck up to 120-140psi, at which point the governor cut-out should occur. **You'll hear air release after the cut-out!**
- 2. Brakes Applied Test:** **Turn the engine off, leave the key on, and push-in the air valves.** Depress and hold the brake pedal, air gauges cannot lose more than 4psi in 1 minute in a Class A vehicle. (3psi for Class B).
- 3. Low Air Warning:** **The engine is off, the key is on, and the air valves are pushed-in.** Fan brake pedal until the air gauge reads ~60psi at which point a low-air light and/or buzzer should come on.
- 4. Emergency Spring Brakes (Pop-Out):** **The engine is off, the key is on, and the air valves are pushed-in.** Continue fanning the brakes down to 40-20psi, at which point the brake valves should pop out. **Look at the valves**, not the air gauge. Do not pull the valves out! They should pop-out on their own.

Note: Turn the engine off. Turn the key on for the last 3 steps. This simple step will save an automatic failure.

Test Yourself: Class A

ENGINE COMPARTMENT + 1 AXLE

Front Approach: 3 L's <input type="checkbox"/>	Pitman arm <input type="checkbox"/>	Drum (or disc) <input type="checkbox"/>
Engine Compartment:	Drag link <input type="checkbox"/>	Pads or linings <input type="checkbox"/>
Oil level <input type="checkbox"/>	Control arms and tie-rod <input type="checkbox"/>	Tire:
Coolant level <input type="checkbox"/>	Suspension:	Inflation <input type="checkbox"/>
Power Steering fluid <input type="checkbox"/>	Spring mounts <input type="checkbox"/>	Condition <input type="checkbox"/>
Water pump (belt or gear) <input type="checkbox"/>	Leaf springs <input type="checkbox"/>	Depth <input type="checkbox"/>
Alternator (belt or gear) <input type="checkbox"/>	U-bolts <input type="checkbox"/>	Wheel:
Air Compressor (belt or gear) <input type="checkbox"/>	Shock absorber <input type="checkbox"/>	Rim <input type="checkbox"/>
Hoses <input type="checkbox"/>	Brakes:	Hub seal <input type="checkbox"/>
Steering:	Hose <input type="checkbox"/>	Valve stem <input type="checkbox"/>
Steering shaft <input type="checkbox"/>	Brake chamber <input type="checkbox"/>	Lug nuts <input type="checkbox"/>
Gearbox <input type="checkbox"/>	Slack adjuster and push rod <input type="checkbox"/>	

SIDE and BACK of VEHICLE + 1 AXLE

Side of Vehicle:	Space <input type="checkbox"/>	Pads or linings <input type="checkbox"/>
Lights/reflectors <input type="checkbox"/>	Suspension:	Tire:
Mirror <input type="checkbox"/>	Spring mounts <input type="checkbox"/>	Inflation <input type="checkbox"/>
Door <input type="checkbox"/>	Leaf springs <input type="checkbox"/>	Condition <input type="checkbox"/>
Fuel tank <input type="checkbox"/>	U-bolts <input type="checkbox"/>	Depth <input type="checkbox"/>
Exhaust <input type="checkbox"/>	Shock absorber <input type="checkbox"/>	Wheel:
Catwalk and steps <input type="checkbox"/>	Air bags <input type="checkbox"/>	Rim <input type="checkbox"/>
Frame <input type="checkbox"/>	Brakes:	Hub seal <input type="checkbox"/>
Drive shaft <input type="checkbox"/>	Hose <input type="checkbox"/>	Valve stem <input type="checkbox"/>
Rear of Vehicle:	Brake chamber <input type="checkbox"/>	Lug nuts <input type="checkbox"/>
Lights/reflectors <input type="checkbox"/>	Slack adjuster and push rod <input type="checkbox"/>	
Mud flaps <input type="checkbox"/>	Drum (or disc) <input type="checkbox"/>	

CONNECTIONS

Air lines <input type="checkbox"/>	Skid plate (gap) <input type="checkbox"/>	Locking jaws <input type="checkbox"/>
Electrical line <input type="checkbox"/>	Platform <input type="checkbox"/>	Kingpin <input type="checkbox"/>
Fifth Wheel Assembly:	Sliding 5th wheel pins <input type="checkbox"/>	
Apron <input type="checkbox"/>	Release arm <input type="checkbox"/>	

TRAILER + 1 AXLE

Front of Trailer:	Back of Trailer:	Brake chamber <input type="checkbox"/>
Lights/reflectors <input type="checkbox"/>	Lights/reflectors <input type="checkbox"/>	Slack adjuster <input type="checkbox"/>
Header or bulkhead <input type="checkbox"/>	Doors and seals <input type="checkbox"/>	and push rod <input type="checkbox"/>
Side of Trailer:	Hinges <input type="checkbox"/>	Drum (or disc) <input type="checkbox"/>
Frame <input type="checkbox"/>	Door handles <input type="checkbox"/>	Pads or linings <input type="checkbox"/>
DOT tape <input type="checkbox"/>	DOT tape <input type="checkbox"/>	Tire:
Cross members <input type="checkbox"/>	Bumper <input type="checkbox"/>	Inflation <input type="checkbox"/>
Floor <input type="checkbox"/>	Suspension:	Condition <input type="checkbox"/>
Landing gear <input type="checkbox"/>	Spring mounts <input type="checkbox"/>	Depth <input type="checkbox"/>
Air/electric lines <input type="checkbox"/>	Leaf springs <input type="checkbox"/>	Wheel:
Light <input type="checkbox"/>	U-bolts <input type="checkbox"/>	Rim <input type="checkbox"/>
Release arm <input type="checkbox"/>	Shock absorber <input type="checkbox"/>	Hub seal <input type="checkbox"/>
Tandem slide and pins <input type="checkbox"/>	Air bags <input type="checkbox"/>	Valve stem <input type="checkbox"/>
Mud flap <input type="checkbox"/>	Brakes:	Lug nuts <input type="checkbox"/>
ABS light <input type="checkbox"/>	Hose <input type="checkbox"/>	



EXTERNAL LIGHT CHECK

Front of Truck:

C H Hi L R 4

Left Side of Truck:

C L 4

Rear of Truck:

B T L R 4

Right Side of Truck:

C R 4

Front of Trailer:

C

Left Side of Trailer:

C L 4

Rear of Trailer:

C B T L R 4

Right Side of Trailer:

C R 4

IN-CAB and BRAKE CHECK

5 safety items:

Fire extinguisher
Seat belt
Fuses
Triangles
Horn(s)

5 In-Cab items:

Mirror
Windshield
Wiper/washer
Heater/defroster
Indicator lights (Hi L R 4)

Safe start (ABS light)

5 Gauges:

Oil
Temperature
Ammeter/volts
Air (2)

Brake check:

Parking brake
Service brake
Applied test (Leaks)
Fanning (Low air warning), valve pop-out
Air compressor