



# Training Academy

Division of Maintenance and Operations

## Class A Pre-Trip Inspection

Point to or touch every item that you are inspecting. Tell the tester how you know that the part you are inspecting is in good, safe working condition. Identify all defects or you may not receive credit.

### Terms

ABC - Abrasions, Bulges, and Cuts

BBC - Bent, Broken, or Cracked

PMS - Properly Mounted and Secured

<u>Rubber:</u>	<u>Metal:</u>	<u>Glass:</u>
ABC	BBC	Cracked and Clean
Inflation	Welds	Seals/Gaskets
Depth	Holes	Adjusted
	Dents	No illegal Decals
	Missing Bolts	No illegal Stickers

<u>Liquids:</u>	<u>Wires:</u>
Level	Cuts
Color	Frays
Contaminates	Exposed
	Arcing



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<u>No more than:</u>	<u>No less than:</u>
10% Steering wheel free play	4/32" On steer tires
1" Free play in slack adjusters	2/32" On drive tires
1/2" to 3/4" Free play in belts	1/4" On brake pads

## FRONT APPROACH

- Leaks:** Before opening the hood check for leaks under the engine.
- Leans:** Check that the truck is not leaning which could indicate a suspension problem, low tire pressure, or a shifted load.
- Lights:** Check the lights on the top and front of the truck. Describe what they do. They must be the proper color (mention amber in the front and red in the rear), and not cracked, broken or dirty.

## Fluids

- Coolant Reservoir:** Check for proper level, not leaking and properly mounted and secured. Check the hoses for abrasions, bulges, cuts, not leaking and is properly mounted and secured at both ends.
- Oil Level:** Describe the procedure (remove dipstick, wipe clean, re-insert, remove and check level. Level must be at or below Full but above ADD.
- Power Steering Reservoir:** Indicate where the dipstick is and ensure proper level. The reservoir is not leaking and is properly mounted and secured. Check the hoses for abrasions, bulges, cuts, not leaking and is properly mounted and secured at both ends.

## Engine Components

- Alternator:** Must be properly mounted and secured with no damage. All wires properly mounted and secured at both ends, no damage or arcing anywhere. Mention if it is belt or gear driven: if belt driven, the belt is not cut or frayed and has no more than 1/2" to 3/4" of play.



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- Water Pump:** (follow bottom radiator hose to find w.p.) Must be properly mounted and secured, no damage, and no leaks. Mention if it is belt or gear driven: if belt driven, the belt is not cut or frayed and has no more than  $\frac{1}{2}$ " to  $\frac{3}{4}$ " of play.
- Air Compressor:** Must be properly mounted and secured, no damage, and no audible leaks. Mention if it is belt or gear driven: if belt driven, the belt is not cut or frayed and has no more than  $\frac{1}{2}$ " to  $\frac{3}{4}$ " of play.
- Power Steering Pump:** Must be properly mounted and secured, no damage, and no leaks. Mention if it is belt or gear driven: if belt driven, the belt is not cut or frayed and has no more than  $\frac{1}{2}$ " to  $\frac{3}{4}$ " of play.

## Steering

- Steering Shaft:** Not bent, broken, or cracked and it's properly mounted and secured. And there is no excessive play.
- Power Steering Box:** Not bent, broken, or cracked and it's properly mounted and secured. And no leaks to the box or hoses.
- Pitman Arm:** Not bent, broken, or cracked and it's properly mounted and secured. Castle nuts, cotter pins, and rubber bushings are present and not damaged.
- Drag Link:** Not bent, broken, or cracked and it's properly mounted and secured. Castle nuts, cotter pins, and rubber bushings are present and not damaged.
- Upper and Lower Control Arms and Tie Rod:** Not bent, broken, or cracked and it's properly mounted and secured. Castle nuts, cotter pins, and rubber bushings are present and not damaged.

## Suspension

- Spring Mounts:** (front and rear) are not bent, broken, or cracked and it's properly mounted and secured to the frame.
- Leaf Springs:** Not bent, broken, cracked, none missing, no shifting (scissoring), and it's properly mounted and secured.
- U-Bolts:** Not bent, broken, cracked, or missing, and it's properly mounted and secured.
- Shock Absorbers:** Not bent, broken, cracked, not leaking, and it's properly mounted and secured. Rubber bushings are not worn.



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## Brakes

- Air Hose to Brake Chamber:** Properly mounted and secured at both ends. No abrasions, bulges, or cuts. And no audible leaks.
- Brake Chamber:** Not bent, broken, or cracked and it's properly mounted and secured. And no audible leaks. The clamp on the brake chamber is secure and not bent, broken or cracked.
- Brake Chamber Clamp:** Not bent, broken, or cracked and it's properly mounted and secured.
- Slack Adjuster:** Not bent, broken, or cracked and it's properly mounted and secured (not loose).
- Push rod:** Is at a 90 degree angle to the chamber and has no more than 1" of play.
- Brake Pads:** Not bent, broken, or cracked and it's properly mounted and secured. They must have a minimum of ¼" pad depth. And there are no signs of heat (cracking or glazing)
- Brake Drums:** Not bent, broken, or cracked and it's properly mounted and secured. And they have no blueing from excessive heat.

## Wheel and Tire

- Wheel (rim):** Inner and outer rim are not bent, broken, or cracked and it's properly mounted and secured. And there are no welding repairs.
- Tire Condition:** There are no abrasions, bulges or cuts, and the sidewalls have no splits or cuts and the tread is worn evenly. No retreads on steer tires.
- Tread Depth:** Tire has a minimum tread depth of 4/32"
- Valve Stem:** Not bent, broken, or cracked and it's properly mounted and secured. And has a metal cap.
- Tire Inflation:** Check for proper inflation with an air gauge only.
- Lug Nuts:** Not bent, broken, or cracked and they are properly mounted and secured. They are not loose and look for shiny threads or rust trails as they can be an indicator.
- Hub Seal:** It cannot be leaking, not bent, broken, or cracked and it's properly mounted and secured. And the oil level is adequate.



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## Side Approach

- Mirror Bracket:** Not bent, broken, or cracked and it's properly mounted and secured.
- Door:** Must open and close properly. Hinges cannot be bent, broken, or cracked and they are properly mounted and secured. And the seal is in place and not damaged.
- Steps:** Not bent, broken, or cracked and it's properly mounted and secured. There is no missing hardware and no excessive debris.
- Fuel Tank:** Not bent, broken, or cracked and it's properly mounted and secured. There is no leaking. The cap seal is intact, the safety chain is present, and it is tight.
- Other Attachments:** (Air tank, hydraulic tank, battery box) Not bent, broken, or cracked and it's properly mounted and secured. There is no leaking (audible or fluid).
- Exhaust:** Not bent, broken, or cracked and it's properly mounted and secured. There is no missing hardware and no signs of leaks, such as carbon soot.
- Catwalk and Steps:** Securely mounted, not BBC, not excessively dirty, steps securely mounted, not BBC, free of debris.
- Box/Bed:** The front and side have no damage or holes. It is properly mounted and secured. Steps, side rails, and any other attachments are in good working order.
- Lights:** Are the proper color. They are clean and not broken
- Frame:** Is not bent or twisted. There are no illegal welds, and everything is securely mounted to it.
- Drive Shaft(s):** Not bent, broken, or cracked and it's properly mounted and secured.
- Mud Flap:** Securely mounted, not BBC, all hardware in place none missing, mud flap not split or cut, 6" from tire, 8" from ground.

## Suspension, Brakes, Wheel and Tire

- Spring Mounts/Hanger Bracket:** (front and rear) are not bent, broken, or cracked and it's properly mounted and secured to the frame.
- Leaf Springs/Track Bar & Track Rod:** Not bent, broken, cracked, none missing, no shifting (scissoring), and it's properly mounted and secured. No missing parts on Trac System
- Air Bag:** Properly mounted and secured. No Abrasions, bulges, or cuts and no audible air leaks.
- U-Bolts:** Not bent, broken, cracked, or missing, and it's properly mounted and secured.
- Shock Absorbers:** Not bent, broken, cracked, not leaking, and it's properly mounted and secured. Rubber bushings are not worn.
- Air Hose to Brake Chamber:** Properly mounted and secured at both ends. No abrasions, bulges, or cuts. And no audible leaks.



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- Brake Chamber:** Not bent, broken, or cracked and it's properly mounted and secured. And no audible leaks. The clamp on the brake chamber is secure and not bent, broken or cracked.
- Brake Chamber Clamp:** Not bent, broken, or cracked and it's properly mounted and secured.
- Slack Adjuster:** Not bent, broken, or cracked and it's properly mounted and secured (not loose).
- Push rod:** Is at a 90 degree angle to the chamber and has no more than 1" of play.
- Brake Pads:** Not bent, broken, or cracked and it's properly mounted and secured. They must have a minimum of 1/4" pad depth. And there are no signs of heat (cracking or glazing)
- Brake Drums:** Not bent, broken, or cracked and it's properly mounted and secured. And they have no blueing from excessive heat.
- Wheel (rim):** Inner and outer rim of both duals are not bent, broken, or cracked and it's properly mounted and secured. And there are no welding repairs.
- Dual Wheels/Tires:** Have no gap between wheels and no foreign objects between tires.
- Tire Condition:** The sidewalls have no splits or cuts and the tread is worn evenly on both duals.
- Tread Depth:** Tire has a minimum tread depth of 2/32"
- Valve Stem:** Not bent, broken, or cracked and it's properly mounted and secured. And has a metal cap.
- Tire Inflation:** Check for proper inflation with an air gauge **only**.
- Lug Nuts:** Not bent, broken, or cracked and they are properly mounted and secured. They are not loose and look for shiny threads or rust trails as they can be an indicator.
- Hub Seal:** It cannot be leaking, not bent, broken, or cracked and it's properly mounted and secured. And the oil level is adequate.
- Mud Flap:** Support is properly mounted and secured to the truck and mud flap and there is no damage to either.

## Connections:

- Air/Electrical lines:** Ensure **air lines** are securely mounted at BOTH ends. All hardware is present, nothing BBC. Lines have no ABC's. No audible air leaks. Glad hands are locked in place and undamaged.
- Ensure **Electrical line** is securely mounted at BOTH ends. All hardware is present, nothing BBC. Lines have no ABC's. Safety latches are in place. Not BBC. Lines are not tangled or dragging on catwalk

### **Fifth Wheel Assembly:**

- Apron:** Securely mounted, not BBC. No gap between apron and skid plate.



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- Skid Plate:** Properly greased, securely mounted, not BBC. All hardware present, none missing.
- Pivot Pin:** Is securely mounted, not BBC, cotter pin is in place.
- Platform:** Is securely mounted to frame, not BBC, all hardware is present, not BBC.
- Release Handle:** Securely mounted, not BBC, in locked position
- Kingpin and Locking Jaws or Lever (Must differentiate between the two):** Both are securely mounted and not BBC. Locking jaws are secured around the kingpin, both are properly greased.
- Sliding Fifth wheel:** All hardware present, air line is securely mounted, no audible air leaks, now ABC's

## Trailer:

- Front of Trailer:** Clearance lights have proper color, securely mounted, not cracked or dirty, no moisture inside lens. Header board not BBC, all hardware present.
- Side of Trailer:** Not BBC, no holes, all rivets in place. DOT Tape is securely mounted, not dirty, and covers at least 50% of the side.
  - Frame** is not BBC, securely mounted.
  - Cross members** are securely mounted, not BBC, none missing, floor has no holes.
  - Landing gear** is raised, not BBC, securely mounted, no missing hardware
  - Handle** not BBC, securely mounted, and operational
  - Light** securely mounted, proper color, not cracked or dirty, gasket has no ABC's
  - Hoses** underneath are securely mounted, no ABC's, not dragging on the ground.
  - Tandem Slide** not BBC, securely mounted, pins are locked in place not BBC
  - Release Arm** not BBC, securely mounted and in place
  - Mud flaps** securely mounted, not BBC, and long enough
  - ABS Light** not BBC, not dirty
- Back of Trailer:** Clearance lights have proper color, securely mounted, not cracked or dirty, no moisture inside lens.
  - Hinges** are securely mounted, not BBC
  - Doors** not BBC, no holes
  - Door Seal** intact, no damage, securely mounted
  - Door handles and Rods** not BBC, securely mounted, operational
  - Lights** 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 securely mounted, not BBC



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## Trailer Axle:

- Spring Mounts/Hanger Bracket:** (front and rear) are not bent, broken, or cracked and it's properly mounted and secured to the frame.
- Leaf Springs/Track Bar & Track Rod:** Not bent, broken, cracked, none missing, no shifting (scissoring), and it's properly mounted and secured. No missing parts on Trac System
- Air Bag:** Properly mounted and secured. No Abrasions, bulges, or cuts and no audible air leaks.
- U-Bolts:** Not bent, broken, cracked, or missing, and it's properly mounted and secured.
- Shock Absorbers:** Not bent, broken, cracked, not leaking, and it's properly mounted and secured. Rubber bushings are not worn.
- Air Hose to Brake Chamber:** Properly mounted and secured at both ends. No abrasions, bulges, or cuts. And no audible leaks.
- Brake Chamber:** Not bent, broken, or cracked and it's properly mounted and secured. And no audible leaks. The clamp on the brake chamber is secure and not bent, broken or cracked.
- Slack Adjuster:** Not bent, broken, or cracked and it's properly mounted and secured (not loose). Push rod is at a 90 degree angle to the chamber and has no more than 1" of play.
- Brake Pads:** Not bent, broken, or cracked and it's properly mounted and secured. They must have a minimum of ¼" pad depth. And there are no signs of heat (cracking or glazing)
- Brake Drums:** Not bent, broken, or cracked and it's properly mounted and secured. And they have no blueing from excessive heat.
- Wheel (rim):** Inner and outer rim of both duals are not bent, broken, or cracked and it's properly mounted and secured. And there are no welding repairs.
- Dual Wheels/Tires:** Have no gap between wheels and no foreign objects between tires.
- Tire Condition:** The sidewalls have no splits or cuts and the tread is worn evenly on both duals.
- Tread Depth:** Tire has a minimum tread depth of 2/32"
- Valve Stem:** Not bent, broken, or cracked and it's properly mounted and secured. And has a metal cap.
- Tire Inflation:** Check for proper inflation with an air gauge **only**.
- Lug Nuts:** Not bent, broken, or cracked and they are properly mounted and secured. They are not loose and look for shiny threads or rust trails as they can be an indicator.





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- Hub Seal:** It cannot be leaking, not bent, broken, or cracked and it's properly mounted and secured. And the oil level is adequate.

## External Light Check

### Front of Truck

<input type="checkbox"/> Clearance	<input type="checkbox"/> Headlights
<input type="checkbox"/> High Beams	<input type="checkbox"/> Right Turn
<input type="checkbox"/> Left Turn	<input type="checkbox"/> 4-way Flashers
<input type="checkbox"/> Reflectors	

### Left Side of Truck

<input type="checkbox"/> Clearance	<input type="checkbox"/> Left Turn
<input type="checkbox"/> 4-way Flashers	<input type="checkbox"/> Reflectors

### Back of Truck

<input type="checkbox"/> Clearance	<input type="checkbox"/> Taillights
<input type="checkbox"/> Brake Lights	<input type="checkbox"/> Right Turn
<input type="checkbox"/> Left Turn	<input type="checkbox"/> 4-way Flashers
<input type="checkbox"/> Reflectors	

### Right Side of Truck

<input type="checkbox"/> Clearance	<input type="checkbox"/> Right Turn
<input type="checkbox"/> 4-way Flashers	<input type="checkbox"/> Reflectors



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## In-Cab Inspection w/ Brake Check

### Safety Items

- Fire Extinguisher:** Properly charged and rated. And it is properly mounted and secured.
- Triangles:** There must be three, properly mounted and secured, clean, and not broken or cracked.
- Fuses:** Check for spare fuses. If the vehicle does not use fuses, mention it to the tester.
- Seatbelt:** Properly mounted and secured, latches and unlatches, adjusts properly, and is not cut or frayed.
- Horn(s):** Test horn(s) is working properly. Both street and air horn are equipped. (This may be part of the next section as some trucks require "key on" to test).

### Key on, Engine off (must say this and demonstrate)

- Mirrors:** Clean, not cracked, properly adjusted, and no illegal stickers.
- Windshield:** Properly mounted and secured, not cracked, and no illegal stickers.
- Wipers:** Arms and Blades are properly mounted and secured and have no damage. Wiper fluid must work properly.
- Heater/Defroster:** Must ensure both work properly.
- Dashboard Indicator Lights:**

<input type="checkbox"/> High Beams	<input type="checkbox"/> Right Turn
<input type="checkbox"/> Left Turn	<input type="checkbox"/> 4-way Flashers

### Safe Start:

- Parking brake is set**
- Transmission is in neutral:** (clutch is depressed if equipped)
- Start engine and truck and trailer ABS Light came on and went off**

### Gauges:

- Oil Gauge:** The gauge is working, rising to or at proper operating range, and there are no warning lights.
- Temperature Gauge:** The gauge is working, rising to or at proper operating range, and there are no warning lights.



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- Ammeter/Voltmeter:** The gauge is working, the volts are between 12 and 14 volts, and there are no warning lights
- Air Gauges (2):** The gauges are working, rising to or at proper operating range, and there are no warning lights (mention if warning is going off).

## **I will now start my brake test:**

- Wheels chocked/In flat area where you will not roll**
- Bring pressure up to governor cut out:** Typically around 125psi (listen for the Pshhh!)
- Turn Engine off, Key on, Parking Brake Pushed In**
- 1 - Applied Test (leaks):** Depress brake pedal, time for one minute, and cannot lose more than 3 psi for Class B and 4 psi for Class A
- 2 - Low Pressure Warning Test:** Fan the brake pedal, by 60psi the warning light and buzzer should come on.
- 3 - Parking Brake Pop-Out Test:** Keep fanning until the parking brake pops out between 20-40psi. Watch the valve not the gauge!
- Safe Start, bring pressure up to the governor cut out.**
- 4 - Parking Brake Tug Test:** (Remove wheel chocks) Leave Parking Brake pulled out, put truck in gear, depress accelerator pedal a little to "tug" on parking brake. Truck should not move. Put back in neutral.
- 5 - Service Brake Test:** Push in parking brake, put in gear, roll forward to 5mph, stop with hands lightly on steering wheel, ensure truck does not pull right or left.
- Put the truck in neutral, set the parking brake.**

**I am now done with my parking brake test and pre-trip inspection.**