

# CDL Now

## Class A Tractor Trailer Inspection

In order to obtain a CDL you will be required to pass a Vehicle inspection test. You will be tested to see if you know whether your vehicle is safe to operate.

You will be asked to perform an inspection of your vehicle. To get credit for the parts, you are required to name the part, point to or touch the part and explain to the examiner what you are inspecting that part for.

For the outside of the vehicle, you are NOT required to physically demonstrate what you are inspecting. For example, you are not required to pull fluid dipsticks to check the level, pull on the slack adjuster to check play or open trailer doors etc.

You ARE required to operate and demonstrate all items in the in-cab portion of the inspection. For example you must operate the windshield wipers and washers along with explaining what you are checking them for etc.

## Front of Vehicle and Engine Compartment Area

### **Approaching the Vehicle**

- Notice the general condition. Look for damage or vehicle leaning to one side. Look under the vehicle for fresh oil, coolant, grease, or fuel leaks.

### Front of Vehicle

- **Lights and Reflectors Condition**
  - **Headlights** - (Low and High beam) White or clear color
  - **Turn Indicators** - (Right and Left) Amber color
  - **4-Way Flashers** - Amber color
  - **Marker Lights** - Amber color
  - **Clearance Lights** - Amber colorPoint to or touch the lights and reflectors and check to ensure they are not missing, not cracked or damaged, no water or condensation inside, the proper color and clean.
- **Hood and Mirrors**
  - Hood not damaged or cracked and is properly fastened or latched
  - Mirrors are properly mounted, no cracks, not loose and rattling, clean and no illegally placed stickers

## Engine Compartment

- **Air Compressor**
  - Point to or touch the air compressor
  - Check that the air compressor is operating properly, securely mounted and not leaking
  - Indicate if the air compressor is belt or gear driven
    - If belt driven, point to, touch or press the belt to check for no more than  $\frac{3}{4}$  of an inch play, that the belt is not frayed, cracked, is seated properly and not showing signs of wear.
  - Check hoses for leaks, cracks, wear, loose connections and chafing (rubbing against other objects)
- **Power Steering Fluid**
  - Point to or touch the power steering reservoir. Check that fluid is at the proper level using the dipstick or sight glass. Level must be above the refill line and below the full line
- **Power Steering Pump**
  - Point to or touch the power steering pump and check that it is mounted properly, not loose and not leaking
  - Indicate if the pump is belt or gear driven
  - Check hoses for leaks, cracks, wear, loose connections and chafing (rubbing against other objects)
- **Coolant Level**
  - Point to or touch the coolant reservoir or site glass and check that the coolant is at the proper level
  - Check for leaks
  - Cap is properly attached and not leaking
  - If no reservoir or site glass is present point to the radiator cap and explain that if the engine is cool you would remove the cap to look inside and make sure there is coolant present and at the proper level
- **Engine oil**
  - Point to or touch the oil dipstick and check that the oil is at the correct level between the refill line and the full line
  - Dipstick is fully inserted in tube
- **Leaks/Hoses**
  - Check top, sides and under the engine/transmission for any fluid leaks and the ground for puddling
  - Check engine compartment hoses for leaks, cracks, wear, loose connections and chafing (rubbing against other objects)

- **Alternator**
  - Point to or touch the alternator and check it for loose, cracked, damaged or missing mounting bolts. Check the wiring to make sure it is securely connected and free of corrosion
  - Point to, touch or press the belt to check for no more than  $\frac{3}{4}$  of an inch play, that the belt is not frayed, cracked, seated properly and not showing signs of wear
- **Water Pump**
  - Point to or touch the water pump and check that it is mounted properly, not loose and not leaking
  - Indicate if the water pump is belt or gear driven
    - If belt driven, point to, touch or press the belt to check for no more than  $\frac{3}{4}$  of an inch play, that the belt is not frayed, cracked, seated properly and not showing signs of wear.
  - Check hoses for leaks, cracks, wear, loose connections and chafing (rubbing against other objects)

### **Steering**

- **Steering Column**
  - Point to or touch the steering column from the firewall to the steering box for bends, brakes, cracks and not twisted
  - Check the U-joints for proper securement and lubrication and no loose, cracked or missing parts
- **Steering Box**
  - Point to the steering box and check that it is securely mounted and not leaking
  - Check for loose or missing nuts and bolts
- **Steering Box Hoses**
  - Point to or touch the power steering box hoses and check for leaks, cracks, chaffing and the fittings and connections are secure on both ends
- **Steering Linkage**
  - Point to or touch the linkage parts and check the connecting links, arms and rods from the steering box to the wheel are not worn bent or cracked
  - Check that the joints, sockets and bushings are not worn or loose
  - Check that there are no loose or missing nuts, bolts or cotter keys
  - Steering linkage include the pitman arm, drag link, upper and lower control arms and the tie rod

### **Suspension System**

- **Spring Mounts**
  - Point to or touch the spring mount and check for cracks, breaks, loose or missing nuts, bolts, bushings and that it is securely mounted to the frame
- **Air Bags**
  - Point to or touch the air bags and check for leaks, cuts, abrasions, bulges or other damage
  - Check that the air bags are properly inflated

- **Air Bag Mounts**
  - Check that the air bag mounts and bolts are in place and not damaged
- **Leaf Springs**
  - Point to or touch the leaf spring and check for missing, shifted (scissoring), cracked or broken springs
- **U-Bolts**
  - Point to or touch the U-bolts and check for loose, broken or missing bolts and they are securely mounted
  - The nuts are tight and not cracked or missing
  - Check that the spacers are not loose or missing
- **Shock Absorbers**
  - Point to or touch the shock absorber and check that it is properly mounted at both ends and there is no damage or leaks

## **Brakes**

- **Brake Hoses and Lines**
  - Point to or touch the brake hose check that there are no leaks, cracks, frays and that all couplings and fittings are secure on both ends
- **Brake Chamber**
  - Point to or touch the brake chamber and check that there are no leaks, cracks or dents and that it is mounted securely
  - There are no loose or missing clamps
- **Slack Adjuster**
  - Point to or touch the slack adjuster and check for bent, broken or loose parts
  - The slack adjuster is securely mounted
- **Pushrod**
  - Point to or touch the pushrod and check for bent broken or loose parts
  - With the brakes released and pulling by hand the pushrod should not move more than 1 inch
  - Check that it is securely connected to the slack adjuster and the brake chamber
- **Brake Drum**
  - Point to or touch the brake drum and check for cracks, dents, welding repairs, holes and loose or missing bolts
  - Check that there is no debris, oil or grease inside the drum
  - Check for signs of overheating. Blueing, glazing or cracking
- **Brake Lining**
  - Check that linings are not cracked, missing or damaged
  - Minimum thickness of ¼ inch
  - Check for debris, oil or grease

## Wheels (Steering Axle)

- **Tire Condition**
  - Point to or touch the sidewalls of the tire and check for cuts bulges abrasions or any other damage
  - Check the tread for even wear, cuts, missing tread or other damage
  - No recaps or retreaded tires are allowed on the steering axle
- **Tread Depth**
  - Point to or touch the main tread grooves and indicate that there should be a minimum of 4/32 of an inch of tread for steering axle and a minimum of 2/32 of an inch for all other axles
- **Tire Inflation**
  - Point to our touch the valve stem and indicate that you would check that it is inflated to the proper level using a tire gauge
  - Check that the valve stems and caps are not missing, broken or damaged
- **Rims**
  - Point to or touch the rim and check for cracks, bends and other damage
  - Rims cannot have welding repairs
  - Check for rust trails that indicate the lug nuts are loose on the wheel
- **Lug Nuts**
  - Point to or touch the lug nuts and indicate that they are all present and free of cracks
  - They show no signs of looseness such is rust trails or shiny threads
  - There are no cracks or distortions around the the lug bolt holes
- **Hub Oil Seal**
  - Point to or touch the hub oil seal and check that there are no leaks, cracks and loose or missing nuts and bolts
  - Oil is at the proper level

## Driver Door/Fuel Area to Rear Of Vehicle

### Side of Vehicle

- **Mirrors**
  - Point to or touch the mirrors and check that the brackets are not damaged and are mounted securely with no loose fittings
  - Check that the mirrors are clean and free of cracks, stickers and are securely mounted
  - Check mirrors for proper adjustment

- **Doors**
  - Point to or touch the door and check that it is not damaged and that it opens and closes properly from the outside
  - Check that the door seals are in place and not missing or damaged
  - Check that the hinges are secure and not damaged
  - Check the door window for damage, that it is free of stickers and clean
- **Fuel Tank**
  - Point to or touch the fuel tank and check that there is no damage or leaks on the top, sides and underside of the tank
  - Check the straps are undamaged, tight and not missing the lining between the straps and fuel tank
  - Check the fuel cap is not leaking, tight and the seal is not damaged or missing
- **DEF Tank**
  - Point to or touch the DEF tank and check that there is no damage, leaks also checking the underside of the tank
  - Check any straps or mounting bolts are undamaged, tight and not missing the lining between the straps and DEF tank if equipped
  - Check the DEF cap is not leaking, tight and the seal is not damaged or missing
- **Steps**
  - Point to or touch the steps and check that they are securely mounted to the vehicle
  - There are no loose or missing nuts or bolts
  - Check that the steps are free of loose objects and has no oil, ice or anything that could cause poor traction
- **Catwalk**
  - Point to or touch the catwalk and check that it is solid, clear of objects and securely mounted to the tractor frame
  - Check that it is free of oil, ice or anything that could cause poor traction
- **Frame**
  - Point to or touch the frame and check for cracks, welds, bends and breaks
  - Check for loose or missing nuts and bolts
  - Check that cross members are not loose, bent, cracked, broken or missing
- **Drive Shaft**
  - Point to or touch the drive shaft and check that it is not bent, twisted or cracked
  - Check the U-joints or couplings are secure and free of foreign objects
- **Exhaust System**
  - Point to or touch the exhaust system and check for damage and signs of leaks such as rust or carbon soot
  - Check that there are no cracks, holes or severe dents
  - Check that there are no loose or missing clamps and it is mounted securely

## **Suspension System**

- **Spring Mounts**
  - Point to or touch the spring mounts and check for cracks, breaks, loose or missing nuts, bolts, bushings and that it is securely mounted to the frame
- **Leaf Springs**
  - Point to our touch the leaf spring and check for missing, shifted (scissoring), cracked or broken springs
- **U-Bolts**
  - Point to or touch the U-bolts and check for loose, broken or missing bolts and they are securely mounted
  - The nuts are tight and not cracked or missing
  - Check that the spacers are not loose or missing
- **Shock Absorbers**
  - Point to or touch the shock absorber and check that it is properly mounted at both ends and there is no damage or leaks
- **Air Bags**
  - Point to or touch the air bags and check for leaks, cuts, abrasions, bulges or other damage
  - Check that air bags are properly inflated
- **Air Bag Mounts**
  - Check that the air bag mounts and bolts are in place and not damaged
- **Torque Arm**
  - Point to or touch the torque arm and check that it is not damaged and mounted securely

## **Brakes**

- **Brake Hoses and Lines**
  - Point to or touch the brake hose check that there are no leaks, cracks, frays and that all couplings and fittings are secure
- **Brake Chamber**
  - Point to or touch the brake chamber and check that there are no leaks, cracks or dents and that is mounted securely
  - There are no loose or missing clamps
- **Slack Adjuster**
  - Point to or touch the slack adjuster and check for bent, broken or loose parts
  - The slack adjuster is securely mounted
- **Pushrod**
  - Point to or touch the pushrod and check for bent broken or loose parts
  - With the brakes released and pulling by hand the pushrod should not move more than 1 inch
  - Check that it is securely connected to the slack adjuster and the brake chamber

- **Brake Drum**
  - Point to or touch the brake drum and check for cracks, dents, welding repairs, holes and loose or missing bolts
  - Check that there is no debris, oil or grease inside the drum
  - Check for signs of overheating. Blueing, glazing or cracking
- **Brake Lining**
  - Check that linings are not cracked, missing or damaged
  - Minimum thickness of ¼ inch
  - Check for debris, oil or grease

### Wheels (Drive Axles)

- **Tire Condition**
  - Point to or touch the sidewalls of the tire and check for cuts bulges abrasions or any other damage
  - Check the tread for even wear, cuts, missing tread or other damage
  - No recaps or retreaded tires are allowed on the steering axle
- **Tread Depth**
  - Point to or touch the main tread grooves and indicate that there is a minimum of 2/32 of an inch of tread on the tires
- **Tire Inflation**
  - Point to our touch the valve stem and indicate that you would check that it is inflated to the proper level using a tire gauge
  - Check that the valve stems and caps are not missing, broken or damaged
- **Bud Spacing**
  - Point to or touch between the tires and check that there is even spacing and no gap between the rims
  - Check that the tires are not touching
  - Check that there is no debris, rocks, or anything lodged between the tires and rims
- **Rims**
  - Point to or touch the rim and check for cracks, bends and other damage
  - Rims cannot have welding repairs
  - Check for rust trails that indicate the lug nuts are loose on the wheel
- **Lug Nuts**
  - Point to or touch the lug nuts and indicate that they are all present and free of cracks
  - They show no signs of looseness such is rust trails or shiny threads
  - There are no cracks or distortions around the the lug bolt holes
- **Axle Seal**
  - Point to or touch the axle seal and check that there are no leaks, cracks and loose or missing nuts and bolts



- **Splash Guards**
  - Point to or touch the splash guards or mud flaps and check that they are securely mounted in not damaged
  - Tractor splash guards or mud flaps are required to have reflectors
- **Rear Lights and Reflectors**
  - Point to or touch the rear lights and check that they are securely mounted and the proper color (Red)
  - Check that they are clean and working properly
  - Check the right and left turn lights, 4-way flashers, brake lights, tail and marker lights
  - Check that reflectors are properly mounted, clean and the proper color (Red)
- **Reflector Tape**
  - Check that reflector tape is present and securely attached
- **ABS Light**
  - Check to see if the light stays on or goes off after a few seconds. If the ABS light stays on then the ABS system is not working correctly

## **Coupling System**

- **Air Lines**
  - Point to or touch the airlines and check for Leaks, cuts, chafing or worn hoses
  - The red air line is the emergency line and the blue air line is the service line
  - Check that the air and electric lines are not tangled, pinched or dragging on tractor parts
- **Air Line Connectors**
  - Check the couplings on the tractor side for leaks and secure connection
  - Check the glad hand connectors on the trailer side for leaks, bad seals and properly connected
- **Electric Line**
  - Check the electric line for cuts, damage and free of splices, tape or other damage
  - Check that the air and electric lines are not tangled, pinched or dragging on tractor parts
- **Electric Connectors**
  - Check that he electric plugs are firmly seated and locked in place on both the tractor and trailer sides

### **5th Wheel Coupling System**

- **Mounting Bolts**
  - Point to or touch the mounting bolts and check that there are no loose, cracked or missing nuts and bolts
  - Check that they securely attach the platform to the frame

- **Platform**
  - Point to or touch the platform and check that there are no cracks, bends or breaks
  - Check that the platform is securely mounted to the frame
- **5th Wheel Skid Plate**
  - Point to or touch the 5th wheel skid plate and check that it is securely mounted to the platform
  - Check for bends, cracks or other damage
  - Check that all bolts and pins are secure and not missing
  - Check for proper lubrication
- **Sliding 5th Wheel Locking Pins**
  - If equipped, point to or touch the 5th wheel slide mechanism and look for loose or missing pins in the slide mechanism of the 5th wheel
  - If air powered check for leaks
  - Make sure locking pins are fully engaged, not missing, bent, broken or damaged
- **Apron**
  - Point to or touch the Apron and check that no visible part is bent, cracked or broken
  - Check that the Apron is sitting flat on the 5th wheel skid plate
  - Check for proper lubrication
- **Gap**
  - Check that there is no gap or daylight between the 5th wheel skid plate and the apron
- **Release Arm**
  - Point to or touch the release arm and check that it is in the engaged position (fully in)
  - Check for loose, broken or damaged parts
  - If equipped with a safety latch ensure that it is in place and not damaged
- **Kingpin**
  - Point to or touch the kingpin and check that it is not damaged or bent
- **Locking Jaws**
  - Point to or touch the locking jaws and check that they are fully closed around the kingpin
  - Check for missing or broken parts
- **Clearance**
  - Check that the 5th wheel is positioned properly so the tractor frame will clear the landing gear during turns

# Trailer

## Front of Trailer

- **Bulkhead**
  - Point to or touch the front of the trailer and inspect the bulkhead for cracks, bulges, missing rivets, holes and other damage
- **Lights**
  - Point to or touch the forward trailer marker and clearance lights and check that they are clean, not missing or broken, have no condensation inside the lens and are the proper color (Amber)
- **Reflectors**
  - Point to or touch the reflectors on the front of the trailer and check that they are clean, properly attached and the proper color

## Side of Trailer

- **Frame**
  - Point to or touch the frame of the trailer and check the length of it for cracks, broken welds and other damage
  - Check the cross members for cracks, broken welds, looseness and other damage
  - Check the floor for holes and other damage
- **Lights**
  - Point to or touch the the clearance, turn and marker lights and check that they are clean, not missing or broken, have no condensation inside the lens and are the proper color (Amber to the sides and front and Red to the rear)
- **Reflectors**
  - Point to or touch the reflectors on the side of the trailer and check that they are clean, properly attached and the proper color
- **Reflector Tape**
  - Check that the reflector tape is present and securely attached
- **Landing Gear**
  - Point to or touch the landing gear and check that it is fully raised
  - Check for cracks, loose or missing nuts and bolts and other damage
  - Check the landing pads for damage and they are properly secured
  - Check the supports and cross members for loose or missing nuts and bolts, cracked welds and bent parts
- **Side Doors**
  - If equipped point to or touch trailer side doors and check that the doors and hinges are not damaged
  - Check that the door opens, closes and latches properly

- **ABS Light**

- If equipped point to or touch the ABS light and check that it is clean, not missing or broken, has no condensation inside the lens and is the proper color (Amber)
- Check that it is properly marked as an ABS light

### **Frame and Tandem Release**

- **Tandem Release**

- If equipped with sliding tandem axle point to or touch the locking pins checking that they are in place and not damaged or missing

- **Frame**

- Point to or touch the frame that the trailer suspension is attached to
- Check there are no loose, cracked, damaged or missing parts

### **Suspension System**

- **Spring Mounts**

- Point to or touch the spring mounts and check for cracks, breaks, loose or missing nuts, bolts, bushings and that it is securely mounted to the frame

- **Leaf Springs**

- Point to our touch the leaf spring and check for missing, shifted (scissoring), cracked or broken springs

- **U-Bolts**

- Point to or touch the U-bolts and check for loose, broken or missing bolts and they are securely mounted
- The nuts are tight and not cracked or missing
- Check that the spacers are not loose or missing

- **Shock Absorbers**

- Point to or touch the shock absorber and check that it is properly mounted at both ends and there is no damage or leaks

- **Air Bags**

- Point to or touch the air bags and check for leaks, cuts, abrasions, bulges or other damage
- Check that airbags are properly inflated

- **Air Bag Mounts**

- Check that the air bag mounts and bolts are in place and not damaged

- **Torque Arm**

- Point to or touch the torque arm and check that it is not damaged and mounted securely

### **Brakes**

- **Brake Hoses and Lines**

- Point to or touch the brake hose check that there are no leaks, cracks, frays and that all couplings and fittings are secure

- **Brake Chamber**

- Point to or touch the brake chamber and check that there are no leaks, cracks or dents and that is mounted securely

- There are no loose or missing clamps
- **Slack Adjuster**
  - Point to or touch the slack adjuster and check for bent, broken or loose parts
  - The slack adjuster is securely mounted
- **Pushrod**
  - Point to or touch the pushrod and check for bent broken or loose parts
  - With the brakes released and pulling by hand the pushrod should not move more than 1 inch
  - Check that it is securely connected to the slack adjuster and the brake chamber
- **Brake Drum**
  - Point to or touch the brake drum and check for cracks, dents, welding repairs, holes and loose or missing bolts
  - Check that there is no debris, oil or grease inside the drum
  - Check for signs of overheating. Blueing, glazing or cracking
- **Brake Lining**
  - Check that linings are not cracked, missing or damaged
  - Minimum thickness of ¼ inch
  - Check for debris, oil or grease

### **Wheels (Trailer Axles)**

- **Tire Condition**
  - Point to or touch the sidewalls of the tire and check for cuts bulges abrasions or any other damage
  - Check the tread for even wear, cuts, missing tread or other damage
  - No recaps or retreaded tires are allowed on the steering axle
- **Tread Depth**
  - Point to or touch the main tread grooves and indicate that there is a minimum of 2/32 of an inch of tread on the tires
- **Tire Inflation**
  - Point to our touch the valve stem and indicate that you would check that it is inflated to the proper level using a tire gauge
  - Check that the valve stems and caps are not missing, broken or damaged
- **Bud Spacing**
  - Point to or touch between the tires and check that there is even spacing and no gap between the rims
  - Check that the tires are not touching
  - Check that there is no debris, rocks, or anything lodged between the tires and rims
- **Rims**
  - Point to or touch the rim and check for cracks, bends and other damage
  - Rims cannot have welding repairs
  - Check for rust trails that indicate the lug nuts are loose on the wheel

- **Lug Nuts**
  - Point to or touch the lug nuts and indicate that they are all present and free of cracks
  - They show no signs of looseness such as rust trails or shiny threads
  - There are no cracks or distortions around the the lug bolt holes
- **Hub Oil/Axle Seal**
  - Point to or touch the hub/axle oil seal and check that there are no leaks, cracks and loose or missing nuts and bolts
  - Oil is at the proper level
- **Splash Guards**
  - Point to or touch the splash guards or mud flaps and check that they are securely mounted in not damaged

### Rear of Trailer

- **Rear Lights and Reflectors**
  - Point to or touch the rear lights and check that they are securely mounted and the proper color (Red)
  - Check that they are clean and working properly
  - Check the right and left turn, 4-way, brake, tail, marker and clearance lights are not cracked, missing or damaged
  - Check that reflectors are properly mounted, has no condensation inside the lens, clean and the proper color (Red)
- **Reflector Tape**
  - Check that the reflector tape is present and securely attached
- **Door**
  - Point to or touch the doors and check that the doors and hinges are not damaged
  - Check that the doors open, close and latch properly
  - Check handles and straps for damage and proper securement
  - Check that reflectors are properly mounted, clean and the proper color (Red or Red/White)
- **Bumper**
  - Point to or touch the bumper and check for cracks, broken welds and looseness
  - Check that reflectors are properly mounted, clean and the proper color (Red or Red/White)
- **Cargo Lift**
  - If equipped with a cargo lift point to or touch the lift and check for leaking, missing or damaged parts
  - Explain how it should be checked for proper operation
  - Check that it is fully retracted and latched securely

## **Lights Operation Check**

### **Lights Check**

**From inside the cab, turn the key in the on position, turn on the lights to check for proper operation to make sure each light comes on and goes off properly when switched on and off. Make sure you are clearly communicating which lights you are turning on. Point toward their location if possible**

- **Front lights**
  - Turn on the low beam headlights, the high beam headlights, clearance and park lights, right turn light, left turn light and 4-way flashers
- **Sides of vehicle**
  - Turn on the marker, clearance, turn and 4-way flashers
- **Rear of vehicle**
  - Turn on the clearance and park lights, right turn light, left turn light and 4-way flashers and press the brake pedal to turn on the brake lights and release the brake pedal to turn off

## **In-Cab Inspection**

**The in-cab inspection includes all parts and components that are required to be inspected from inside the cab of the vehicle INCLUDING THE AIR BRAKE CHECK!!! You are required to demonstrate the function of the parts you are inspecting in the in-cab**

### **In Cab Inspection**

- **Door**
  - Check that the door opens and closes properly from the inside
  - Check the door window lowers and raises properly and is clean, free of cracks and stickers that could obstruct the view of the mirrors and surroundings
- **Mirrors**
  - Point to or touch the mirrors and check that they are clean and properly adjusted from the inside
  - Check for cracked loose or missing mirrors
  - Mirrors are free of stickers

- **Windshield**
  - Point to or touch the windshield and check for cracks, rock chips, or other damage
  - Check that there are no illegal stickers or obstructions
  - Check the seal for leaking
- **Windshield Wipers and Washer**
  - Point to the wiper blades and check that the wiper arms and blades are secure, not damaged and operating smoothly (turn them on)
  - Check that the washer is spraying and operating properly
- **Safety Belt**
  - Check that the safety belt easily connects and disconnects
  - Check the belt for cuts, tears frays and proper securement
- **Safe Start Manual Transmission**
  - Check that the parking brake is applied, put on your safety belt and ensure the vehicle is in neutral and there are no people or other hazards in front of or behind the vehicle before starting
  - Cover the service brake pedal with your foot but do not apply pressure unless the vehicle moves
  - Push in the clutch and keep pushed in until engine reaches idle speed
  - Start the vehicle and listen for unusual noises
  - Check that oil, coolant, charging, DEF/DPF and ABS lights go out quickly
  - Double check that the vehicle is in neutral and the parking brake is applied
  - Slowly release the clutch then remove foot from the brake pedal
- **Safe Start Automatic Transmission**
  - Check that the parking brake is applied, put on your safety belt and ensure the vehicle is in neutral and there are no people or other hazards in front of or behind the vehicle before starting
  - Cover the service brake pedal with your foot and apply light pressure
  - Double check that the vehicle is in neutral and the parking brake is applied
  - Start the vehicle and listen for unusual noises
  - Check that oil, coolant, charging, DEF/DPF and ABS lights go out quickly
  - Double check that the vehicle is in neutral and the parking brake is applied
  - Release the brake

## **Gauges**

### **Check gauges with the ENGINE RUNNING**

- **Oil Pressure Gauge**
  - Point to or touch the oil pressure gauge and check that the pressure is building to or is at the normal level (typically above 20 psi) and warning lights should be off
  - Check that the gauge is not damaged and is clean



- **Temperature Gauge**
  - Point to or touch the coolant temperature gauge check that it gradually rises to normal operating temperature ( typically between 180 and 200 degrees) and warning lights should be off
  - Check that the gauge is not damaged and is clean
- **Voltmeter or Ammeter**
  - Point to or touch the voltmeter or ammeter gauge and check that it is in the normal range (between 12 to 14 volts) and warning lights should be off
  - Check that the gauge is not damaged and is clean
- **Air Gauges**
  - Point to or touch the air gauges and mention which gauge is primary and secondary or a single gauge with two needles
  - Check that the pressure builds from 50 to 90 psi within 3 minutes
  - Check that the governor cuts out around 120 to 140 psi or as specified by manufacturer
  - Check that the gauge is not damaged and is clean
- **Fuel Gauge**
  - Check that the fuel gauge is working properly and the vehicle has fuel
  - Check that the gauge is not damaged and is clean
- **DEF/DPF Gauge or light**
  - Check the fluid level is above an 1/8th full
  - Check that the DEF/DPF light(s) come on and quickly go off when starting the engine
  - Check that the gauge is not damaged and is clean
- **ABS Light**
  - Check that the ABS light comes on and quickly goes off when starting the engine
- **Tachometer**
  - Check that the tachometer rises when the engine is accelerated and lowers when accelerator is released
  - Check that the gauge is not damaged and is clean
- **Speedometer**
  - Check that the speedometer gauge is not damaged and check operation later when performing the service brake check
  - Check that the gauge is not damaged and is clean
- **Other Gauges**
  - Check all other gauges for proper operation, not damaged and are clean

### Lighting Indicators

- **Dash Lights**
  - Turn on the left signal and make sure the dash bulb comes on
  - Turn on the right signal and make sure the dash bulb comes on
  - Turn on the 4-way flashers and make sure both dash indicator bulbs come on

- Turn on the headlights and then the high beams and make sure the high beam dash light comes on

### **Horns**

- **Air Horn**
  - Check that the air horn works
- **Electric Horn**
  - Check that the electric horn works

### **Steering Wheel**

- **Steering Wheel Play**
  - Lightly move the steering wheel back and forth to determine how much play is there
  - There should be no more than 10% of play (2" for a 20" wheel)

### **Heater and Defroster**

- **Heater**
  - Check the heater with the engine running
  - Turn the fan on and turn the heat/cool switch to hot
  - Turn the location switch to vent or floor
  - Place hand in front of the correct vent and feel for hot or warm blowing air
- **Defroster**
  - Check the defroster with the engine running
  - Turn the fan on and turn the heat/cool switch to hot
  - Turn the location switch to defrost
  - Place hand in front of the defroster vent and feel for hot or warm blowing air

### **Emergency Equipment**

- **Fire Extinguisher**
  - Point to or touch the fire extinguisher
  - Check the fire extinguisher is mounted securely
  - Check that it is properly charged and rated and not missing any pins
- **Reflective Triangles**
  - Point to or touch the reflective triangles
  - Check that they are clean and undamaged
  - Must have at least 3 reflective triangles
- **Spare Fuses**
  - Point to, touch or indicate the location of the spare fuses
  - Check that you have the proper size and type of fuses
  - If circuit breaker are used then explain circuit breakers are used

### **Brake System Check**

- **ABS System**
  - When turning the engine on check that the dash ABS light goes off within a few seconds indicating that the ABS system is working properly
  - If the ABS light remains on the system is not working properly

- **Parking Brake**
  - Build air pressure to governor cutout
  - Engage the parking brake and release the trailer brake
  - Place vehicle in low gear or “Drive” if using an automatic
  - Check that the parking brake holds by gently trying to pull forward
- **Trailer Brake**
  - Apply the trailer brake and release the parking brake
  - Place vehicle in low gear or “Drive” if using an automatic
  - Check that the trailer brake holds by gently trying to pull forward
- **Service Brake**
  - Release the parking brake and trailer brake and pull forward about 5 mph
  - Apply the service brake to check that the vehicle comes to a stop
  - See if the vehicle pulls to one side or the other indicating sticking brakes

## **Air Brake Check**

**The Air Brake Check MUST be demonstrated COMPLETELY AND CORRECTLY or the test will result in an automatic failure! If you make a mistake on any part of the air brake check then start it over from the beginning!**

### **1. Air Leakage Rate**

- Chock the wheels if on an incline or place vehicle in low gear if a manual transmission
- Release (push in) the parking and trailer brakes
- Build air pressure until the governor cuts out Approximately 120 to 140 psi
- Turn the engine off and put the key in the "on" position
- Fully apply the foot brake
- Allow the air pressure to stabilize (needles stop moving)
- Indicate what the air pressure is and explain that you can lose no more than 4 psi in 1 minute
- Hold the foot brake for 1 full minute
- After 1 minute indicate what the air pressure is
- You should not have lost more than 4 psi in one minute
- Say how much pressure was lost during the minute if any

### **2. Low air Indicator light and buzzer**

- Explain that you are checking that the low air indicator light and buzzer come on above 55 psi
- Start fanning the brake and stop when the low air warning light and buzzer come on
- Check the air pressure level and say what the pressure is
- If the air pressure is above 55 psi the low air indicator light and buzzer is working properly

### **3. Protection Valves Pop Out Test**

- Continue fanning the brake while watching to see when both protection valves pop out
- Both valves should pop out between approximately 20 to 40 psi
- After both valves pop out check to see where the air pressure level is at
- Indicate what the pressure is and if both valves popped out between 20 to 40 psi the valve are working properly
- Listen for a release of air as the tractor protection valves may not always pop out in the range specified above
- If the valves do not pop out DO NOT PULL THEM OUT! If the valve doesn't move then it hasn't popped out and you should continue fanning the brake