



BIGRIG INTERNATIONAL TRUCK DRIVING SCHOOL

**PRE-TRIP
INPECTION HANDOUT**

CDL Pre-Trip Inspection

The purpose of this inspection is to make sure the vehicle is safe to operate, and to see if you have the knowledge and skills to inspect your vehicle.

You may have to walk around the vehicle and point to or touch each item and explain to the examiner what you are checking and why. You will not have to crawl under the hood or under the vehicle.

FRONT OF THE TRACTOR

Marker Lights:

(Five lights on a top of the tractor)

Proper color

Working

Not broken

Not cracked

Windshield:

Clean

Not broken

Not cracked

Windshield Wipers:

In good condition

Working properly

Hood:

Not damaged

Not broken

In good condition

Securely locked

Grill:

Must be present

Stably mounted

Not broken

In good condition

Clean

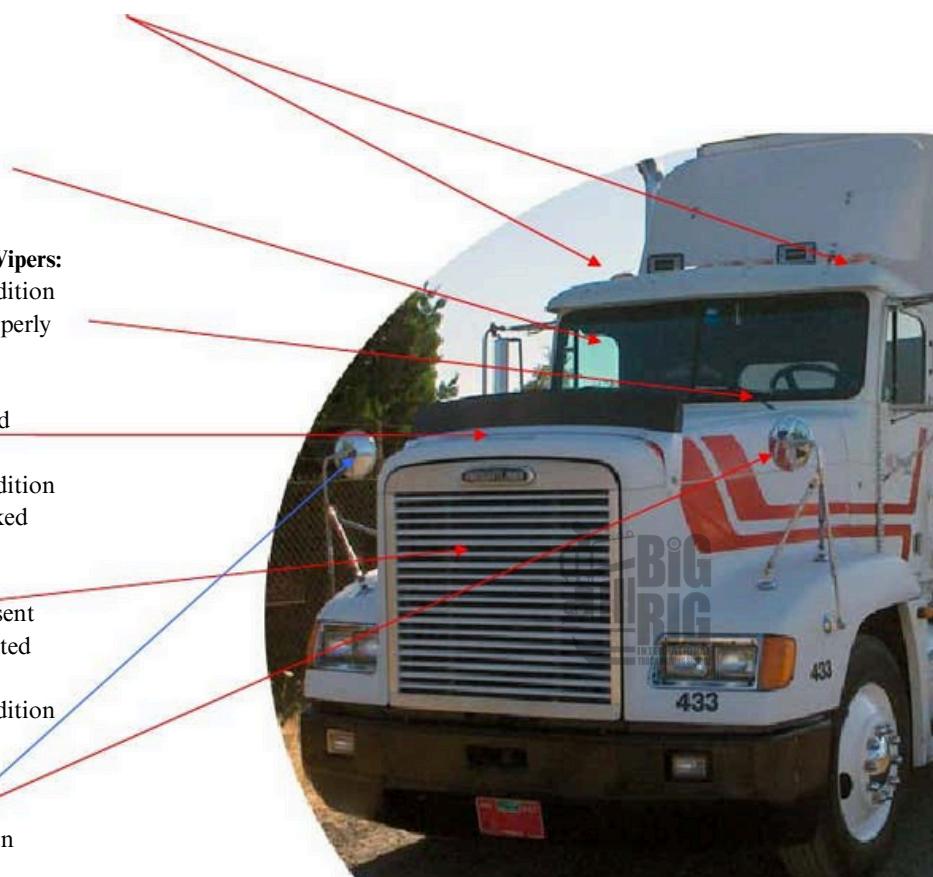
Mirrors:

Must be clean

Not broken

Adjustable from inside.

Mirrors brackets must be well mounted to the door



Head lights:

Must be clear
Not broken
Not damaged
In good condition.
Working properly

Turn Signals:

(Two functions - turn signal and emergency flasher)

Must be clear
Color must be amber or orange
Not damaged
In good condition.
Working properly

Bumper:

In good condition
Well mounted to the frame
No missing parts

Registration Plate:

Must be well tight to the bumper
Clean and visible
Sticker must be valid.

Leaks:

(The leaks can be two kinds: Oil - from transmission and engine and Fluids - from power steering system and cooling system - antifreeze leaks)

Look for puddles on the ground
Look for dripping fluids on underside of engine and transmission
Must be no leaks.



SIDE OF THE TRACTOR

Front Wheels:

Tires
Do not use recap
No any bubbles
No any cuts on it
No any space between rims and tires.
Air pressure must be 80-100 PSI
In the front tire's dept of treed must be four thirty seconds of inch (4/32")

Front Wheels:

Rim

Not bent

Not cracked

No welding repairs

Lug Nuts

None are missing

Tight - no shiny threads, or rust trails

Outer Hub Oil Seal

Not leaking

No missing bolts

Proper oil level

Valve stem

No cuts

No damages

No missing.



Doors:

Door latch in a good condition

Grab handles secured

The doors may be opened and closed easily

Window must be clean, not broken without cracks and in good condition.

Driver's Mirrors:

Clean and free of obstruction

Not cracked, broken, or damaged

Mounted securely

Steps:

Must be not broken

Clean

Free of oil, grease, snow and ice

In good condition

Fuel tank:

Must be well mounted to the frame

No leaks on fuel tank

Cap must be locked while driving

There must be rubber between the clamps and the tank

Under Vehicle:

No leaks

No low hanging wires



ENGINE COMPARTMENT - DRIVER SIDE

Radiator:

- Radiator cap - closed, no sign of leak
- Check antifreeze for level and condition
- Hoses attached, not cracked and not leaking



Air Compressor:

- Mounted Securely
- No missing bolts or parts
- No air leaks at lines
- Check if gear or belt driven



Compressor Belt

- No more than $\frac{1}{2}$ inch of play
- Not cracked or frayed

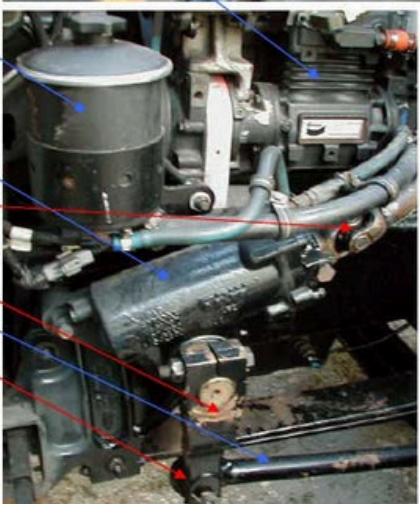


Power Steering Reservoir:

- Mounted properly
- Hoses attached and not leaking
- Check for level and condition

Steering Gear Box:

- Mounted properly
- No missing parts, nuts or bolts
- Lines and hoses not leaking or broken



Steering Linkage:

- Pitman arm, Drag link, Steering Column,
Steering knuckle
- Not cracked, bent or broken
- Castle nuts and cotter pins
- Not missing and in place
- Dow

ENGINE COMPARTMENT - PASSENGER

Water Pump:

- Mounted Securely
- No missing bolts or parts
- Hoses attached securely
- No leaking hoses or water pump

Belts

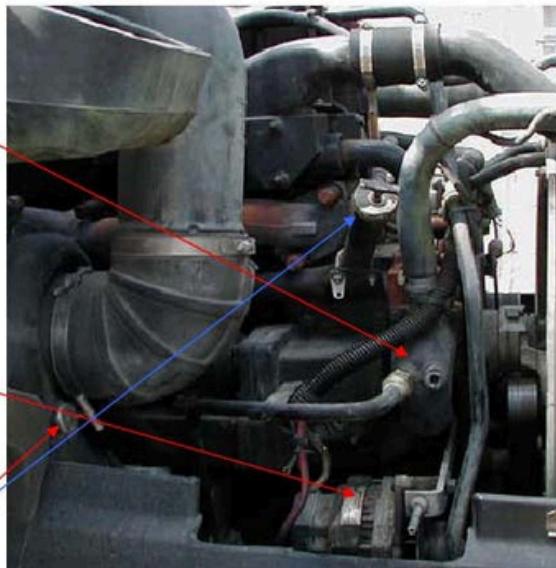
- No more than 3½ inch of play
- Not cracked, frayed, or damaged

Alternator:

- Mounted Securely
- No missing bolts or parts
- Wires good connections, not frayed

Belts

- No more than ½ inch of play
- Not cracked, frayed, or damaged



Oil Level:

Check the level and condition with the deep stick

Hoses and Wiring:

- Not cracked, frayed, or broken
- Belts no more than ½ inch of play
- Hoses not leaking

FRONT SUSPENSION

Shock Absorber:

- Mounted Securely
- Not bent or dented
- Not leaking

Leaf Springs:

- Not shifted or out of place
- Not cracked, broken or missing

Spring Mounts:

- Mounted securely - front, back, and U-blots
- Not cracked or broken



FRONT BRAKES

Hoses and Lines:

- Mounted securely
- Not leaking
- Not cracked or frayed

Chamber:

- Mounted securely
- Not dented or damaged
- Not leaking

Slack Adjuster:

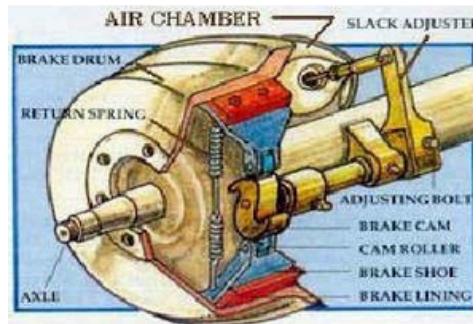
- No more than 1 inch of free play at the push rod with the brakes released
- Not bent, broken, loose, or missing parts

Drums:

- Not cracked, broken or dented
- No oil leaking from inner oil seal, free of debris

Linings:

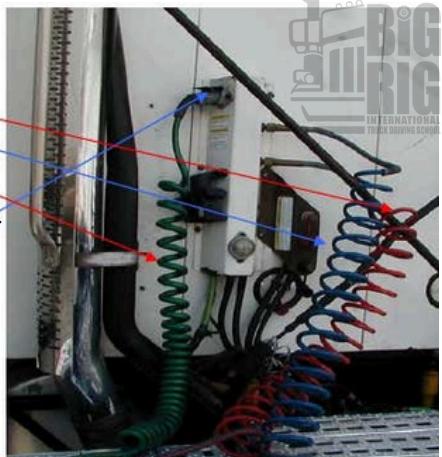
- No cracked, broken or missing parts
- Not less than 1½ inch in thickness



TRACTOR COUPLING AREA

Electric and air lines:

- Emergency line (red color)
 - Service line (blue color)
 - Electric line (green or black color)
- Lines should not be crossed
- Lines should be no touch any part of the tractor or trailer.
- Lines should be in good condition, no cuts, nothing broken.



Glad hand:

- Rubber seal must be soft
- No cuts and damages inside
- Should be clean, no oil, no water, no dirt.



Electric plug :

- Must be in good condition
- No corrosion inside and no missing parts inside the male connection.
- The plug must be locked.

Battery box:

- Must be well attached to the frame
- Always securely locked while driving

Inside we check the battery

Battery:

- No leaks from battery
- No corrosion on the terminals

Catwalk:

- Catwalk is solid
- Steps securely bolted to tractor frame
- Free of oil, grease, snow and ice

Frame:

- Not cracked, or damaged
- No missing bolts
- No illegal welds

Drive Shaft:

- Not bent, or damaged
- Coupling, U-joints appear secure

Exhaust System:

- Securely mounted
- Not dented or damaged
- Not leaking

FRONT OF TRAILER

Lights:

- None broken, cracked, or missing
- Working and proper color of amber

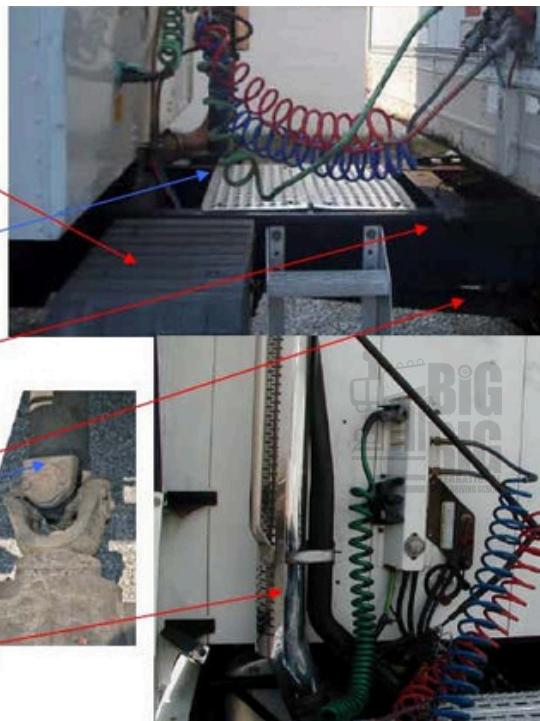
Header Board:

- No holes or missing rivets

REAR (DRIVE) WHEELS

Tires:

- Can be recap (We must be sure that no any separation between recap and original tire.)
- No any bubbles
- No any cuts on it
- No any space between rims and tires.
- Air pressure must be 80 - 100 PSI
- In the front tire's dept of tread must be four thirty seconds of inch (2/32")
- No any objects between wheels, no any stone, no any bottle.



Lug Nuts:

None are missing

Tight - no shiny threads, or rust trails

Rim:

Not bent

Not cracked

No welding repairs

**Outer Hub Oil Seal:**

Not leaking

No missing bolts

Proper oil level

Valve stem:

No cuts

No damages

No missing

**Space:**

Check for objects between wheels

Check for proper spacing

Splash Guards:

Not missing or torn and properly mounted

**DRIVE AXLE SUSPENSION****Control Arm Mount:**

Mounted securely

Not bent, broken or damaged

**Control Arm:**

Mounted securely

Not cracked, or broken

**Shock Absorber:**

Mounted Securely

Not bent, dented or leaking

**Torsion Bar:**

Mounted Securely

Not bent, broken or damaged

**Air Bags:**

Mounted Securely

Not leaking

DRIVE BRAKES

Hoses and Lines:

- Mounted securely
- Not leaking
- Not cracked or frayed

Chamber:

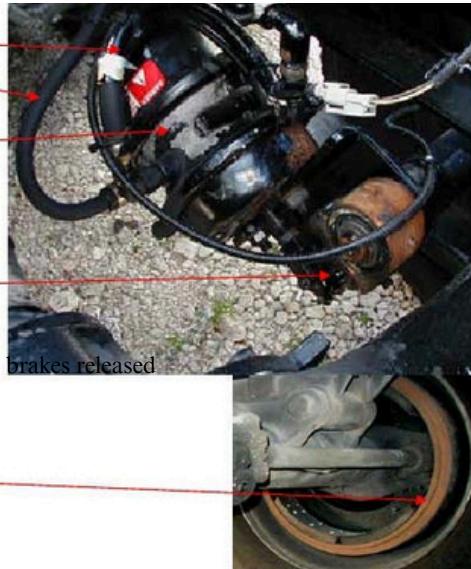
- Mounted securely
- Not dented or damaged
- Not leaking

Slack Adjuster:

- No more than 1 inch of free play at the push rod with the brakes released
- Not bent, broken, loose, or missing parts

Drums:

- Not cracked, broken or dented
- No oil leaking from inner oil seal, free of debris



COUPLING SYSTEM

Platform:

- Securely holds skid plate
- Not cracked, or broken

Skid Plate (5th wheel):

- Mounted properly on the platform
- Properly greased
- Tilting freely

King Pin:

- Not broken, bent, or damaged



Gap:

- Check that the trailer apron is lying flat on the fifth wheel skid plate

Apron:

- No bends or damage to visible portions



Locking Jaws:

- Check that the locking jaws are fully closed around the shank of the king pin

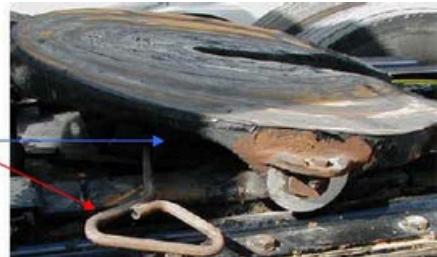


Release Arm:

- Not bent, broken, or damaged
- Engaged in the lock position

Locking Pins:

- No missing or broken parts
- Engaged and locked

**SIDE OF TRAILER****Landing Gear:**

- Fully raised and handle secure
- No missing parts
- Support frame not cracked, broken, or damaged

Frame:

- Not cracks, bends, or damaged
- No missing or damaged cross members
- No signs of holes or damage to trailer floor

**Tandem Release:**

- Locking pins secure and locked in place
- Release handle is secure

Lights & Reflectors:

- Working and proper color
- Front and side are amber
- Rear edge is red
- Not broken, cracked, or missing

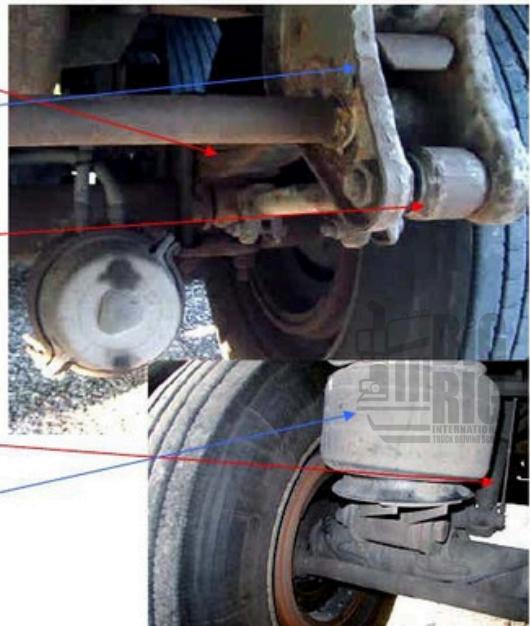


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TRAILER SUSPENSION

Leaf Springs:

- Not shifted or out of place
- Not cracked, broken or missing



Spring Mounts:

- Mounted securely - front, back, and U-bolts
- Not cracked, or broken

Torque Rod:

- Mounted Securely
- Not bent, broken or damaged

Shock Absorber (If Equipped):

- Mounted Securely
- Not bent, dented or leaking

Air Bags (If Equipped):

- Mounted Securely
- Not leaking

TRAILER BRAKES

Hoses and Lines:

- Mounted securely
- Not leaking
- Not cracked or frayed



Chamber:

- Mounted securely
- Not dented or damaged
- Not leaking

Slack Adjuster:

- 90 degrees with brakes applied.
- No more than 1 inch of free play at the push rod with the brakes released.
- No bent, broken, loose, or missing parts

Drums:

- Not cracked, broken or dented
- No oil leaking from inner oil seal, free of debris

Linings:

- No cracked, broken or missing parts
- Not less than 1½ inch in thickness

TRAILER WHEELS

Tires:

Proper inflation-company or manufacturer specification.
No bulges or cuts, can have retreads
Minimum tread depth of 2/32"



Rims:

Not bent or cracked
No welding repairs

Lug Nuts:

None missing
Tight no shiny threads, or rust trails



Outer Hub Oil Seal:

Not leaking, no missing bolts
Fluid level OK

Space:

Check for objects between wheels
Check for proper spacing

REAR OF TRAILER

Doors:

Not bent, broken, or damaged
Close and latch securely
Hinges secure, no damage



Door Ties:

Not missing, broken, and securely mounted



Splash Guards:

Mounted properly
Not missing, ripped or torn



Dot Bumper:

Not bent or damaged



Lights & Reflectors:

Working and proper color
Not broken, cracked, or missing
Do the same check on the passenger side.

IN CAB INSPECTION

Emergency Equipment:

Spare minimum three electrical fuses
(unless vehicle has circuit breaker)

- Three reflective triangles

Must be red and in good condition

- Fire extinguisher

Must be ABC or BC type

Fully charged

Safety pin must be present

Sticker must be valid

Securely mounted



Safety Belt:

Latches securely

Mounted securely

Steering Wheel:

No more than 10 degrees or

2 inches of free play.

Clutch pedal:

Engages and disengages smoothly

Free play maximum 1.5 inch

Rubbered



Foot (Service) brake:

No stick to the floor

Rubbered

Accelerator:

No stick to the floor

Shifter:

Moves in and out of gear properly

Range selector works

Water Temp Gauge:

Gauge is working (170-210 degrees)

Oil Pressure Gauge:

Gauge is working properly

Normal oil pressure (20-45 PSI)

Check that the warning light goes out



Ammeter/voltmeter:

Gauge shows 12 - 14 volts

Lighting Indicators:

- 1. Left and right turn signal
- 2. 4-Way Flashers
- 3. High beam indicator

Horns:

- 1. Electric (Street) horn works properly
- 2. Air horn works properly
- 3. Min one must be working



Heater & Defroster:

- 1. Move switch from heat to defrost
- 2. Check for air flow

Windshield:

- 1. Clean and free of obstruction
- 2. Not cracked or broken



Wipers & Washer:

- 1. Working
- 2. Mounted securely to wiper arm
- 3. Rubber not torn
- 4. Washer sprays properly

Mirrors:

- 1. Clean
- 2. Adjusted

CHECK SERVICE, EMERGENCY AND PARKING BRAKES

Air leak test (static)

1. Air pressure must be maximum (120-130psi)
2. Transmission: 1st gear
3. Turn engine OFF
4. Release parking brakes (yellow, red knobs IN)
5. Do not touch break pedal, wait one minute, check air pressure loss is no more then 3 PSI



Air leak test (applied)

1. Air pressure must be minimum of 90psi
2. Transmission: 1st gear
3. Engine is OFF
4. Parking brakes released (yellow, red knobs IN)
5. Depress and hold break pedal one minute air leakage must be not more then 4 PSI

Low pressure warning device test

1. Air pressure must be maximum (120-130 PSI)
2. Transmition: 1st gear
3. Engine is OFF, ignition is ON
4. Release parking brakes (yellow, red knobs IN)
5. Pump brake pedal, release (fan down) Buzzer + red light on by 60 PSI



Spring brake pop-out test

1. Air pressure must be minimum 60 PSI
2. Transmition: 1st gear
3. Engine is OFF
4. Parking brakes released (yellow, red knobs IN)
Pump brake pedal (fan DOWN)
Tractor (yellow) and trailer (red) must pop-out between 20-40 PSI
Trailer (red) pop-out first to avoid jackknife of trailer



Slack adjuster check

1. Park on level ground.
2. Apply parking brakes.
3. Put transmition on first gear.
4. Turn engine OFF and put key in the pocket.
5. Block the wheels (place chock)
6. Release parking brakes.
7. Check free play on slack adjuster manually. If it is more than 1 inch, then must be adjusted.