Daniel B’s
Pre-Trip Inspection Checklist
My pre-trip begins as I approach the vehicle. I am looking for leaks, leaning one way or the other (which may indicate a low tire or bad suspension).

**Hint:** Start at the bottom and work your way up.

- **License plate**
  Secure, clean and up to date.

- **Bumper**
  Secure, not cracked, bent or broken.

- **Grill**
  Secure, not cracked, bent or broken and not leaking.

- **Headlights**
  Secure, not cracked, and clean.

- **Fender mirrors**
  Secure, not cracked, bent or broken and clean (grab mirrors on both sides).

- **Marker lights**
  (at top of tractor) Secure, not cracked, all present and not broken.
Open The Hood - Passenger Side:

☐ Oil dipstick
    Must be at safe operating level.

☐ Oil fill tube
    Secure, not cracked, bent or broken and does not leak.

☐ Turbo
    Secure, not cracked, bent or broken and not leaking.

☐ Alternator
    Secure, not cracked, bent or broken.

☐ Alternator wires
    Secure, (BBCCFTC) not burnt, broke, cut, cracked, frayed, taped or corroded.

☐ Alternator belts
    Secure, not cut, broke, frayed, no more than 1/2” play and none missing.

☐ Water pump
    Secure, not cracked, bent or broken and not leaking.

☐ Radiator & radiator hoses
    Secure, not cracked, bent or broken and not leaking. Clamps are secure and tight.

☐ Frame
    Secure, not cracked, bent or broken, and no man made welds.
☐ Antifreeze level
   If equipped with a sight glass, check to make sure it is at a safe operating level. If not – remove radiator cap (when fluid is cold) and check for safe operating level.

☐ Fan shroud
   Secure, not cracked, bent or broken.

☐ Fan blades
   Secure, not cracked, bent or broken and none missing.

Drivers Side:

☐ Water pump
   Secure, not cracked, bent or broken and not leaking.

☐ Fan blade belts
   Secure, not cut, broke, frayed, no more than 1/2” play and none missing.

☐ Power steering reservoir
   Secure, not cracked, bent or broken and not leaking. Fluid is at proper level.

☐ Air compressor and air lines
   Secure, not cracked, bent or broken and not leaking.

☐ Starter
   Secure, not cracked, bent or broken. Wires are not (BBCCFTC) not burnt, broke, cut, cracked, frayed, taped or corroded.
☐ Frame
  Secure, not cracked, bent or broken, and no man-made welds.

☐ Shocks
  Secure, not cracked, bent or broken and not leaking.

Steering:

☐ Steering wheel shaft
  Secure, straight, not cracked, bent or broken.

☐ U-joints
  Secure, not cracked, bent or broken, and properly greased.

☐ Steering gear box
  Secure, not cracked, bent or broken and not leaking.

☐ Pittman arm, drag link, steering knuckle, and tie rod
  Secure, not cracked, bent or broken and not leaking.

Front Suspension:

☐ Spring hangers
  Secure, not cracked, bent or broken.

☐ Springs
  Secure, straight, no more than 25% cracked or broken, none missing.
☐ **U-bolts and saddle**
   Secured to axle, not cracked, bent or broken.

**Brakes:**

☐ **Air lines to brake chamber**
   Secure to frame and brake chamber, not cracked, bent or broken and not leaking.

☐ **Brake chamber and clamp**
   Secure, not cracked, bent or broken and not leaking, and all bolts are tight.

☐ **Push rod slack adjuster**
   Secure with a pin and cotter pin, not cracked, bent or broken. No more than 1” of play in slack adjuster.

☐ **S-cam shaft to s-cam roller**
   Secure, not cracked, bent or broken.

☐ **Brake shoes**
   Secure, not cracked, bent or broken. No less than ¼” of wear left on pads. Free of oil, grease, and debris.

☐ **Brake drum**
   Secure, not cracked, bent or broken. Is round, no excessive wear, no man made welds. Free of oil, grease, and debris.
Steer Tires:

☐ **Same size, same type**
   Cannot be recapped or re-grooved.

☐ **Tread depth**
   Should be no less than 4/32” in all major grooves.

☐ **Tread condition**
   Should not have any tread separation, cuts, cupping or bulging anywhere on tire.

☐ **Valve stem**
   Secure, straight, not cracked, bent, broken or leaking.
   All valve caps are present and tight. Tire pressure should be between 100 – 110 PSI checked cold and with a tire gauge only.

Rim:

☐ **Rim**
   Secure, not cracked, bent or broken, is round and no man-made welds

☐ **Lug Nuts**
   Secure, none missing, and appear to be tight. On aluminum rims look for white powder, on steel rims look for rust, which would indicate a loose lug nut. If loose, tighten with a lug wrench.

☐ **U-bolts and saddle**
   Secured to axle, not cracked, bent or broken.
☐ Hub
Secure, not cracked, broken or leaking. All bolts are present and appear to be tight. If there is a sight glass make sure the oil is at its proper level. Otherwise, open cap and make sure there is at least 1” of 90 weight gear lube.

Fuel Tank:

☐ Secure
Secure to frame, with no less than 2 metal bands with rubber backing to prevent against excessive wear and corrosion. It is not cracked, broken or leaking.

☐ Fuel Cap
Secure, with a soft pliable rubber seal, not cracked, bent, broken or leaking.

☐ Steps
Secure, not cracked, bent or broken. No sign of excessive wear, free of oil, grease, and debris.

☐ Windshield washer reservoir
Secure, not cracked, bent or broken and not leaking. Fluid is at proper level.

Drive Shafts:

☐ Condition:
Secure, straight, not cracked, bent or broken.

☐ U-joints
Secure, not cracked, bent or broken, and properly greased.
Frame:

☐ **Condition**

Secure, not cracked, bent or broken, and no man-made welds.

☐ **Air tank and relay valve**

Secure, not cracked, bent or broken and not leaking.

Catwalk & Steps:

☐ **Condition**

Secure, straight, not cracked, bent or broken.

☐ **Bolts**

All bolts are present and tight, no excessive wear, free of oil, grease, and debris.

Battery Box:

☐ **Condition**

Secure, straight, not cracked, bent or broken. No excessive wear, free of oil, grease, and debris.

☐ **Batteries**

Secure, not cracked, broken or leaking.

☐ **Wires**

All wires and connectors are not (BBCCFTC) not burnt, broke, cut, cracked, frayed, taped or corroded.

☐ **Fluid level**

Batteries that are not maintenance free must be checked by removing caps and checking fluid level.
Air and Electrical Lines (point to or grab while explaining):

☐ Air lines
   Properly hung, not dragging on catwalk. Secure to tractor, not cut, cracked, bent, broken or leaking.

☐ Glad hands
   Secure to trailer in the locked position. Not cracked, bent, broken or leaking.

☐ Seals
   Soft pliable rubber grommets. Not cut, cracked, broken or leaking.

☐ Electrical line
   Secure to tractor and trailer with 7 pins, 7 receivers with safety latch in position. They are not (BBCCFTC) not burnt, broke, cut, cracked, frayed, taped or corroded.

Suspension - Drive Tires:

☐ Spring hangers
   Secure to frame, not cracked, bent or broken.

☐ Springs
   Secure, straight, no more than 25% cracked or broken, none missing.

☐ U-bolts and saddle
   Secured to axle, not cracked, bent or broken.
☐ **Shocks**
Secure, not cracked, bent or broken and not leaking.

☐ **Air bags**
Secure, not cracked, bent, broken or leaking.

**Brakes - Drive Tires:**

☐ **Air lines to brake chamber**
Secure to frame and brake chamber, not cracked, bent or broken and not leaking.

☐ **Brake chamber and clamp**
Secure, not cracked, bent, broken or leaking, and all bolts are present and tight.

☐ **Push rod slack adjuster**
Secure with a pin and cotter pin, not cracked, bent or broken. No more than 1” of play in slack adjuster.

☐ **S-cam shaft to s-cam roller**
Secure, not cracked, bent or broken.

☐ **Brake shoes**
Secure, not cracked, bent or broken. No less than ¼” of wear left on pads. Free of oil, grease, and debris.

☐ **Brake drum**
Secure, not cracked, bent or broken. Is round, no excessive wear, no man made welds. Free of oil, grease, and debris.
Drive Tires:

☐ **Same size, same type**
  Can be recapped or re-grooved. Tread depth should be no less than 2/32” in all major grooves. No tread separation, cuts, cupping or bulging anywhere on tire.

☐ **Valve stem**
  Secure, straight, not cracked, bent, broken or leaking.

☐ **Valve caps**
  All valve caps are present and tight. Tire pressure should be between 100 – 110 PSI checked cold with a tire gauge or thumper.

☐ **Space**
  No more than 3” between duals, free of debris.

☐ **Rim**
  Secure, not cracked, bent or broken, is round and no man-made welds.

☐ **Lug nuts**
  Secure, none missing, and appear to be tight. On aluminum rims look for white powder, on steel rims look for rust, which would indicate a loose lug nut. If loose, tighten with a lug wrench.

☐ **Hub**
  Secure, not cracked, broken or leaking. All bolts are present and tight. If there is a sight glass make sure the oil is at its proper level. Otherwise, open cap and make sure there is at least 1” of 90 weight gear lube.
5th Wheel/Coupling System:

☐ 5th wheel platform
    Secure to frame, not cracked, bent or broken. All bolts present and tight. No man made welds.

☐ 5th wheel
    Secure to platform, not cracked, bent or broken, no manmade welds. Properly greased. No light between 5th wheel and trailer apron.

☐ Trailer apron
    Secured to trailer, not cracked, bent or broken.

☐ King pin
    Secured to apron, not cracked, bent or broken.

☐ Locking jaw
    Secured around king pin shank, not cracked, bent or broken.

Mud Flaps:

☐ Secure

☐ At proper height
Trailer (driver’s side):

☐ Landing gear & braces
  Secure, not cracked, bent or broken.

☐ Landing gear pads
  Secure, not cracked, bent or broken. Free of debris and in the up position. Handle is secured in the stowed position.

☐ D.O.T. reflective tape
  Secure and clean. Not excessively worn.

☐ Cross members
  Secure, not cracked, bent or broken and none missing. No more than 1 rivet or bolt missing per cross member. If more than 1 missing it indicates a weak floor.

1st Trailer Axle Suspension:

☐ Rocker arm hanger
  Secure, not cracked, bent or broken.

☐ Rocker arm
  Secure, not cracked, bent or broken.

☐ Shocks
  Secure, not cracked, bent, broken or leaking.

☐ Air bags
  Secure, not cracked, bent, broken or leaking.
Tandem:

☐ Tandem slide rail
   Secure, not cracked, bent or broken. Holes are round, not excessively worn. Pin is secure in hole, not cracked, bent or broken.

☐ Locking handle
   Secured in locked position, not cracked, bent or broken.

Brakes:

☐ Air lines and relay valves
   Secure, not cracked, bent, broken, or leaking. Air lines must be at least 18” off the ground.

☐ Air lines to brake chamber
   Secure to frame and brake chamber, not cracked, bent or broken and not leaking.

☐ Brake chamber and clamp
   Secure, not cracked, bent, broken or leaking, and all bolts are present and tight.

☐ Push rod slack adjuster
   Secure with a pin and cotter pin, not cracked, bent or broken. No more than 1” of play in slack adjuster.

☐ S-cam shaft to s-cam roller
   Secure, not cracked, bent or broken.
Brake shoes
Secure, not cracked, bent or broken. No less than ¼” of wear left on pads. Free of oil, grease, and debris.

Brake drum
Secure, not cracked, bent or broken. Is round, no excessive wear, no man made welds. Free of oil, grease, and debris.

Tires - 1st Trailer Axle:

Same size, same type
Can be recapped or re-grooved.

Tread depth
Should be no less than 2/32” in all major grooves.

Condition
Should not have any tread separation, cuts, cupping or bulging anywhere on tire.

Valve stem
Secure, straight, not cracked, bent, broken or leaking. All valve caps are present and tight. Tire pressure should be between 100 – 110 PSI checked cold with a tire gauge or tire thumper. No more than 3” between duals, free of debris.
2nd Trailer Axle Suspension:

☐ Rocker arm hanger
   Secure, not cracked, bent or broken.

☐ Rocker arm
   Secure, not cracked, bent or broken.

☐ Shocks
   Secure, not cracked, bent, broken or leaking.

☐ Air bags
   Secure, not cracked, bent, broken or leaking.

Brakes – 2nd trailer axle

☐ Air lines and relay valves
   Secure, not cracked, bent, broken, or leaking. Air lines must be at least 18” off the ground.

☐ Air lines to brake chamber
   Secure to frame and brake chamber, not cracked, bent or broken and not leaking.

☐ Brake chamber and clamp
   Secure, not cracked, bent, broken or leaking, and all bolts are present and tight.

☐ Push rod slack adjuster
   Secured with a pin and cotter pin, not cracked, bent or broken. No more than 1” of play in slack adjuster.
☐ **S-cam shaft to s-cam roller**
Secure, not cracked, bent or broken.

☐ **Brake shoes**
Secure, not cracked, bent or broken. No less than $\frac{1}{4}$" of wear left on pads. Free of oil, grease, and debris.

☐ **Brake drum**
Secure, not cracked, bent or broken. Is round, no excessive wear, no man made welds. Free of oil, grease, and debris.

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**Tires – 2nd trailer axle**

☐ **Same size, same type**
Can be recapped or re-grooved.

☐ **Tread**
Depth should be no less than $\frac{2}{32}$" in all major grooves. Should not have any tread separation, cuts, cupping or bulging anywhere on tire.

☐ **Valve stem**
Secure, straight, not cracked, bent, broken or leaking. All valve caps are present and tight. Tire pressure should be between 100 – 110 PSI checked cold and with a tire gauge or tire thumper. No more than 3" between duals, free of debris.
Mud Flaps:
☐ Secure
☐ At proper height

Rear Of Trailer:
☐ D.O.T. bumper
  Secure, not cracked, bent or broken. Not excessively worn.
☐ D.O.T. reflective tape
  Secure and clean. Not excessively worn.
☐ License plate
  Secure, clean, up to date.
☐ License plate light
  Secure, not cracked, bent or broken.
☐ All tail lights
  Secure, not cracked, or broken. Are red in color.
☐ Doors and door hinges
  Secure, not cracked, bent or broken. All bolts are present and tight.
☐ Locking handle and rods
  Secure, not cracked, bent or broken.
☐ **Locking latch**
   Secured in the locked position. Not cracked, bent or broken.

☐ **Door seals**
   Secure and seal properly.

☐ **Header board**
   Secure and not excessively damaged.

**Trailer (Passenger Side):**

**Same – Except for:**

☐ **Exhaust**
   Secure, not cracked, bent, broken or leaking.

☐ **Bulkhead**
   Secure and not excessively damaged.

**Close & Latch Hood**
Lights (check in this order):

No Key:

☐ Low beams and running lights turned on
   Walk around truck and trailer and confirm all are in working order. This includes the license plate light.

☐ Turn signals
   Signal each direction, and walk around truck and trailer and confirm all are in working order.

☐ Hazards (4 way)
   Turn on hazards and walk around truck and trailer and confirm all are in working order.

☐ Brake lights:
   Ask examiner to watch brake lights. Watch for confirmation in side mirror that they worked.

Key in “ON” position (don’t start):

☐ High beams
   Turn on and walk around truck and trailer and confirm all are in working order.
In-Cab Inspection:

☐ **10lb ABC fire extinguisher**
   Fully charged, secured inside cab.

☐ **Red reflective triangles**
   3 triangles, not cracked, bent, broken, secured inside cab.

☐ **Replacement fuses**
   1 fuse for every major fuse in truck, unless the truck is equipped with circuit breakers.

☐ **Safety belt**
   Secured, not cut, frayed or broken. In good working order and latches properly.

☐ **Dashboard**
   Clean, and free of debris.

☐ **Windshield**
   Secure, not cracked or broken. No more than a 1” crack is permitted. Clean and free of debris.

☐ **Windshield seal**
   Secure, not cracked or broken and not leaking.

☐ **Wiper arms**
   Secure, not cracked, bent or broken. Work properly (demonstrate this) and free of debris.
☐ **Wiper blades**
Secure, not excessively worn, and in contact with windshield.

☐ **Windshield washer**
Works properly (demonstrate this).

☐ **Mirrors**
Secure, not cracked, bent or broken. Clean and properly adjusted for ME.

☐ **Doors and door latches**
Secure, not bent or broken. Not excessively worn and latches properly.

☐ **Door seal**
Secure, not cut, cracked, bent or broken and does not leak.

☐ **Steering wheel**
Secured to steering column. Not cut, cracked, bent or broken. No more than 10 degrees or 2” of free play in a 20” steering wheel

☐ **Foot pedals**
Properly grooved, free of grease, oil, and debris. Free of obstructions. Clutch must have 1” – 2” of free play and travels to the floor with no obstruction.

☐ **Horns (city and air)**
Work properly (demonstrate this).
☐ **Gear shifter**  
Secure, straight, not cracked, bent or broken

☐ **Range selector (t-bar)**  
Works properly (demonstrate this).

**Start The Truck**

☐ **Gauges**  
Work properly (point to each gauge, explain what it is and show that it is illuminated.)

☐ **Heater, defroster, and blower**  
Work properly (demonstrate this.)

**Brake Check:**

☐ **Tractor parking brake**  
Yellow knob out, red knob in. Put truck in low gear and tug.

☐ **Trailer parking brake**  
Red knob out, yellow knob in. Put truck in low gear and tug.

☐ **Tractor and trailer service brakes**  
Drive 3 – 5 mph, apply foot brake without touching the steering wheel. If it pulls to one side or the other, it would indicate a possible brake adjustment, tire, or suspension problem, and it would need to be serviced.
Air Down:

☐ Shut off tractor and pull key out.

☐ Chock the wheels, get back in the cab

☐ Release brakes (red and yellow knobs in)

☐ After initial air loss of 10 – 15 psi, you should lose no more than 3 psi per minute.

☐ Apply pressure to foot service brake. After initial loss of 10 – 15 psi, you should lose no more than 4 psi per minute.

Key in on position (don’t start tractor):

☐ Warning light and buzzer
   Check by fanning down the foot service brake. When pressure reaches 60 psi, a warning light and buzzer should come on indicating that you are losing air.

Turn key off:

☐ Continue to fan brakes down to 20 – 40 psi where both knobs should pop out indicating that you are out of air and your spring brakes are set (red knob pops out first so you can maintain control of the tractor).
Air recovery:

Start tractor

☐ Compressor should recover 10 – 15 psi per minute at 1000 rpm

☐ Between 90 -100 psi is the cut in.

☐ Between 120 – 125 psi is the cut out.

☐ If the air compressor continues to run past 125 psi the emergency relief valve will pop off at 150 psi to protect the air system.
Key in “ON” position (don’t start tractor):

☐ Check by fanning down the foot service brake. When pressure reaches 60 psi, a warning light and buzzer should come on indicating that you are losing air.

Turn key off:

☐ Continue to fan brakes down to 20 – 40 psi where both knobs should pop out indicating that you are out of air and your spring brakes are set (red knob pops out first so you can maintain control of the tractor).

Air recovery

Start tractor

☐ Compressor should recover 10 – 15 psi per minute at 1000 rpm
☐ Between 90 -100 psi is the cut in.
☐ Between 120 – 125 psi is the cut out.

If the air compressor continues to run past 125 psi the emergency relief valve will pop off at 150 psi to protect the air system.