

**Isothermal Community College & Sage Technical Services  
State Pre-Trip Inspection**

**A Approach The Vehicle**

1. Check the general condition of the vehicle looking for damage
2. All lights and reflectors are clean, not broken and proper color
3. Check under the truck for any new leaks

**B Open Hood**

**C Check Right Side For:**

1. Oil leaks on engine
2. Proper tension on wiper arm
3. Check coolant level, if cool open radiator and check, if hot rely on temp gauge
4. Alternator for firmly attached, no loose wires and fan belt not loose (1/4" play)
5. Water pump for leaks, and loose hoses
6. Oil level (remove dipstick, wipe off, reinsert, and remove and check)
7. Oil filler tube cap for tightness, leaks, and rubber seal is in good repair

**D As You Move Around The Front Of The Tractor, Check All Mirrors Are Clean, Not Broken And Firmly Attached**

**E Left Side Of Engine Compartment**

1. Oil leaks on engine
2. Proper tension on wiper arm
3. Foot brake valve is secure, no leaks, and rubber seal is moist and pliable
4. Air compressor and governor are firmly attached, hoses are tight and no leaks
5. Power steering pump is firmly attached and not leaking
6. Power steering reservoir is firmly attached, no leaks and proper fluid level
7. Steering shaft for 10 degrees of play, or less (grab and twist)
8. Steering box is firmly attached and no leaks
9. Steering linkage: pitman arm, drag link, upper and lower steering, arms and tie rod for damage, castle nuts and cotter keys are in place
10. Spring hangers are firmly attached, not cracked or broken
11. Leaf springs are not cracked, broken, or missing
12. Shock absorber is firmly attached, not damaged or leaking
13. Air lines and hoses are firmly attached and not leaking
14. Brake chamber is firmly attached, no dents and no leaks
15. Slack adjuster is firmly attached and has no more than 1" of play
16. Brake drum has no welds, cracks, dents or debris
17. Brake shoes are firmly attached, pads have 1/4" or more pad
18. Rim, both inside and outside, have no cracks, dents or welds
19. Tires have no bumps, bruises or cuts and has 4/32" of tread and even wear
20. Lug nuts for equal thread no rust trails, and are tight
21. Hub oil seal is tight, not leaking and filled to proper level
22. Splash guard is firmly attached and in good shape

## **F Close Hood**

## **G Door And Fuel Area**

1. Mirror is secure, clean and not broken
2. Door handle is operable, door hinges have no damage, door latch is good, window rolls up and down and seal is in place
3. Steps are secure and will hold weight of driver
4. Seal on fuel tank is in place and is good
5. Tank straps are tight (if loose, tanks would have shining spots due to vibration)
6. Check under the tanks for leaks

## **H Middle Of Tractor Area**

1. Turn signal is firmly attached, clean, not broken, and proper color
2. Steps are secure and will hold weight of driver
3. Catwalk is firmly attached and will hold weight of driver
4. Battery box is firmly attached and not leaking acid
5. Air lines are firmly attached and not leaking, not crimped or cut
6. Electrical lines are firmly attached, no cuts, or frayed wires
7. Step down on the drive shaft to check for up and down movement
8. Exhaust system is firmly attached, all parts are in place and no soot trails
9. Frame is not cracked, welded, or holes other than factory holes
10. Splash guard is firmly attached and in good repair

## **I Front Of Trailer**

1. Header board for missing rivets and damage
2. Clearance lights are firmly attached, clean, not broken and proper color
3. Air lines are firmly attached and not leaking and electrical cable (pig tail) is tight

## **J Coupling Area**

1. No light between the trailer apron and the fifth wheel
2. Release arm is in place and the safety latch is locked fifth wheel platform is in good shape
3. Mounting and platform bolts are tight and none missing
4. Sliding fifth wheel (if equipped) locking pins are in the locked position

## **K First Drive Axle**

1. Spring hangers are secure and not damaged
2. Leaf springs are not cracked, broken or missing
3. Shock absorber or torsion bar is firmly secured, not damaged or leaking
4. Air lines are firmly attached at both ends and not leaking
5. Brake chamber is firmly attached, not dented and not leaking
6. Slack adjuster is firmly attached and has less than 1" of play
7. Brake drum has no cracks, welds, dents or debris
8. Brake shoe is firmly attached and has no less than 1/4" of pad
9. Inside rim for cracks, dents, or welds
10. Outside rim for cracks, dents, or welds

11. Tires for bumps, bruises, or cut and no less than 2/32 tread , even wear
12. Lug nuts are tight, no rust trails, and equal amount of thread
13. Axle seals are tight and not leaking

#### **L Second Drive Axle**

1. For the second drive axle, repeat what you said for the first drive axle

#### **M Rear Of The Tractor Area**

1. Mud flaps are secure and not touching the tires or rubbing the ground

#### **N Go Under The Trailer**

1. Coupling jaws are wrapped around the shank of the king pin
2. Lights (turn signals, emergency flashers, brake lights, reflectors, back-up lights) and parking lights are firmly attached, clean, not broken and proper color

#### **O Side Of The Trailer**

1. Landing gear is firmly attached, all bolts are tight and all welds are in good shape
2. Landing pads secure
3. Crank handle is in its holder
4. Check side of trailer for damage and loose or missing rivets
5. All lights and reflectors are firmly attached, clean, not broken and proper color
6. D.O.T. tape is in place from front to rear
7. Door tie back is in place and firmly attached
8. Trailer frame: all cross members are in good shape, none cracked, broken or missing
9. No trailer floorboards are hanging down and no holes in trailer floor

#### **P First Trailer Axle**

1. Spring hangers are secure and not damaged
2. Leaf springs are not broken, cracked, or missing
3. Torsion bar is firmly attached and not damaged
4. Air lines are firmly attached and not leaking
5. Brake chamber is firmly attached, no dents or leaks
6. Slack adjuster is firmly attached and no more than 1" of play
7. Brake drum is not cracked, dented, or welded
8. Brake shoe is firmly attached and no less than 1/4" of pad
9. Inside rim for cracks, dents, or welds
10. Inside tire for bumps bruises or cuts and no less than 2/32' of tread and even wear
11. Outside rim for cracks, dents, or welds
12. Outside tire for bumps bruises or cuts and no less than 2/32' of tread and even wear
13. Lug nuts are tight no rust trails, and equal amount of thread on studs
14. Hub oil seal is tight, not leaking and filled to proper level

### **Q Second Trailer Axle**

1. Repeat what you said for the first trailer axle
2. Mud flap is securely attached and not rubbing the ground or tires

### **R Rear Of The Trailer**

1. Rear of trailer, no damage
2. Door tie lock present
3. All lights (clearance lights, turn signals, emergency flashers, brake lights parking lights, tag light and reflectors) are clean, not broken and the proper color

### **S Enter The Cab**

1. Put on the seat belt
2. Make sure- brakes are-set (brake valves are in the out position)
3. Start engine to build air pressure
4. Safety and emergency equipment is present, no less than 10 BC fire extinguisher fully charged, 3 reflective triangles and extra fuses
5. Check to see if oil pressure builds
6. Check that ammeter/voltmeter is charging
7. Air pressure gauge is charging to 120 PSI primary and secondary
8. Five primary controls: clutch, foot brake, accelerator, gear shift, and steering wheel - no more than 2" of play in a 20" wheel
9. City horn and air horn
10. Heater and defroster fan work on all speeds
11. Wipers work on all speeds, intermittent, slow and fast
12. Windshield is clean, not cracked, and seal is good
13. Check lighting indicators; left turn signal, right turn signal, high beam indicator and emergency flashers
14. Mirrors are adjusted for me

### **T Conduct Air Brake Check**

1. Put transmission in first gear
2. Turn off engine and release clutch
3. Release the brakes (push red and yellow valves in)
4. Look for no more than a 3 PSI drop in 1 minute and listen for leaks
5. Press foot brake firmly and look for no more than 4 PSI In 1 minute and listen for leaks
6. Turn on ignition key (do not start engine)
7. Start to pump the foot brake; at 60 PSI the red warning light will come on and the buzzer will sound, continue to pump the brake and at 40 PSI the trailer valve (red) will pop out, continue to pump the brakes and at 20 PSI the yellow valve will pop out
8. Shift the transmission into neutral and restart engine
9. Allow air to build to 120 PSI
10. When air has built, put transmission in first gear, push in yellow valve and let clutch out slowly to pull gently against trailer brakes

11. Pull out the yellow knob and push in red valve
12. Gently pull against the tractor brake to test the hold
13. Push in the red knob and move forward (about 5 MPH) to test foot brake
14. Pull the brake knobs out
15. Turn the engine off

**Tell The Examiner Or Instructor That You Are Done With The Pre-Trip Inspection**

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