

# PRE-TRIP INSPECTION FOR RECERTIFICATION



## CONVENTIONAL SCHOOL BUS

Updated - October 6, 2014

The purpose of the pre-trip inspection is to be certain the driver can identify and understand the function of the parts of the bus

## Recertifying Drivers:

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During the pre-trip test you will be asked to give the name of the part you are describing and how you would check the part.

You will be given a maximum time limit of 45 minutes to complete the pre-trip inspection. When time expires the test will stop and a score will be calculated.

You will be allowed to use the Petermann pre-trip book when you test. However, it does not have all of the information you will need to talk about.

There is no specific order you must follow when doing the pre-trip test.

You must pass the pre-trip inspection portion of the test in order to proceed with the driving evaluation. If you fail the driving evaluation, you will only be required to complete the driving portion when retesting.

Helpful Hints:

**STUDY THE MATERIAL – LOOK OVER THE FORMS THOROUGHLY**

If you implement the procedures into your daily routine you will have no issues passing your test.

If you have questions, please ask!

# Vehicle Overview

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As you approach the bus you will notice the general condition

- ◆ Bus is not leaning to one side
- ◆ There are no fresh coolant, fuel or oil leaks under the bus
- ◆ There are no hazards around the bus



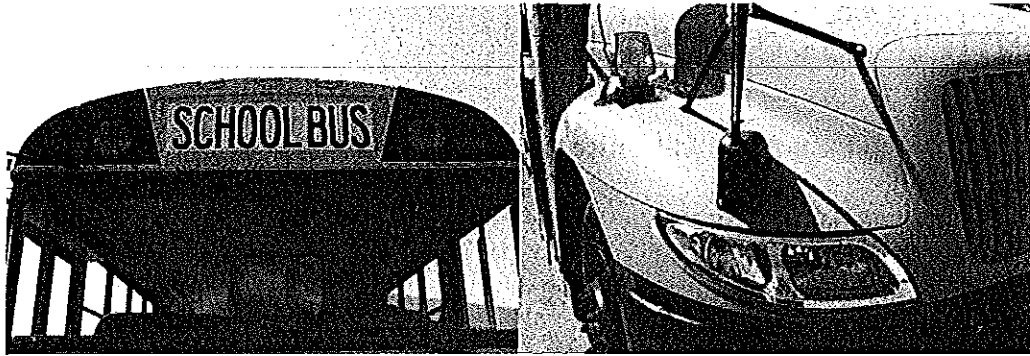
## Front of Bus

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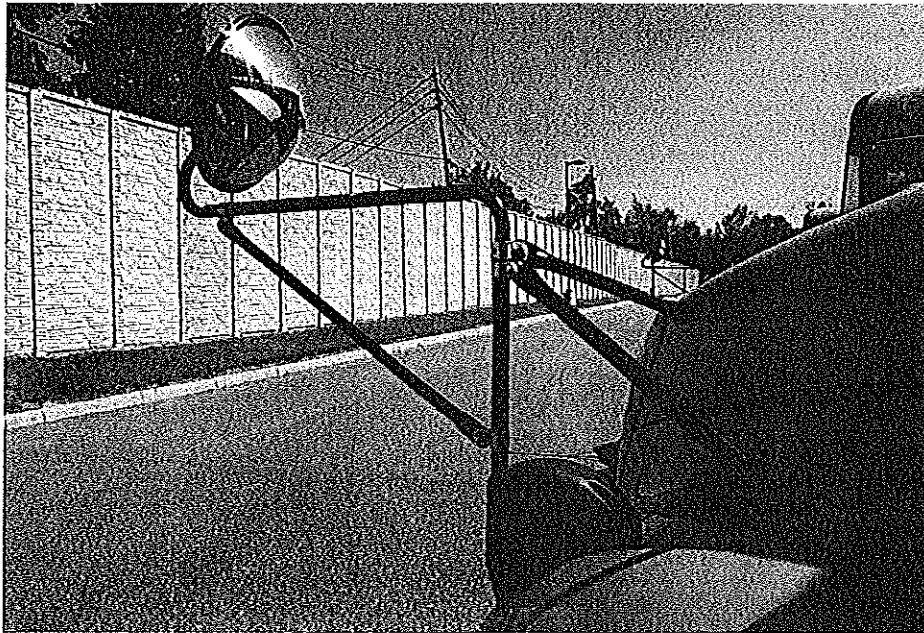
Start at the top of the bus and work down

All lights and covers are clean, not broken or missing and are of the proper color:

- ◆ Amber clearance lights
- ◆ Amber and red warning lights
- ◆ Amber turn signals and hazards
- ◆ Clear headlights



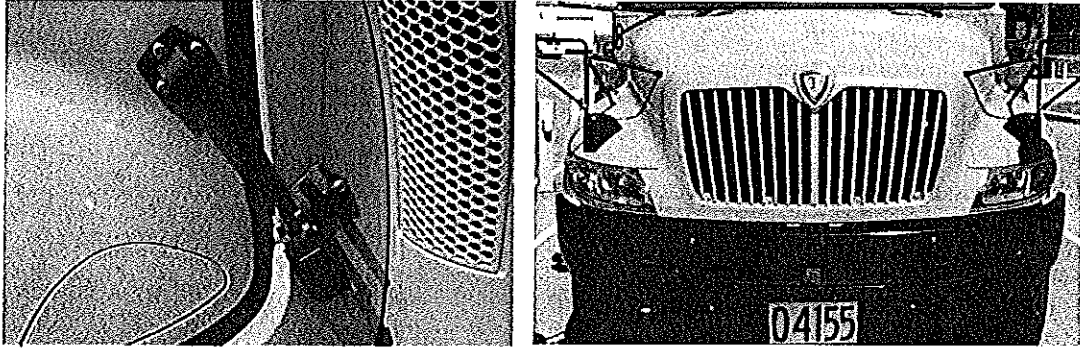
- ◆ Mirror brackets are tight and holds mirrors in proper adjustment
- ◆ Mirrors are clean, securely mounted with no missing nuts, bolts or loose fittings



# Engine Compartment

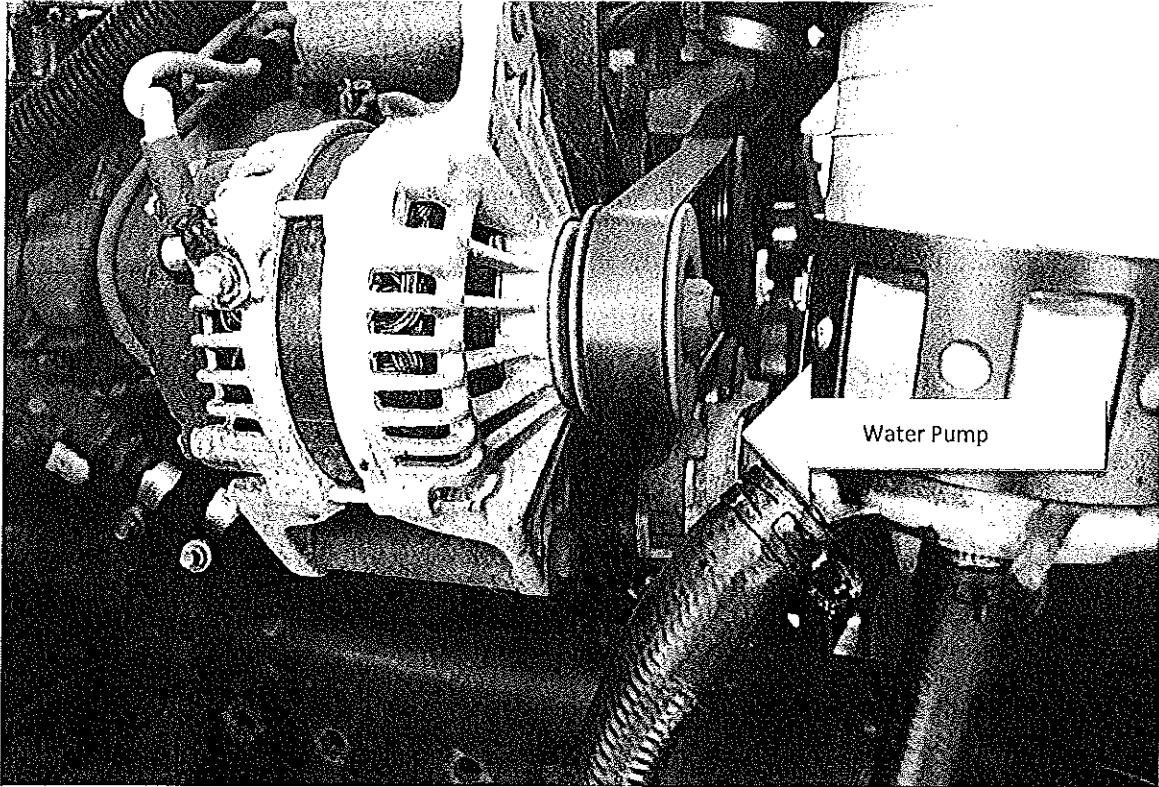
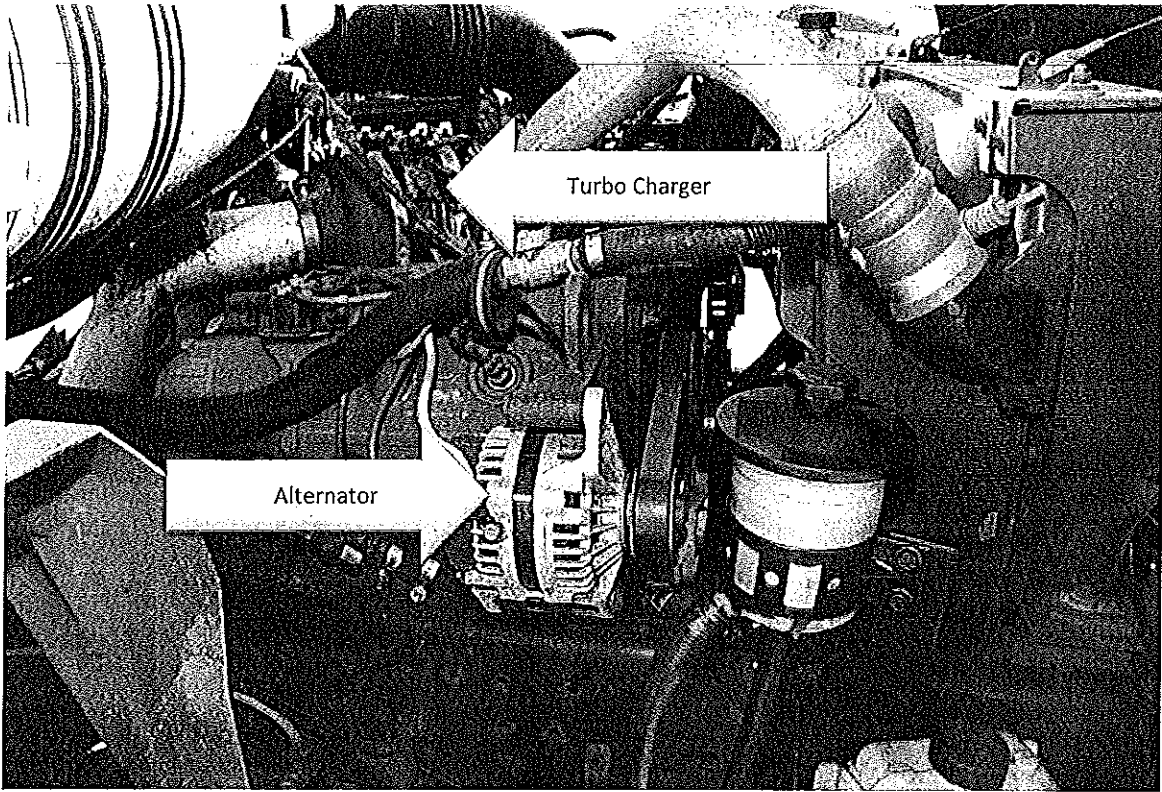
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- ◆ Unlatch hood and tilt forward
- ◆ Hood and all hinges are working properly and not damaged



## Start on door side of bus

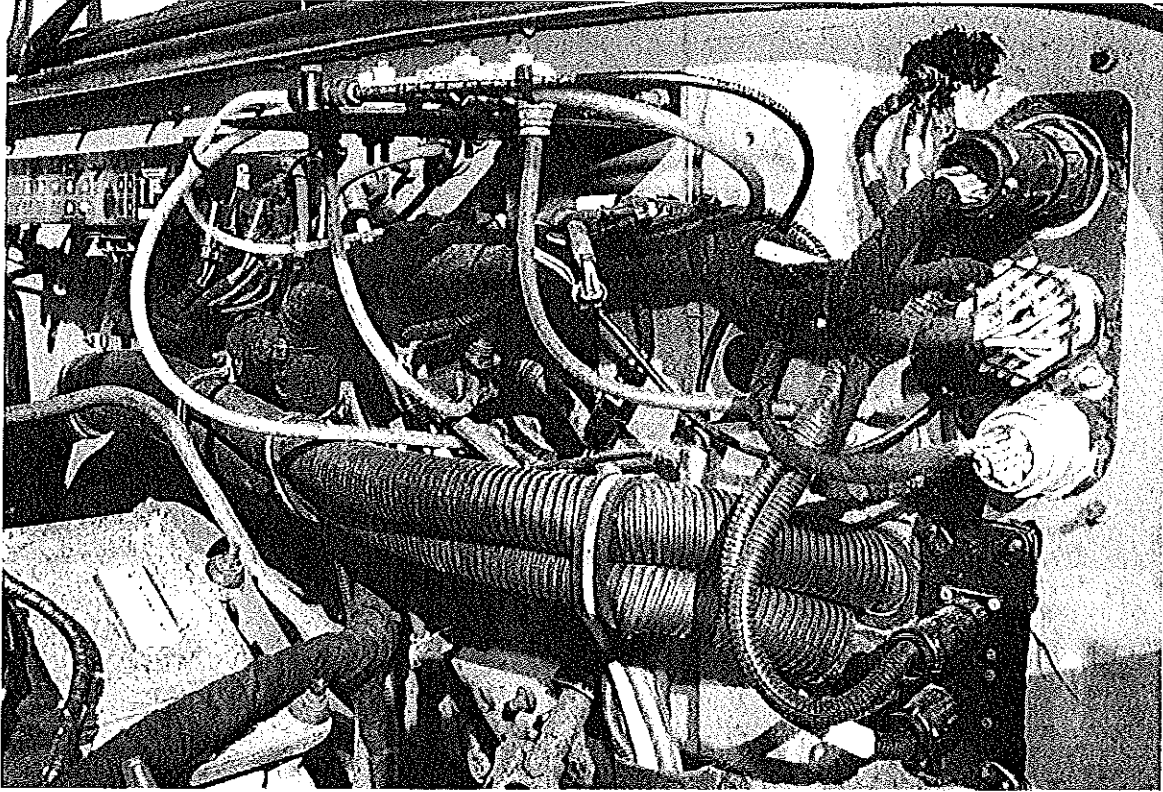
- ◆ Check overall condition of engine and contents for excessive moisture
- ◆ Turbo Charger is secure with no loose clamps or hoses and the housing has no cracks or leaks in the oil lines
- ◆ Alternator is mounted securely with no missing nuts or bolts. Wiring to the alternator is not frayed or damaged. Alternator is belt driven.
- ◆ Water Pump is mounted securely with no leaks and is belt driven
- ◆ Belts should not move more than  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch and have no frays or visible cracks
- ◆ Power Steering Fluid should be between add and full and have no signs of leaks
- ◆ Windshield Washer Fluid reservoir is full, cap is on tight and there are no leaks



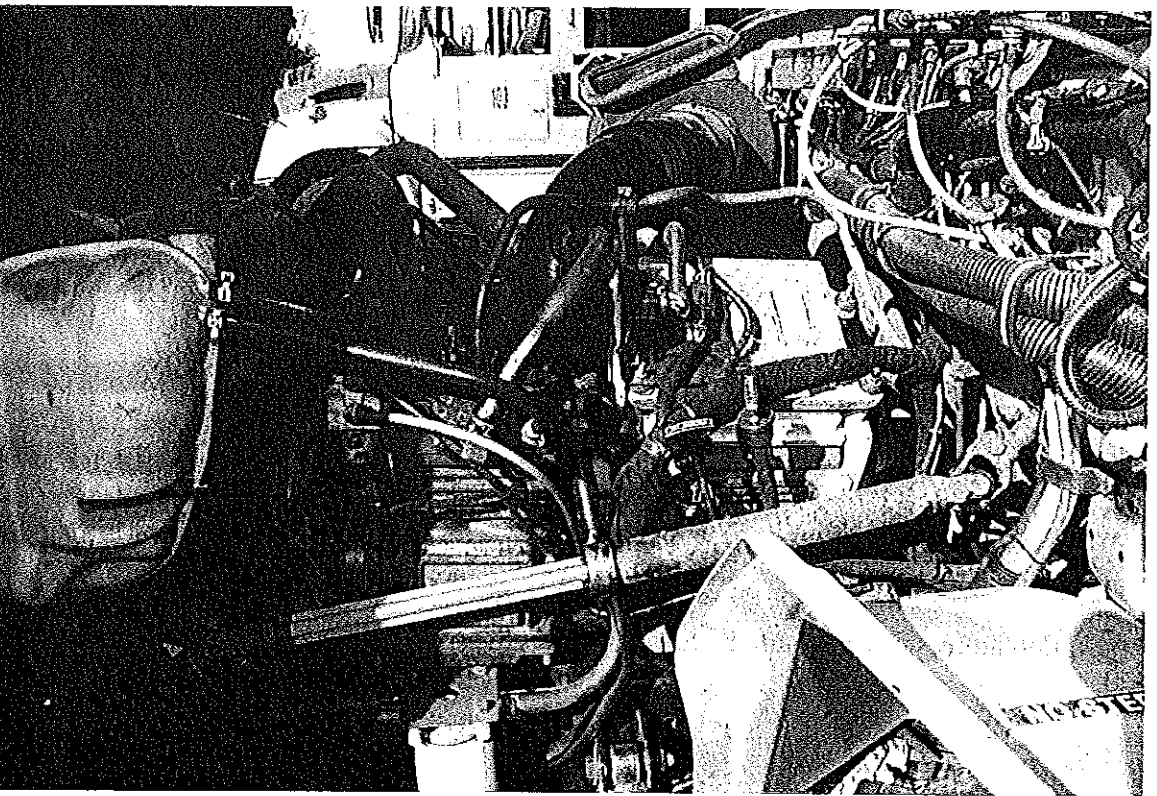
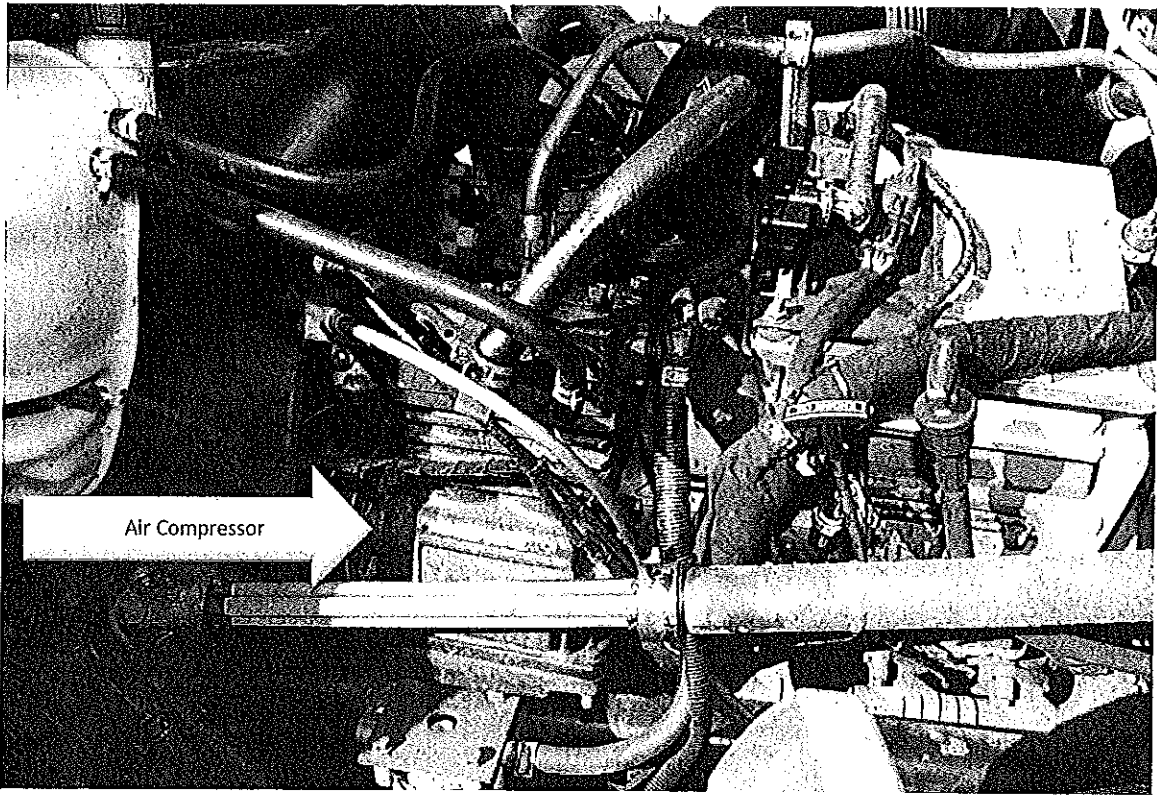
# Move to Other Side of Engine

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- ◆ Wiring has no frays, corrosion or excessive wear



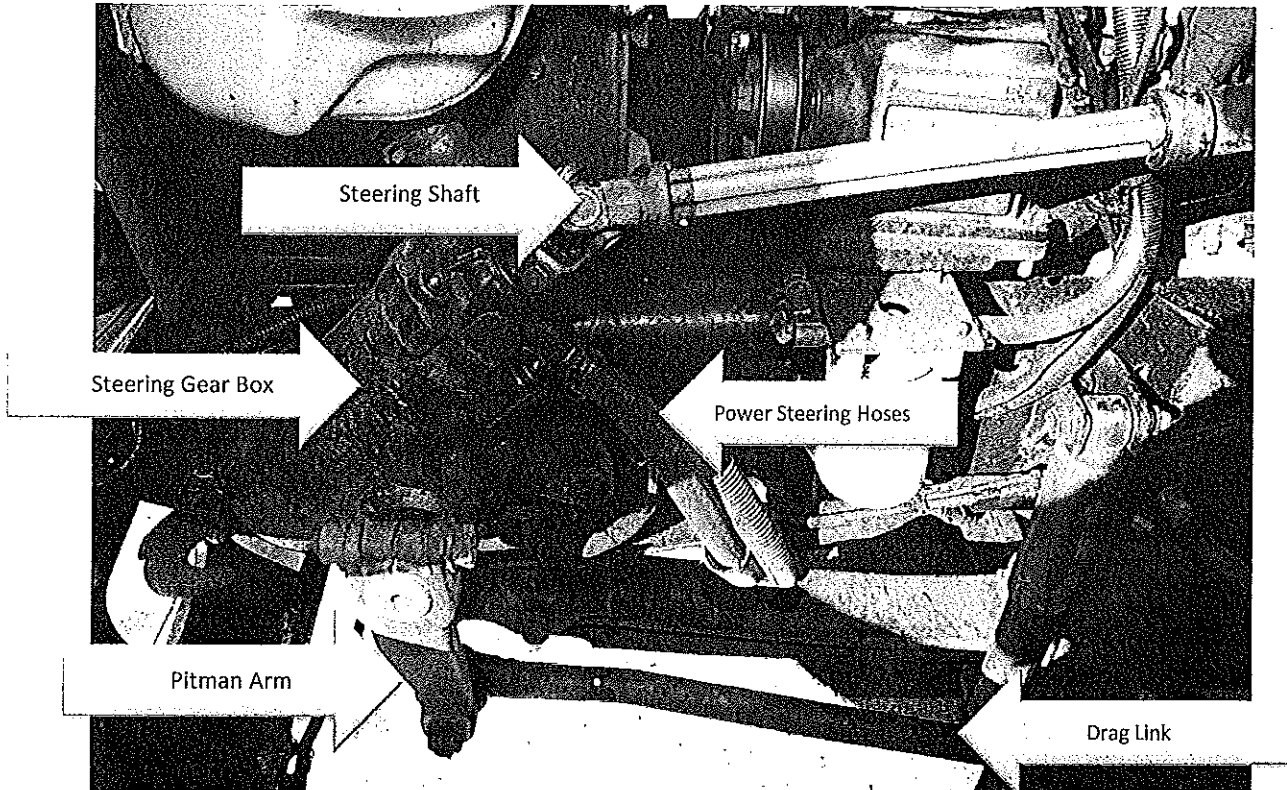
- ◆ Oil level should be between add and full
- ◆ Transmission fluid level should be between add and full when engine is idling
- ◆ Hoses have no cracks or leaks and all clamps are secure and not missing
- ◆ Air Compressor is mounted securely with no broken or missing parts and no leaks. Air compressor is belt driven.
- ◆ Power Steering Pump is gear driven, mounted securely with no broken or missing parts and no leaks
- ◆ Coolant reservoir should be full with no signs of leaks

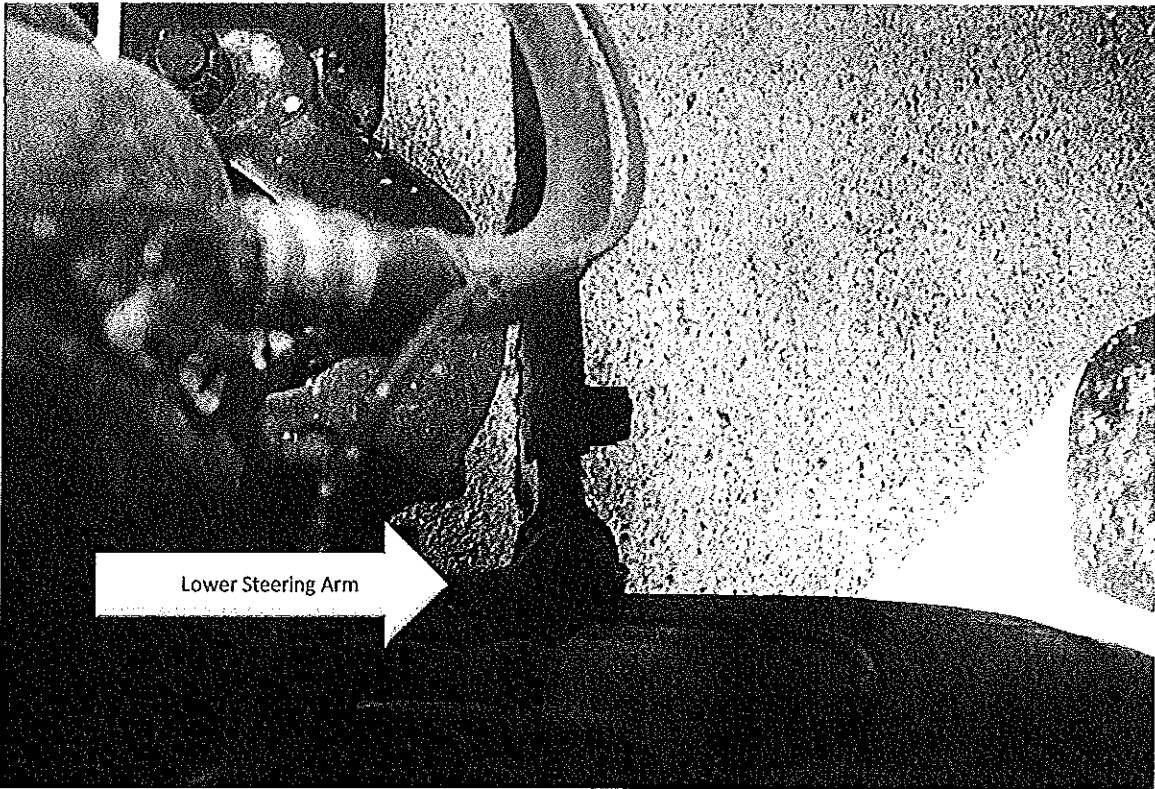
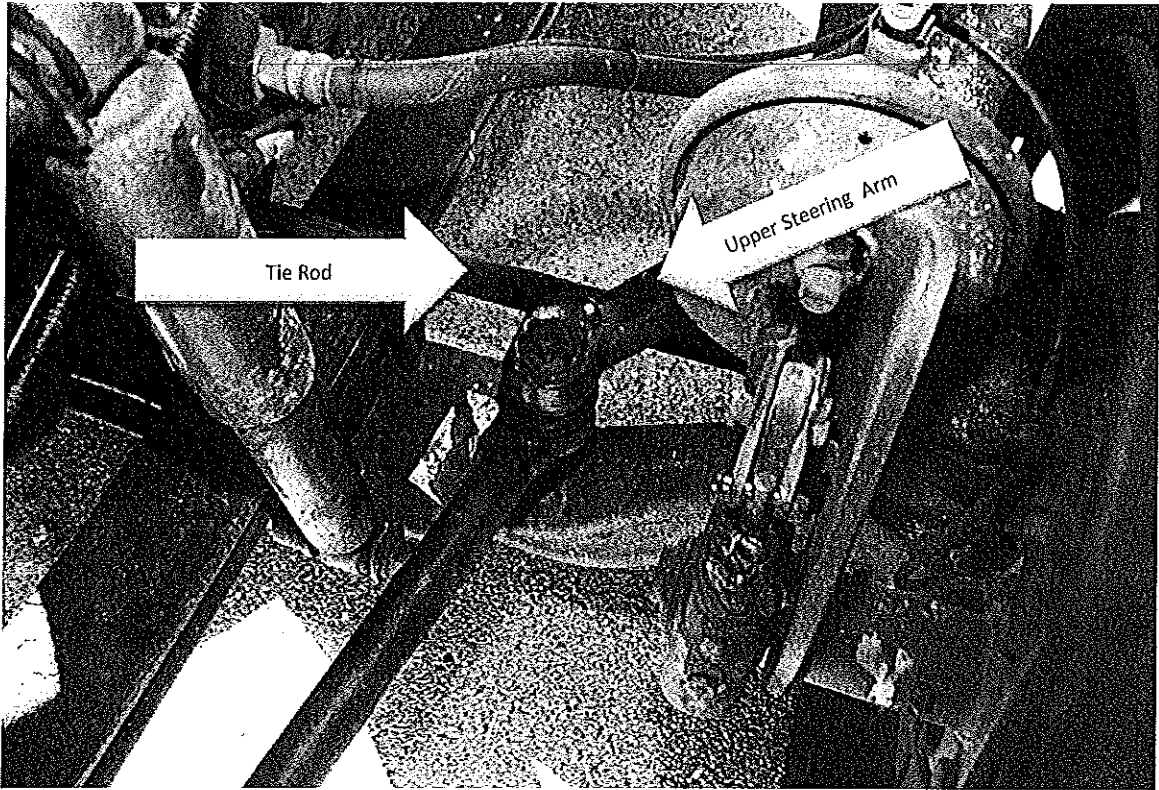




# Steering Components

- ◆ Steering Shaft / Pitman Arm / Drag Link / Tie Rod are not worn, cracked, bent, or missing nuts and bolts; cotter pins are in place
- ◆ Steering Gear Box is securely mounted and not leaking
- ◆ Power Steering Hoses are secure, not damaged or leaking
- ◆ Steering Arms are not damaged and have no missing nuts or bolts

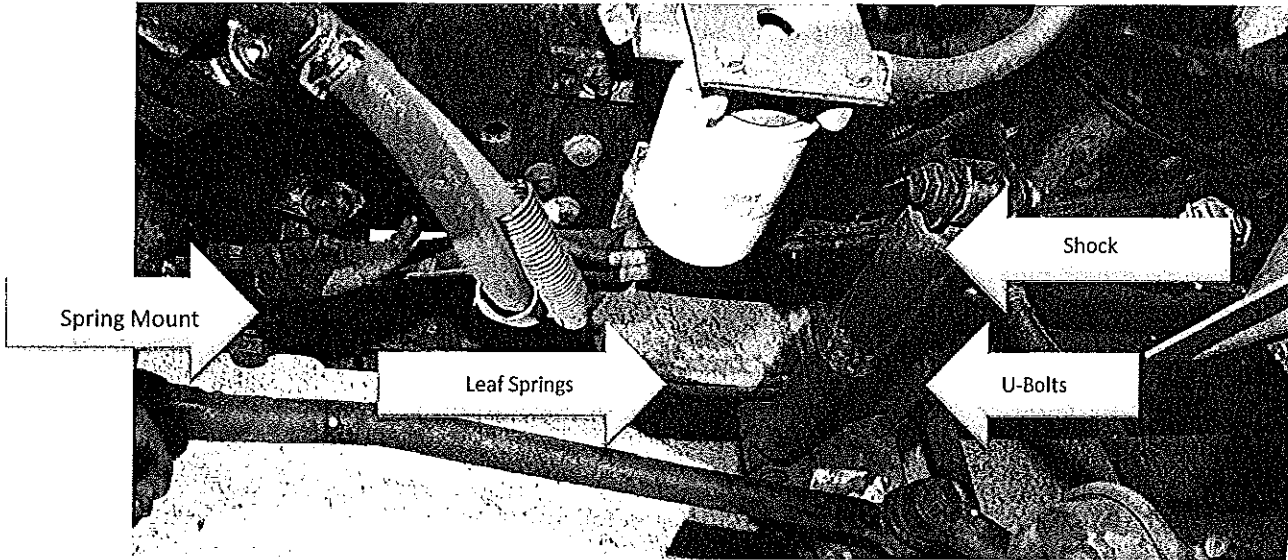




# Front Axle – Suspension

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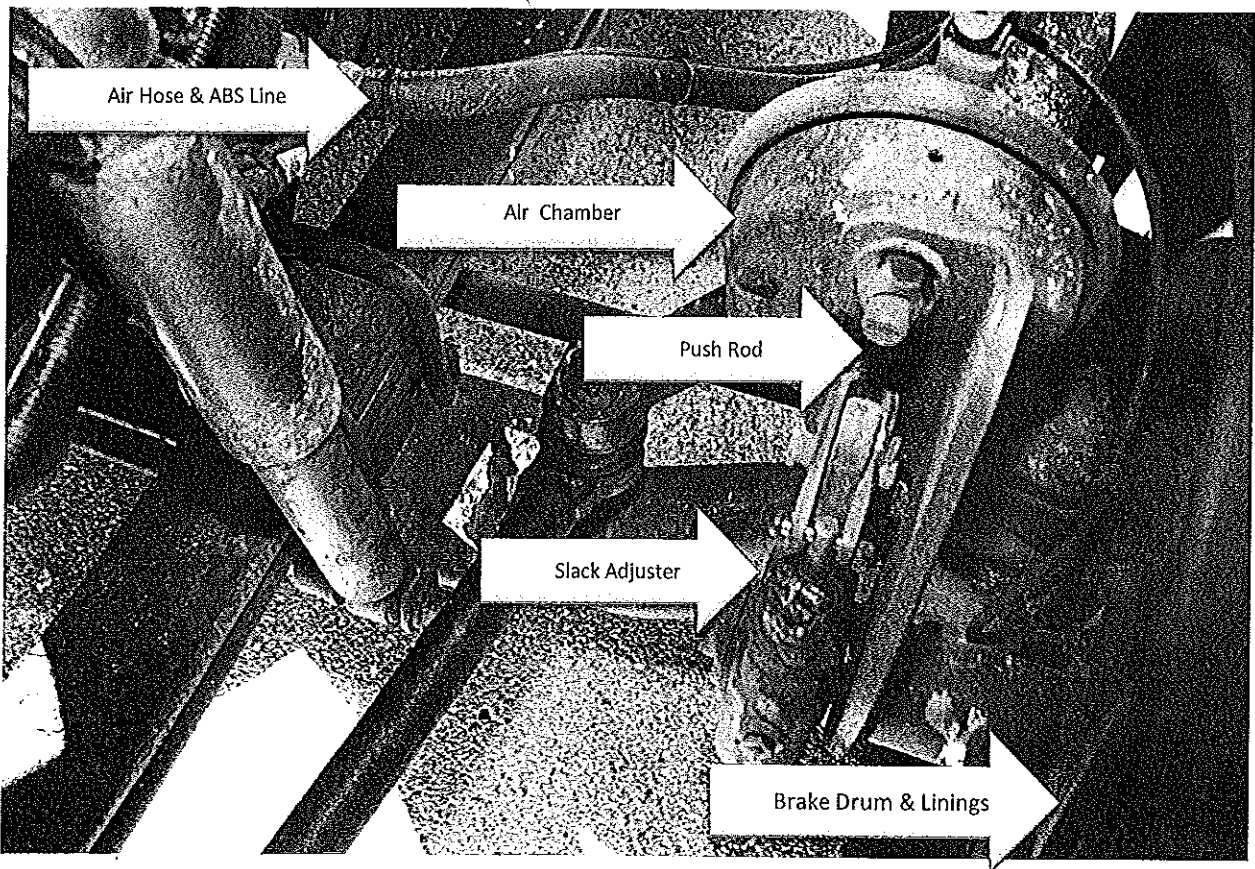
- ◆ Leaf Springs are not missing, shifted, cracked or broken
- ◆ Spring Mounts are secure, not cracked or broken and have no missing nuts or bolts
- ◆ U-bolts are not broken, loose or missing
- ◆ Shocks are securely bolted with no leaks



# Front Axle – Brakes

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- ♦ Air Hoses & ABS Lines are not cracked, worn or leaking. Hoses should be flexible.
- ♦ Air Chamber is securely mounted with no cracks, dents or leaks
- ♦ Slack Adjuster has no broken, loose or missing parts. The angle between the push rod and adjuster arm should be no less than 90 degrees when the breaks are applied
- ♦ Push Rod is not bent, broken, loose or missing any parts
- ♦ Brake Drums & Linings - If you could see the drums and linings check for cracks, dents, holes, loose or missing bolts. Check the linings are not worn dangerously thin.



# Front Axle – Tires and Wheels

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- ◆ Tread Depth is at a minimum of 4/32
- ◆ There are no abrasions, bulges or cuts to the tread or sidewalls.
- ◆ Tread is evenly worn
- ◆ Valve Stem & Cap are not missing, broken, or damaged
- ◆ Tire Inflation would be checked for proper inflation by using a tire gauge
  
- ◆ Rim is free of cracks, bends, weld repairs and excessive rust
- ◆ Lug Nuts should all be present, not loose and have no rust trails
- ◆ Hub Oil Seal is secure with no leaks (If sight glass is present check for proper oil level)
  
- ◆ Splash Guard / Mud Flap is securely mounted and not damaged



**Close and secure hood at this point**

# Left side of Bus

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Start at top of bus and work down

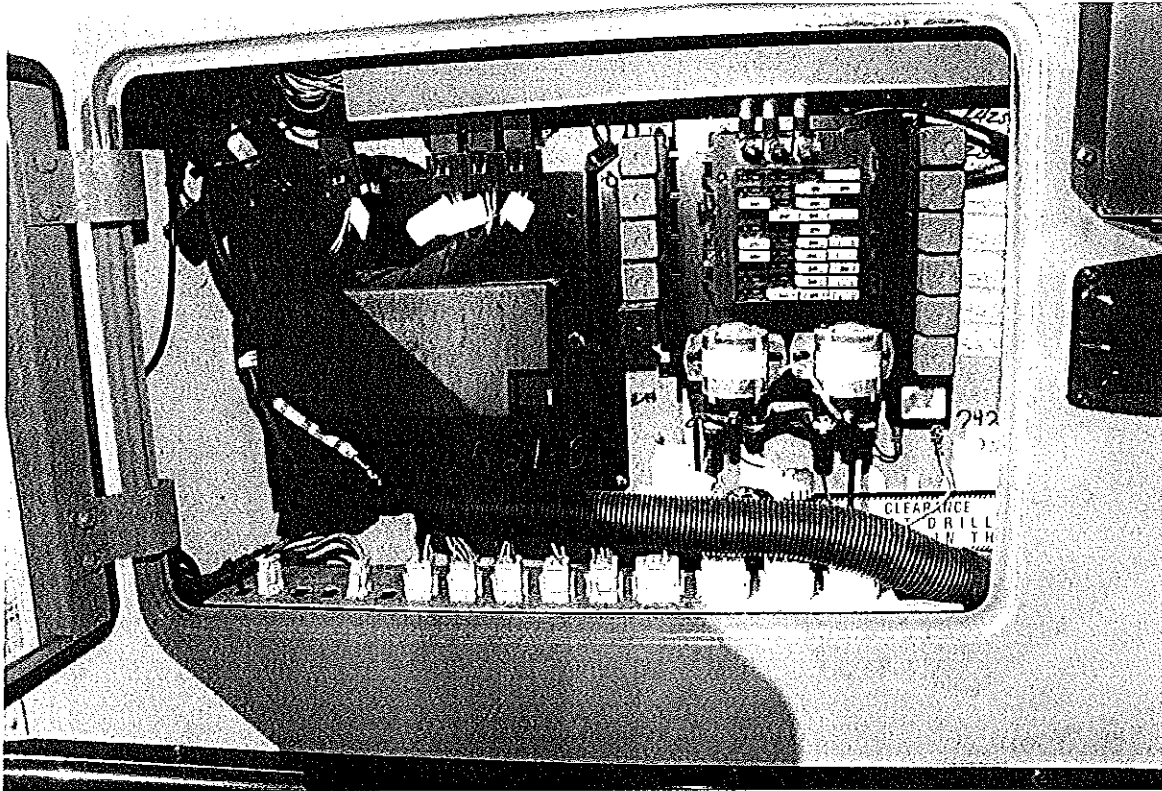
- ◆ Clearance Lights are clean, not missing or broken and are of the proper color:  
Amber in the front & middle  
Red in the rear
- ◆ Windows are clean, not broken and free of illegal stickers
- ◆ Side mounted turn signal light is secure, not broken or missing and of the proper color: Amber
- ◆ Ohio State Highway Patrol safety inspection sticker is valid
- ◆ Reflective tape is not damaged, loose or missing
- ◆ Reflectors are clean, not missing or broken and are of the proper color:  
Amber in the front & middle  
Red in the rear



# Electrical Panel / Circuit Breakers

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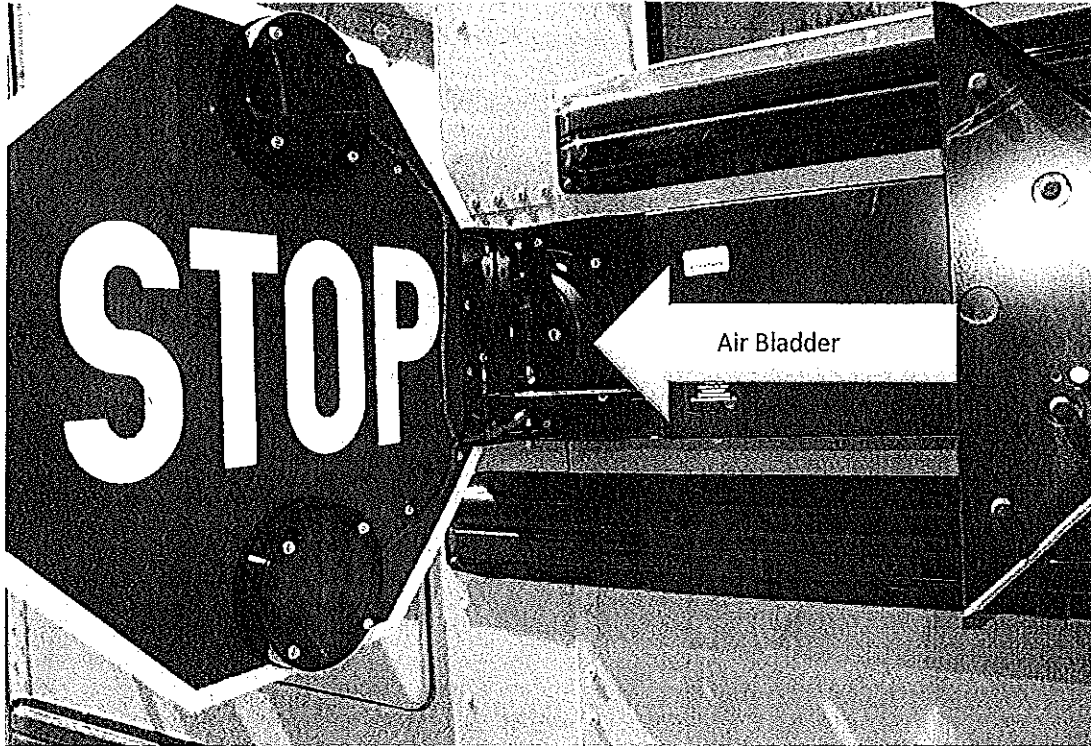
- ◆ Check wiring for frays, damage and foreign objects
- ◆ Bus is equipped with circuit breakers



# Stop Sign

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- ◆ Stop Sign is mounted securely with no damage or loose fittings.
- ◆ It extends fully and lights are of the proper color (red)
- ◆ There are no leaks in the air bladder
- ◆ The cable is not frayed and the cotter pin is not missing

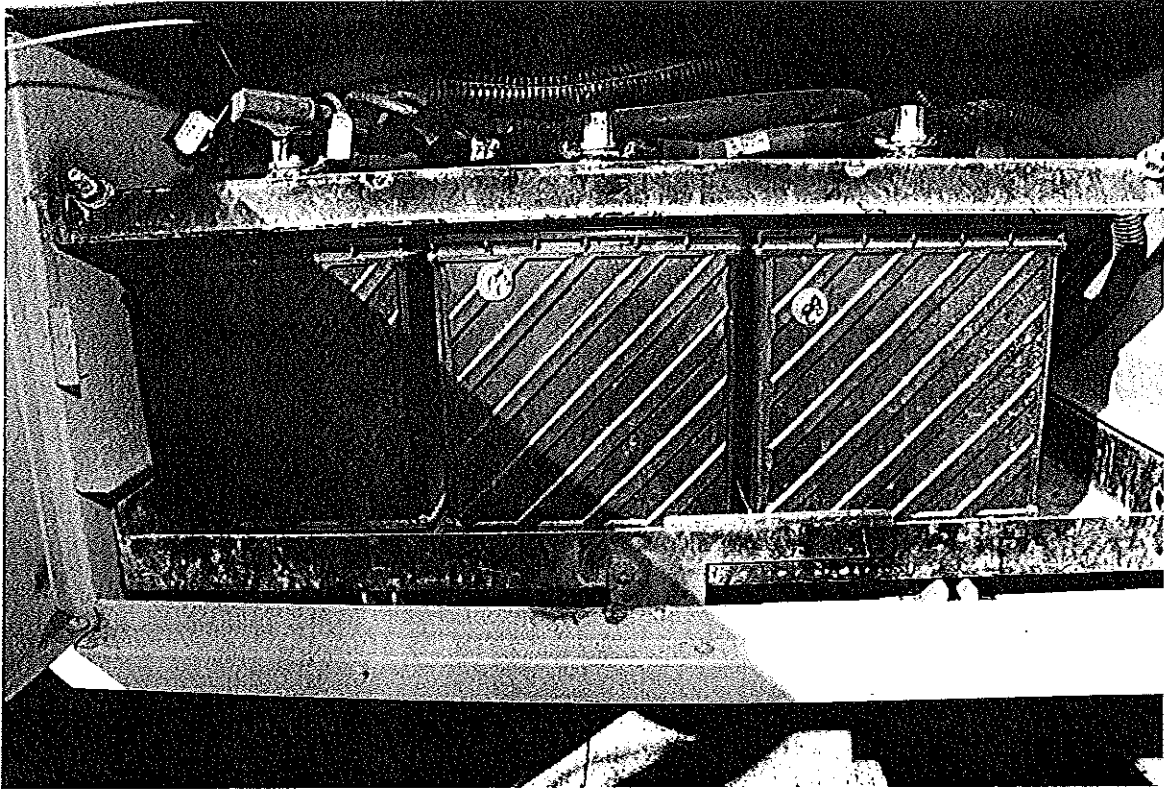




# Battery Box

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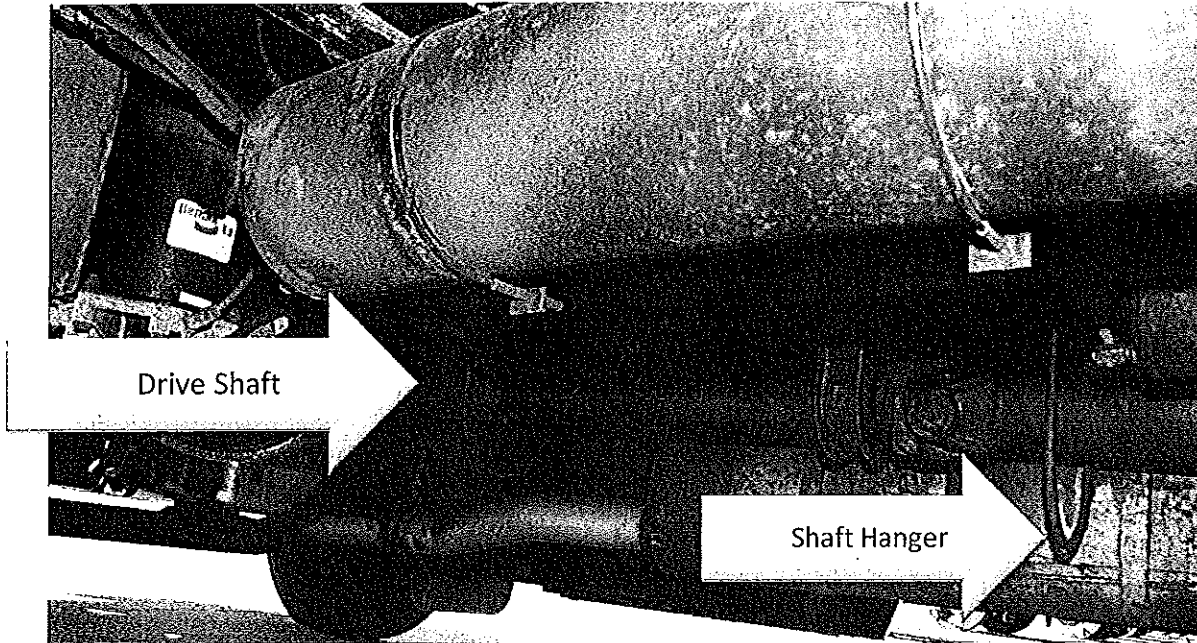
- ◆ Batteries are secure
- ◆ Caps are present and connections are tight
- ◆ No excessive corrosion
- ◆ No foreign objects



# Under Bus - Drive Shaft

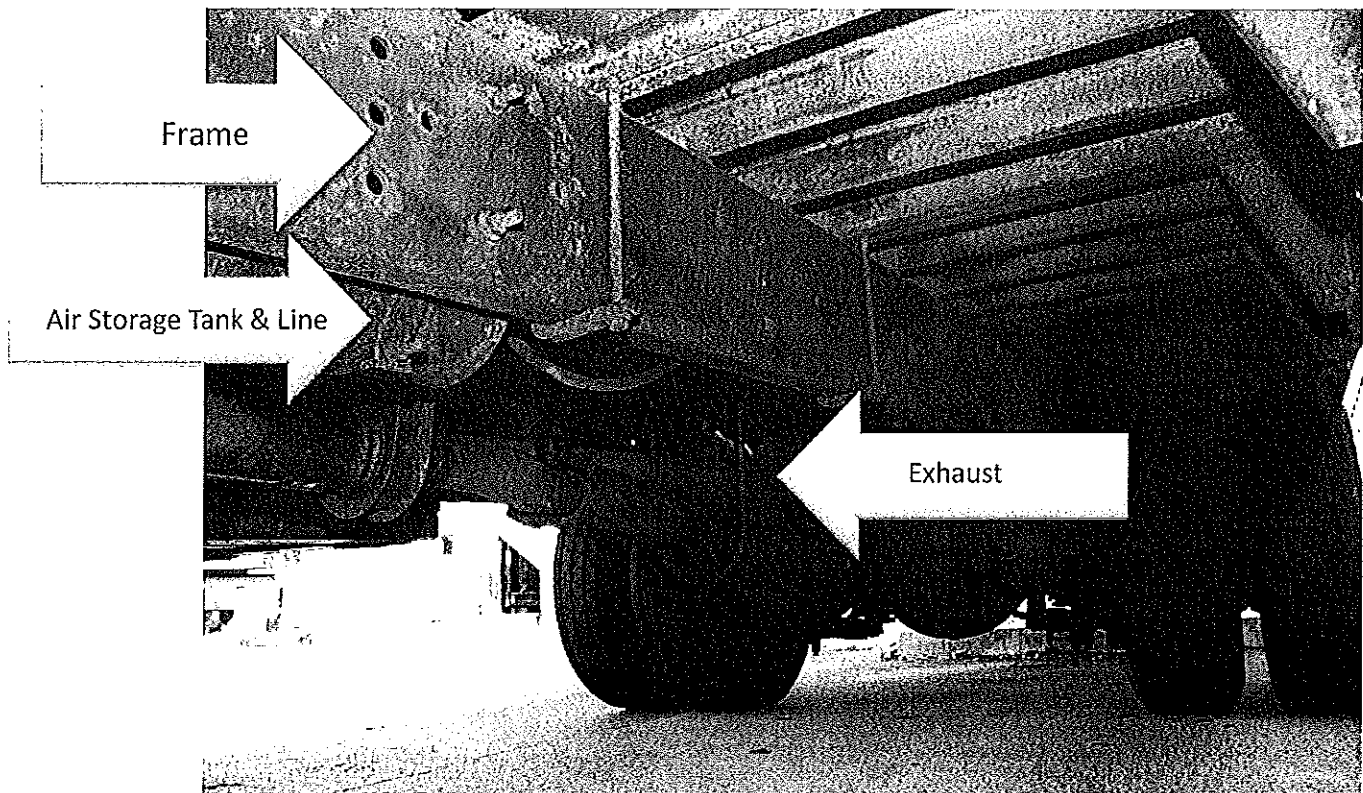
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- ◆ Drive Shaft is not bent or cracked
- ◆ Shaft Hangers are in place



# Under Bus – Exhaust/Frame/Air Tanks

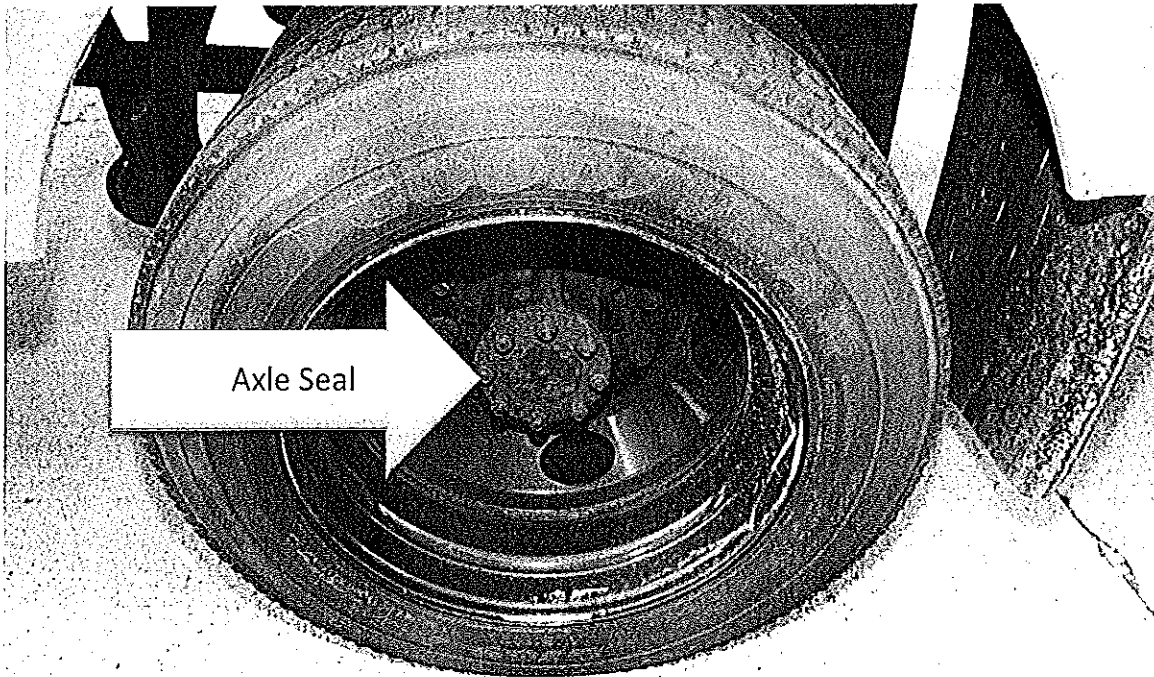
- ◆ Exhaust System is connected and mounted securely
- ◆ There are no cracks, holes or dents
- ◆ There is nothing rubbing against the exhaust
- ◆ The longitudinal frame has no cracks or bends
- ◆ Cross members are not loose, cracked, bent or missing
- ◆ Floor shows no signs of breaks or holes
- ◆ Air Storage Tanks and Lines are mounted securely with no holes, damage or leaks



## Rear Axle – Tires & Wheels

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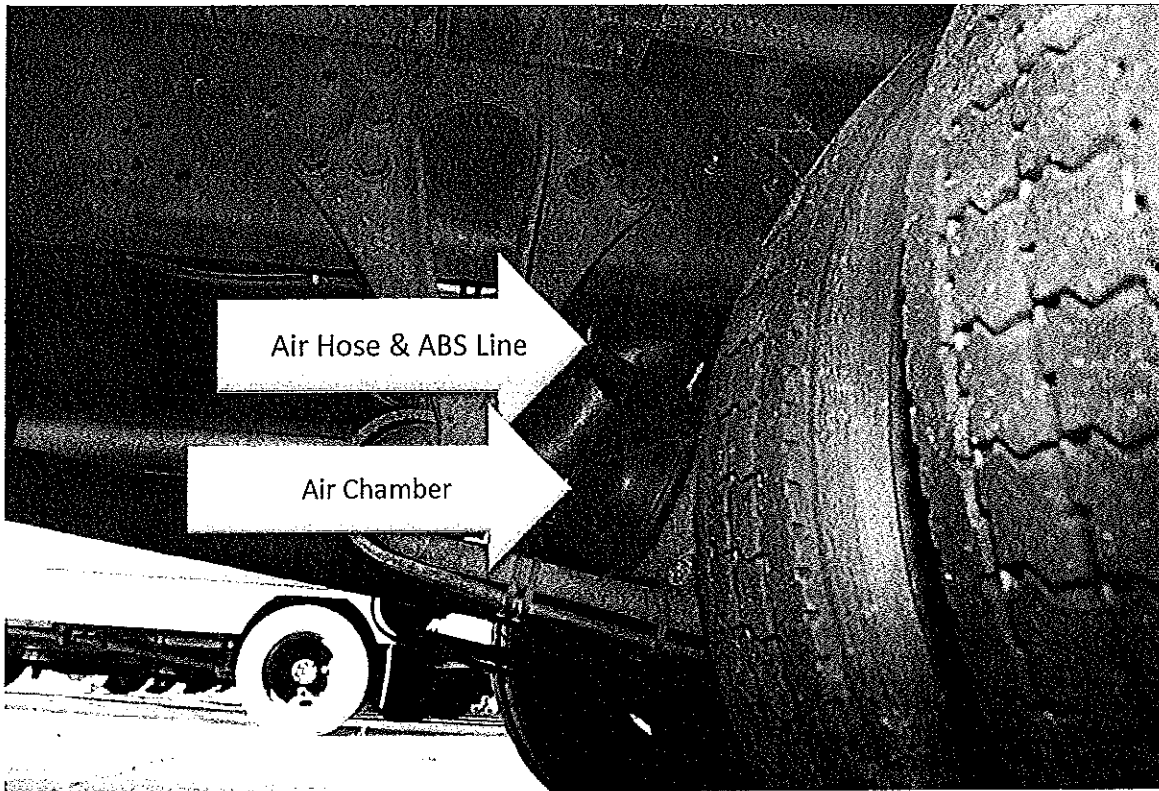
- ◆ Tread depth is a minimum of 2/32
- ◆ No abrasions, bulges or cuts to the tread or sidewalls
- ◆ Tread is evenly worn
- ◆ Valve stems and caps (2) are not missing, broken or damaged
- ◆ Tire inflation should be checked with a tire gauge
  
- ◆ Rims should be free of cracks, bends, weld repairs and excessive rust
- ◆ Lug nuts should all be present, not loose and no rust trails
- ◆ Axle Seal is secure and not leaking
  
- ◆ Dual tires should be evenly separated and free of foreign objects
  
- ◆ Splash guard/Mud flap is securely mounted and not damaged



# Rear Axle – Brakes

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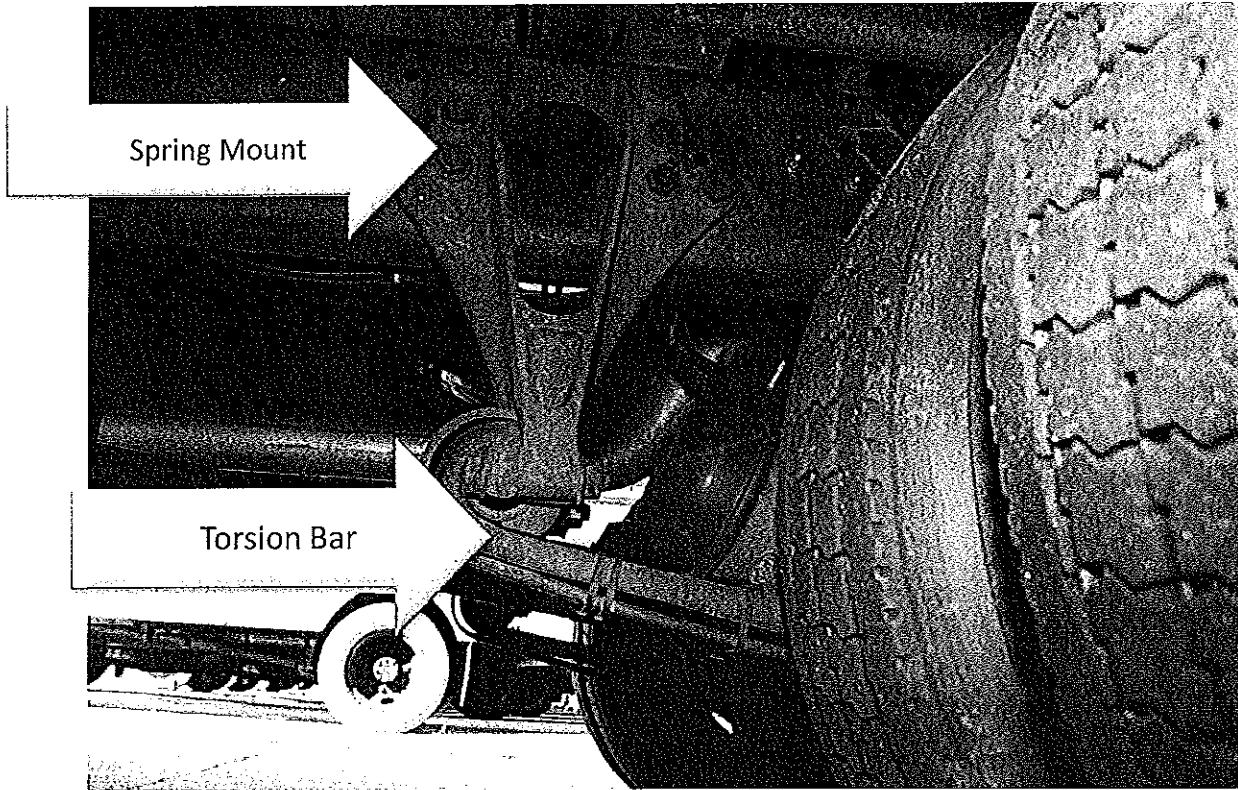
- ♦ Air Hoses & ABS Lines are not cracked, worn or leaking. Hoses should be flexible.
- ♦ Air Chambers are securely mounted with no cracks, dents or leaks
- ♦ Slack Adjuster has no broken, loose or missing parts. The angle between the push rod and adjuster arm should be no less than 90 degrees when the brakes are applied (cannot see well)
- ♦ Push Rod is not bent, broken, loose or missing any parts (cannot see well)
- ♦ Brake Drums & Linings - If you could see the drums and linings check for cracks, dents, holes, loose or missing bolts. Check the linings are not worn dangerously thin.

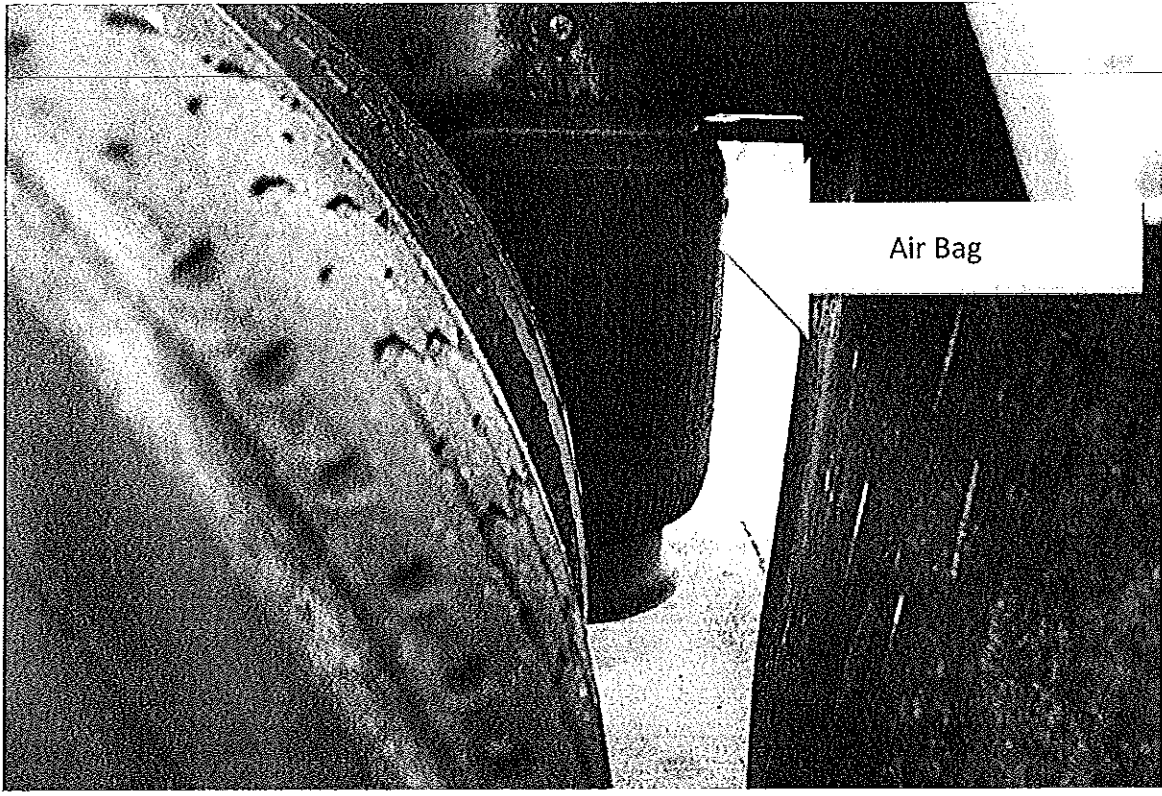


# Rear Axle – Suspension

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- ◆ Spring Mounts are secure, not cracked or broken and have no missing nuts or bolts
- ◆ Torsion bar is mounted securely and not damaged
- ◆ U-bolts are not broken, loose or missing
- ◆ Air bags are mounted securely with no damage or leaks





# Rear of Bus – Lights

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Start at top of bus and work down

All lens covers and reflectors are clean, secure, not broken and are of the proper color

- ◆ Red clearance lights
  - ◆ Amber & Red warning lights
  - ◆ Amber turn signals & 4-way flashers (hazards)
  - ◆ Red tail lights and brake lights
  - ◆ Clear back-up lights
  - ◆ Reflectors (red)
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- ◆ Reflective tape is not loose, missing or damaged





# Rear of Bus - Emergency Door

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- ◆ Open door fully and then pull door back towards you
- ◆ The safety hinge is working properly and should hold the door open
- ◆ The hinges are secure with no loose or missing bolts
- ◆ The rubber seal around the door should not be loose or damaged
- ◆ The glass should be clean, not damaged and have no illegal stickers
- ◆ The buzzer sounds and the dome lights come on when the door is opened
- ◆ The bus floor is clean
- ◆ Shut door. The door closes securely.



# Right Side of Bus – Wheelchair Lift

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- ◆ Open lift door and secure to bus with strap.
- ◆ Door should open fully
- ◆ Rubber seal around door should not be loose or damaged
- ◆ Hinges should secure with no loose or missing bolts
- ◆ Glass should be clean, not damaged and have no illegal stickers

## Unfold & Lower lift

- ◆ Lift controller should work properly
- ◆ Lift should lower with ease

## Raise & Fold lift

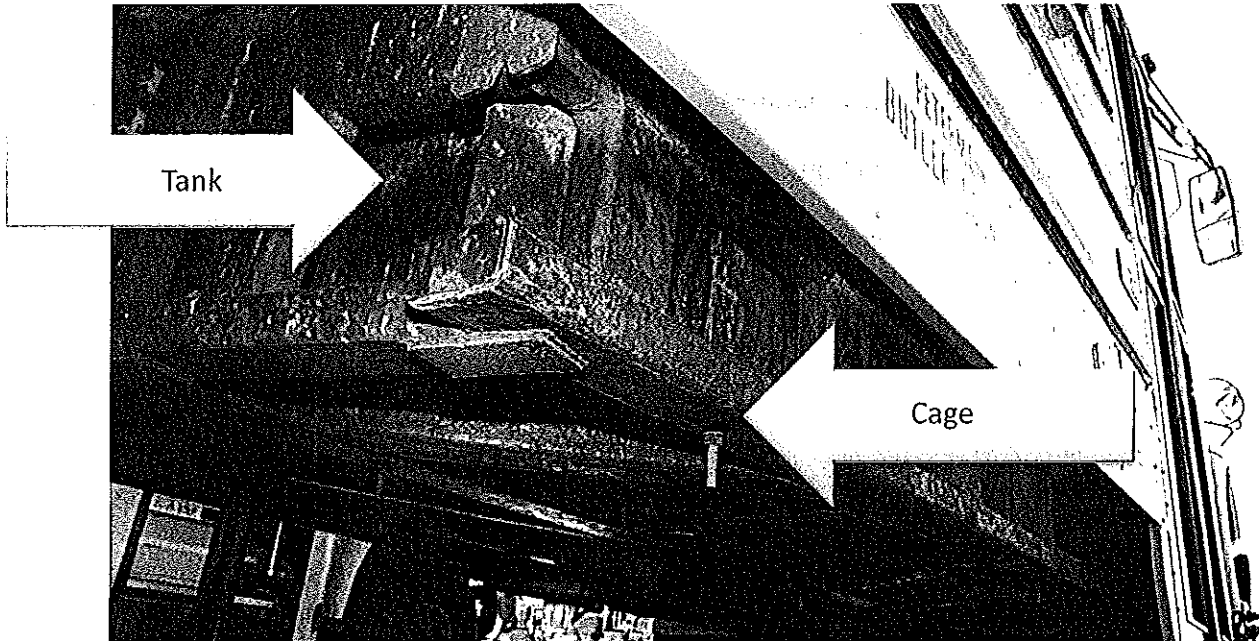
- ◆ Lift should raise and fold properly into position inside the bus



# Right Side of Bus – Fuel Area

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- ◆ Fuel cap is on tight and no signs of leaks
- ◆ Fuel cage, tank and lines are mounted securely with no damage or leaks



The bus has no dents, scratches, or vandalism

Tell examiner you would check this side of the bus the same as the other

# Entry Check

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- ◆ The service door opens and closes properly and is not damaged
- ◆ The rubber around the door is not damaged or loose and the glass is clean, not broken and no illegal stickers
- ◆ The hand rails are securely mounted
- ◆ The steps have no obstructions and the tread is not loose or excessively worn
- ◆ Step light is secure and cover is not broken

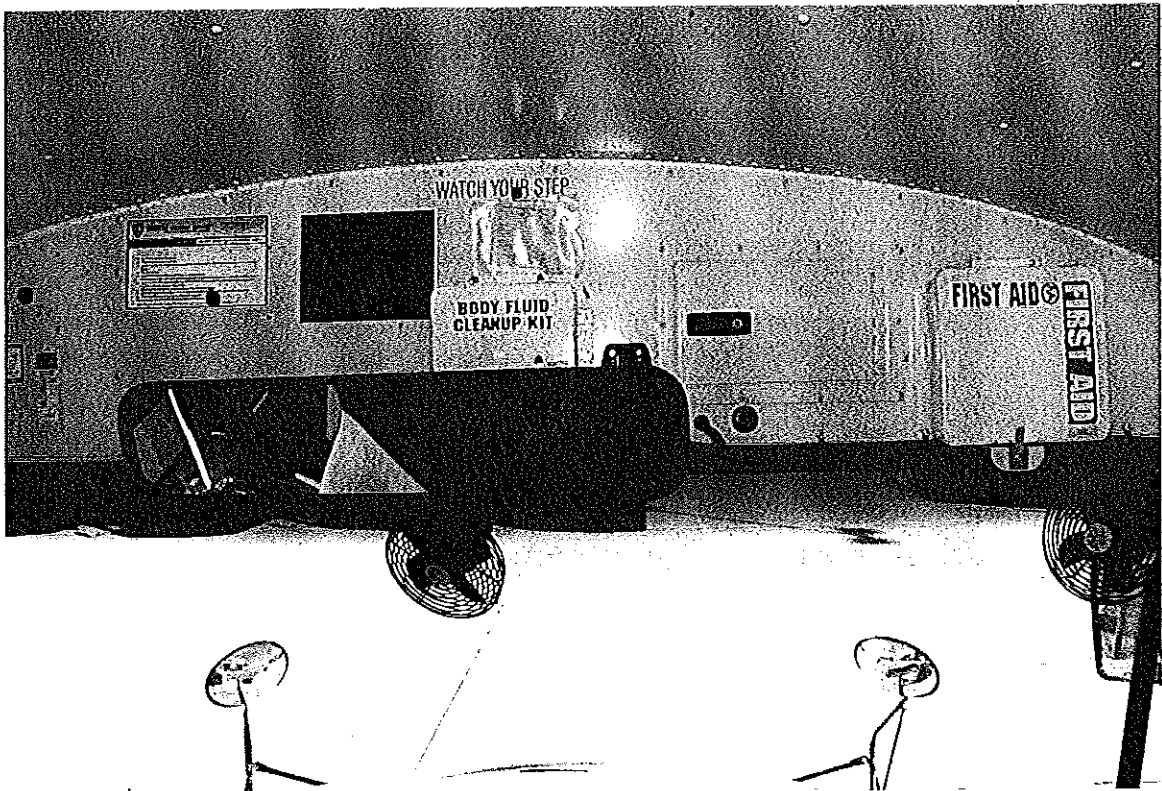


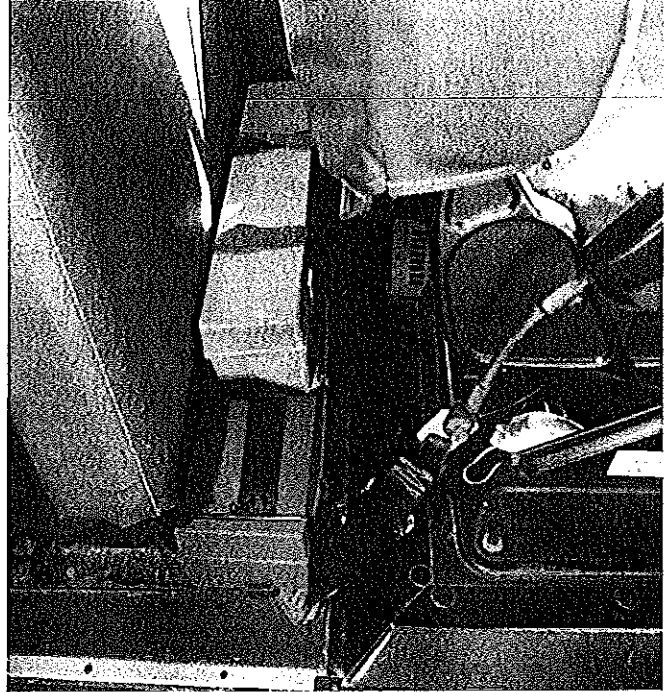


# Emergency Equipment

\*Emergency kits and boxes must be opened during recertification test

- ◆ First Aid Kit is mounted securely and fully stocked with sealed packages and three emergency assistance cards
- ◆ Body Fluid Kit is mounted securely and fully stocked
- ◆ Flashlight is working properly (turn it on and off) and secured
- ◆ Radio check - Tell examiner you would call base for a radio check
- ◆ Fire Extinguisher is a 5 lb. dry chemical extinguisher, securely mounted and properly charged
- ◆ Red Storage Box contains three reflective triangles and six 30-minute fuses/flares  
(Bus may have extra box that contains spare triangles)  
(These are located behind driver's seat)

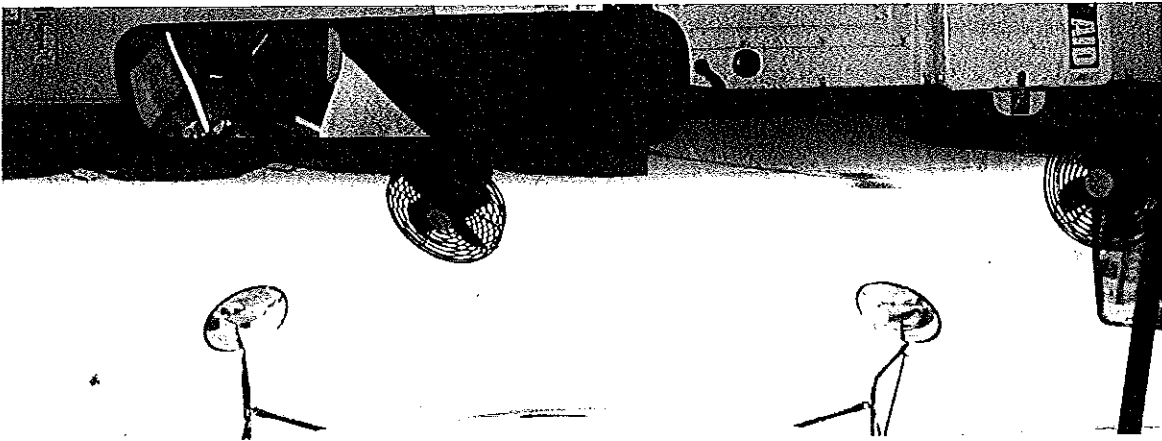




## Windshield/Visor/Overhead Mirror

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- ◆ Windshield is clean, not damaged, has no obstructions and no illegal stickers
- ◆ The windshield visor is clean, secure and not damaged
- ◆ Overhead mirror is secure and properly adjusted



# Driver's Area

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Sit in driver's seat and put seat belt on

- ◆ Driver's seat is securely mounted and properly adjusted
- ◆ Seat belt is mounted securely, has no frays or damage and latches securely
- ◆ Mirrors are properly adjusted. Point to and count out loud all 9 mirrors beginning with the right side flat mirror



# Safe Start

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Tell examiner you are about to perform a safe start

- ◆ Bus is in neutral
- ◆ Parking brake is set
- ◆ Turn key to the right and wait for "Wait to Start" light to go out
- ◆ When light goes out start bus

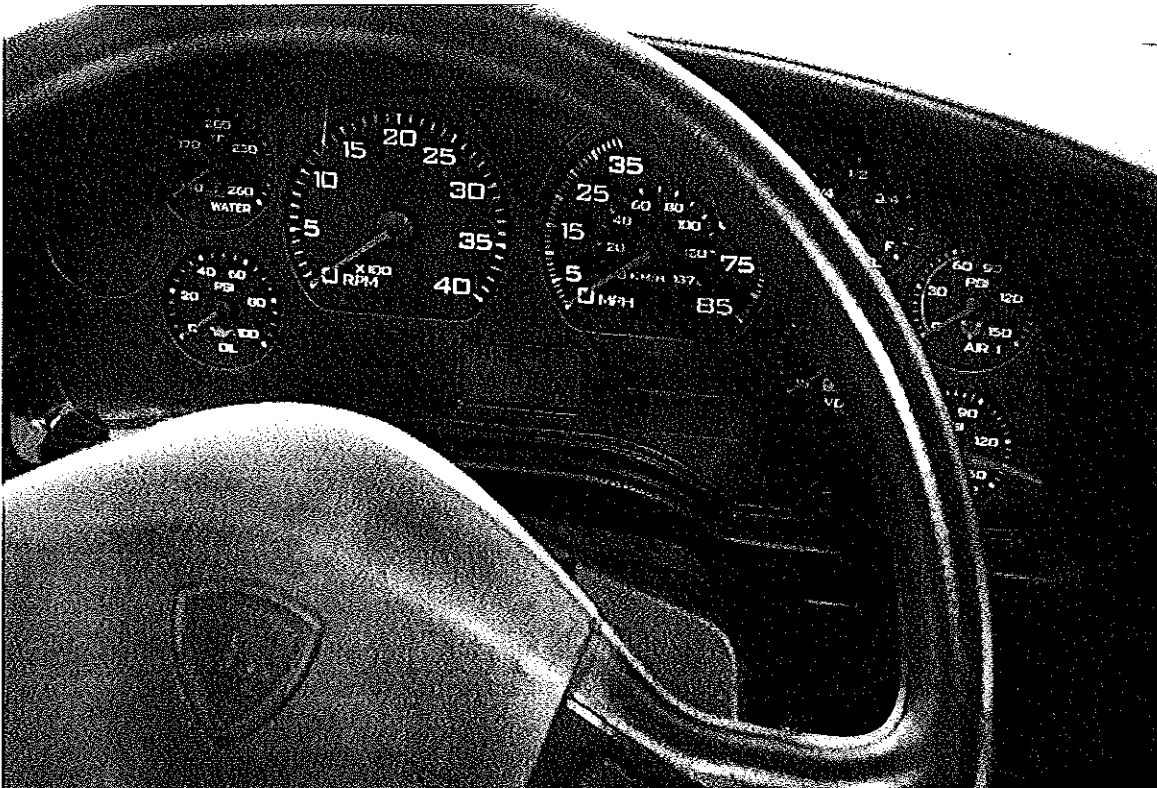
Look for the ABS light and tell examiner when the light goes out after starting bus



# Gauges

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- ◆ Covers on all gauges are clean and not cracked
- ◆ Name each gauge and say if it is in normal operating range or if it is building
- ◆ Water Temperature
- ◆ Oil Pressure
- ◆ Tachometer
- ◆ Speedometer
- ◆ Odometer
- ◆ Fuel
- ◆ Voltmeter
- ◆ Air Pressure (front & rear)



# Gearshift

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- ◆ Go through all gears and then into reverse; gearshift should move smoothly; the reverse beeper should sound



# Headlights & Indicator Lights

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Turn on the headlights - Instrument panel lights should come on behind gauges and switches

Indicators: Check indicator lights on the instrument panel (point to each as you name them)

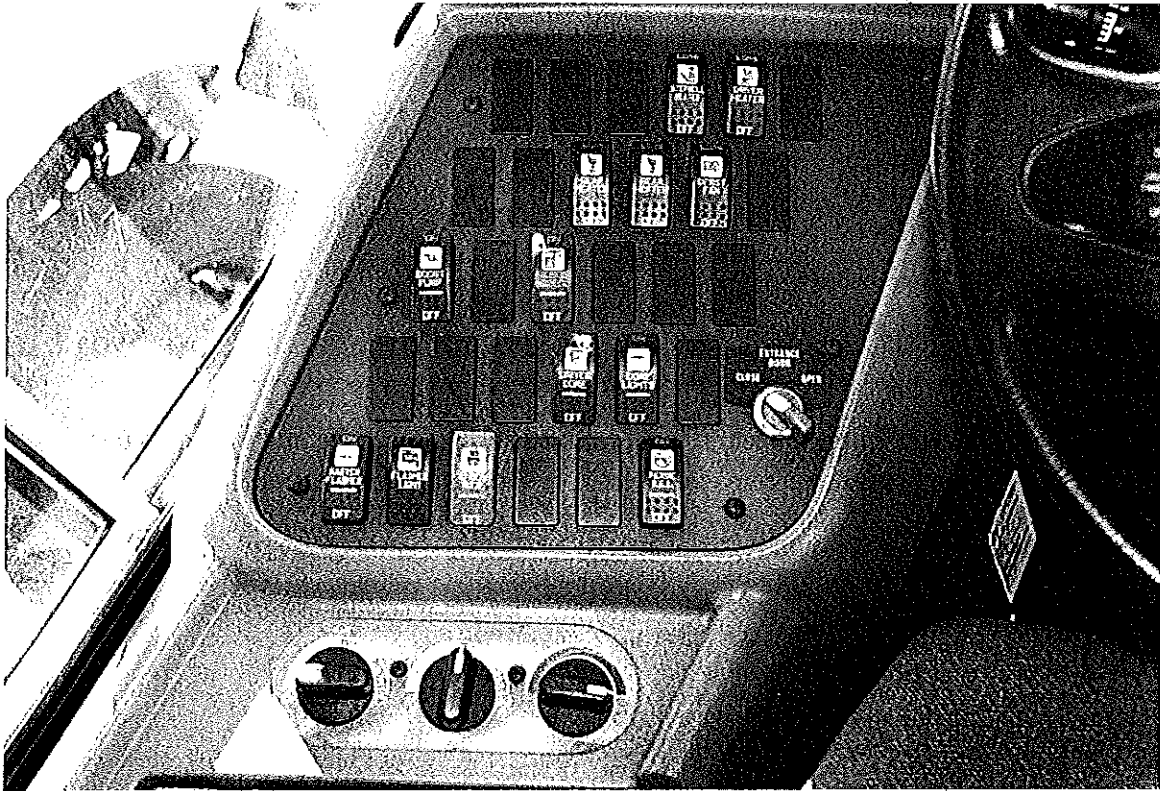
- ◆ Right turn signal
- ◆ Left turn signal
- ◆ Hazard lights
- ◆ High beam
- ◆ Warning light Master switch (indicator light is built into switch) (turn switch off and try to activate amber lights - they should not activate - turn switch back on)
- ◆ Amber warning lights (indicator light on dash)
- ◆ Open service door - door opens properly and red lights activate
- ◆ Red warning lights (indicator light on dash)
- ◆ Close service door - door closes properly
- ◆ Emergency Warning Lts (override) - turn switch on (check indicator light on dash) and then turn off

# Switches

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Operate all side panel switches starting from the bottom working up (turn on & off)

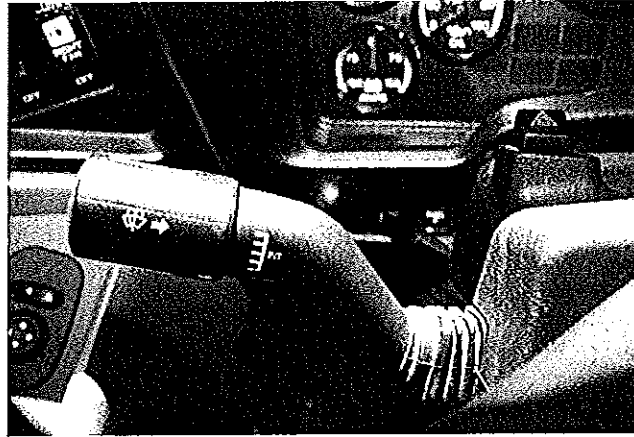
- ◆ Noise Kill
- ◆ Dome Lights - Light covers are secure, none missing, and lights are working properly
- ◆ Driver's Dome
- ◆ Strobe Light (if equipped)
- ◆ Heated Mirrors
- ◆ Boost Pump (if equipped) (used with heaters when cold)
- ◆ Defrost Fan
- ◆ Heaters
- ◆ Left Fan / Right Fan



# Windshield Wipers/Washers

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- ♦ Windshield wipers are secured to the arms and fit firmly to the glass
- ♦ Operate wipers (Delay, Low, & High) and washer fluid – wipers & fluid should operate properly



# Steering Wheel & Horn

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- ♦ Turn steering wheel back and forth - Wheel should not have more than 10 degrees or 2 inches of play
- ♦ Sound the horn: Should work properly



# Parking Brake Test

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Seat belt must be worn for brake tests

- ♦ While bus is running, shift into drive and accelerate slightly with parking brake on
- ♦ Bus should not move

# Service Brake Test

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- ♦ Release the parking brake, drive forward slowly (about 5 mph) and apply the service brake firmly
- ♦ The bus should not pull to one side or have a delay in the stopping action
- ♦ Place the bus on level ground or against parking block and turn wheels to the left
- ♦ While the bus is running make sure the air pressure has built up to approximately 110-125 psi
- ♦ Turn headlights off and shut bus off

# Air Brake Test – Storage Tank Leak Test

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- ♦ Turn key to the right (do not start) – allow air gauges to reset
- ♦ With the bus on level ground or against parking block, release the parking brake – **KEEP FOOT OFF SERVICE BRAKE** (You may need to depress service brake for parking brake to release)
- ♦ Watch the air pressure gauges. After the initial drop and the pressure stabilizes the pressure should not drop more than 2 psi in one minute
- ♦ You are testing the storage tanks under the bus for leaks

# Air Brake Test – Service Brake Leak Test

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- ♦ Apply firm pressure to the service brake and hold
- ♦ Continue to watch the air pressure gauges. After the initial drop and the pressure stabilizes the pressure should not drop more than 3 psi in one minute
- ♦ You are testing the service brake for leaks

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# Air Brake Test – Warning System & Emergency Brake Test

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- ♦ Begin to rapidly pump service brake down to approximately 60 psi. The low air pressure warning light and buzzer should sound
- ♦ Continue pumping brakes down until parking brake applies (pops out) at approximately 30 psi
- ♦ Once parking brake applies, start engine and build air pressure up until air tanks are full (approximately 110-125 psi).

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## Inside Walk-Through

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While air pressure is building get out of driver's seat and do walk through

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## Seats & Frames

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- ♦ Seats are secured to the floor and there is no damage to the seat bottoms, backs, and frames



# Emergency Exits - Windows

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Stop at one of the emergency exit windows and open

- ◆ Emergency Exit Window opens fully and the buzzer and dome lights come on
- ◆ I have one other I would check the same way



## Emergency Exit – Roof Hatch

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- ◆ Push both ends of hatch up
- ◆ Twist red knob to unlock and push on knob to open the hatch fully
- ◆ Hatch opens freely, buzzer sounds and lights come on



## Emergency Exit – Rear Door

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- ◆ Head bumper is mounted securely above door
- ◆ Open rear door
- ◆ Door opens freely, safety hinge is working properly, the dome lights come on and the buzzer is sounding
- ◆ Door closes securely





Return to driver's seat

## Operation of Lights

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At this time ask the examiner to go outside and check your lights – Tell examiner what lights you want checked:

In the front:

- ◆ Clearance lights
- ◆ Amber & Red warning lights
- ◆ Emergency override
- ◆ Right & Left turn signals
- ◆ 4-way flashers
- ◆ Headlights – Low and high beams

On the sides:

- ◆ Clearance lights
- ◆ Stop sign lights
- ◆ Turn signals

In the rear:

- ◆ Clearance lights
- ◆ Amber & Red warning lights
- ◆ Emergency override
- ◆ Right & Left turn signals
- ◆ 4-way flashers
- ◆ Brake lights
- ◆ Tail lights
- ◆ Reverse lights and beeper
- ◆ Strobe light (on top of bus – if equipped)
  
- ◆ Step light as examiner exits bus

Immediately after examiner exits bus – close service door

When examiner is finished checking lights, shut off strobe light and open service door

At this point your pre-trip is complete

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# Operation Inspection

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During the driving evaluation mention to the examiner:

- ◆ Engine has no unusual noises or vibrations
- ◆ Transmission is not slipping or shifting hard
- ◆ Suspension has no unusual ride, noises or handling characteristics

# Post-Trip Inspection

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After the driving evaluation is completed say I would:

- ◆ Set parking brake
- ◆ Put bus in neutral
- ◆ Turn off all switches
- ◆ Check for students
- ◆ Check seats for damage
- ◆ Check interior for cleanliness
- ◆ Complete reports