

Pre and Post Trip Inspection for School Bus Drivers

Video Reference Guide and Test

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INTRODUCTION

School buses are complicated pieces of equipment. In order for these buses to run safely and protect the students they are transporting, they need constant attention and that is where the role of the Pre Trip Inspection comes into play. During the course of the video we will focus on the most important elements that make up the pre trip inspection and please keep in mind that the video is designed to supplement, not replace the training that your school district provides.

Terri Steinberg, a school bus instructor from Liberty Union School district will serve as our guide throughout the program.

Inspecting Emergency Equipment

1) Every morning of a school day, the school bus will need to pass the pre trip inspection. The inspection is to determine that your bus will pass all the necessary tests to make it safe for students to ride the bus. ***However, it is important to follow the policies of your school district. The material in this video is meant to supplement, not replace, the procedures and policies for your school district.***

2) A good starting point for the inspection of the bus is to look for any visible damage. This may include:

- a) Cracks in the windshield
- b) Dents that may be present on the bus
- c) Visual defects on the exterior of the bus

3) When first entering the bus, the driver checks the the stairs to make sure they are clear of debris and other hazards. And the driver also checks securement of the student hand rails.

4) The driver then makes sure that all the insurance, registration, and inspection forms are properly displayed and are up to date.

5) The driver then checks the safety equipment on the bus. The first item that the driver checks is the **first aid kit**. The driver checks the kit for damage around it's seams, makes sure to count the individual first aid packets and checks to make sure that the packets are wrapped and undamaged.

6) Next the driver checks the fire extinguisher. The pin must be secure, the charge must be showing in the green on the charge display, and the fire extinguisher should be easily accessible.

Inspecting Gauges and Components

7) The next part of the pre trip inspection focuses on the gauges and component switches in the driver's compartment. During this inspection, the driver must make sure that all the gauges are reading correctly and the switches are activating the correct display lights in the dash. Here is a generic breakdown of the component items that the driver will check:

- a) Mirror adjustment switch
- b) Heater and Defroster switches
- c) Master light switch
- d) amber light switch
- e) crossover light switch
- f) Drivers compartment light
- g) Student lights
- h) Left and right turn signals and hazard lights

8) When checking the gauges, the driver checks for the following:

- a) RPM gauge
- b) MPH gauge
- c) Battery gauge
- d) Temperature gauge
- e) Fuel gauge
- f) Air Brake gauge

9) It is important to check all the gauges and switches to make sure they are all in good working order.

Inspecting the Exterior of the School Bus

10) Once the interior gauges and switches are all checked and are in good working order, it is time to check the outside of the bus for any defects, damage, or lights that may not be working.

11) During the exterior portion of the pre trip inspection, **Terri walks around the bus in several passes. Each pass focuses on an individual sets of lights, turn signals and more.** Terri will now proceed with the **first** walk around of the bus.

FIRST EXTERIOR INSPECTION

12) These are the first set of lights the driver engages:

- a) High beams
- b) Left turn signal
- c) Amber lights

13) The driver then exits the bus, and walks to the front of the bus to make sure the lights listed above are all working. The driver makes sure that:

- a) the clearance lights are all lit and are not damaged.
- b) the amber warning lights flash and are not damaged.
- c) the 'school bus' lettering is visible and readable.
- d) the left turn signal is working.
- e) the headlights are working and the lenses are not damaged.

14) Next the driver moves to the **driver side of the bus** and checks:

- a) All left turn signals are flashing and are not damaged.
- b) The mechanics compartment and ALL reflectors are present and not damaged.

- c) The emergency door opens and is working properly.
- d) The school bus lettering (name of organization) is clearly visible.
- e) The tires are in good working order.

15) **When checking the tires**, the driver must check for proper inflation. Check for any bulges, cracks or imperfections. Make sure to check all lug-nuts and hub-nuts for tightness, as well as the valve stem for securement. When checking the tread of the tires, there should be ***no less than 4/32nds tread depth***. Also, take the time to run your tire buddy through the dual tires for obstructions and check mud flaps to make sure they are securely fastened.

16) As the driver moves to the **rear of the bus**, check the following:

- a) the clearance lights are working and are not damaged.
- b) the school bus lettering is visible
- c) the amber lights are working and are not damaged.
- d) the emergency exit lettering is visible.
- e) the emergency exit window is not damaged.
- f) the stop red lights are flashing and the lettering is clearly visible.
- g) the tail lights are working and not damaged.
- h) the left turn signal is working and not damaged.
- i) the license plate is secure.
- j) the tail pipe is secure.
- k) The rear bumper is secure.
- l) School bus number and reflectors are visible and are not damaged.

17) As the driver moves to the **passenger side of the bus**, the driver checks:

- a) the side clearance light is on and not damaged.
- b) reflectors are ALL present and not damaged.
- c) battery compartment is secure and isn't damaged and doesn't leak.
- d) all lenses are not cracked or damaged
- e) the tires on the passenger side are thoroughly checked.
- f) lettering including the school bus number is clearly visible.

- g) all compartments and emergency triangle reflectors are working.
- h) check the fuel compartment door for leaks, damage and tightness of cap.
- i) check the service door for smooth operation and no damage.

SECOND EXTERIOR INSPECTION

18) The driver during the 2nd inspection checks the following:

- a) switches over to the red crossover lights.
- b) switches the headlights to low beams.
- c) engages her hazard lights.

19) The driver exits and walks to the **front of the bus on the second walk around**. The driver makes sure the other set of lights listed above are all working. The driver makes sure makes sure that:

- a) the red crossover lights are working and lenses are not damaged.
- b) the hazard lights are blinking and lenses are not damaged.
- c) the Low beam headlights are working and are not damaged.

20) As the driver moves to the **drivers side of the bus on the second walk around**, she checks that:

- a) all hazard lights are working and lenses are not damaged.
- b) the school bus stop sign is out and is working properly with no damage on either side.

21) The driver then moves to the **rear of the bus on the second walk around** and checks that:

- a) the red crossover lights are flashing and have no damage.
- b) the hazard lights are flashing and have no damage.

22) On the **passenger side of the bus on the second walk around**, the driver checks that all hazard lights are working and are not damaged.

THIRD EXTERIOR INSPECTION

23) For the **final part of the exterior inspection**, the driver enters the bus and engages the right turn signal indicator to make sure it is working at the front, sides and rear of the bus.

******Be sure to inspect the school bus crossarm for damage. And if a handheld stop sign is on board, check for damage and clear lettering.***

Inspecting the Interior of the School Bus

24) After making sure that all lights, switches and gauges work on both the interior and exterior of the bus, the driver heads back into the bus to inspect the interior.

25) While she makes her way down the aisle from the front to the rear of the bus, the driver checks for the following:

- a) ALL seats are secure to the frame and there is no damage to them.
- b) The back of the seats are not loose.
- c) There are no obstructions in the aisle for tripping hazards.
- d) Seat belts are checked for damage and functionality. (check a few every day at random)
- e) The **side emergency exit door** is clearly marked, opens easily, and the buzzer sounds when opened.
- d) The **rear emergency exit window** is clearly marked, opens easily, and the buzzer sounds when opened.

26) On her way back down the aisle from the rear of the bus, the driver checks for the following:

- a) There are no hanging obstructions from the roof to the floor.
- b) There are no broken or damaged windows
- c) The emergency hatches on the roof are open and not damaged.
- d) That the seatbelt cutter is on board and easily accessible.

Brake Testing Procedures

27) After inspecting the exterior and interior of the bus, there will be another set of tests that must be performed daily. These are the brake tests. They will need to be done every single day.

AIR GOVERNOR CUT IN / CUT OUT TEST

28) The air governor is the “brains” of the whole operation and the worker is the compressor. The point of the test is to show how the cut in and cut out PSI’s are a way to make sure the air tanks stay in balance. The driver starts the bus to begin the governor cut in/cut out test:

- a) During this test, the driver explains that she will release air from the system. The air governor should recognize this and cut in at no lower than 85 PSI. During the video, the cut in occurs at 103 psi.
- b.) The driver also explains that when the air governor cuts out, the compressor stops putting air in the tank and it should cut out at no more than 130 PSI. During the video, the cut out occurs at 124 psi.

29) The test proved successfully that the cut in/cut out points were within the criteria listed above.

STATIC BRAKE TEST

30) For the static brake test, the driver turns the engine off and monitors her needles for 1 minute. The purpose is to make sure that the air tanks are holding air. **There should not be more than 2 PSI lost during this test.** During the video, the air holds steady and the test is successful.

APPLIED BRAKE TEST

31) For this test, the driver does the following:

- a) Applies the service brake
- b) Releases the parking brake
- c) Monitors the air gauge for one minute
- d) There should not be more than 3 PSI lost during that minute.

e) After the minute is up and there is no air loss, the driver applies the parking break and releases the service brake concluding a successful test.

SPLIT TANK BRAKE TEST

32) The purpose of the split tank brake test is to drain each tank individually, to make sure that the 'low air' warning buzzer comes on for THAT PARTICULAR tank. It will also determine if the bus will stop if one tank or the other fails. This is done with BOTH tanks.

33) For this test, you will:

- a) Drain the primary (front) tank completely.
- b) While draining air from the front tank, the 'low air' warning buzzer should come on when the needle drops into the red on the air gauge.
- c) Once the primary tank is completely exhausted of air, start the engine, place it in gear and slightly move the bus forward.
- d) Use only the service brake to stop the bus.

34) If the bus stops, as it should, it means that the REAR TANK will be able to stop the bus if the front ones were to fail.

35) You will then need to build air back up into the front tank. Once the air is built up, you will need to drain the rear tank, just as you did with the front tank. Follow the exact same procedures listed above for the rear tank.

SPRING BRAKE TEST (Parking Brake)

36) For the spring brake test, do the following:

- a) Place the bus in gear with your foot holding the service brake.
- b) Release the spring brake (Parking Brake)
- c) Take your foot off of the service brake to slightly roll forward.
- d) When you are slightly rolling forward, ONLY apply the spring brake to stop the bus. If it stops efficiently, the test is successful.

SERVICE BRAKE TEST

37) For the service brake test, do the following:

- a) Place the bus in gear and release the parking brake, while holding down the service brake.
- b) Take your foot off of the service brake and let the bus slightly roll forward. Apply the service brake to stop the bus.

38) You should make 2 stops. The first is to make sure the bus stops properly. The second stop is to make sure the steering wheel doesn't pull from one side to the other. *(If the steering wheel does pull to one side or the other, it may be an indication that the front brakes are out of alignment.)*

Post Trip Inspection

39) At the conclusion of every single route, you will need to perform a post trip inspection of the school bus. During the post trip inspection you will need to:

- a) **FIRST AND FOREMOST, CHECK EVERY SINGLE SEAT FOR ANY SLEEPING OR HIDING STUDENTS.**
- b) Keep an eye out for any items that may have been left behind
- c) Put up any windows that were taken down by students
- d) Inspect the seats, aisle and all parts of the interior of the bus for any type of damage or defects.

40) Anytime a defect of damage is found on the bus, during the pre trip or post trip, it must be reported immediately.

CLOSING

Throughout the video, we covered the pre and post trip inspection of the school bus. Remember, your attention to detail is critical. You want your bus to be in the best working order to ensure the safety of the students you are transporting daily. A proper pre trip inspection every day will give you peace of mind when students are riding your bus.

TEST QUESTIONS

1) When you first approach the bus you should inspect the bus for any visible damage. This may include:

- a) Cracks in the windshield
- b) Any dents that may be present on the bus
- c) ANY visual defects on the exterior of the bus
- d) All of the above

2) It is important to check all the gauges and switches.

TRUE or FALSE

3) It is not necessary to report a damaged lens as long as the lights are working.

TRUE or FALSE

4) Tires should have a tread depth of:

- a) 5/32nds
- b) 4/32nds
- c) 3/32nds
- d) None of the above

5) It is only necessary to do all the brake tests once a week.

TRUE or FALSE

6) You must check:

- a) the fire extinguisher
- b) the first aid kit
- c) the insurance and inspection certificate
- d) none of the above
- e) all of the above

7) If you are in a hurry, the post check inspection can be done by standing in the front of the bus and thoroughly looking at the interior of the bus.

TRUE or FALSE

8) While pre tripping the interior of the bus, you should:

- a) Check the emergency exit door
- b) Check the emergency exit window
- c) Check all seats for securement
- d) Check all emergency hatches
- e) Check seat belts
- f) All of the above

9) A split tank inspection is when the driver stops the bus by only applying the spring brake.

TRUE or FALSE

10) The air governor should cut in at no less than 70 PSI.

TRUE or FALSE

ANSWER KEY

1) d

2) TRUE

3) FALSE

4) b

5) FALSE

6) e

7) FALSE

8) f

9) FALSE

10) FALSE