

Washington State



Chris Reykdal
State Superintendent of
Public Instruction

School Bus, Support, & Traffic Safety Education Vehicles Inspection Manual

WASHINGTON STATE PATROL
WSP 2019

**SAFETY
INSPECTION**

00001

Revised September 2019



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*Every student ready for
career, college, and life*

FOREWORD

An inspection program for any vehicle should attempt to delineate the items to be inspected and to set minimal conditions for each beyond which the vehicle is considered unsafe to transport students and shall not be operated for that purpose.

Considering the very nature of the school bus cargo, the following items would be of prime interest when evaluating the condition of the vehicle:

1. The braking efficiency and the total braking system.
2. Suspension and steering components.
3. The exhaust system.
4. Tires.
5. Lights.

Other items found in this manual will enter into the overall picture when considered in total. The final determination to allow the continued use of the vehicle for the transportation of common school students to and from school and school-related activities, or the determination to place a vehicle out of service, must rest with the school bus inspector.

ACKNOWLEDGEMENT

This School Bus Inspection Manual is a cooperative effort between the Office of Superintendent of Public Instruction (OSPI), Student Transportation Section, and the Washington State Patrol (WSP) Commercial Vehicle Enforcement Bureau (CVEB), Motor Carrier Safety Division (MCSD).

The information and requirements contained in this manual are not to be misconstrued as guidelines, but are mandatory when conducting an inspection of a vehicle used for the transportation of common school students.

We, the members of the committee, have found the information contained herein to be required by:

- Revised Code of Washington (RCW)
- Washington Administrative Code (WAC)
- Code of Federal Regulations (CFR)
- National Highway Traffic Safety Administration
- National Fire Protection Association
- Washington State Patrol Policy

Manual revised by committee, June 2019

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The School Bus Inspection Committee wishes to gratefully acknowledge the many hours of work that previous committees have labored to provide the basis for the current version.

WASHINGTON STATE SCHOOL BUS INSPECTION MANUAL

Purpose and Goal

This manual serves as a guide to endure the standardization of the school bus inspection program and facilitate the safe transportation of students.

Strategy

Inspectors, transportation administrators, and regional transportation coordinators have an obligation to parents and the community to ensure that vehicles used to transport students and operators are safe. Undergoing a standardized inspection intended to identify safety concerns is a strategy in this process.

This manual outlines the items to be inspected and the method used to conduct these inspections. Verifying the safe condition of these vehicles and facilitating repairs will ensure safety and reduce the number of out of service vehicles.

TABLE OF CONTENTS

	<u>Page</u>
Section I—Policies	1
Section II—School Bus Inspection Procedures	
A. Initial School Bus Inspection Procedures	9
B. Routine and 25% Inspection Procedures	14
C. Air System Inspection Procedures	28
D. Brake System Inspection Procedures	32
E. Specially Equipped Buses	35
Section III—School Bus Out-of-Service Criteria	38
Section IV—Support & Traffic Safety Education Vehicle Inspection Procedures	48
Section V—Traffic Safety Education Out-of-Service Criteria	51
Section VI—Appendix	54
<u>Reference Material</u>	
Initial School Bus Inspection Form	54
Routine and 25% Inspection Form	56
WSP School Bus Inspection Recap Form (Used on Traffic Safety Ed. & Support Vehicles)	57
Interior Body Length Diagram	58
Slack Adjuster Angle/Push Rod Travel Diagram.....	59
Brake Chamber Push Rod Travel Chart.....	60
Driveline Loop Specifications.....	61
Belt Inspection.....	62
Seat Spacing	63
Out-of-Service Sticker	64
Brake Efficiency.....	65
<u>Laws and Regulations</u>	
Revised Code of Washington (RCW)	
RCW 46.08.065(1) Publicly Owned Vehicles to be Marked— Exceptions.....	66
Chapter 46.32 Vehicle Inspection:	
RCW 46.32.005 Definitions.....	66
RCW 46.32.010 Types of inspection authorized—Duties of state patrol—Penalties	66

RCW 46.32.020	Rules—Supplies—Assistants—Prioritization of Higher risk motor carriers	66
RCW 46.32.040	Frequency of inspection – High-risk carrier compliance review fee	66
RCW 46.32.050	Prohibited practices—Penalty	66
RCW 46.32.060	Moving defective vehicle unlawful—Impounding Authorized	66
RCW 46.32.070	Inspection of damaged vehicle.....	66
RCW 46.32.080	Commercial motor vehicle safety enforcement—Application for department of transportation number	66
RCW 46.32.085	Rules to regulate commercial motor vehicle safety requirements.....	66
RCW 46.32.100	Violations—Penalties—Out-of-service orders	66
RCW 46.32.110	Controlled substances, alcohol.....	66
Chapter 46.37	Vehicle Lighting and Other Equipment	
RCW 46.37.190(2)	Warning devices on vehicles—Other drivers yield and stop.....	66
RCW 46.37.193	Signs on buses	66
RCW 46.37.369	Wheels and front suspension	66
RCW 46.37.375	Steering and suspension systems	66
RCW 46.37.380	Horns, warning devices, and theft alarms	66
RCW 46.37.390	Mufflers required—Smoke and air contaminant standards—Definitions—Penalty, exception	66
RCW 46.37.425	Tires—Unsafe—State patrol’s authority—Penalty	66
RCW 46.37.465	Fuel System	66
RCW 46.37.513	Bumpers	67
RCW 46.37.517	Body and body hardware	67
 Washington Administrative Code (WAC)		
Chapter 204-21	Lighting Requirements	
WAC 204-21-190	Standards for School Bus Warning Lamps.....	67
WAC 204-21-210	Bus Hazard Warning Strobe Lamp.....	67
Chapter 212-50	Identification for Alternative Fuel Source Motor Vehicles	
WAC 212-50-010	Administration, authority	67
WAC 212-50-020	Application and scope	67
WAC 212-50-030	Definitions	67
WAC 212-50-040	Placard issuance	67
WAC 212-50-050	Placard design and size	67
WAC 212-50-060	Placard designations.....	67
WAC 212-50-070	Placement on vehicle	67
WAC 212-50-080	Severability	67

Chapter 392-143	Transportation—Specifications for School Buses	
WAC 392-143-001	Authority and purpose	67
WAC 392-143-010	Definitions	67
WAC 392-143-015	School bus specifications manual	67
WAC 392-143-031	School bus inspection—School bus operation permit.....	67
WAC 392-143-032	School bus operation permit	67
WAC 392-143-035	Routine inspection of school buses	67
WAC 392-143-040	Other required inspections of school buses	67
WAC 392-143-050	Resold school buses	67
WAC 392-143-060	School bus specifications continued compliance.....	67
WAC 392-143-070	Other vehicles used to transport students	67
WAC 392-143-080	Signs and markings for school buses— Exterior—Interior	67
Chapter 392-145	Transportation—Operation Rules	
WAC 392-145-021	General Operating Requirements.....	68
Chapter 392-153	Traffic Safety—Driver Education	
WAC 392-153-025	Traffic Safety Education Vehicles	68

SECTION I

POLICIES

Chapter 296-24 WAC—General Safety & Health Standards PART A-2 PERSONAL PROTECTIVE EQUIPMENT

WAC 296-800-160

Summary

Your responsibility: To make sure that your employees have, use, and care for the appropriate personal protective equipment (PPE).

PPE is an item or items used to protect the eyes, face, head, body, arms, hands, legs, and feet such as goggles, helmets, head covers, gloves, rubber slickers, disposable coveralls, safety shoes, protective shields, and barriers.

You must:

Do a hazard assessment for PPE.

WAC [296-800-16005](#).

Document your hazard assessment for PPE.

WAC [296-800-16010](#).

Select appropriate PPE for your employees.

WAC [296-800-16015](#).

Provide PPE to your employees.

WAC [296-800-16020](#).

Train your employees to use PPE.

WAC [296-800-16025](#).

Retrain employees to use PPE, if necessary.

WAC [296-800-16030](#).

Document PPE training.

WAC [296-800-16035](#).

Require your employees to use necessary PPE on the job.

WAC [296-800-16040](#).

Keep your PPE safe and in good condition.

WAC [296-800-16045](#).

Make sure your employees use appropriate face and eye protection.

WAC [296-800-16050](#).

Make sure your employees use appropriate head protection.

WAC [296-800-16055](#).

Make sure your employees use appropriate foot protection.

WAC [296-800-16060](#).

Make sure your employees use appropriate hand protection.

WAC [296-800-16065](#).

Make sure your employees are protected from drowning.

WAC [296-800-16070](#).

Exemption: • WAC [296-800-16015](#), [296-800-16025](#), [296-800-16030](#), and [296-800-16035](#) do not apply to electrical protective equipment or respiratory protection. See chapters [296-24](#) WAC, Part L and chapter [296-842](#) WAC, for rules about these types of protective equipment.

POLICY—SAFETY

The WSP requires the wearing of personal protective equipment (PPE) while performing inspections of school district vehicles when needed.

POLICIES—GENERAL

School bus inspections, (INITIAL, ROUTINE, ANNUAL (100 percent and 25 percent), COLLISION, REINSPECT, REPOWER, and REBUILT), will be conducted by Washington State Patrol (WSP) personnel. No other school bus inspections will be conducted by WSP personnel unless directed to do so by the Motor Carrier Safety Division (MCSD) school bus coordinator in consultation with the director of student transportation at OSPI.

Vehicles Placed Out of Service

When it has been determined that a vehicle fails to meet the criteria as outlined in this manual, that vehicle shall be placed out of service. An out-of-service decal shall be placed facing the driver on the inside of the windshield as nearly as practicable to the center.

When the noted defects have been corrected, the inspector will remove the out-of-service decal.

Non-Presented Vehicles

Any school buses not presented for inspection at the time and place scheduled by the chief of the state patrol may obtain the appropriate inspection on or before August 31st of the current year. If the vehicle is not inspected on or before August 31st, the bus must not be operated as a school bus unless the requirement is temporarily waived in writing by the chief of the state patrol or until the school bus has passed a required inspection. It is the responsibility of the school district to make arrangements with the WSP for the inspection of any non-presented vehicle.

The school district will provide notification, in advance of the inspection, to the OSPI Regional Transportation Coordinator for their school district.

The notification shall include the following:

1. OSPI Permit Number.
2. Local district bus number.
3. Reason the vehicle not being presented.

A vehicle will be accepted as Non-Presented as long as it meets the following criteria:

1. A vehicle scheduled for a trip.
2. A vehicle that is off premises for repairs; or on premises for repairs which are delayed due to scope of repair and/or availability of parts.
3. A vehicle that is scheduled for surplus and will no longer be utilized by the school district. (District should submit a Form 1020B-School Bus Disposition with the notification of non-presented buses).

School Bus Collisions

- A. To provide uniformity in the School Bus Inspection Program, the following criteria should be used when a school bus is involved in a collision. MCSD/CVD officers trained in school bus inspections shall inspect a bus involved in a collision if one or more of the following circumstances exist:
1. The collision meets the definition of a reportable collision.
 2. If the investigating officer suspects defective equipment on the school bus may have contributed to the collision.
 3. The school district involved requests an officer to inspect the bus. A MCSD/CVD supervisor must approve any request made directly from a school district.
- B. School buses placed out of service from collision damage shall receive an inspection from a MCSD/CVD officer prior to putting the bus back in service.

POLICIES FOR INITIAL INSPECTIONS

1. The district supervisor will handle requests for inspections.
2. A WSP MCSD/CVD officer trained in school bus inspections shall conduct the initial inspections utilizing the current OSPI Specification Manual. *Note: OSPI shall coordinate with WSP and provide timely updates as changes to the Specification Manual occur.*
3. The school bus inspector will be responsible for ensuring that all school buses designated for use in the common school system used for transportation of students to and from school and school-related activities will meet the requirements as identified in the minimum specifications for school buses. Inspectors shall, at all times, follow and use the procedures in this manual, utilizing the minimum specifications for school buses as a reference.

4. Vendor shall remove any spare tire present in the interior of a new bus prior to initial inspection being conducted if it interferes with the inspection.
5. The inspector shall explain the reasons for noncompliance with the specifications to the dealer, contractor and/or school district.
6. Upon completion of the inspection, the inspector shall:
 - a. Complete the inspection form in its entirety, making sure that all boxes are checked and that any and all notations relating to the condition of the bus are properly noted.
 - b. If any item is found to be unsatisfactory, the inspector will mark the appropriate box with an (X). The inspection for this vehicle stops and a copy of the inspection form is sent to the WSP supervisor. The inspector will notify the dealer/vendor of the condition causing the non-acceptance.
 - c. The dealer/vendor will contact the WSP supervisor to schedule a re-inspection of the non-accepted vehicles which did not meet minimum OSPI specifications.
 - d. The inspector will then sign the inspection form electronically (e.g. /S/inspectername). This will be an indicator to all receiving it that the vehicle recorded thereon has met OSPI minimum specifications.
 - e. Distribution of the initial inspection forms (completed electronically) shall be the responsibility of the inspector. The inspector shall forward the successfully completed inspection form (electronically) to the OSPI Regional Transportation Coordinator. A courtesy copy shall be sent to the inspector's immediate supervisor, WSP School Bus Program Manager, and the dealer/vendor. This should be completed prior to leaving the inspection site. *In rare incidents where the forms cannot be transmitted immediately, they shall be sent within 24 hours.*

POLICIES FOR ROUTINE AND 25 PERCENT SCHOOL BUS INSPECTIONS

WSP Supervisor Responsibilities

1. Ensure that inspections are conducted within the guidelines.
2. Ensure each inspector is provided with a school bus inventory list available at [OSPI's website](#) prior to the inspector arriving at the district.
3. Responsible for the conduct of the team members while on this assignment.
4. Responsible for 60-day pre-notification to the schools for the annual inspection.
5. Responsible for the scheduling of the 25% unannounced school bus inspection.
6. A qualified person designated by the supervisor may conduct re-inspections.

WSP Inspector Responsibilities

1. The team should consist of at least two inspectors.
2. Responsible for the selection of the school buses to be inspected when conducting the 25% inspection. Random bus selection for inspection shall occur one at a time. Team Member shall not offer the school district a list of buses to be inspected in advance. When 50% or more of the vehicles inspected are placed out of service, an additional 25% of the fleet will be inspected. If 50% or more of the second 25% are placed out of service, the entire fleet shall be inspected.
3. Conduct, with the transportation supervisor or designee, a critique of the inspection during, or at the completion of, the inspection.
4. It shall be the responsibility of each member of the inspection team to:
 - a. Know and prepare for the assignment.
 - b. Conduct that assignment with expediency and professionalism.
 - c. Maintain the high degree of integrity expected of all school bus team members.
 - d. Conduct themselves in a manner at all times that will reflect the image of the WSP.

- e. Inspectors shall be trained and remain proficient in the use of devices used to record and transmit inspections.

Office of Superintendent of Public Instruction (OSPI), Student Transportation Responsibilities

1. Upon request, regional transportation coordinators will assist inspectors in resolving any problems that may arise during school bus inspections.
2. OSPI will maintain the school bus inventory list to ensure timely and accurate information is available for WSP supervisors and inspectors.
3. Regional transportation coordinators may act as a liaison between inspectors and the school district administration on matters related to school bus inspections.

SECTION II

A. INITIAL SCHOOL BUS INSPECTION PROCEDURES

B. ROUTINE AND 25% INSPECTION PROCEDURES

C. AIR SYSTEM INSPECTION PROCEDURES

D. BRAKE SYSTEM INSPECTION PROCEDURES

E. SPECIALLY EQUIPPED BUSES

SECTION II–A INITIAL SCHOOL BUS INSPECTION PROCEDURES

INITIAL INSPECTION PROCEDURE GUIDE

1. Record the school district receiving the vehicle.
2. Record the district number.
3. Contractor information, if applicable.
4. Record bus type.
5. Record VIN as shown on body manufacturer data plate.
6. Model year as indicated on body manufacturer data plate.
7. Body manufacturer.
8. Chassis manufacturer.
9. Record the maximum design capacity, as shown on manufacturer plate.
10. Record the capacity, as this vehicle is equipped.
11. Alternator capacity.
 - Check spec plate on alternator/vendor paperwork.
12. Record engine make.
13. Record engine model.
14. Indicate engine placement.
15. Record gross vehicle weight rating as shown on spec plate.
16. Check front axle weight rating as shown on spec plate and verify combined tire load rating for compatibility.
17. Check rear axle weight rating as shown on spec plate and verify combined tire load rating for compatibility.
18. Indicate Fuel Type: Diesel, Gas, Propane, etc.
19. Indicate transmission type and record model number as shown on transmission or line setting ticket.
20. Indicate type of brake system.

Interior Measurements

21. Record interior length in inches.
22. Interior height in inches.
23. Aisle widths in inches
24. Record seat width in inches.
25. Record side window dimensions in inches.
26. Record sun visor dimensions.

Emergency Exit Measurements

27. Record right door/window dimensions in inches.
28. Record left door/window dimensions in inches.
29. Record rear exit/window dimensions in inches.

Service Door

30. Record service door dimensions in inches
31. Record distances in inches, verify glass type.
32. 1st step measurement in inches.
33. 2nd step measurement in inches.
34. Top step measurement in inches.

Emergency Equipment-

* If emergency contents are in a cabinet, check for securement of contents and labeling of cabinet.

35. Verify presence and contents of warning kit.
36. Verify presence and operation of door release.
37. Verify capacity and mounting of fire extinguisher.
38. Verify presence and location of belt cutter.
39. Verify location and contents of first aid kit.
40. Check contents of body fluid cleanup kit.
41. Record other items checked (equipment cabinet, etc.).

Driver Area

42. Check windshield wipers/washers operation.
43. Verify presence of permit holders.
44. Indicate horn type(s).
45. Check mirrors for mounting, size and adjustment.
46. Check for required instruments and panel controls.
47. Check driver's seat for type of bus.
48. Check driver's seat belt (Type 2-lap/shoulder).
49. Check noise suppression switch operation.

Emergency Exits

50. Interior markings/arrows, left door.
51. Handle guards.
52. Padding.
53. Vandal locks.
54. Ease of opening (check with "off" hand).
55. Hold-open devices.
56. Warning buzzers.
57. Indicate number of hatches.
58. Check aisle width for all exits (flip-up seats, etc.).
59. Indicate any other items (door handle size/color, etc.).

Passenger Area

60. Interior lighting.
61. Step well light.
62. Seats.
63. Heaters/defrosters.
64. Flooring/wheel housing.
65. Sharp edges.
66. Handrails.
67. Storage compartment.

EXTERIOR/CHASSIS

Exterior Measurements

1. Measure and record body width in inches (check mirrors for width).
2. Measure and record body length in inches.
3. Measure and record wheelbase in inches.
4. Verify and record tire size.

Exterior

5. Check body, frame, wheels, and hood for proper color.
6. Check roof, sides, caps for proper color.
7. Verify required reflective markings are present.
8. Verify size, color of lettering. Check for prohibited signage.
9. Verify safety grade of all glass.
10. Verify size, mounting, adjustment on all mirrors.
11. Crossing Arm. Check color, size, and wiring. Verify quick disconnect for electric models. **(Over-ride switch prohibited.)**
12. Verify capacity, mounting, wiring protection.
13. Check size and location of rub rails.
14. Check front bumper tow hooks.
15. Verify presence of stirrup step.
16. Verify size and rating for GVWR.
17. Wheels. Check type, securement and color
18. Verify presence of anti-hitch bumper shield.
19. Verify exhaust exit location, diffuser and measurements.
20. Check fuel tank cap for leaks and securement.
21. Verify size and content of signage (do not pass, etc.).
22. Verify presence of license plate holder and light.
23. Check rear bumper and tow hooks.
24. Check sanders, if present, for capacity, wiring, mounting.
25. Verify storage compartment location and securement.
26. Verify undercoating for bus type.
27. Check all wiring for proper protection, number of circuits.
28. Other items (sharp edges, snagging hazards, etc.)

Lights

29. Headlights/Tail lamps.
30. Turn Signals.
31. Stop Lights.
32. Hazard lights.
33. ID/Clearance.
34. Strobe.
35. 8-Way System.
36. Stop Paddle.
37. Other.

Fluid Leaks

Check the following for leaks.

38. Coolant.
39. Engine Oil.
40. Power Steering.
41. Transmission.
42. Differential.
43. Other.

Chassis

44. Check for holes, cracks, welds.
45. Check for loose/missing bolts/clamps.
46. Check exhaust for leaks, required shielding and defuser.
47. Verify location and number of drive-line loops.
48. Check shock absorbers/air bags for leaks and securement.
49. Check suspension for cracks and securement.
50. Check lash, steering wheel clearance, hose routing.
51. Check radius for appropriate wheelbase (42.5' or 44.5').
52. Verify presence of wiring diagram and shielding.
53. Check fuel tank for capacity, access panel, tank location/shielding.
54. Record other items checked not in compliance.

Engine Compartment

55. Check belts for cracks/tension.
56. Check for chaffing/leaks.
57. Check for chaffing, protection (grommets, sealed firewall).
58. Verify fast idle/throttle lock operation.
59. Verify presence of air cleaner.
60. Verify presence of water shut-off valves.

Brakes

61. Verify presence of air dryer on air brake systems.
62. Verify compressor rating (12 CFM minimum).
63. With engine at fast idle (1500 rpm) record the buildup time from 60 psi to 90 psi. If in excess of one minute, check build up time from 50 psi to 100 psi (Shall not exceed three minutes).
64. Check for any air loss, indicate type if detected.
65. Check slack adjuster angle (80 degrees to 105 degrees).
66. Measure and record slack adjuster travel.
67. Verify presence of wet tank drain and location.
68. Perform 121 air system check (See Inspection Manual, Section II-C).
69. Check for leaks (hydraulic systems).
70. Check hoses/lines for kinks, rubbing, chaffing.
71. Perform service brake test (See Inspection Manual, Section II-D).
72. Perform park brake test (See Inspection Manual, Section II-D).
73. Check operation of low vacuum buzzer, if so equipped.
74. Other brake components (air tank marking, etc.).

Special Needs Equipment

75. Verify presence of emblem.

76. Check operation of lift.

77. Check operation, verify door switch.

78. Verify platform dimensions, barriers, pad, etc.

79. Verify dimension, presence of "drip molding," etc.

80. Verify handrail dimensions and location.

81. Verify padding presence and coverage.

82. Check warning light operation.

83. Check securement and restraint systems.

Other items (aisle width, ramps, support equipment, etc.)

SECTION II-B

ROUTINE (100% & 25%) INSPECTION PROCEDURES

Item # 1—Inspection Documentation

1. Routine (100% & 25%) inspections are to be conducted using WSP designated electronic format.
2. Cross-reference the VIN, state bus number, operating permit, and registration to ensure all documents are in compliance.

Item # 2—School Bus Interior

Check the interior of the bus for any prohibited items; e.g., flammable aerosol containers. No heavy unsecured items may be placed in the overhead storage. For equipment items required, check to see if they are present, meet appropriate Washington State Minimum Specifications for School Buses, and are operating properly:

1. Required and/or authorized signing and lettering.
2. Fire extinguisher—fully charged.
3. First aid kit—for proper contents.
4. Emergency Triangles.
5. Body fluid clear-up kit.
6. Horn and horn button location.
7. Driver's seat belt.
8. All required instruments.
 - a. Speedometer.
 - b. Tachometer (after 1972).
 - c. Low air/vacuum gauges, lights, buzzer.
 - d. Noise Suppression Switch.
 - e. ABS Brake Warning Lights.

- f. Ammeter/voltmeter (both required after 1972).
 - g. Transmission temperature gauge or light (automatic transmissions 1977 and later).
 - h. Transmission Starter Inter-lock (attempt to start engine in gear).
 - i. Emergency exit warning light/buzzer.
9. Vandal lock (ignition bypass not allowed).
10. Sun visors.
11. Mirrors (condition).
12. Belt Cutter. If stored, compartment must be labeled.

Eight-light warning system. When checking the eight-light warning system, proceed as follows:

General Requirements:

- a. Commence inspection with engine running, service door closed, and all control switches off.
- b. The crossing control arm must extend at any time the red lights flash.
- c. During lamp operation, the amber and red shall reach full brilliance during each cycle.
- d. Red and amber indicator lights shall flash in the driver's compartment at any time the respective lights flash on the outside of the bus.

Procedures:

- a. For power and manually operated systems.
 - (1) Extend stop signal arm; red lights should flash.
 - (2) Open and close service door; red lights should continue to flash, and stop signal arm should remain extended.
 - (3) Retract stop signal arm; red lights should cancel.
- b. For power and manually operated systems.

- (1) Turn master switch on, if so equipped.
- (2) Turn sequencing switch on: amber lights should flash.
- (3) Extend stop signal arm; amber lights should cancel, and red lights should flash.
- (4) Open and close service door; stop signal arm should remain extended, and red lights should continue to flash.
- (5) Retract stop signal arm: red lights should cancel.

c. Power operated systems only.

- (1) Turn master switch on, if so equipped.
- (2) Turn sequencing switch on: amber lights should flash.
- (3) Open service door; amber lights should cancel, stop arm should extend, and red lights should flash.
- (4) During lamp operation, the amber and red lights **shall** reach full brilliance during each cycle.
- (5) Open service door. If stop arm extends, and red lights flash, turn master switch off.

d. Manually operated systems only.

- (1) Turn master switch on, if so equipped.
- (2) Turn sequencing switch on; amber lights should flash.
- (3) Open service door; amber lights should cancel and red lights should flash.
- (4) Close service door: red lights should cancel.
- (5) Open service door. If red lights flash, turn master switch off.

NOTE: DURING OPERATION, BOTH AMBER AND RED LIGHTS **SHALL** REACH FULL BRILLIANCE DURING EACH CYCLE.

13. Seats, inspect for the following:

- a. Floor connections for cracks, breaks, or looseness.
- b. Rips or missing upholstery, seat padding deteriorated or missing.
- c. Torn or ragged metal edges, if applicable.
- d. Broken or unsecured seat frames.
- e. Passenger Seat Belts (Type A-1 only).

14. Floors, inspect for the following:

- a. Loose flooring.
- b. Deterioration of the flooring.
- c. Holes in flooring or shift boots.
- d. Step well for loose metal or treads.

15. Emergency door(s)/window, inspect for the following:

- a. The door for ease of opening, using your off hand.
- b. The window, if equipped, for ease of opening.
- c. Devices that would prohibit the door or window from opening (e.g., padlock hinges, vandal locks, pins, etc.).
- d. Door handle guard.
- e. Listen for audible warning and observe the warning light, if so equipped, when door is open.
- f. Door hold-open device (After 9-1-91).
- g. Seals around emergency doors.

16. Emergency roof hatch (s) (Required after 9-1-91):

- a. Ease of opening.
- b. Warning buzzer.

17. Glass, inspect all glass for cracks, splintering, etc.
18. Interior lights, inspect dome lights and step well lights.
19. Heater Hose Shielding.

Item # 3–School Bus Exterior

Inspections are to be conducted in a counter-clockwise rotation, beginning at the front of the bus. Check to see if the following equipment, if required, is present, meets the appropriate Washington State Minimum Specifications for School Buses, and is operating properly. Check for required and/or authorized signing and lettering.

Item # 4–Advise the driver that you are about to start the mechanical part of the inspection and request the following:

1. Ask the driver to set the parking brake on the vehicle.
2. Ask the driver to start the engine and fully charge the air system.

Item # 5–Take up a position directly in front of the vehicle, making sure you have visual contact with the driver at all times and inspect the following:

1. The warning light system for proper operation.
2. The crossing control arm for proper operation. The crossing arm shall extend at any time the red lights flash. The crossing arm wand, if painted, shall be either school bus yellow or black.
3. Headlights (high and low beam).
4. Turnsignals.
5. Four-way flashers.
6. Clearance and ID lights.
7. Windshield wipers and washers for operation and condition.
8. Windshield.
9. Daytime running lights or auxiliary driving lights (if present).
10. Front bumper and tow attachments.

Item # 6–Front-mounted engine compartment. Turn engine off and inspect for the following:

1. Fuel leaks.
2. Oil leaks.
3. Coolant leaks.
4. Loose or worn belts.
5. Wiring.
6. Hydraulic brake master cylinder level.
7. Power steering fluid leaks and reservoir level.
8. Firewall for holes.
9. Leaks; when checking for leaks in power steering, fuel, and hydraulic brakes, the following procedure shall apply and cause the bus to be placed out of service:
 - Power steering:
 - A. If wetness is noted, wipe clean.
 - B. With the engine running, turn the steering wheel all the way to the left and then all the way to the right.
 - C. If wetness reappears immediately, that constitutes a leak.
 - Fuel:
 - A. If wetness is noted, wipe clean.
 - B. If it reappears before the inspectors leave the site that constitutes a leak.
 - Hydraulic brakes:
 - A. Any obvious wetness of brake fluid constitutes a leak.

Item # 7–Left side of the bus (your right), inspect the following:

1. Stop sign, making sure it is properly painted.
2. 1987 or newer-strobe lighted octagonal sign.
3. The stop paddle. Make sure it will lock in both the open and closed position.
4. Mid-engine bus. Inspect engine compartment as in Item #6. **NOTE:** If equipped

with ignition shut-off switch, make sure it is in the off position until clear of engine compartment.

5. Emergency exit door for ease of opening (using your off hand).
 - a. Check to ensure “Hold Open Device” is operating properly.
 - b. No apparatus may be present that would lock the exit in the closed position other than a manufacturer's vandal lock system.
 - c. No apparatus may be present which will allow a student to lock any emergency door or exit.

6. While moving toward the rear of the bus, inspect the exterior for:
 - a. Indications of rusting metal.
 - b. Loose rivets or bolts that allow movement.
 - c. Loose metal.
 - d. Rub rails.
 - e. All side glass for condition and proper safety rating.

7. Fuel filler cap.

8. Marker lights and turn signals. Tires, wheels, lug nuts, and axle flange nuts for the following conditions:
 - a. Front tire(s) of less than $4/32$ inch tread depth (recapped tires are not allowed on front axle).
 - b. Rear tires worn so less than $2/32$ inch tread depth remains in any two adjacent major grooves measured at three locations spaced approximately equal around the outside of the tire.
 - c. Tire(s) worn so the tread wear indicators contact the roadway in any two adjacent major grooves measured at three locations spaced approximately equal around the outside of the tire.
 - d. Any tire with a worn spot, exposing the cord through the tread.
 - e. Any tire re-grooved or re-cut.
 - f. Any tire sidewall for damaged body cords.

- g. Any tire for visible bumps, bulges, or knots indicating partial failure or separation of the tire structure.
 - h. Any tire marked for other than "highway use".
 - i. Valve stem(s) for cracks, damage, or evidence of wearing.
 - j. Flat tires.
 - k. Cracked wheels.
 - l. Loose lug nuts or axle flange nuts. Lug nuts and/or wheel covers are not permitted.
9. Mirrors (Condition must continue to meet minimum specifications).
10. All required and/or authorized signing and lettering.

Item # 8–Moving to the rear of the bus, inspect the following:

- 1. Warning lights.
- 2. Clearance and ID lights.
- 3. Turn signals.
- 4. Four-way flashers.
- 5. Stop lights (4 required after 9-1-87).
- 6. Back-up lights.
- 7. Tail lights (4 required after 9-1-87).
- 8. Tail pipe. May be flush with, or shall not extend more than 1/4 inch beyond the rear bumper; nor more than 2 inches below the rear bumper; nor more than 2 inches beyond body if left side exhaust.
- 9. Rear emergency exit:
 - a. Check for ease of opening (using your off hand).
 - b. No apparatus may be present that would lock the exit in the closed position other than a manufacturer's vandal lock system.

- c. No apparatus may be present which will allow a student to lock any emergency door or exit.
- 10. Hand holds/foot holds on rear of bus.
- 11. Loose rivets, bolts, or damaged metal.
- 12. Rear license plate/license plate light.
- 13. Rear engine bus. Check engine compartment as described in Item # 6.
NOTE: If equipped with a battery master shut-off switch, be sure and turn off until the compartment inspection is complete.
- 14. "Unlawful to Pass" sign.
- 15. Rear bumper and tow attachments, as required.

Item # 9–The right side of the bus, inspect the following:

- 1. While moving toward the front of the bus, inspect the exterior for:
 - a. Indications of rusting metal.
 - b. Loose rivets or bolts.
 - c. Loose metal.
 - d. Rub rails.
 - e. All side glass.
- 2. Tires, wheels, and lug nuts as in Items # 7–8.
- 3. Side emergency door, if equipped.
- 4. Marker lights and turn signals.
- 5. Fuel filler cap.
- 6. Service door for:
 - a. Opening and closing.
 - b. Wearing of hinges.

- c. Broken or cracked glass. Check for proper AS safety rating.
- d. Emergency release.
- e. Cracked, missing or deteriorated door seals.

7. Handrail

- a. Testing Device:
 - (1) 36-inch piece of 1/8" cotton drawstring.
 - (2) 1/2" hex nut (3/4" across the flats).
 - (3) Attach Items 1 and 2 in such a manner as required in excess of 10 pounds of force to initiate separation.
- b. Procedure:

While standing at ground level outside the step well area of the service entrance, the inspector shall drop the weighted end (hex nut) of the test device into and below the crevice formed by the intersection of the handrail and its lower mount. The test device shall then be pulled through the crevice area and toward the outside of the bus.
- c. Evaluation:

The test device should pull completely free through the crevice area.

8. Step well light.

9. All mirrors (See Items # 7–9).

10. All required signing and lettering.

Item # 10–Front end assembly, inspect the following:

(Vehicle must be jacked up with wheels straight forward. Extra care and caution must be exercised when using bumper jacks.).

- 1. King pins. Check for excessive play by use of a pry bar placed at the bottom of the wheel (make sure the valve stem is not present in that location), place your free hand at the top of the tire. **One quarter inch** in/out movement at tire circumference **is maximum**. Tires should be spun to check for rough bearings, excessive drag, wheel is not bent, and that lateral and radial run-out of each rim head area does not exceed 1/8 inch (Cast spoke wheels prohibited). Apply brakes to differentiate between king pin and wheel bearing movement.

2. Wheel bearings. Check by placing one foot at the bottom of the tire. Place both hands at the top inside edge of tire. Pull with your hands and push with your foot.
3. A-frame ball joints. Check by lifting each side with the jack placed under the spring seat. Place pry bar between the spindle and the lower A-frame and lift. Vertical movement should be less than 1/4 inch.

Item # 11–Inspect the following items with weight on wheels, and engine running.

1. Tie rod ends and drag links. Check for excessive play. Have the driver rock the steering wheel back and forth sharply, so as to move the steering components. Free play in the linkage shall not exceed 1/8 inch at any one location for any one component.
2. Turn stops. This may be done visually by looking for shiny spots and/or signs of wear on the side of the tires, drag links, shocks, brake lines.
3. Check for loose steering box where it is bolted to the frame while the driver is rocking the steering wheel back and forth, and you are performing number 1 above.
4. Check for excessive play in the steering box (sector shaft movement as compared to pitman arm movement).
5. Measure for steering wheel lash:

<u>Steering Wheel Diameter</u>	<u>Manual Steering Maximum Lash</u>	<u>Power Steering Maximum Lash</u>
16" wheel or less	2"	4 ½"
18" wheel	2 ¼"	4 ¾"
20" wheel	2 ½"	5 ¼"
22" wheel	2 ¾"	5 ¾"

6. Shock absorbers. All buses shall be equipped with front and rear double-acting shock absorbers. Check for loose, cracked or broken mountings, missing grommets, and for leaking shock absorbers.
7. Brake/air chambers. Check all visible air and hydraulic brake lines and hoses for leaks, rubbing, loose connections, bulges, and cracks. Have the driver apply the brakes and check while under pressure. Check the operation of air brakes, diaphragm leaks, and condition of the linkage. Check for service air leaks with the spring brake off. Flex rubber lines for evidence of breaks or cracks. Check to make sure that brake hoses are not mounted so as to contact the vehicle body or chassis.

8. Long Stroke Brake Chambers. Long Stroke brake chambers are becoming standard equipment. You should not fit an axle back to conventional chambers from the long stroke chambers. Never mix and match brakes, brake chambers or slack adjusters on the same axle! The brakes may work fine when new, but as time goes on, the bus will pull to one side due to the uneven wear and operating characteristics.
9. Slack adjusters/push rod travel. Check the slack adjusters when service brake is applied to ensure that the slack angle is not less than 80 degrees nor more than 105 degrees, and the push rod travel does not exceed manufacturer's specifications (See Appendix IV, page 59). Automatic Slack Adjusters should not have to be manually adjusted except when performing maintenance on the brakes and during installation. The manual adjustment of an automatic slack adjuster to bring pushrod stroke within legal limits is generally masking a mechanical problem and is not fixing it.
10. Lining. Check to see the thickness of the lining is not less than 1/4 inch or to the wear indicator, if the lining is so marked. Check to see the lining is not cracked, broken, or contaminated and these cracks/breaks do not extend into the rivet holes. Linings shall be securely attached to the brake shoes.
11. Leaks, fluid. Check area under engine and transmission for leaks (water, fuel, oil). Check for leaks around the power steering unit and brake cylinder.
12. Front springs. Check spring hangers, spring leaves, and shackles for wear, looseness, extruded or missing grommets, loose U-bolts, broken leaves.
13. Spring leaf clamps. Check for presence, cracks, looseness, and tie bolt.
14. Spring stack alignment. Leaves should not extend beyond a horizontal line parallel to the centerline of the stack, which is measured from the outside edge of the U-bolts.
15. Brake assemblies. Check for cracks, deformities, or other irregularities
16. Engine mounts. Check engine mounting brackets and bolts for breaks or looseness.
17. Exhaust system:
 - a. Check the entire system from engine to end of the tail pipe for leaks and damage, with engine at idle and the exhaust system unrestricted. Even though leaks do not meet out of service criteria, they shall be marked as unsatisfactory.

- b. Check to see that the entire system is properly supported.
 - c. Tail pipe must be flush with, or shall not extend more than 2 inches beyond, the perimeter of the body for side-exit pipe or the bumper for rear exit pipe. The exhaust system shall be designed such that exhaust gas will not be trapped under the body of the bus.
 - d. The exhaust system on gas-powered buses shall be properly insulated from the fuel tank and fuel tank connections by a securely attached metal shield at any point where it is 12 inches or less from the tank or fuel tank connections.
 - e. The size of the tail pipe shall not be reduced after it leaves the muffler.
18. Driveline loops. Check for compliance with the appropriate minimum specifications for the year of the bus (See Appendix IV, page 61).
19. U-joints. Check for looseness by moving the driveline up and down; also by twisting the driveline from both sides of the U-joint.
20. Fuel tank. Check for secure mounting, leaks, fuel lines, filler cap, and proper mounting. In addition, if the vehicle is powered by CNG, check the tank certification tag for compliance.
21. Wiring, inspect the following:
- a. Any loose, broken, or frayed wires.
 - b. That wiring is properly secured to the frame and not hanging down.
 - c. Grommets and proper protection against chafing.
22. Differential. Check for leaks at differential, pinion seal, and both rear wheel seals.
23. Rear shock absorbers. Check in same manner as the front shock absorbers.
24. Rear springs. Check rear springs in the same manner as the front springs.
25. Rear brake lines. Check the rear brake lines in the same manner as front brake lines.
26. Rear/midship mount engines. Check for fluid leaks, loose engine mounts, and exhaust system the same as for the front-mounted engine.

27. Body clamps. Check body clamps at upper frame rail for missing or loose clamps.

28. Frame:

1. Check the frame and cross members the entire length of the bus for cracks, breaks, loose bolts and loose rivets.
2. Check spring hanger supports for loose or missing rivets or bolts and cracks in the frame at these locations.

Item #12—Air system

1. Open drain valves on all air tanks to check for contaminants.
2. Check for wet tank drain release on outside of bus or driver's compartment (1977 specifications). (Automatic ejection valves do not meet this specification).
3. Check for presence of air dryer (1984 specifications or desiccant type (September 1, 2001 or newer).
4. Perform air system test as outlined in Section II-C of this manual.

Item # 13—Brake system

Perform appropriate brake tests as outlined in Section II-D of this manual.

SECTION II-C

AIR SYSTEM INSPECTION PROCEDURES

Prior to starting the inspection ensure the following:

1. Air Tank Color Coding:
 - a. Air tanks are color coded as follows: The tanks just need to be marked by the drain valve, not the entire tank. If not marked, this will be an Un-Sat.
 - b. Primary Tank = Green
 - c. Secondary Tank = Red
 - d. Wet Tank = White
 - e. If the air tanks/drain valves are already labeled, they do not need to be color coded.

Advise the driver that you are about to start the mechanical part of the inspection and request the following:

1. Ask the driver to set the parking brake on the vehicle.
2. Ask the driver to start the engine and fully charge the air system.
3. Open drain valves on all air tanks to check for contaminants.
4. Check for wet tank drain release on outside of bus or driver's compartment. (Automatic ejection valves do not meet this specification.)
5. Check for presence of air dryer (1984 specifications or desiccant type (September 1, 2001, or newer).

Checking the FMVSS 121 System

Depending on the manufacturer, there may be one low air pressure sensor in the wet tank; or there may be two sensors, one in the primary system (rear axle system) and one in the secondary system (front axle system).

Determine the location of low air pressure sensors. Determine which tanks are the service reservoirs.

If the system is equipped with a single low air sensor in the wet tank, start the inspection with Item 1. If not, proceed to Item 2.

1. With the engine off, key on, drain wet tank until the low air- warning device is activated (either audible and/or visual). Observe the gauge, when the low air- warning device is activated, the gauge shall indicate at least 50% of the air compressor cutout pressure. Rebuild system pressure to governor cutout.
2. With the wet tank petcock valve, drain the tank and check the tank for contaminants. If check valves are working properly, service tanks should remain fully charged and the gauges should reflect this.
3. With the engine off, key on, and the parking brake in the release position, rapidly drain the primary tank with the tank petcock valve until the low air warning device (if so equipped) is activated (either audible and/or visual).
4. Observe the gauge, when the low air-warning device is activated, the gauge shall indicate at least 50% of the air compressor cutout pressure.
5. At this time, check the integrity of the secondary tank to make sure the check valve is holding system pressure.

NOTE: Some buses have come into the state with a Bendix System Purge Air Dryer. The air dryer automatically purges contaminants at the compressor cutout. The dryer uses a small portion of air from the secondary (front axle) service reservoir to perform the purge and regenerative function. When you completely drain the wet tank during the test, the secondary service reservoir pressure will drop, but must not drop below 90 psi.

6. Drain the primary and wet tank of all remaining pressure.
7. Spring brakes should not apply.
8. Make a brake application with the treadle valve. **NOTE:** With the pressure in the primary tank depleted, the service brakes on the front and rear will apply. In either case, whichever occurs in Item 8, the opposite shall occur in Item 16. When the treadle valve is released, brakes should release.
9. Rebuild the air pressure in the system.
10. With the engine off, key on, and the parking brake in the release position, rapidly drain the secondary tank with the tank petcock valve until the low air warning device (if so equipped) is activated (either audible and/or visual).

11. Observe the gauge, when the low air-warning device is activated, the gauge shall indicate at least 50% of the air compressor cutout pressure.
12. At this time, check the integrity of the first service system to make sure the check valve is holding system pressure.
13. Drain the secondary and wet tank of all remaining pressure.
14. The spring brakes should not apply.
15. Make a brake application with the treadle valve. **NOTE:** With the pressure in the secondary tank depleted. The rear brakes will apply in the rear, but not in the front. When the treadle valve is released, the brakes should release.
16. Spring brakes shall apply when the air pressure in both systems is depleted to a fixed pressure, which shall not be more than 45 psi or lower than 20 psi. Drain the primary tank with the tank petcock valve until the spring brakes automatically apply or the system pressure is depleted to 20 psi. If there has not been an indication that the spring brakes have applied at 20 psi, a manual check shall be made to determine if the brakes are set. This may be done by performing a pull ahead test or by measuring the push-rod travel on the rear brakes.
17. Deplete the air system until the air gauge(s) read zero (0). The parking brake control shall have moved to the park position. When performing this test, some gauge systems may not read absolute zero (0). Should this occur, the inspector shall ensure the air tank is empty by opening the petcock.
18. Rebuild the air pressure and time the air pressure buildup between 60 psi and 90 psi, engine at fast idle, (1500 rpm.) Buildup time should not exceed one minute. (If in excess of one minute, proceed to Item 19.)
19. Pump down service air pressure using service brake pedal until gauge reads 50 psi. Time air pressure buildup between 50 psi and 100 psi, engine at fast idle, not to exceed 1500 rpm. Buildup time should not exceed three minutes. (Perform this test only if vehicle fails Item 19.)

Brake/Air Chambers:

Check all visible air and hydraulic brake lines and hoses for leaks, rubbing, loose connections, bulges, and cracks. Have the driver apply the brakes and check while under pressure. Check the operation of air brakes, diaphragm leaks, and condition of the linkage. Check for service

air leaks with the spring brake off. Flex rubber lines for evidence of breaks or cracks. Check to make sure that brake hoses are not mounted so as to contact the vehicle body or chassis.

Slack adjusters/push rod travel:

Check the slack adjusters when service brake is applied to ensure that the slack angle is not less than 80 degrees or more than 105 degrees, and the push rod travel does not exceed manufacturer's specifications (See Appendix, page 69). Automatic Slack Adjusters should not have to be manually adjusted except when performing maintenance on the brakes and during installation. The manual adjustment of an automatic slack adjuster to bring the push rod stroke within legal limits is generally masking a mechanical problem and is not fixing it.

Lining:

Check to see the thickness of the lining is not less than 1/4 inch or to wear indicator, if lining is so marked. Check to see the lining is not cracked, broken, or contaminated and these cracks/breaks do not extend into the rivet holes. Linings shall be securely attached to the brake shoes.

Long Stroke Brake Cans:

Long stroke brake cans are becoming standard equipment. You should not fit an axle back to conventional chambers from long stroke chambers. Never mix and match brakes/chambers/slack adjusters on the same axle! The brakes may work fine when new, but as time goes on, the bus will pull to one side due to uneven wear and operating characteristics.

SECTION II-D

BRAKE SYSTEM INSPECTION PROCEDURES RECORD BRAKE DATA SECTION

NOTE: REGARDLESS OF THE BRAKING SYSTEM USED ON THE VEHICLE, IT MUST BE ABLE TO PRODUCE A BRAKING EFFICIENCY OF AT LEAST 60 PERCENT UNLOADED (DRIVER AND INSPECTOR FIGURED INTO THE TEST).

ABS Brake Light Check:

Check to make sure the ABS light functions when the key is turned on and goes out after it does its diagnostic test. An ABS light that remains on will be reported as an Un-Sat.

Testing with the Vericom VC3000 / VC4000

Preparing the Unit for Testing

1. Unit shall be attached to the inside of a window, windshield, or use the aluminum mount, and placed over a seatback or barrier.
2. Turn unit on, a short message will appear on the screen then it will ask you to select a mode.
3. Select braking mode.
4. Using the keys, select auto start. The screen will tell you braking ready. At this point you are ready to perform the brake test.
5. The testing area should be as level as possible, however, the VC2000 / VC3000 will calibrate for a certain amount of unlevelled surface.

Testing Procedures (Inspector shall be seated in the bus during the performance of this test.)

1. Have the driver accelerate to 20 mph and make a hard brake application. It may not be necessary to lock up the brakes to get a good reading.
2. After the vehicle has stopped, the unit will ask you to select an option. You may then press key # 8 twice to obtain the average G reading.
3. From the chart in Appendix IV, page 65 using either the wet or dry conversions, as appropriate, convert average G to braking efficiency and record on

inspection form.

Parking Brake Test—Air Brakes Only

Accelerate the vehicle to 15 mph; apply the spring brake. It must stop the vehicle within 50 feet from the time the valve is activated. Bus must stop in a straight line.

WARNING: BRAKE LIGHTS MAY NOT BE ACTIVATED! USE HAZARD LIGHTS.

Hydraulic Brake Systems—Straight Hydraulic Systems

1. Check the pedal clearance while pressing the foot pedal. (On the first application there must be a minimum of two inches reserved.)
2. Hold pedal down for one minute with firm pressure to determine if there is a loss of pedal reserve.
3. Check for fluid leaks at master cylinder and wheel cylinders.
4. Check for fluid leaks at master cylinder; fluid must be a minimum of 50% of the master cylinder capacity in any reservoir.
5. Adjustment of all brakes shall comply with the manufacturer's recommended specifications.
6. Brake drums, rotors, and calipers shall not be cracked or broken to the extent that such crack or break appears on the outside of the drum, rotor, or caliper.

Hydraulic Brake Systems—Vacuum/Hydraulic Booster Systems

NOTE: Brakes shall function with the engine off and the vacuum reserve exhausted. It will take considerably more force to operate the system under these conditions.

1. Exhaust all vacuum reserve, and then check the pedal clearance without further pumping the brake pedal.
2. Hold firm pressure on the pedal with the engine off and all vacuum reserve exhausted. While still holding the pressure on the pedal, start the engine; pedal should fall slightly. (IF THIS DOES NOT OCCUR, IT INDICATES A MALFUNCTION.)
3. Start the engine and build up the vacuum reserve supply to its maximum. Turn the engine off and check for vacuum loss.

4. Make a full brake application. This application should not deplete the reserve supply by more than 40%.
5. Check the reserve capacity or vacuum reservoir. This must be equipped with a check valve or equivalent device. In the event of failure or leakage in its connection to the source of vacuum, the stored vacuum shall not be depleted by leak failure.
6. Check the low vacuum warning device at the same time you check the above. This device will alert the driver there is less than eight inches of mercury. Pumping the foot pedal performs this check. When you observe you have reached eight inches of vacuum, the warning system should activate.
7. Check the accuracy of the gauge by depleting all of the vacuum.

Parking Brake(s)—Hydraulic or Hand Brake

If the vehicle is equipped with a hand parking brake or hydraulic spring brake system, instruct the driver to set the brake and then attempt to move the vehicle forward in second gear. The vehicle should not move with the engine at idle.

NOTE: CAUTION SHOULD BE EXERCISED WHEN ATTEMPTING TO MOVE THE VEHICLE.

SECTION II-E

SPECIALLY EQUIPPED BUSES

In addition to those items covered in the initial and routine inspections, the following items found on buses constructed or modified for transportation of students with special needs, shall be included:

INSIDE THE BUS

1. Aisle
 - a. Buses September 1, 2004, and later, equipped with a lift must have a 30" aisle.
 - b. Buses 1984—2004, equipped with a lift must have a 30" aisle to all emergency doors.
 - c. Buses 1977—1984, equipped with a lift must have a 30" aisle to at least one door.
2. Power Lift
 - a. Open the lift door, locate lift control, stand clear of lift, depress door switch and attempt to lower. Lift should not operate.
 - b. On foldout type lifts, check for proper padding.
 - c. If equipped with an elevator type lift, check guard panels, padding, and chain or cable.

Lift Inspection (Mfg. before 9-1-2005)

1. Open the lift door, locate lift control, stand clear of lift, depress door switch and attempt to lower. Lift should not operate.
2. Check for light over door on inside of bus.
3. Check that doors latch back properly.
4. Check for audible or visible warning device in driver's compartment.
5. Lower lift, check for proper operation. Inspect lift for broken, cracked or loose components. Check for fluid leaks.

6. Check condition of non-skid material on ramp. Check self- adjusting front ramp for proper operation.
7. Lifts are required to be padded, but not necessarily with a blanket. Unpadded lifts = UNSAT. If a blanket cover is being used, it must remain in place at all times when lift is not in use.

Mobile seating device/occupant securement system.

1. Check that attachments or track are not cracked or broken, and are securely fastened.
2. 1987 and later—Forward facing, occupant securement system only.

Special support equipment and accessories.

1. Check that all special equipment is properly secured.

Lift Inspection (Mfg. after 9-1-2005)

1. Interlock.
 - a. Vehicle interlock must not allow the vehicle to move when the lift is deployed.
2. Lift Operations.
 - a. With the lift platform deployed at floor level: Put a minimum of 25 lbs. on the inboard roll stop. The lift must not operate; and lift lights must be illuminated.
 - b. With the lift platform at least one inch (1") below floor level: Put a minimum of 25 lbs. on the threshold, or break the laser beam, depending on which manufacturer supplied the lift. The warning buzzer and warning light must activate. Lift may still operate.
 - c. With the lift platform deployed and on the ground: Put a minimum of 25 lbs. on the outboard roll stop. The lift platform must not raise more than three inches (3").
 - d. With the lift platform raised to floor level: Place a minimum of fifty lbs. (50) on the platform. Lift platform must not stow.
3. Mobile seating device/occupant securement system.
 - a. Check that attachments or track are not cracked or broken, and are

securely fastened.

- b. 1987 and later—Forward facing, including occupant securement system.
 - c. Prior to 1987—Forward or side facing.
4. Special support equipment and accessories. Check that all special equipment is properly secured, or maintained in a latched storage.

OUTSIDE THE BUS—LIFT-EQUIPPED BUSES

1. Check for wheelchair symbol on lift-equipped buses. Effective for all lift-equipped buses 9 -1-92.
2. Open lift door(s):
 - a. Check for light over door on inside of bus.
 - b. Check that doors latch back properly.
 - c. Check for audible or visible warning device in driver's compartment.
3. Lower lift, check for proper operation.
 - a. Inspect lift for broken, cracked or loose components.
 - b. Check for fluid leaks.
4. Lift on ground:
 - a. Check condition of non-skid material on ramp.
 - b. Check self-adjusting front ramp for proper operation.
 - c. INITIAL INSPECTION ONLY. Check ramp width. Ramp shall provide at least a 27" wheel track in order to accommodate at least a 30" wide wheelchair.
5. Raise lift, check for proper operation.
6. Close door(s).
 - a. Check doors for securement.
 - b. Check light over door.
 - c. Check warning device in driver's compartment.

SECTION III

SCHOOL BUS OUT-OF-SERVICE CRITERIA

When one (1) or more of the following items do not meet the requirements in this manual, or the *School Bus Specification Manual*, it will be cause for placing that vehicle out of service.

Brakes

1. General Brakes.

- a. Braking efficiency found to be less than 60%.
- b. Spring brake will not stop vehicle in 50 feet with vehicle traveling at 15 mph [49 CFR 393.52(b)].
- c. Parking brake on hydraulic units will not hold if attempt is made to move the vehicle in second gear. Inspector should use discretion when bus has an automatic transmission that will always be in first gear.
- d. Equalization. If vehicle fails to stop within a 12-foot lane. (If the vehicle veers to one side or the other during the test.)
- e. FMVSS 121. If the dual air system fails to maintain integrity when either tank is drained rapidly.
- f. One or more brakes which exceed the brake chamber manufacturer's recommended pushrod travel.
- g. One or more brakes on air system in which the slack adjuster angle is less than 80 degrees or more than 105 degrees.
- h. One or more brakes on air system that is equipped with wedge brakes, which exceed .060 clearances measured between the center of the bottom lining and the drum when service brakes are unapplied.
- i. No more than one quart of contaminants will be allowed in the entire air system. (Water and oil will be considered contaminants.)
- j. Air loss, which exceeds three pounds per minute or ten pounds in three minutes with the engine off, brakes applied or unapplied, and air system at maximum pressure.

- k. On hydraulic/vacuum systems, no more than three inches drop in vacuum in one minute after turning the engine off (brakes applied).
 - l. A hydro-vacuum system, which will not hold pressure with the engine shut off, and brakes applied. (Up to 40% depletion on a single brake application is allowed.)
2. Compressor Build-Up Time.
- a. 50 to 100 psi, in excess of three minutes at 1500 rpm's.
 - b. Compressor cut in at less than 85 pounds or cut out at more than 130 pounds.
3. Brake Warning Devices.
- a. Both audio and visual low air warning device fails to activate, in either primary or secondary tanks, at 55 psi or 50% of compressor governor cutout, whichever is less.
 - b. If low vacuum warning does not activate with less than eight inches of vacuum.
4. Hydraulic Brakes.
- a. If the brake pedal, upon first application, travels more than 80% of the distance to the floor (this must be measured).
 - b. Fluid lines or connections restricted, crimped, cracked, broken or have bulges. Seeping or swelling brake line(s) under application of pressure.
 - c. Any obvious leaking of brake fluid.
 - d. Hydraulic fluid level in any reservoir less than half full.
 - e. A hydraulic system, which will not hold pressure with the engine off and brakes, applied.
5. Brake Linings/Pads.
- a. Cracked, loose, or missing lining.
 - (1) Lining cracks or voids of 1/16" (1.6mm) in width observable on the edge of the lining.

- (2) Portions of a lining segment missing such that a fastening device (rivet or bolt) is exposed when viewing the lining from the edge.
 - (3) Cracks that exceed 1 ½" (38mm) in length.
 - (4) Loose lining segments. (Approximately 1/16" (1.6mm) or more movement.)
 - (5) Complete lining segment missing.
- b. The friction surface of the brake drum or rotor, and the brake friction material are contaminated by oil, grease, or brake fluid.
 - c. Air Brakes: Lining with a thickness less than ¼" (6mm) or to wear indicator if lining is so marked, measured at the shoe center for drum brakes. Pads less than 1/8" (3mm) for disc brakes. Steering Axle with a continuous strip of lining with a thickness less than 3/16" (5mm).
 - d. Hydraulic: Lining with a thickness 1/16" (1.6mm) or less at the shoe center for disc or drum brakes.
6. Braking System Components (Drums, Air Chambers, Brake Hoses, Air Compressors, etc.)
- a. Brake drums or rotors that are cracked or broken to the extent that such crack or break extend through to the outside of the drum, or extending from side to side and through the rotor/pad contact surface.
 - b. Different size brake chambers appearing on the same axle. This includes different chamber sizes and stroke length.
 - c. Mismatched slack adjuster length.
 - d. Damaged or broken foundation brake component.
 - e. Any damage extending through the outer reinforcement ply of brake hoses/tubing.
 - f. Bulge/swelling brake hoses/tubing when air pressure is applied.
 - g. Improperly joined brake hoses/tubing such as a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube.
 - h. Damage to hoses/tubing by heat, broken, or crimped in such a manner as to restrict airflow.

- i. Loose compressor mounting bolts.
- j. Cracked, broken or loose pulley.
- k. Cracked or broken mounting brackets, braces or adapters.

Exhaust System

- 1. Any exhaust leak at a seam, joint, or deteriorated component that allows the escape of exhaust that can be felt with the bare hand six inches from the point of the leak, in any direction, with the engine at idle, and without restriction to the exhaust system.
- 2. Gas buses with missing fuel tank heat shields.

Steering Components

Measured steering wheel lash that exceeds the maximum lash stated in the initial and routine inspection procedures.

Power steering inoperative, if so equipped.

Power steering fluid leaks (See Routine Inspection).

- 1. Steering Column.
 - a. Any absence or looseness of U-bolt(s) or positioning part(s).
 - b. Repair-welded universal joint(s).
 - c. Steering wheel not properly secured.
- 2. Steering Gear Box
 - a. Any mounting bolt(s) loose or missing.
 - b. Any crack(s) in gearbox or mounting brackets.
 - c. Any obvious welded repair(s).
 - d. Any looseness of the yoke coupling to the steering gear input shaft.

3. Pitman Arm.
 - a. Any looseness of the pitman arm on the steering gear output shaft.
 - b. Any obvious welded repair(s).
4. Ball and Socket Joints.
 - a. Any movement under steering load of a stud nut.
 - b. Any motion, other than rotational, between any linkage member and its attachment point of more than 1/8" (3mm) measured with hand pressure only.
 - c. Any obvious welded repair(s).
5. Tie Rods and Drag Links.
 - a. Loose clamp(s) or clamp bolt(s) on tie rods or drag links.
 - b. Any looseness in any threaded joint.
6. Nuts.
 - a. Loose or missing on tie rods, pitman arm, drag link, steering arm, or tie rod arm.

Wheels and Lugs

1. Tire rims and wheel discs with visible cracks, elongated bolt holes, or any indication of repair by welding.
2. One or more lug nuts loose or missing on five and six lug wheels.
3. Two or more lug nuts loose or missing on eight and ten lug wheels.

Tires

1. Tires with exposed ply or cord due to cuts or wear.
2. Tires with visible bumps, bulges, or knots indicating partial failure or separation of tire structure.
3. Flat tires (less than half the bus manufacturer's recommended inflation).

4. Rear tires with tread less than 2/32-inch depth when measured in two adjacent major grooves at three locations spaced equally around the outside of the tire.
5. Front tires with tread less than 4/32-inch depth when measured in two adjacent major grooves at three locations spaced equally around the outside of the tire.
6. Recapped or re-grooved tires on the steering axle of any vehicle.
7. Tires worn so as to expose wear bar indicators, contacting the roadway surface in any two major tread groups, at three locations spaced equally around the tire.

Glass

1. Any side or rear glass cracked, broken, or shattered to such an extent that splinters are exposed or that an opening is visible.
2. Any damaged windshield area, above the top of the steering wheel, below a 2-inch border at the top and inside a 1-inch border on each side of the windshield, or vision to any rear view mirror, which cannot be covered by a disc 3/4-inch in diameter.
3. Any windshield repair that obstructs vision in the area described in #2 above.

Body

1. Damaged, loose, or modified molding, panels, or other parts, which are at student level, and are likely to catch or tear skin or clothing, or likely to cause bodily harm.
2. If 25% of the body-tie downs are loose and/or missing.
3. If lift door fails to latch securely in the closed position.

Interior

1. No fire extinguisher.
2. Fire extinguisher not fully charged.
3. No first aid kit.
4. First aid kit less than 2/3 full (Refer to Washington State School Bus Specifications Manual regarding pre-1996 vs. post-1996 first-aid-kit contents).
5. No body fluid cleanup kit.

6. All wheelchair tie downs in the tracks immediately adjacent to the aisle or any exit, must be removed when not in use and stored properly. If not removed, it will be reported as an out-of-service.
7. Flooring so deteriorated it fails to support any occupant of the vehicle or which might cause the occupant to trip and/or fall.
8. Speedometer not working properly. A speedometer is required for performing the brake test.
9. Air gauge or vacuum gauge not present or working properly. (These gauges are required and must be functional in order to perform testing).
10. Horn inoperative, missing, or unable to locate the horn button. Horn button must be visible and readily accessible to the driver.
11. Horn not audible for 200 feet to the front.
12. Handrail. The handrail test device procedure as outlined on page 24 becomes caught, separates, or breaks.
13. Presence of prohibited items (i.e., loose tire chains, extra fuel, prohibited flammables, aerosol cans.)
14. Loose items within the driver compartment. (All areas forward of the front passenger seats). A towel or air cushion of the driver's seat is acceptable. Tissue box secured on the dash is acceptable.

Lights/Exterior

NOTE: Light bulbs that burn out during the inspection process shall not constitute an out-of-service condition if repaired before inspections conclude for the day.

1. The alternately flashing school bus warning light system that fails to meet any one phase of the inspection criteria as outlined in the inspection procedure.
2. If one light in the eight-light system is not operating, it is an out-of-service violation. (Lights alternately flash between 60-120 flashes per minute, and one light can't meet this requirement).
3. Both stop paddle lights inoperative on one side.
4. All stop lights on one side inoperative.

5. All tail lights on one side inoperative.
6. All front turn signal lights on one side inoperative.
7. All rear turn signal lights on one side inoperative.
8. Both low beam headlights inoperative (two and four light systems).
9. Vehicle LED lamps must have more than 25% of the diodes unlit (*grouped together*) to be "considered not working".

Crossing Control Arm

1. Fails to extend at any time red lights flash.

Windshield Wipers

1. Windshield wiper mechanism fails to operate.
2. Any wiper blade missing.

Suspension Components

1. Wheel bearing excess of 1/4" play, measured at outer circumference of the tire.
2. King pin and/or ball joints excess of 1/4" play, measured according to inspection criteria.
3. Springs, broken, front or rear.
4. Broken, cracked, or loose spring hangers.
5. Spring(s) misaligned beyond a straight line extending front and rear, along the outside edge of the U-bolts, when checked using a straight edge.
6. Broken center bolts on springs.
7. Broken or loose U-bolts that allow movement or shifting of springs.
8. Cracked or broken cross members or frame rails.
9. Leaking or deflated air bag(s).

Seats

1. Broken or unsecured seat frames.
2. All seat bottom securement hardware missing from any seat.

Fuel System

1. Fuel leaks that result in dripping of fuel.
2. Inadequate or missing fuel tank cap.
3. Loose or inadequately secured fuel tank(s).
4. Any CNG fuel tanks that are not properly certified.

Drive Line Loops

1. Any missing, cracked, or broken loops.

Emergency Exits

1. Emergency exits that cannot be opened or:
 - a. Stuck in the closed position.
 - b. Fastened shut by a strap, band, padlock, or other device, either inside or out, which prohibits the door from being opened.
 - c. Emergency door opens accidentally or too easily (indicating the door latch is loose).

NOTE: The inspector must be able to open the door using his/her "off" hand.

2. Buzzer or visual exit warning device inoperative (except roof hatch).
3. Presence of ignition bypass in vandal lock system.
4. Inoperative vandal lock system that would permit the vehicle to be started with any emergency exit or door locked.

Engine Compartment

1. Drive belts missing, chafed, cracked, or frayed.
 - a. Power steering unit.

- b. Air compressor.
 - c. Alternator.
2. Wiring bare, shorted, hot, or sparking.
 3. Broken or missing motor mounts or motor mount bolt

Other Unsafe Conditions

The bus shall be placed out of service if the inspector identifies any other condition not listed that renders the bus unsafe for transporting students. Items listed in WAC 392-145-021-General Operating Requirements, should be taken into consideration but will not necessarily always be an out-of-service item. The appropriate Washington State Patrol MCSD/CVD supervisor and the school district transportation administrator to not concur, the WSP School Bus Program Manager and the Regional Transportation Coordinator must be advised to determine a joint resolution. In the unlikely event an agreement is not reached between the WSP School Bus Program Manager and the Regional Transportation Coordinator, the action will be elevated to the OSPI Director of Transportation and the Commander of the MCSD/CVD for final resolution.

Out-of-Service Sticker

See Appendix IV, page 64.

Refer to Policy Section I (page 3) for placement and removal.

Revised: 2/25/1992, 2/28/1992, 4/16/1992, 4/1/1997, 3/28/2002, 9/1/2009, 11/01/2016, 12/1/2018, 9/1/2019

SECTION IV
SUPPORT & TRAFFIC SAFETY EDUCATION
VEHICLES
INSPECTION PROCEDURES

Vehicles used to transport students and vehicles utilized for traffic safety education must be inspected annually to conform to WAC 392-143-070 and WAC 392-153-025. Any vehicles used for the transportation of students, whether donated to, leased by or owned by a school district, must carry safety equipment, pass an inspection of vehicle components. Vehicles used for Traffic Safety Education must be equipped for on-street instruction. The purpose of the inspection is to ensure mechanically safe vehicles are being used to transport students. (Traffic safety education vehicles used exclusively on a multiple car off-street area do not have to be equipped with a dual control brake, sign, or rear view mirror for the instructor; however, they do have to comply with other equipment components as required in WAC 392-143-070.)

Procedures

Vehicle inspections are conducted by Washington State Patrol (WSP) Officers. The WSP Officers will conduct the annual inspection of the support and traffic safety education vehicles during the scheduled annual inspection. Approved vehicles will be assigned a sticker to be placed in the lower left-hand corner of the windshield. Vehicles not passing the inspection will be placed out of service. Vehicles placed out of service will remain out of service until needed repairs are made. The vehicle shall not be used to transport students until a successful re-inspection has been completed.

Item #1—Vehicle Interior

In the vehicle interior, check that the following items are present, operating properly, and meet the appropriate minimum specifications for support and traffic safety education vehicles:

1. Fire Extinguisher. Vehicles shall be equipped with at least one dry chemical-type fire extinguisher of at least 5-pound capacity, fully charged and having a minimum rating of 2A-10BC with flexible discharge hose.
2. First Aid Kit. Vehicles shall be equipped with a 24-unit first aid kit as required for school buses.
3. Highway Warning Kit. Vehicles shall be equipped with a highway warning kit containing a minimum of three reflective triangles approved by the Washington State Department of Transportation.

4. Horn. Vehicles shall be equipped with a horn.
5. Seat Belts. Vehicles shall be equipped with one seat belt for each occupant.
6. Mirrors. Driver and instructor (Reference WAC 392-153-025).
7. Instructor Brake (Reference WAC 392-153-025).
8. Brake system failure indicator lamp. Lamp should operate for a short time when the key is first turned to the start position.

Item #2—Vehicle Exterior

The following items will be checked to see if they are present, operating properly, and meet the appropriate minimum specifications for traffic safety education vehicles.

1. Glass. Inspect all glass for cracks and splintering.
2. Windshield (no cracks).
3. Proper signing in accordance with WAC 392-153-025.
4. Fuel filler cap.
5. Tires in compliance with RCW 46.37.425.
6. License plate front and rear (lighted on rear).
7. Body and body hardware (RCW 46.37.517).
8. Wheels and lugs in compliance with RCW 46.37.369.
9. Bumpers front and rear (RCW 46.37.513).

Item #3—Take up a position in front of the vehicle making sure you have visual contact with the driver at all times, and inspect the following:

1. Headlights (high and low beam).
2. Turn signals.
3. Four-way flashers.
4. Marker lights.

5. Windshield wipers and washers for operation.

Item #4—Engine Compartment

With the engine off, inspect for the following:

1. Fuel leaks (Reference RCW 46.37.465).
2. Oil leaks.
3. Coolant leaks.
4. Loose or worn belts.
5. Damaged wiring.
6. Brake fluid level.
7. Power steering fluid leaks and reservoir level.

Item #5—Undercarriage

Inspect the following items:

1. Steering for compliance with RCW 46.37.375 (checked with weight on the wheels and engine running).
2. Shock absorbers (Reference RCW 46.37.375).
3. Brakes for leaks, lines rubbing, loose connections, missing or broken parts and proper lining when possible.
4. Suspension (Reference RCW 46.37.375).
5. Exhaust system (Reference RCW 46.37.390).
6. Fuel system (Reference RCW 46.37.465).

SECTION V

SUPPORT & TRAFFIC SAFETY EDUCATION VEHICLES OUT-OF-SERVICE CRITERIA

The following vehicle items shall be inspected by the Washington State Patrol, and if found to be substandard, will be classified as out of service. The district will need to have the item(s) repaired. The vehicle shall not be used to transport students until a successful re-inspection has been completed.

Body

Fails to meet the requirements of RCW 46.37.517.

Brakes

1. Braking efficiency less than required (driver or instructor brake) (43.5%).
2. Instructor brake not installed or inoperable.
3. Parking brake will not hold if attempt is made to move the vehicle in second gear.
4. Equalization. If vehicle veers to one side or the other during brake test and fails to stay within a 12-foot lane.
5. If the brake pedal travels more than 80% of the distance to the floor upon first application.
6. Any brake lines that are kinked, cracked, or have bulges.
7. Any obvious leaking of brake fluid.
8. Brake fluid level at 50% or less of the master cylinder capacity in any reservoir.
9. Brake lining less than 1/32-inch thick.
10. Broken or missing brake lining.
11. Brake drums or rotors that are cracked or broken to the extent that such crack or break extends through to the outside of the drum or extends from side to side and through the rotor/pad contact surface.

12. Damaged or broken foundation brake components that adversely affect the braking system.

13. Brake failure indicator lamp inoperable.

Engine Compartment

1. Drive belts missing, chafed, cracked or frayed on the power steering unit.
2. Wiring bare, shorted, hot, or sparking.
3. Broken or missing motor mounts or motor mounts bolts.
4. Power steering fluid leaks that result in pooling or dripping.

Exhaust System

Any exhaust component that has deteriorated to the point of allowing the escape of exhaust gases without restriction to the exhaust system while the vehicle's engine is at idle.

Fuel System

1. Fuel leaks that result in pooling or dripping of fuel from lines or tank.
2. Inadequate or missing fuel tank cap.
3. Loose or inadequately secured fuel tank.

Glass

Any glass that is cracked, broken or shattered to such extent that splinters are exposed or an opening is visible.

Interior

1. No fire extinguisher.
2. Fire extinguisher not fully charged.
3. No first aid kit or one that is less than two-thirds full.
4. Horn fails to meet the requirements of RCW 46.37.380.
5. Seat belts missing or inoperative.

Lights

1. Stoplights inoperative.
2. Taillights inoperative.
3. Front or rear turn signals inoperative.
4. Low beam headlights inoperative.

Steering Components

1. Fails to meet the requirements of RCW 46.37.375.
2. Power steering, if so equipped, is inoperative.

Suspension Components

Fails to meet the requirements of RCW 46.37.375 (except leaking shock absorbers will not be considered an out-of-service item).

Tires

Fails to meet the requirements of RCW 46.37.425.

Wheels and Lugs

1. Fails to meet the requirements of RCW 46.37.369.
2. One or more lugs missing or loose.

Windshield Wipers

1. Windshield wiper mechanism inoperative.
2. Any wiper blade missing.

Other Unsafe Conditions

The vehicle shall be placed out of service if the inspector identifies any other condition not listed that renders the vehicle unsafe. The appropriate Washington State Patrol MCSD/CVD supervisor must approve the action, along with the regional transportation coordinator, unless the district's traffic safety education coordinator concurs with the action.

Revised: 2/10/996, 4/1/1997, 3/28/2002, 09/01/2009, 11/01/2016, 12/1/2018, 9/1/2019



SUPERINTENDENT OF PUBLIC INSTRUCTION
 Pupil Transportation
 Old Capitol Building, P.O. BOX 47200
 OLYMPIA, WA 98504-7200

INITIAL SCHOOL BUS INSPECTION
 By
 Washington State Patrol

Initial
 Major
 Modification
 Repair

SCHOOL DISTRICT			DISTRICT NO.		CONTRACTOR			
VEHICLE IDENTIFICATION NUMBER (17 Characters)				BUS TYPE (Check one) <input type="checkbox"/> A <input type="checkbox"/> C <input type="checkbox"/> D		BUS YEAR	FUEL TYPE	LOCAL BUS NUMBER
BODY MAKE	CHASSIS MAKE	GVW RATING	WHEEL BASE (in.)	W/C LIFT <input type="checkbox"/> Yes <input type="checkbox"/> No	NO. W/C TIE DOWN	MFG. RATED SEATING CAPACITY		
INTERIOR LENGTH (in.)	INSIDE HEIGHT (in.)	AISLE WIDTH (in.)	SEAT DEPTH (in.)	TRANSMISSION <input type="checkbox"/> MANUAL <input type="checkbox"/> AUTOMATIC		AUTOMATIC MODEL NUMBER		
BODY WIDTH (in.)	BRAKES <input type="checkbox"/> Hydraulic	FRONT <input type="checkbox"/> Drum	REAR <input type="checkbox"/> Drum	ENGINE MAKE	ENGINE MODEL	ALTERNATOR CAPACITY		
OVERALL LENGTH (in.)	<input type="checkbox"/> Air	<input type="checkbox"/> Disc	<input type="checkbox"/> Disc	TIRE SIZE		ENGINE PLACEMENT		

A. INTERIOR	DLR	UNS	A. INTERIOR Continued	DLR	UNS
1. Belt Cutter			33. Warning Buzzers		
2. Body Fluid Kit			34. Windshield		
3. Drivers Seat			B. EXTERIOR		
4. Drivers Seat Belt			1. Antihitch Bumper Shield		
5. Eight Light Warning System			2. Battery Box		
6. Emergency Exit: <input type="checkbox"/> Rear <input type="checkbox"/> Side <input type="checkbox"/> Size			3. Color/Marking/Trim		
7. Emergency Exit Signs			4. Eight Light Warning System		
8. Emergency Exit Warning: <input type="checkbox"/> Rear <input type="checkbox"/> Side			5. Fuel Filler Cap		
9. Emergency Exit(s) Operation			6. Hold Open Devices		
10. Fast Idle Control			7. Lettering		
11. Fire Extinguisher			8. Mirrors		
12. First Aid Kit			9. Projections or Protuberances		
13. Flooring/Wheel Housing			10. Rear License Plate Holder/Light		
14. Handle Guards			11. Reflective Material		
15. Handrails			12. Roof/Sides/Caps		
16. Heaters			13. Rub Rails		
17. Highway Warning Kit			14. Stirrup Steps		
18. Horn: <input type="checkbox"/> Air <input type="checkbox"/> Electric			15. Storage Compartment		
19. Instruments			16. Tail Pipe Extension		
20. Interior Lighting			17. Tow Hooks		
21. Markings			18. Unlawful To Pass Sign		
22. Padding			19. Windshield Wipers <input type="checkbox"/> Air <input type="checkbox"/> Electric		
23. Permit Holder			20. Wiring		
24. Roof Hatches (number of)			C. LIGHTS		
25. Service Door Emergency Release			1. 4-Way Flashers		
26. Service Entrance			2. 8-Way System		
27. Side Windows- Drop/Glazing			3. Crossing Arm		
28. Steps			4. Headlights/Tail Lamps		
29. Stepwell Light			5. ID/Clearance		
30. Strobe Light			6. Stop Lights		
31. Sun Visor/Mirror(s)			7. Stop Paddle		
32. Vandal Locks			8. Turn Signals		

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D. UNDER THE BUS	DLR	UNS	F. BRAKES	DLR	UNS
1. Body Bolts/Clamps			1. Adjustment		
2. Drive Shaft Guards			2. Air Dryer		
3. Exhaust System			3. Air Loss		
4. Frame			4. Air System Check (121)		
5. Fuel System			5. Brake Equalization		
6. Fuel Tank Securement			6. Brake Hoses (rubbing/chaffing)		
7. Sanders			7. Compressor Buildup	Seconds	
8. Shock Absorbers			8. Compressor Rating		
9. Steering Components			9. Emergency/Park Brake Efficiency		
10. Suspension Components			10. Leaks		
11. Tires and Wheels			11. Low Air/Vacuum Warning Devices	PSI	
12. Turning Radius			12. Service Brake Efficiency		
13. Undercoating			13. Slack Angle/Rod Travel		
E. ENGINE COMPARTMENT			14. Wet Tank Drain		
1. Air Cleaner			G. SPECIAL NEEDS		
2. Belts/Hoses			1. Controls		
3. Coolant			2. Handrail		
4. Differential			3. Identification		
5. Engine Oil			4. Lift/Travel Capacity		
6. Power Steering			5. Occupant Securement		
7. Transmission			6. Padding		
8. Water Shut Off Valve (2)			7. Platform		
9. Wiring			8. Warning Light		
COMMENTS:					
DEALER'S NAME		DEALER REPRESENTATIVE		DATE	
INSPECTOR'S NAME			INSPECTOR'S BADGE NO.		
INSPECTION LOCATION			ASSET TAG NO.		DATE
FORM SPI 1029 (Rev. 9/15) DISTRIBUTION: Copy-School District, Copy-Inspecting Officer, Copy-Dealer					



OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
 Student Transportation
 Old Capitol Building
 PO BOX 47200
 Olympia WA 98504-7200

Annual 100% Fleet

Annual 25% Fleet

ROUTINE SCHOOL BUS INSPECTION
 By
Washington State Patrol

STATE BUS NUMBER		INITIAL INSPECTION DATE		LAST INSPECTION DATE		CURRENT INSPECTION DATE	
SCHOOL DISTRICT NAME			DISTRICT NO.	COUNTY NO.	ODOMETER/HUB	CONTRACTOR	
LICENSE	YEAR	BUS TYPE		CHASSIS	BODY	CAPACITY	FUEL TYPE
VEHICLE IDENTIFICATION NUMBER				LOCAL BUS NUMBER		W.S.P. STICKER NUMBER	

	DEFECTS				DEFECTS		
	Unsat	O/S	Rein		Unsat	O/S	Rein
1. BRAKE ADJUSTMENT				18. ENGINE COMPONENTS			
RIGHT				19. FLUID LEAKS			
LEFT				20. FUEL SYSTEM			
2. BRAKE EFFICIENCY				21. ENGINE MOUNTS			
3. EMERG/PARKING BRAKES				22. DRIVE LINE LOOPS			
4. LOW AIR/VACUUM WARNING				23. BODY BOLTS/CLIPS			
5. COMP BUILD UP				24. EXHAUST			
6. AIR LOSS APPLIED/UNAPPLIED				25. USPENSION COMPONENTS			
7. BRAKE COMPONENTS				26. BODY INTERIOR			
8. DUAL AIR/EMERGENCY RELEASE				27. OPERATING PERMIT			
9. AIR SYSTEM/COMPONENTS				28. SEATS			
10. BODY EXTERIOR				29. GLASS			
11. LIGHTS				30. EMERGENCY EXITS			
12. 8/4 LIGHT WARNING SYSTEM				31. EMERGENCY EQUIPMENT			
13. MIRRORS				32. INSTRUMENTS			
14. TIRES				33. HORN			
15. WHEELS				34. WIPERS			
16. KING PINS/WHEEL BEARINGS				35. NOT PRESENTED			
17. STEERING COMPONENTS							

COMMENTS:

INSPECTION BY:	REINSP DATE	1	2	3
BADGE NUMBER:				

ORIGINAL

DISTRIBUTION: Original – School District or Contractor
 Copy 1 – Inspecting Officer

FORM SPI 1028 (Rev. 3/2013)



SCHOOL BUS INSPECTION RECAP

SCHOOLDISTRICT		DISTRICT NO.	COUNTY	RECAP DATE	PENDING
ADDRESS		CITY	ZIP		
CONTACT					
SCHOOL BUSES	OOS BUS INSPECTIONS	BUSES NOT PRESENTED	BUSES INSPECTED	OOS BUS % INSPECTIONS	
DRIVER'S ED VEH	OOS DRIVER'S ED VEH		DRIVER'S ED INSPECTED	OOS DRIVER'S ED % INSPECTIONS	
SUPPORT	OOS SUPPORT VEH		SUPPORT INSPECTED	OOS SUPPORT % INSPECTIONS	
OUT OF SERVICE/REINSPECT					

STATE PERMIT NO.	LOCAL NO.	INSPECTION DATE		OOS STICKER	VIN
EXPLANATION					

STATE PERMIT NO.	LOCAL NO.	INSPECTION DATE	WSP STICKER		
COMMENTS					

STATE PERMIT NO.	LOCAL NO.	INSPECTION DATE		OOS STICKER	VIN
EXPLANATION					

STATE PERMIT NO.	LOCAL NO.	INSPECTION DATE	WSP STICKER		
COMMENTS					

UNSATISFACTORY

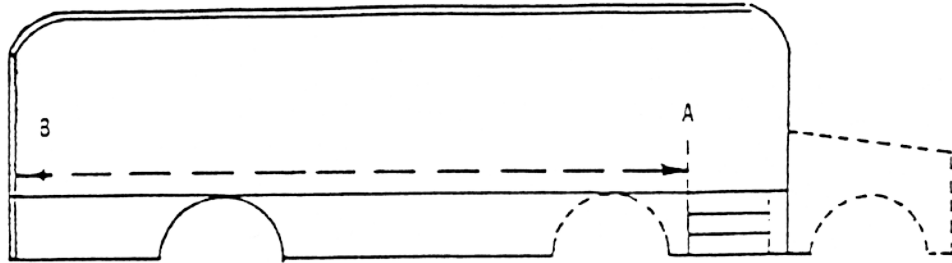
STATE PERMIT NO.	LOCAL NO.	INSPECTION DATE	WSP STICKER		VIN
EXPLANATION					

SATISFACTORY

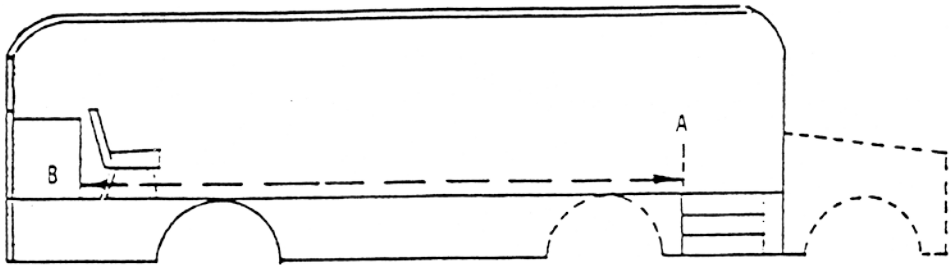
SUPPORT	LOCAL NO.	INSPECTION DATE	WSP STICKER		VIN
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Interior Body Length

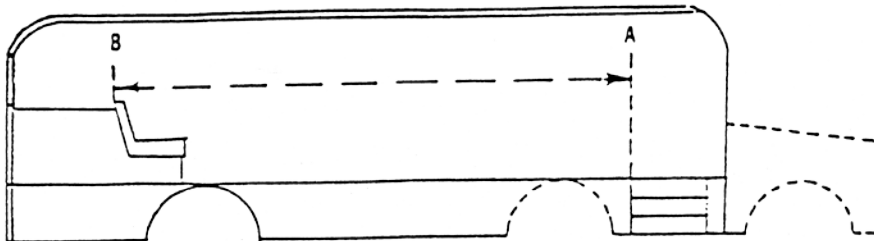
Forward engine transit or conventional with rear emergency door. Measure from rear of step well to inside of emergency door at floor level.



Forward engine transit or conventional with rear luggage compartment and standard rear seat. Measure from rear of step well to inside face of luggage compartment at floor level.

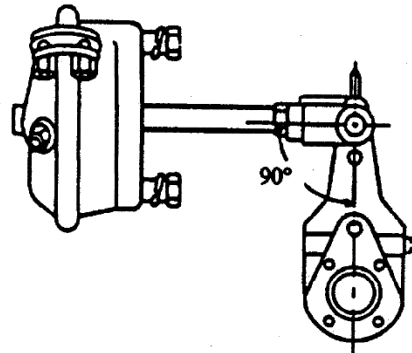


Rear engine transit or conventional with rear luggage compartment and davenport seat. Measure from rear of step well to top rear most point of davenport seat back.



SLACK ADJUSTER ANGLE/PUSH ROD TRAVEL

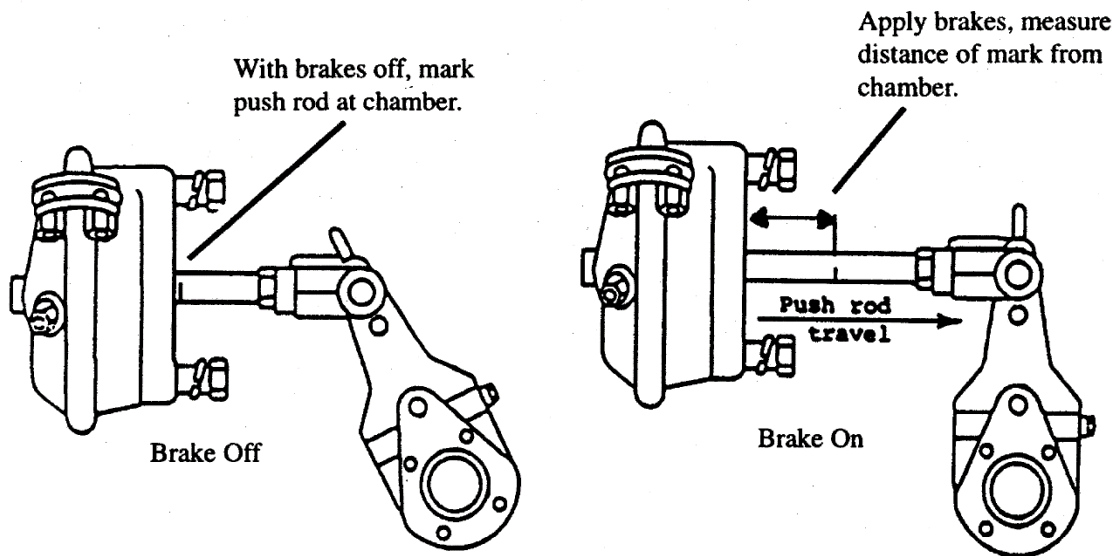
Note: When brakes are properly adjusted and fully applied, the slack adjuster should be at an angle of 90 degrees or greater, measured from the center line of the push rod.



Inspection Procedure for Push Rod Travel

Measuring push rod travel: Brake chamber push rod travel shall not exceed those specifications relating to maximum stroke at which brakes should be readjusted. Performance of the brake push rod travel inspection should be done with the brake application air pressure in the range of 80 to 90 p.s.i., when measuring total stroke to determine proper brake adjustment. This criteria also applies to all vehicles equipped with S-Cam Air Brakes.

CAUTION: Chock wheels before commencing this inspection, as vehicle emergency brake(s) must be off.



Refer to following chart on page 70 for maximum push rod travel (before adjustment) specifications.

Brake Chamber Push Rod Travel Chart

The following charts show the proper brake adjustment for various size brake chambers:

CLAMP TYPE BRAKE CHAMBER DATA (Dimensions in Inches)

Type	Outside Diameter		Maximum Stroke at Which Brakes Must be Readjusted	
6	4	1/2	1	1/4
9	5	1/4	1	3/8
12	5	11/16	1	3/8
16	6	3/8	1	3/4
20	6	25/32	1	3/4
24	7	7/32	1	3/4
30	8	3/32	2	
36	9		2	1/4

"LONG STROKE" CLAMP TYPE BRAKE CHAMBER DATA (Dimensions in Inches)				
Typ	Outside Diameter		Maximum Stroke at Which Brakes Must be	
16	6	3/8	2.0	
20	6	25/32	2.0	
24	7	7/32	2.0	
*24	7	7/32	2.5	
30	8	3/32	2.5	

- For 3" maximum stroke type 24 chambers

Revised: 3/24/1997, 3/28/2002, 11/01/2016, 12/1/2018, 9/1/2019.

Driveline Loops

- September 6, 1977, through June 30, 1984:

The drive shaft, or each portion of the drive shaft is segmented, shall be equipped with a protective metal guard of sufficient strength to prevent it, if broken, from whipping through the floor or dropping to the ground.

- July 1, 1984 to present:

The drive shaft, or each portion if segmented, shall be equipped with a protective metal guard or guards of sufficient strength to prevent it, if broken, from whipping through the floor or dropping to the ground.

Revised: ~~3/12/1986~~, ~~7/14/1986~~, ~~1/5/1990~~, ~~4/22/1997~~, ~~3/28/2002~~, ~~11/01/2016~~, ~~12/1/2018~~, 9/1/2019.

Belt Inspection

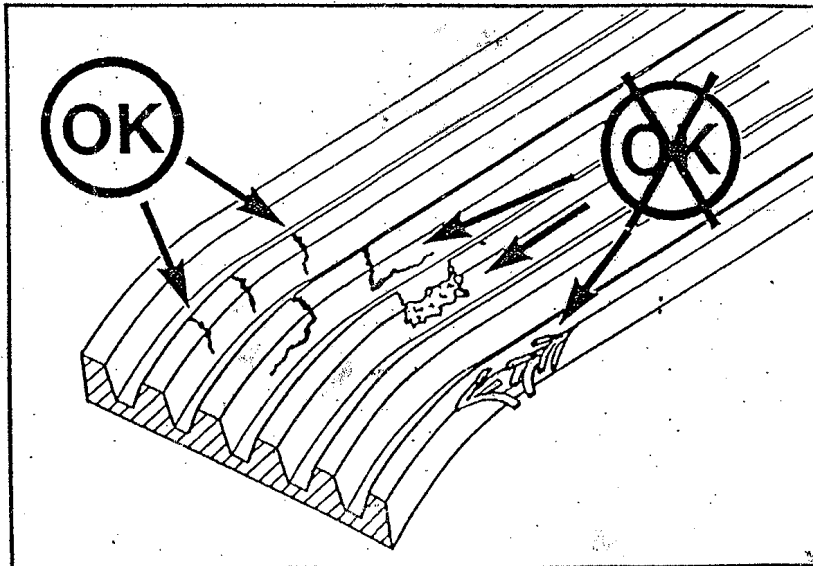
TO: Dedicated School Bus Inspectors
FROM: CVEO 4 Robert K. Petersen
SUBJECT: School Bus Engine Belts

DATE: February 7, 2003

MEMO

The policy for inspecting engine serpentine belts that drive power steering or air compressors on school buses will be as follows:

Visually inspect the belt. Check the belt for intersecting cracks. Transverse (across the belt width) cracks are acceptable. Longitudinal (direction of belt length) cracks that intersect with transverse cracks are **not** acceptable and are out of service. ~~Any belt with more than 3 cracks (transverse or longitudinal) per inch is out of service.~~



3000-323-437 5/93

WSP
WASHINGTON STATE PATROL

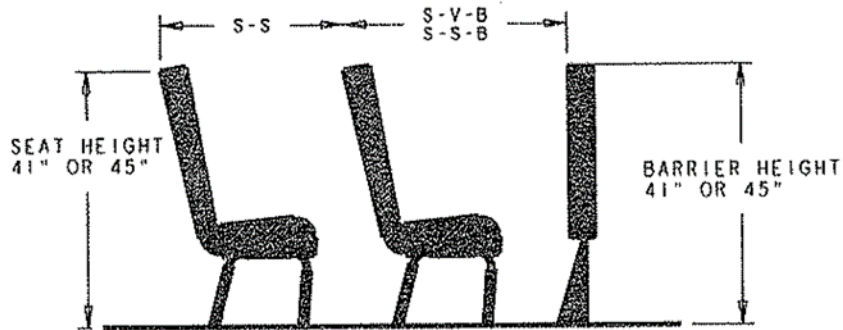
Seat Spacing

NOTICE

FOR COMPLIANCE WITH FMVSS-222 AND PASSENGER CRASH PROTECTION FOR MINIMUM AND MAXIMUM KNEEROOM:

1. ALL SEATS MUST FACE FORWARD.
2. EACH SEAT MUST BE PLACED BEHIND ANOTHER SEAT OR A BARRIER OF MATCHING OR GREATER WIDTH.
3. SEAT SPACING MUST BE LIMITED AS FOLLOWS:

	MINIMUM	MAXIMUM
SEAT-TO-SEAT	26"	29"
41" HIGH SEAT-TO-WALL MOUNT VERTICAL BARRIER	29"	33"
45" HIGH SEAT-TO-WALL MOUNT VERTICAL BARRIER	29.8"	33.8"
41" HIGH SEAT-TO-41" HIGH WALL MOUNT SLANTED BARRIER	28.1"	32.1"
41" HIGH SEAT-TO-45" HIGH WALL MOUNT SLANTED BARRIER	27.6"	31.6"
45" HIGH SEAT-TO-41" HIGH WALL MOUNT SLANTED BARRIER	28.9"	32.9"
45" HIGH SEAT-TO-45" HIGH WALL MOUNT SLANTED BARRIER	28.4"	32.4"
41" HIGH SEAT-TO-41" HIGH TRACK MOUNT VERTICAL BARRIER	32.3"	36.3"
41" HIGH SEAT-TO-45" HIGH TRACK MOUNT VERTICAL BARRIER	33.1"	37.1"



4. TORQUE MOUNTING FASTENERS TO 20-25 FT.LB.

150197

WASHINGTON STATE PATROL

VEHICLE SAFETY INSPECTION

OUT OF SERVICE



THIS VEHICLE WAS INSPECTED AND PLACED OUT OF SERVICE BECAUSE OF ITS UNSAFE CONDITION. VEHICLE IS NOT TO BE OPERATED ON THE ROADWAY UNTIL ALL NOTED DEFECTS ARE REPAIRED.

IT IS UNLAWFUL FOR ANY PERSON TO MUTILATE, DESTROY, REMOVE, OR INTERFERE WITH THE DISPLAY OF THIS STICKER UNTIL STANDARDS OF "RCW" 46.37 ARE MET.

REMOVAL OF THIS STICKER FROM A SCHOOL BUS IS PROHIBITED, UNLESS DONE SO BY THE CHIEF OF THE WASHINGTON STATE PATROL OR HIS DESIGNEE.

OFFICER _____ PER # _____

DATE _____

Odometer Reading at Time of Inspection _____

(MOTOR VEHICLE LAWS OF THE STATE OF WASHINGTON RCW 46.32)
3000-150-133 8/94

Brake Efficiency

EFFICIENCY DIVIDED BY 700		EFFICIENCY DIVIDED BY 650	
<i>Dry Pavement</i>	<i>Percent</i>	<i>Wet Pavement</i>	<i>Percent</i>
417-423	60	388-393	60
424-430	61	394-399	61
431-437	62	400-406	62
438-444	63	407-412	63
445-451	64	413-419	64
452-458	65	420-425	65
459-465	66	426-432	66
466-472	67	433-438	67
473-479	68	439-445	68
480-486	69	446-451	69
487-493	70	452-458	70
494-500	71	459-464	71
501-507	72	465-471	72
508-514	73	472-477	73
515-521	74	478-484	74
522-528	75	485-490	75
529-535	76	491-497	76
536-542	77	498-503	77
543-549	78	504-510	78
550-556	79	511-516	79
557-563	80	517-523	80
564-570	81	524-529	81
571-577	82	530-536	82
578-584	83	537-542	83
585-591	84	543-549	84
592-598	85	550-555	85
599-605	86	556-562	86
606-612	87	563-568	87
613-619	88	569-575	88
620-626	89	576-581	89
627-633	90	582-588	90
634-640	91	589-594	91
641-647	92	595-601	92
648-654	93	602-608	93
655-661	94	609-614	94
662-668	95	615-620	95
669-675	96	621-627	96
676-682	97	628-633	97
683-689	98	634-639	98
690-698	99	640-646	99
699-704	100	647-653	100

CHAPTER 46.08 RCW GENERAL PROVISIONS

[RCW 46.08.065 \(1\) Publicly owned vehicles to be marked—Exceptions.](#)

CHAPTER 46.32 RCW VEHICLE INSPECTION

Sections

- [46.32.005](#) Definitions.
- [46.32.010](#) Types of inspection authorized—Duties of state patrol—Penalties.
- [46.32.020](#) Rules—Supplies—Assistants—Prioritization of higher risk motor carriers.
- [46.32.040](#) Frequency of inspection—High-risk carrier compliance review fee.
- [46.32.050](#) Prohibited practices—Penalty.
- [46.32.060](#) Moving defective vehicle unlawful—Impounding authorized.
- [46.32.070](#) Inspection of damaged vehicle.
- [46.32.080](#) Commercial motor vehicle safety enforcement—Application for department of transportation number.
- [46.32.085](#) Rules to regulate commercial motor vehicle safety requirements.
- [46.32.100](#) Violations—Penalties—Out-of-service orders.
- [46.32.110](#) Controlled substances, alcohol.
- [46.32.120](#) Application to state and publicly owned vehicles.

CHAPTER 46.37 RCW VEHICLE LIGHTING AND OTHER EQUIPMENT

[RCW 46.37.190 \(2\) Warning devices on vehicles—Other drivers yield and stop.](#)

[RCW 46.37.193 Signs on buses.](#)

[RCW 46.37.369 Wheels and front suspensions.](#)

[RCW 46.37.375 Steering and suspension systems.](#)

[RCW 46.37.380 Horns, warning devices, and theft alarms.](#)

[RCW 46.37.390 Mufflers required—Smoke and air contaminant standards—Definitions—Penalty, exception.](#)

[RCW 46.37.425 Tires—Unsafe—State patrol's authority—Penalty.](#)

[RCW 46.37.465 Fuel system.](#)

[RCW 46.37.513 Bumpers.](#)

[RCW 46.37.517 Body and body hardware.](#)

CHAPTER 204-21 WAC LIGHTING REQUIREMENTS

[WAC 204-21-190 School bus warning lamps.](#)

[WAC 204-21-210 Bus hazard warning strobe lamp.](#)

CHAPTER 212-50 WAC IDENTIFICATION FOR ALTERNATIVE FUEL SOURCE MOTOR VEHICLES

Sections

<u>212-50-010</u>	Administration, authority.
<u>212-50-020</u>	Application and scope.
<u>212-50-030</u>	Definitions.
<u>212-50-040</u>	Placard issuance.
<u>212-50-050</u>	Placard design and size.
<u>212-50-060</u>	Placard designations.
<u>212-50-070</u>	Placement on vehicle.
<u>212-50-080</u>	Severability.

CHAPTER 392-143 WAC TRANSPORTATION--SPECIFICATIONS FOR SCHOOL BUSES

Sections

<u>392-143-001</u>	Authority and purpose.
<u>392-143-010</u>	Definitions.
<u>392-143-015</u>	School bus specifications manual.
<u>392-143-031</u>	School bus inspection—School bus operation permit.
<u>392-143-032</u>	School bus operation permit.
<u>392-143-035</u>	Routine inspection of school buses.
<u>392-143-040</u>	Other required inspections of school buses.
<u>392-143-050</u>	Resold school buses.
<u>392-143-055</u>	Responsibility for compliance with school bus specification rules.
<u>392-143-060</u>	School bus specifications continued compliance.
<u>392-143-070</u>	Other vehicles used to transport students.
<u>392-143-080</u>	Signs and markings for school buses—Exterior—Interior.

**CHAPTER 392-145 WAC
TRANSPORTATION–OPERATION RULES**

[WAC 392-145-021 General operating requirements.](#)

**CHAPTER 392-153 WAC
TRAFFIC SAFETY–DRIVER EDUCATION**

[WAC 392-153-025 Traffic safety education vehicles.](#)