

Preventative Maintenance Vehicle Inspection Report "B"

Date _____ / _____ / _____ R/O # _____ Unit # _____

Kms _____ Engine Hours _____

Inspector Name (print) _____ Safety Due Date _____ / _____

Inspector Signature _____ Foreman/Lead Hand Signature _____

Commitment To Division: *"The signature certifies this unit has been thoroughly inspected and, to the best of our knowledge and efforts, will perform properly, without a breakdown, until its next scheduled PM."*

Recall Status Completed Yes No

Note: Always refer to service publications for current specifications and recommended adjustments. Record material, lubricants, and fluids used and added on inspection sheet.

OK = Passed inspection. No faults found. NR = Needs repair UA = Unavailable

OK	NR
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DRIVER'S AREA INSPECTION

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1. Review school bus driver inspection log book for driver concerns and requested repairs.

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2. Entrance Door

- a) Check vandal lock and starter interlock operation. Lubricate mechanism.
- b) Check door hinges for looseness, broken, or damaged parts. Lubricate mechanism.
- c) Check grab handle(s) and entry steps for loose, damaged, and missing parts.
- d) Check door weather stripping for rips, damage, and missing parts.
- e) Check operation of air door speed opening and closing. Adjust as required.

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3. Brake Pedal

- a) Operate the brake pedal and ensure it returns to the fully released position.
- b) Before engine is running, press brake pedal and listen for electric booster motor operation when the key is in the off position.
- c) Check rubber pad for excessive wear.

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4. Clutch Pedal (if applicable)

- a) Check clutch pedal for free travel distance before pressure is exerted on clutch fingers. It should be from 1 to 1 ½ inches.
- b) Check rubber pad for excessive wear.

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5. Accelerator Pedal

- a) Test high idle function switch for 1500 RPM.
- b) Check for sticking pedal.

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6. Safety Equipment & Permits (to be located within 2 metres of the driver's seat)

- a) Verify the vehicle has:
 - i) Approved fire extinguisher securely fastened to vehicle. Remove, invert extinguisher, and tap bottom with rubber mallet.
 - ii) Three approved triangular reflectors.
 - iii) Sealed first aid kit.
 - iv) At least one spare fuse for lamp circuits (in fuse panel).
- b) Ensure the following documents are in the vehicle:
 - i) Current registration.
 - ii) Current safety certificate.
 - iii) Strobe light permit.

OK NR

7. Anti-Lock Brake Monitor Lamp (ABS)

- a) Monitor lamp should come on when ignition switch is turned on. It should go off and remain off after a few seconds.

8. Instruments/Optional Equipment

- a) Low oil pressure light or buzzer (if equipped) should come on when ignition switch is turned on and before engine starts.
- b) With engine running and control panel lights on, check illumination of all instruments.
- c) Check voltmeter/ammeter operation. Record volts/amps reading on the inspection sheet.

Volts _____ Amps _____

- d) Check fuel/DEF gauge operation.
- e) Check operation of any optional equipment in or on bus not listed on inspection sheet such as fans, radios, Webasto, etc.

9. Heaters, Defroster Control, & Dome Lamp(s) Operation

- a) Operate heaters and defroster control to determine proper functioning.
- b) Check dome lamp(s) operation.

10. Windshield Wipers & Washers

- a) Operate windshield wipers to determine proper functioning.
- b) Operate washers and observe operation.
- c) Inspect blades for cracks and condition of rubber. Replace as required.

11. Horns

- a) Check operation of dual electric horns.

12. Glass & Mirrors/Controls

- a) Operate driver's slider window. Lube sliders and replace worn components as required.
- b) Check for cracked glass or moisture in thermopanes.
- c) Check windshield sealing.
- d) Check mirror glass and mirror mounting.
- e) Check power mirror operation.

13. Driver's Seat & Seat Belt

- a) Check seat covers for wear, cuts, tearing, or broken springs.
- b) Check operation of air seat and listen for air leaks.
- c) Move seat and check for full movement through the complete adjustment range.
- d) Check seat mounting security.
- e) Check operation and condition of seat belt and latch.
- f) Check condition of seat belt cutter. Must be in easy reach of driver.

14. Seals & Boots

- a) Check condition and possible leakage of shifter, accelerator, steering column, and clutch boots and seals at cowl area.

15. Air Compressor Governor Test

- a) While engine is running at fast idle, note and record PSI air gauge cut-off pressure.
Note: Cut-off pressure should range from 120 to 130 PSI.

Cut-Off Pressure _____ PSI Cut-In Pressure _____ PSI

16. Low Pressure Warning Device

- a) Actuate applications until warning device comes on while engine is running. Alarm should cut in at 60 PSI.

OK NR

17. Parking Brake

- a) If equipped with spring parking brake, actuate valve and observe holding capacity while attempting to move vehicle. Release valve and make sure brake releases by moving bus.
- b) Check spring parking brake emergency operation. Brakes must apply without power to emergency brake.
- c) Check manual hand brake operation if not equipped with spring parking brake. Put transmission in gear and with the engine at idle, **Bus should not move.**

18. Hydraulic Brake Leakage & Pedal Reserve

With engine running and without pumping or repeated brake pedal applications, apply a moderate foot force to pedal and maintain for 80 seconds. Visually inspect for:

- a) Leakage
- b) Travel

For additional information, refer to National Safety Code Standard 11 Handbook.

19. Hydraulic Booster

- a) Check pedal free travel, adequate pedal height, booster, and brake action. Note any erratic operation.
- b) Check operation of system failure warning lamp and low vacuum warning device (visible and audible), if applicable.

PASSENGER AREA INSPECTION

20. Body Interior

- a) Check for loose panels or windows.
- b) Check for loose accessory items or wiring.
- c) Inspect bus for cleanliness.
- d) Check roof for holes, panel condition, and evidence of water leaks.
- e) Check front and rear bulkheads and side panels for holes and damage.
- f) Inspect floor for holes, loose flooring, and signs of water/dust leaks.

21. Emergency Exit Windows/Hatches

- a) Open and check operation of emergency exit windows and hatches.
- b) Lube hinges, latches, and switches.
- c) Check for proper sealing.
- d) Check for buzzer/alarm operation.

22. Inside Emergency Decals

- a) Emergency window decals are present and in good condition.
- b) Emergency door decals are present and in good condition.
- c) Entrance door decals with instructions for opening in case of emergency are present and in good condition.
- d) Any other decal(s) as required by school division are present and in good condition.

23. Passenger Windows

- a) Check window latch operation and lube.
- b) Check for cracks.
- c) Check for proper stamping to identify glass (Manitoba uses laminated glass).

24. Rear Emergency Door Interlock

- a) Check operation of interlock system. Buzzer/alarm should sound with key in "run" or "accessory" position. Attempt to start bus. **Bus should not start.**
- b) Lube locking pin.

25. Passenger Seats

- a) Check lower seat bottoms for security.
- b) Check seat covers for wear, cuts, and tearing.
- c) Check seat foam condition.
- d) Check for loose panels inside seat.
- e) Check for proper torque of seat bolts.

OK	NR
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TEST DRIVE INSPECTION

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26. Steering Feel

- a) Check for excessive play, binding, and hang up.

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27. Shifting Ease

- a) For manual transmissions, shift gears while driving. Note clutch release, excess play, binding, or slippage.
b) For automatic transmissions, shift through gears. Check for slippage or unusual noises.

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28. Engine Operation

- a) Note acceleration and deceleration response with shifting transmission.
b) Check for surging or missing.
c) Check for unusual noises.
d) Check exhaust brake operation.

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29. Unusual Noises, Rattles, Vibrations, Leaks

- a) Listen for unusual noises, rattles, and vibrations during test drive.
b) Note any air or fluid leakage in bus and any noticeable fluid leakage on roadway.

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30. Cruise Control

- a) Check cruise control operation.

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31. Run Engine up to Full Governed RPM. *Note: Engine should be at normal operating temperature.*

- a) Record reading shown on tachometer. Note any erratic action of tachometer needle.

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Engine Governed RPM _____ **(Diesel Engine Only)**

- b) With engine at operating temperature, record indicated temperature on the inspection sheet.

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Engine Temperature _____

- c) Record oil pressure at base RPM or as manufacture recommendations on inspection sheet.

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Oil Pressure _____

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32. Hook Up Diagnostic Equipment

- a) Download ECM, attach fault codes and trip report to repair order.
b) Perform manual re-gen with engine diagnostic software. **(Diesel Engine Only)**
c) Reset maintenance monitor and verify time parameter, if applicable.

AROUND THE VEHICLE INSPECTION

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33. Lighting, Signals, & Reflectors

- a) Turn on all lamps and check operation.
b) Check operation of 8-way loading lamps (sequential mode) and inspect for faded lenses.
c) Check porch lamp operation.
d) Check four-way flashers.
e) Check turn signals.
f) Check stop lamps.
g) Check back-up lamps.
h) Inspect all lenses for cracks, fading, or dirt inside lenses.
i) Check for missing or broken reflex reflectors.
j) Check for missing or damaged reflector tape.
k) Check back-up alarm, if equipped.

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34. Body Appearance

- a) Inspect vehicle for physical or abuse damage, dents, serious paint scratches, missing rivets, or deterioration. Record details on "Description of Defects Found" sheet (see last page).
b) Check mirrors, brackets, and mounting points for loose fasteners and body mounts.
c) Check mirror heater operation.
d) Inspect fuel tank filler cap gasket, thread condition, and vent operation to meet manufacturer's specifications.

OK NR

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35. Battery Box & Hold Down

- a) Check battery box cover for cracks or damage. Ensure cover fits properly in place and locking straps are in good condition.
- b) Inspect for cracked brackets and loose or missing bolts.
- c) Ensure batteries are securely held in box or carrier. **Caution: Do not over-tighten battery hold down.**
- d) Inspect for corrosion. Clean if required.

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36. Batteries

- a) Wash the top of the batteries.
- b) Inspect batteries for damage.
- c) Check cables for proper routing, insulation, clearances, clamping, signs of chafing, and deterioration.
- d) Disconnect all battery cables including jumper cables running between the batteries. Clean battery terminals and battery cable ends. Reassemble.
- e) Test each battery individually with load tester or impedance tester to verify condition of battery.

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37. Rear Emergency Door

- a) Check door for damage.
- b) Check upper positive door-opening device.
- c) Open door and note performance and ease of operation.
- d) Check for operation of inside and outside release handle and bent or loose rods.
- e) Check sealing around door.
- f) Lubricate door hinges and latches as required.

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38. Tow Hooks - Front & Rear

- a) Check mounts for cracks, excessive wear, and missing or loose fasteners.

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39. Licence Plates & Holders

- a) Check that current licence plates and decals are attached to the vehicle.
- b) Inspect brackets and holders for loose or missing bolts.

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40. Mudflaps & Brackets

- a) Inspect Mudflaps and brackets for damage and mounting.

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41. Wheels & Rims

- a) Inspect wheel rims for cracks and loose mounting.
- b) Inspect for loose or missing wheel nuts, lugs, or broken inner studs. **Note: Rust from the area of the wheel nuts/wheel mounting holes indicates the wheel is loose.**
- c) Check for worn or elongated stud holes.
- d) Check for slipped rims and crooked mountings.

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42. Front Tires

- a) Inspect tires for cuts or damage.
- b) Check side walls for damage and excessive cracking.
- c) Inspect for cupping and excessive feathering or edge wear.
- d) Check tire pressure and record readings on pressure/wear chart on inspection sheet. Inflate as required by manufacturer's specifications. **Note: Any tire with 80 PSI or less is to be considered flat and should be removed for repair. Do not air up tires that are flat. Remove them for repair.**
- e) Measure tread depth and record readings on pressure/wear chart. Replace front tires when depth is 4/32" or less.
- f) Rotate new tires after 40,000 kms. Rotate left to right when depth differential is greater than 2/32".
- g) Check for missing or damaged valves caps and stem locks. **Note: Valve caps should be steel.**
- h) Check toe-in adjustment.

OK NR

43. Rear Tires

- Inspect tires for cuts or damage.
- Check side walls for damage and excessive cracking.
- Inspect for cupping and excessive feathering or edge wear.
- Check tire pressure and record readings on pressure/wear chart on inspection sheet. Inflate as required by manufacturer's specifications. *Note: Any tire with 80 PSI or less is to be considered flat and should be removed for repair. Do not air up tires that are flat. Remove them for repair.*
- Measure tread depth and record readings on pressure/wear chart. Replace rear tires when depth is 2/32" or less.
- Check for missing or damaged valve caps and stem locks. *Note: Valve caps should be steel.*

Record tire pressures and remaining tread on chart:

<u>Tire Pressure (PSI)</u>		<u>Remaining Tread (32nds)</u>	
RF	<input type="text"/>	RT Outer	<input type="text"/>
	<input type="text"/>	RT Inner	<input type="text"/>
LF	<input type="text"/>	LF Inner	<input type="text"/>
	<input type="text"/>	LF Outer	<input type="text"/>

44. Retorque Wheel Nuts

- Retorque all wheel nuts using a torque wrench to the torques shown on the chart below.

	<u>Socket Size</u>	<u>Torque</u>
Hub Pilot Wheels	1 5/16" or 33 mm	450-500 ft lbs.
Spoke Wheels	1 1/4"	160-220 ft lbs.

UNDER HOOD INSPECTION

45. Hood

- Inspect hood hold down latches for loose bolts and brackets.
- Check hood lift operation.
- Inspect hood hinges, brackets, cables, hood stop brackets, and safety locks.
- Check hood to cowl clearance and ensure hood does not contact cowl at any location.
- Lube hood stops.

46. Radiator & Shroud

- Check mounting brackets and fasteners for looseness, missing, broken, and damaged components.
- Inspect for leakage or stains which would indicate radiator leaks.
- Inspect air to air for cracks, loose clamps, and leaking hoses.
- Check for radiator obstructions caused by bugs or other debris. Clean as required.
- Check winter front and bug screen.

47. Cooling System

- Pressure test cooling system. Check for leaks. Remember to inspect for coolant leaks at engine manifolds, cylinder heads, and heater valves.
- Test coolant and record SCA level and freeze point on inspection sheet. Replace water filter (if applicable) only if SCA conditioner is added to the cooling system.
- Inspect and pressure test radiator cap for damage and correct fitting.
- Inspect hoses for wear, chafing, cracking, loose clamps, hardening due to age, kinking, and leakage.
- Inspect all hoses to ensure spring type silicone clamps are used when required.
- Open and close the coolant filter shut-off valve to prevent it from seizing.

SCA Reading _____ Freeze Protection _____

Note: Extended life coolant is to be tested with coolant test strips or as recommended by engine manufacturer. Always follow testing intervals as outlined in the maintenance manual.

OK NR

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48. Fan Assembly

- a) Inspect for excessive shaft play or bearing noise.
- b) Check and record fan cut-in/out temperature. Cut-In _____ Cut-Out _____
- c) Check all mounting bolts.

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49. Belts

- a) Check adjustment of all belts.
- b) Inspect belts for wear, slipping, frayed edges, and inside cracks.
- c) Check belt tensioner for movement and free play. Check belt tensioner bearing for rust streaks on the pulley. Rust streaks indicate the bearing is failing.
- d) Remove belt and check condition of idler pulley bearings.

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50. Alternator

- a) Visually inspect alternator for loose mounting bolts and cable connections.
- b) Inspect for frayed or chafed wiring insulation.
- c) Inspect fan blades.
- d) Measure alternator output with an approved tester while the engine is running at 1000 RPM. Record system voltage on the inspection sheet. Also measure alternator current output by loading the electrical system using an approved tester and record the ampere reading from the alternator on the inspection sheet. Check maintenance Manual for specifications
Volts _____ Amps _____

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51. Fuel/Water Separator

- a) Check mounting brackets for looseness, missing bolts, and damaged parts.
- b) Check heater hoses for leaks and damage.
- c) Check bowl for evidence of water and drain if required.

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52. Power Steering Pump & Reservoir

- a) Check fluid level.
- b) Check belt and pulley alignment.
- c) Check hoses for proper routing, clearances, clamping, signs of chafing, kinking, deterioration, and leakage.

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53. Water Pump

- a) Inspect water pump mounting and shaft bearings for looseness.
- b) Check for coolant leaks.

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54. Vibration Damper

- a) Inspect for cracks, leaks, alignment, correct mounting, deterioration, and operation.

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55. Engine

- a) Inspect top of engine for oil and coolant leaks. Pay attention to front cover gasket, valve cover and head gaskets, and seals including engine valley. *Note: An oil leak is defined as an obvious oil trail or stream flowing from a component. A mist or "sweat" of oil around a component is not an oil leak.*

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56. Exhaust Leaks

- a) Inspect for evidence of soot around exhaust port heads, manifold joints, flex piping, and pipes leading to DPF or muffler.

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57. Automatic Transmission

- a) Check fluid level and condition. Record fluid condition _____ (change as required)
- b) Check for leaks.

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58. Pac Brake

- a) Lube Pac Brake pivot points and air cylinder with synthetic lubricant, Pac Brake Part #C18037.

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59. Air Compressor

- a) Inspect for cracks, loose or missing mounting bolts, broken brackets, and belt and pulley alignment.

OK NR

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60. Air Governor

- a) Inspect for air or oil leakage, loose mounting bolts, and kinked or worn lines.

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61. Fuel Pump & Lines

- a) Inspect fuel pump for leaks.
b) Inspect fuel lines for proper routing, clamping, clearances, chafing, kinking, deterioration, and leakage.

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62. Intake Throttle Valve, EGR, & Turbo Charger Actuator (if applicable Diesel only)

- a) Run air management tests with diagnostic software to ensure proper operation.
b) Remove air intake pipe. Inspect intake throttle valve for excessive deposits.

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63. Air Intake Pipes

- a) Check for loose or missing clamps, mounting bolts, and brackets. **Tighten clamps.**
b) Check pipes for holes, damage, and bent/distorted sections.
c) Check for dust trails inside air intake piping.
d) Check condition of compressor fins on turbo including checking for radial looseness (some axial movement is allowed).
e) Check for correct operation of water drains (if applicable).

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64. Air Cleaner & Restriction Gauge

- a) Remove and inspect air filter every second service. Recommended to replace at 300-350 hours or at 10,000-12,000 kms.
b) Check filter restriction gauge. Record restriction gauge reading on the inspection sheet.
c) Remove restriction gauge. Manually apply vacuum and verify that the gauge plunger moves and locks at the 20" position. If plunger moves and locks, press the reset button and reinstall the gauge.

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Restriction gauge reading _____ "

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65. Master Cylinder

- a) Check for leaks and fluid level.

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66. Block Heater & Oil Pan Heater

- a) Test block heater, oil pan heater, or combined units using an ohm meter. **If a Y-cord is used, one of the heaters needs to be unplugged at time of testing.**

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67. Pre-Heater Operation

- a) Test engine pre-heater or glow plugs for correct operation.

UNDER VEHICLE INSPECTION & LUBRICATION

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68. Body Mounts

- a) Check body mounts, U-bolts, and body clamps for looseness or shifting by tapping with a hammer.
b) Check for missing body rubbers.

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69. Steering System

- a) Inspect for leakage on power steering pump, hoses, and steering box.
b) An assistant should turn the steering wheel back and forth with the front wheels on the ground while the inspector checks for excessive movement, looseness, wear, or missing parts of the following:
- i) Mounting to frame.
 - ii) Shaft yoke at top of steering box.
 - iii) Shaft u-joints and splines.
 - iv) Pitman arm on shaft.
 - v) Idler arm and bushings, if applicable.
 - vi) Spindle mounting and steering arm.
 - vii) Drag link.
 - viii) Tie rod ends.

OK NR

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70. King Pins/Ball Joints

- a) Raise vehicle front end and use a pry bar to check for excessive looseness and wear. *Note wheel action as front end is being raised. A pry bar can also be used to check looseness of spindle to axle with brakes applied.*
- b) Lubricate king pins with unit suspended.

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71. Front Springs

- a) With front end still elevated, use a pry bar to check for spring pin, spring pin bushing, and shackle wear.
- b) Check front springs and U-bolts for broken, shifted, loose, or misaligned parts.
- c) Torque U-bolts to manufacturer's specifications.
- d) Lubricate spring pins with unit suspended.

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72. Front Wheel Bearings

- a) With the front end still elevated, check for looseness and excessive wear with brakes not applied.
- b) Rotate wheels and listen for bearing noise.
- c) Check front wheel hub oil level, and for water contamination of the wheel hub oil.
- d) Check for leaks. Repair as required.
- e) Repack grease-filled bearings as outlined in maintenance manual service interval.

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73. Starter

- a) Visually inspect starter for loose mounting bolts and cable connections. Check for discolored connections.
- b) Inspect for frayed or chafed wiring insulation.
- c) Check for proper grounding (refer to service manual).

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74. Engine & Transmission Mounts

- a) Inspect for loose nuts and bolts and deterioration of mounts.
- b) Tighten any loose transmission, bellhousing, and/or cover attaching bolts.

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75. Oil Levels & Leaks – Engine, Transmission, Differential, Steering

Note: An oil leak is defined as an obvious oil trail or stream flowing from a component. A mist or "sweat" of oil around a component is not an oil leak.

- a) Inspect bottom of engine for leaks.
- b) Check transmission oil level. Inspect transmission for leaks at cover, clutch housing, power take-off cover, and rear seal.
- c) Check rear axle oil level. Inspect differential for leaks at mounting gasket, bolts, pinion cover, axle housing, and wheel seals.
- d) Check differential breather/vent by rotating the cap to ensure the breather is not plugged.

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76. Exhaust System

- a) Inspect brackets for cracks and loose mounting bolts.
- b) Inspect exhaust pipes and muffler for leaks, holes, restrictions, and damage.
Note: Tail pipe should be even with or not more than 1" past rear bumper.

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77. Fuel Tank Mounting

- a) Check for loose or cracked brackets, bolts, corrosion, and shifting support bands.
- b) Inspect for fuel leakage.
- c) Inspect for proper routing, clearances, clamping, chafing, kinking, deterioration, and fuel line leakage.
- d) Inspect breather hose condition.

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78. Transmission & Axle Pinion Flange

- a) Inspect for looseness.

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79. Automatic Transmission

- a) Inspect and adjust linkage.
- b) Check neutral safety switch for proper operation by putting the vehicle in gear. Turn the key to the start position. Bus should not start. **Caution: Make sure park brake is applied.**

OK NR

80. Frame & Crossmember Inspection

- a) Check for cracks, corrosion, or loose fasteners.

81. Air Tanks

- a) Check for damage and mounting.
 b) Inspect drain valve for proper operation and drain moisture.
 c) Drain all air tanks and report if excessive water or oil is found in system. If equipped with automatic moisture ejection valve, ensure wiring to heater is secure.

82. Air Dryer

- a) Check mounts for looseness, missing bolts, and damaged parts.
 b) Check air hoses for leaks.
 c) Change dryer element as directed.
 d) Test heater for proper operation.

83. Drive Line, U-Joints, Slip Yokes, Hanger Brackets, Center Bearings, & Crossmembers

- a) Inspect for loose or missing bolts and damage.
 b) Inspect for wear and cracks.
 c) U-joint movement should not exceed **0.060"**. Replace u-joint when excessive play is discovered or when evidence of rust is found around cups.
 d) For a clamp type u-joint, check for the cup turning on the yoke. If evidence of turning is found, check the "Needs Repair" box as the clamp needs to be replaced.
 e) Check for hanger bearing looseness in mount, damage to the rubber cushion, metal flakes around the bearing area, bearing noise, and loose or missing guards.
 f) Lubricate drive line.

84. Rear Suspension, Springs, Shocks, & U-Bolts

- a) Check for broken springs, shifted leaves, and alignment.
 b) Inspect springs for loose U-bolts, shackles, pins, broken hanger brackets rocking on pads, and cracks.
 c) Inspect shocks for leaks and loose mounting.
 d) Check condition of spring wear pads.
 e) Torque suspension U-bolts to spec.

85. Air Suspension System

- a) Inspect all lines and fittings for proper routing, clearances, signs of chafing, kinking, deterioration, and leakage.
 b) Inspect air bags and mounts for signs of wear or damage.
 c) Check air leveling actuating linkage for bent, restricted, broken, or missing parts. Ensure the angle between the control rod and the actuating arm (the actuating arm is connected directly to the leveling valve) is 90 degrees.
 d) Adjust suspension leveling valve to manufacturer's specification. The height is correctly adjusted when the measurement from the top of a properly inflated air bag to the bottom is 12½" +/- 1/4" (see manufacturer's specification).

86. ABS System

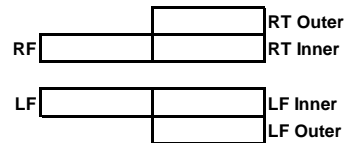
- a) Inspect leads, connections, and wiring for proper routing, clearances, clamping, signs of chafing, kinking, deterioration, and leakage.

OK NR

87. Brake Pads

- a) View brake pads through inspection slot in the backing plate. Measure brake pads and record remaining thickness on the inspection sheet.
- b) Check the "Needs Repair" box when brake pad thickness is 1/8" or less.

Brake Pad Thickness Chart



88. Brake Rotors

- a) Check for broken or cracked surfaces or deep grooves. Remove wheels if required.
For additional information, refer to NSC Standard 11 handbook and manufacturer specifications.

89. Brake Hoses, Lines, & Fittings

- a) Inspect hoses for proper routing, clearances, clamping, wear, chafing, kinking, deterioration, bulges, and leakage.

Note: Bus will be placed out of service during a DOT inspection if brake hose outer reinforcement is worn through OR if brake hoses bulge or show evidence of swelling when pressure is applied.

90. Engine Oil Filters

- a) Drain and replace engine oil.
- b) Take oil sample mid-stream while draining oil and complete required documentation.
- c) Remove old oil filter while engine oil is being drained.
- d) Fill new filters with clean oil and install.
- e) Run engine and check for leaks.
- f) Re-check oil level.

91. Fuel Filters

- a) Change fuel filters using OEM recommended filters.

92. Lubricate Chassis

- a) Grease all lubrication points on the vehicle paying special attention to the following procedures:
 - i) Front end steering components* and spring pins**: Raise the front end by lifting the frame, not the front axle.
 - * Steering components: All steering components must be greased until fresh clean grease appears.
 - ** Spring pins: Grease until fresh clean grease appears at both sides of each spring pin.
 - ii) Lower vehicle: Thrust bearing is lubed by greasing the lower king pin bushing with the vehicle weight on the tires.
 - iii) Universal joints/drive shafts: Fresh clean grease must appear from all u-joint trunnions. Slip yokes should be greased until lube appears at pressure relief hole or through the dust shield.
 - iv) Clutch: Grease the release bearing until fresh clean grease appears out the back of the bearing. Grease cross shaft bushing.
 - v) Rear suspension: Lube all rear suspension grease points (if applicable).
 - vi) Grease park brake linkage at pivot points.

93. Inspection Sticker

- a) Attach an updated inspection reminder sticker to driver's side vent window.
- b) If wheels were removed, ensure a "Retorque Notice" decal is attached to the outside of the driver's vent window.

OK	NR
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FINAL INSPECTION & ROAD TEST

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94. Road test to verify repairs completed.

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95. Check Body Interior For Cleanliness

- a) Check that the steering wheel is clean and free of grease/oil.
- b) Check that entry steps and grab handle(s) are free of grease/oil.
- c) Check interior/exterior for dirt or damage that may have occurred during vehicle inspection.

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96. Check Engine Compartment

- a) Check engine compartment for visible leaks and defects.
- b) Check engine oil level.

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97. Sign Inspection Sheet

- a) Sign inspection sheet to verify PM inspection is complete.

WHEELCHAIR SCHOOL BUS INSPECTION

Note: Always follow wheelchair lift manufacturer's recommended service intervals.

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98. International Symbol of Access

- a) Minimum of four decals required on outside of bus.

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99. Wheelchair Tie-down and Occupant Restraints System (WTORS)

- a) Inspect retractors by pulling out the webbing to the maximum and allowing it to rewind onto spool.
- b) Inspect retractors to ensure they are locking properly.
- c) Inspect to ensure webbing is not cut, frayed, damaged, or contaminated with polishes, oils, or chemicals.
- d) Inspect all metal parts to ensure they are not worn, cracked, or broken.
- e) Inspect pin connector bushings to ensure they are not cracked, broken, or missing.
- f) Inspect that all mounting hardware, such as bolts, nuts, etc. is secure.
- g) Inspect floor anchorages to ensure cleanliness and proper securement.
- h) Inspect aluminum track and hardware for signs of corrosion.
- i) Inspect track and/or anchorage fittings for proper operation.
- j) Periodically it may be necessary to wash fittings in a parts washing solution and lubricate with WD-40 or similar lubricant to ensure proper operation of the positive locking features.
- k) Inspect occupant belt anchorages for proper securement and operation.
- l) Inspect lap and shoulder belt webbing to ensure it is not cut, frayed, damaged, or contaminated with polishes, oils, or chemicals.
- m) Inspect buckles for damage and ensure proper operation.
- n) Inspect male buckle pin connector bushing to ensure it is not cracked, broken, or missing.
- o) Retractable lap and/or shoulder belts should have webbing pulled out to the maximum and allowed to rewind onto the spool.
- p) Lap and/or shoulder belt retractors are emergency locking retractors and should be checked by giving a quick jerk on the webbing to ensure the retractor is locking properly.
- q) Clean webbing periodically with mild soap and water. After cleaning, fully extend the belts and position them to prevent water from entering the retractors until completely dry.
- r) Inspect any other parts of the securement system and accessories that may not be specifically indicated in this checklist but are pertinent to a safe operational system.
- s) **Important! WTORS that are suspected to have been in used during a collision are to be replaced, as per instructions from the vendor**

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100. Interlock Device

- a) The bus shall be equipped with an interlock device, linked to the vehicle brakes or transmission, that shall prevent the movement of the vehicle if the lift is not stowed and the lift door is not securely closed. The interlock device or systems are engaged, except the lift shall still function when the emergency override is used (as per CSA D250).

For additional information, refer to the applicable CSA D250.

