

What to know before you go!

Daily pre-trip bookmobile inspections

Presented at "ABOS 2008: Beyond Library Walls – From Dirt Roads to Cyberhighways" on Oct. 8th and 9th, 2008

Welcome to this session!

The following can be considered a "master list" of items that may require inspection before each and every bookmobile deployment. It is a culmination of items gathered from various regulatory agencies, as well as from 7 separate libraries that were kind enough to share their routines. Since there are many different types of bookmobile vehicles, some items may not apply to your particular bookmobile.

My goal today is to touch on at least the basics of each of these items. If you opt to use this list in the creation of your own written routine, simply let me know and I'd be happy to share the MS Word file it's been created in.

EXTERIOR: (set parking brake)

Leaning	Observe vehicle for excessive leaning.
Leaks	Observe under vehicle for any leaks or obstructions.
Damage	Note any dents, scratches or other damage (tampering).
Muffler	Check muffler condition and secure.
Exhaust System	<ul style="list-style-type: none">• Check system for damage and signs of leaks, such as rust or carbon soot.• System should be connected tightly and mounted securely.
Frame	Look for cracks, broken welds, holes or other damage to the longitudinal frame members, cross members, box and floor.
Tires – Pressure	Check for proper inflation by using a tire gauge, or inflation by striking tires with a mallet or other similar device.
Tires – Tread	Measure tread depth: <ul style="list-style-type: none">• 2/32" rear minimum• 4/32" front minimum
Tires – Condition	Check that tread is evenly worn and look for cuts or other damage to the tread or sidewalls. Also, make sure that valve caps and stems are

not missing, broken, or damaged.

Note: Recapped tires are not allowed on the steer axle!

Lug Nuts	Check that all lug nuts are present, free of cracks and distortions, and show no signs of looseness such as rust trails or shiny threads. Make sure all bolt holes are not cracked or distorted.
Wheels/Rims	Check for bent wheels. Rims cannot have welding repairs.
Mud Flaps	If equipped, check that splash guards or mud flaps are not damaged and are mounted securely.
Hub Oil Seals/Axle Seals	See that hub oil/grease seals and axle seals are not leaking and, if wheel has a sight glass, oil level is adequate.
Suspension - Springs	<ul style="list-style-type: none">• Look for missing, shifted, cracked, or broken leaf springs• Look for broken or distorted coil springs• If vehicle is equipped with torsion bars, torque arms, or other types of suspension components, check that they are not damaged and are mounted securely• Air ride suspension should be checked for damage and leaks
Suspension – Mounts	Look for cracked or broken spring hangers, missing or damaged bushings, and broken, loose, or missing bolts, u-bolts or other axle mounting parts (the mounts should be checked at each point where they are secured to the vehicle frame and axle(s)).
Drive Shaft	See that drive shaft is not bent or cracked. Coupling should be secure and free of foreign objects.
Shock Absorbers	See that shock absorbers are secure and that there are no leaks.
Brakes – Slack Adjusters	Look for broken, loose, or missing parts. For manual slack adjusters, the brake rod should not move more than one inch (with the brakes released) when pulled by hand.
Brakes – Chambers	See that brake chambers are not leaking, cracked, or dented and are mounted securely.
Brakes – Hoses/Lines	Look for cracked, worn, or leaking hoses, lines, and couplings.
Brakes – Drum	Check for cracks, dents, or holes. Also check for loose or missing bolts Brake linings (where visible) should not be worn dangerously thin.
Steering Box/Hoses	<ul style="list-style-type: none">• Check that the steering box is securely mounted and not leaking. Look for any missing nuts, bolts, and cotter keys.• Check for power steering fluid leaks or damage to the power steering hoses.

Lights – Main	<p>Check operation and condition of:</p> <ul style="list-style-type: none"> • Headlamps • Turn signals • Taillights • Brake lights • Hazard lights • Reverse lights
Lights – Auxiliary	<p>Check operation and condition of:</p> <ul style="list-style-type: none"> • Clearance lights • Marker lights • License lights • Interior lights
Reflectors	<p>Check that reflectors are clean and functional:</p> <ul style="list-style-type: none"> • Red reflectors on rear • Amber reflectors elsewhere
Doors	Check operation and condition of all entry doors.
Mirrors	Check tightness and adjust to view rear tires as well as traffic.
Batteries/Boxes	<ul style="list-style-type: none"> • Wherever located, see that battery(s) are secure, connections are tight, and cell caps are present • Battery connection should not show signs of excessive corrosion • Battery box and cover or door must be secure
Wheelchair Lift	<ul style="list-style-type: none"> • Check that associated door is not damaged, operated smoothly, and closes securely from the outside. • Check lift mechanism for leaking, damaged, or missing parts. • Check lift for correct operation
Compartments	Ensure all compartment doors are latched and/or locked.

ENGINE COMPARTMENT: (engine off)

Oil	Ensure oil level is within safe operation marks on dipstick.
Coolant	Inspect reservoir sight glass or remove radiator cap and check for visible coolant level (ONLY IF ENGINE IS NOT HOT).
Hoses	Inspect cooling and heater hoses for condition and leaks.

Fluid – Brake	<i>HYDRAULIC BRAKES ONLY</i> – Check for adequate brake fluid level at reservoir.
Fluid – Washer	Inspect reservoir sight glass or remove cap (minimum ½ full).
Belts	Check all belts for snugness (less than ¾" play at center), cracks or frays: <ul style="list-style-type: none"> • Power steering belt • Water pump belt • Alternator belt • Air compressor belt

GENERATOR: (engine off)

Oil	Ensure oil level is within safe operation marks on dipstick.
Coolant	Inspect reservoir sight glass.
Hoses	Inspect visible hoses for condition and leaks.
Airflow	Ensure compartment airflow is not obstructed.

INTERIOR: (engine running)

Gauge – Oil Pres.	<ul style="list-style-type: none"> • Make sure gauge is working. • Check that the pressure gauge shows increasing or normal oil pressure or that the warning light goes off. • If equipped, oil temperature gauge should begin gradual rise to the normal operating range.
Gauge – Temp.	<ul style="list-style-type: none"> • Make sure the temperature gauge is working. • Temperature should begin to climb to the normal operating range or temperature light should be off.
Ammeter/Voltmeter	Check that gauges show alternator is charging or that warning light is off.
Windshield	Windshield should be clean with no illegal stickers, no obstructions, or damage to the glass.
Steering Play	Check for excessive play by turning the steering wheel back and forth. Play should not exceed 10 degrees (or about 2" on a 20" wheel) before the front left wheel barely moves.
Wipers/Washers	<ul style="list-style-type: none"> • Check that wiper arms and blades are secure • Windshield washers must operate correctly

Lighting Indicators	<p>Test that the dash indicators work when corresponding lights are turned on:</p> <ul style="list-style-type: none"> • Left turn signal • Right turn signal • Four-way emergency flashers • High beam headlight
Horn	Check that air horn and/or electric horn work.
Heater/Defroster	Test that the heater and defroster work.
Brake Check – Parking	Apply parking brake and make sure that it will hold the vehicle by shifting into a lower gear and gently pulling against the brake.
Brake Check – Hydraulic	<p><i>HYDRAULIC BRAKES ONLY :</i></p> <ul style="list-style-type: none"> • Pump the brake pedal three times, and then hold it down for five seconds. The brake pedal should not move (depress) during the five seconds • If equipped with a hydraulic brake reserve (back-up) system, with the key off, depress the brake pedal and listen for the sound of the reserve system electric motor • Check that the warning buzzer or light is off
Brake Check – Air	<p><i>AIR BRAKES ONLY:</i></p> <ul style="list-style-type: none"> • With the engine running, build the air pressure to governed cut-out (100-125 psi) • Shut of the engine, chock your wheels, fully apply the foot brake and hold it for 1 minute. Check the air gauge to see if the air pressure drops more than 3 pounds in 1 minute • Begin fanning off the air pressure by rapidly applying and releasing the foot brake. Low air warning devices (buzzer, light, flag) should activate before air pressure drops below 60 psi • Continue to fan off the air pressure. At approximately 40 psi, the parking brake valve should close (pop out)
Seat Belts	Check that all seat belts are securely mounted, adjust and latch properly.
Emergency Equipment	<ul style="list-style-type: none"> • Check for spare electrical fuses • Check for three red reflective triangles • Check for a properly charged and rated fire extinguisher • Check for seat belt cutter (within easy reach of driver) • Check condition of first aid kit • Check condition of blood borne pathogen kit (if equipped) • Check operation of back-up alarm • Check operation of emergency escape windows and/or hatches

Load Secure

Check that all interior items (boxes, crates, books, etc.) are secure and all cabinet doors are latched.

Documentation

- Current insurance ID/certificate
- Current registration
- Current safety inspection

Thank you so much for attending this session. I hope you enjoyed your time and learned something useful!

If you have any questions about this topic, or anything else “bookmobile”, please feel free to contact me anytime.

Thanks again,
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