School Bus Inspection Writing Committee

State Delegation Ready Proposals

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PROPOSED REVISION TO NATIONAL SCHOOL TRANSPORTATION SPECIFICATIONS AND PROCEDURES
Submitted by: **School Bus Inspections** Writing Committee.
Excerpted from 2015 National School Transportation Specifications and Procedures; **inserted language red, bold & underlined**; ~~**deleted language in strike-through**~~

IP - Proposal Number: 1

Proposed Change, Page #: 81

SCHOOL BUS INSPECTION PROGRAM
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RESOURCE INFORMATION
49 CFR PARTS 570.1-570.63, Vehicle in Use Inspection Standards
49 CFR PARTS 400-599, Federal Motor Vehicle Safety Standards
49 CFR PARTS 393, 396, Federal Motor Carrier Safety Regulations
49 CFR APPENDIX G to Subchapter B, Minimum Periodic Inspection Standards
Commercial Vehicle Safety Alliance's "North American Uniform Out-of-Service Criteria"

Rationale for Change: We need to cite CVSA as the source for language included throughout the recommended out of service criteria. A blanket statement shall be included on page 81 explained the use of CVSA's material and a reference will be added to the bottom of each appropriate page.

Fiscal Impact if Any: None Noted

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IP - Proposal Number 2

Proposed Change, Page #: 83 &84

Air System
A. Absence of effective braking action upon application of service brakes [393.48 (a)];*****
B. Audible air leak at chamber (e.g., ruptured diaphragm, loose chamber clamp, etc.) [386.3(a)(1)]; *****
C. If an air leak is discovered and either the primary or secondary reservoir pressure is not maintained when these conditions exist [396.3(a)(1)]: *****
1. Governor is cut-in;
2. Reservoir pressure is between 80-90 psi;
3. Engine is at idle; and
4. Service brakes are either fully applied or released; or
D. ABS malfunction indicator light not functioning as designed or illuminated on all ABS required vehicles~~.~~**; or**
E. Air Compressor (Normally to be inspected when readily visible or when conditions indicate compressor problems.) *
1) Loose compressor mounting bolts. [396.3(a)(1)];
2) Cracked, broken or loose pulley. [396.3(a)(1)]; or
3) Cracked or broken mounting brackets, braces or adapters. [396.3(a)(1)]
F. Air Reservoir Tank separated at either end from the attachment point(s) [396.3(a)(1)] *

*** ©CVSA**

Rationale for Change: To incorporate components of the airbrake system that are not currently included in the inspection recommended out of service criteria. This guidance is taken from CVSA's North American Out-Of-Service Criteria – reference CVSA by adding * and foot note

Fiscal Impact if Any: None Noted

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IP - Proposal Number 3

Proposed Change, Page #: 84 - 85

Axle Brakes, General

A. Chamber size mismatched on axle [393.47(b)];
B. Mismatched brake chamber long stroke verses regular stroke [393.47(b)]; ~~or~~
C. Mismatched slack adjuster length [393.47(c)]~~.~~**;**
D. Loose or missing component (e.g., chambers, spiders, support brackets, mounting hardware, springs, clevis pin) (393.47); *
E. Any non-manufactured holes or cracks in the spring brake housing section of a parking brake. [396.3(a)(1)]; or*
F. Absence of braking action on any axle (e.g., failing to move upon application of a wedge, S-cam, cam or disc brake) [393.48(a)].*

Brake Shoe/Pad/Lining

A. Any lining thickness less than allowed by 393.47;
B. Lining pad is cracked, broken, not firmly attached or missing (393.47) *(surface or heat cracks in the lining should not be considered out of service);*
C. The friction surface of drum, rotor or friction material are contaminated by oil, grease or brake fluid (393.47); **or***
~~D. Loose or missing component (e.g., chambers, spiders, support brackets) (393.47);~~
~~E~~**D**. Fails to make contact with drum/rotor (e.g., frozen, binding, uneven) [393.48(a)];
~~F. Absence of braking action on any axle (e.g., failing to move upon application of a wedge, S-cam, cam or disc brake) [393.48(a)].~~
~~G. Rotor or drum has evidence of metal to metal contact on the friction surface [393.47(d)(1)]; or~~
~~H. Brake pad, lining or shoe missing [393.47(a)].~~

Drums~~/Rotors~~

A. External crack(s)**, or any crack that** that open**s** upon application [393.47(a)]; ***~~or~~**
B. Any portion of the drum ~~or rotor (discs)~~ missing, broken, **or** misplaced ~~or cracked~~

~~through rotor to center vent~~ [393.47(a)]~~.~~; or *
C. Drum has evidence of metal to metal contact on the friction surface [393.47(d)(1)]. *

Rotors

A. Any rotor with a crack in length of more than 75% of the friction surface and passes completely through the rotor to the center vent from either side, completely through a solid rotor or completely through a structural support connecting the rotor friction surfaces [393.47(a)] *
B. A rotor surface that is worn beyond the limits established by the rotor manufacturer [393.47(g)]
C. Rotor has severe rusting on the rotor friction surface on either side (light rusting on the friction surface is normal) [393.48(a)]. *

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Page Continued:

D. Any portion of the rotor (disc) missing or in danger of falling away [393.47(a)] *
E. Rotor has evidence of metal to metal contact on the friction surface [393.47(d)] *

Hoses and Tubing
A. Brake hose with any damage extending through the outer reinforcement ply [393.45(a)]; *
B. Audible leak at other than a proper fitting or connection [393.45(a)]; *
C. Any bulge or swelling when brake are applied [393.45(a)]; *
D. Any restriction due to cracked, broken or crimped line/hose [393.45(a)]; or*
E. Any line, tubing, hose or connection that is not constructed to meet standard (571.106).

***©CVSA**

Rationale for Change: Re-locate certain inspection items listed in the "Brake Shoe/Pad/Lining" section into a more applicable inspection item section. We will also be adding language to the Brake section to be considered an out of service item. This is guidance provided in CVSA'S North American Uniform Out-Of-Service Criteria. Reference CVSA as the source for information

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IP - Proposal Number 4

Proposed Change, Page #: 85

Hydraulic Brake System

A. System brake failure light or low fluid light on or inoperative (393.51);
B. Reservoir is below minimum level [393.45(a)] (571.106); *****
C. Any seeping, leaking or swelling of hose(s) under pressure [393.45(a)]; *****
D. Any leak in master cylinder unit [393.45(a)] (571.106)~~.~~**;**
E. Any observable fluid leak in the brake system;
F. Brake failure warning system is missing, inoperative, disconnected, defective, or activated while the engine is running with or without brake application [393.51(b)];
G. ABS malfunction indicator light not functioning as designed or illuminated on all ABS required vehicles~~.~~**;**
H. No pedal reserve with engine running [393.40(b)]; *
I. Brake power assist unit is inoperative [396.3(a)(1) or; *
J. Hydraulic brake backup system in inoperative [396.3(a) *(1). *

Parking Brake

A. Fails to hold vehicle in stationary position on normal roadway conditions (absence of ice or snow) in forward or reverse (393.41) [571.105 S5.2.1 and S5.2.3(b)].
B. Parking brake warning lamp fails to function as designed.

~~**Pedal Reserve**~~

~~No pedal reserve with engine running [393.40(b)].~~

~~**Power Assist Unit**~~

~~Fails to operate [396.3(a)(1)].~~

***©CVSA**

Rationale for Change: To reorganize the layout of the Hydraulic Brake section and to incorporate components of the hydraulic brake system that are not currently included in the inspection recommended out of service criteria. This guidance is taken from CVSA's North American Out-Of-Service Criteria. Reference the sections taken from CVSA.

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IP - Proposal number 5

Proposed Change, Page #:86 and Page 94

ELECTRICAL/BATTERY

Cables
A. Electrical cable insulation chafed, frayed, damaged or compromised insulation burnt, causing bare cable to be exposed [393.28, 396.3(a)(1)]; *****

B. Loose or corroded connections at battery posts or compromised insulation protection to electrical components [393.28, 393.77(b), 396.3(a)(1)]; or

C. Missing or damaged protective grommets insulating main electrical cables through metal compartment panels (393.30). *****

Components
A. Broken or unsecured mounting of electrical components [396.3(a)(1)]; or *****

B. Electrical cable unsupported, hanging or missing clamps that may cause chafing or frayed conditions [393.28, 396.3(a)(1)]. *****

~~**Windshield Wipers**~~
~~A. Inoperative, missing or damaged wiper (393.78); or~~

~~B. Wiper does not clean sweep area of driver's windshield (393.78).~~

***©CVSA**

WINDOWS

Windshield Wipers
A. Inoperative, missing or damaged wiper (393.78);

B. Wiper does not clean sweep area of driver's windshield (393.78). or;

C. Inoperative or defective windshield washing system (393.78, FMVSS 571.104)

Rationale for Change: Move windshield wipers from electoral section of the inspection OOS items to follow Windows. Include windshield washing system – Credit CVSA for the language in the appropriate sections

Fiscal Impact if Any: None Noted

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IP - Proposal Number 6

Proposed Change, Page #: 86

DRIVESHAFT/DRIVELINE

A. Center Bearing (Carrier Bearing)*

1) Any broken or loose center bearing bracket, bracket bolts or mounting hardware [396.3(a)(1);
2) Any center bearing bracket crack equaling 50% or more of the original bracket width [396.3(a)(1); or
3) More than ½ inch vertical movement (with hand pressure only) of the shafe in the center bearing carrier [396.3(a)(1)].

~~A~~**B**. Driveshaft guard loose, missing, improper placement or bent (393.89); ~~**or**~~

C. Driveshaft Tube*

1) Any original metal crach in the shaft tube greater than ¼ inch in length [396.3(a)(1)];
2) Obvious cracked weld at shaft tube end [396.3(a)(1); or
3) Any shaft tube with an obvious twist [396.3(a)(1).

~~B~~**D**. Universal joint(s) ~~worn or faulty, or obvious welded repair [393.209(2)(d)].~~

1) Worn, faulty, or obvious welded repair [393.209(2)(d)];
2) Any independent vertical movement between opposing yoke ends greater than 1/8 inch, with hand pressure only [396.3(a)(1)];*
3) Any missing, broken, or loose universal joint bearing cap [396.3(a)(1)];
4) Any missing, broken or loose universal joint bearing cap bolt, bearing strap or retainer bolt [396.3(a)(1)]; or*
5) Any bearing cap retainer clip that is missing [396.3(a)(1)].*

E. Yoke Ends (including Slip Yoke, Yoke Shaft, Tube and End Fitting Yoke)*

1) Any visible crack in a yoke end [396.3(a)(1);
2) Any yoke-mounting hardware loose (with hand pressure only), broken or missing [396.3(a)(1);
3) Any horizontal or vertical movement of slip joint yoke shaft of greater than ½ inch, with hand pressure only [396.3(a)(1)]; or
4) Any loose, broken or missing end fitting fastener [396.3(a)(1)]

***©CVSA**

Rationale for Change: To incorporate components of the Driveline/Driveshaft system that are not currently included in the inspection recommended out of service criteria. This guidance is taken from CVSA's North American Out-Of-Service Criteria. Credit CVSA as the source of information.

Fiscal Impact if Any: None Noted

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IP - Proposal Number 7

Proposed Change, Page #: 87

EXHAUST SYSTEM
A. The exhaust system is leaking or discharging directly below or at a point forward of the driver or passenger compartment [393.83(g)]; or*****
Note: Does not apply to proper venting for emission systems.
B. No part of the exhaust system shall be located and likely to result in burning, charring or damaging the electrical wiring, the fuel supply or any combustible part of the vehicle [393.83(a)]. *****

***©CVSA**

Rationale for Change: Amend existing language in the exhaust section by providing an * and footnote to credit CVSA as the source of information.

Fiscal Impact if Any: None Noted

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IP - Proposal Number 8

Proposed Change, Page #: 87

EMERGENCY EQUIPMENT

A. Fire extinguisher missing, not of proper type or size, not fully charged, has no pressure gauge, is not secured or is not readily accessible to the driver or passengers (393.95);
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B. Any additional state-specific equipment (e.g., first aid kit, body fluid kit, webbing cutter and emergency reflectors) that fails to meet state specifications and places the vehicle out of service; or

C. Missing, **unserviceable or incomplete set of** emergency triangles (571.125).

Rationale for Change: To amend the Emergency Equipment to cover non-functional emergency triangles.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 9

Proposed Change, Page #:87

EMERGENCY EXITS
F. Any item or modification that reduces the size of the opening and limits egress to the emergency exit by all passengers; or
G. Emergency exit warning device is not audible in the driver seating position and~~/or~~ the vicinity of the emergency door or window (571.217).
H. Vehicle is capable of starting while the emergency exit starter interlock is engaged (if equipped) (571.217); or
I. Emergency door interlock alarm in inoperative when engaged and the key is in the on position.

Rationale for Change: To provide clarification on Emergency Door interlock systems.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 10

Proposed Change, Page #: 88

FUEL SYSTEM
CNG or LPG Fuels *****
A. Any fuel leakage from the CNG Or LPG system detected audibly or by smell and verified by either a bubble test using non-ammonia, non-corrosive soap solution, or a flammable gas detection meter [396.3(a)(1)].

Liquid Fuels
A. Any part of the fuel tank or fuel system not securely attached to the vehicle (393.65); *****
B. A fuel system with a dripping leak at any point (393.67 Tank); or*****
C. Dripping leak (396.3(a)(1) leak other than tank); or
D. Missing fuel cap or system does not seal as designed. *****

***©CVSA**

Rationale for Change: To credit CVSA as the source of information in the appropriate items

Fiscal Impact if Any: None Noted

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IP – Proposal Number 11

Proposed Change, Page #: 89

STEERING SYSTEM
Ball/Socket Joints*
A. Any movement under steering load of a nut stud [396.3(a)(1)];
B. Any motion, other than rotational, between any linkage member and it attachment point of more than ⅛ inch measured with hand pressure only [393.209(d)]; or
C. Any obvious welded repair [393.209)(d)].

Front Axle Beam*
Any crack(s) or obvious welded repair [396.3(a)(1)].

Nuts*
Loose or missing fasteners on tie rod, pitman arm, drag link, steering arm or tie rod arm [396.3(a)(1)].

Pitman Arm*
A. Looseness of the pitman arm on the steering gear output shaft [393.209(d)]; or
B. Any obvious welded repair [396.3(a)(1)] [393.209(d)].

Power Steering
A. Auxiliary power assist cylinder loose [393.209(e)];
B. Power steering system belts frayed, cracked or slipping [393.209(2)(e)]; or
C. Power steering system leaking or insufficient fluid in reservoir [393.209(2)(e)].

Steering
A. Any modification or condition that interferes with free movement of any steering component [393.209(d)]; or*
B. Steering travel restricted through the limit of travel in both directions [570.60(c)].

Steering Column/Wheel*
A. Absence or looseness of U-bolts or other positioning part(s) [393.209(c)];
B. Welded or repaired universal joint(s) [393.209(d)];
C. Steering wheel not properly secured [393.209(a)]; or
D. Steering wheel lash/free play exceeds performance test (see Table #2) [393.209(b)].

Steering Gear Box*
A. Mounting bolt(s) loose or missing [393.209(d)];
B. Crack(s) in gearbox or mounting brackets (393.209(d)) [396.3(a)(1)];
C. Any obvious welded repair(s) [396.3(a)(1)] [393.209(d)]; or
D. Looseness of yoke-coupling to the steering gear input shaft [393.209(d)].

Page Continued:

Tie Rods/Drag Links***

A. Loose clamp(s) or clamp bolt(s) on tie rod or drag link(s) [396.3(a)(1)]; or
B. Any looseness in any threaded joint [396.3(a)(1)].

***©CVSA**

Rationale for Change: To credit CVSA as the source of information in the appropriate items no substantive change.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 12

Proposed Change, Page #:91 & 92

Bumpers
A. Front bumper is missing or not properly secured [393.203(e)]; or

B. Rear bumper is missing or not secured (393.86).

Chassis/Frame/Unibody
A. Any cracked, loose, sagging or broken, frame side rail. [393.201(a)];*****

B. Any damage permitting the shifting of the body or imminent collapse of frame [393.201(a)]; *****

C. Any cracked, loose, broken frame member affecting support of functional components (e.g., steering gear, engine, transmission, body part or suspension) [393.201(a)]; *****

~~D. Any crack 1 ½ inch or longer in the frame side rail web which is directed toward bottom flange [393.201(a)]; or 96~~

~~E. Any crack extending from the frame side rail web around the radius and into the bottom flange [393.201(a)].~~

D. Any condition that causes the body or frame to be in contact with a tire or any part of the wheel assemblies [396.3(a)(1)]; or*

E. Any alteration/repair not authorized by OEM/manufacturer specification.

Crossmembers
A. Any cross member, outrigger or other structural support which is cracked, missing or deformed that affects the structural integrity of the vehicle (393.201);

B. Three or more adjacent crossmembers broken or detached (393.201); or

C. Any area of the floor that is sagging or soft due to broken crossmembers (393.201).

Outriggers/Body Supports
Any cross member, outrigger or other structural support which is cracked, missing, deformed or has rust holes where damage affects the safe operation of the vehicle.

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Page Continued:

Rationale for Change: Reorganization of layout – some of the categories were inadvertently listed as sub-categories in the 2015 standard.

- Move "Bumpers" to follow "Brake Systems"
- Move "Chassis/Frame/Unibody" to follow "Bumpers"
- Under Chassis/Frame/Unibody: Remove "D" & "E" as they are included in "A"
- Credit CVSA as the source of information where appropriate

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IP – Proposal Number 13

Proposed Change, Page #: 91

SUSPENSION COMPONENTS
Air Suspension***
A. Deflated air suspension (one or more deflated air spring/bag) [393.207(f)]; or
B. Air spring/bag is missing, broken, or detached at either the top or bottom (393.207(f)].

Axle Parts/Members
A. Any U-bolt or other spring to axle clamp bolt(s) which are cracked, broken, loose or missing [393.207(a)]; ***
B. Any axle, axle housing, spring hanger(s), or other axle positioning parts which are cracked, broken, loose or missing that results in shifting of an axle from its normal position [393.207(a)]; ***
C. Any worn (beyond manufacturer specifications) or improperly assembled U-bolt, shock, kingpin, ball joint, strut, air bag or positioning component [570.61 (a)];
D. Any spring hanger, assembly part or portion of leaf which is broken, separated or missing [393.207(c)]; or***
E. Any broken coil spring [393.207(d)]. ***

***©CVSA**

Rationale for Change: To credit CVSA as the source of information in the appropriate items, no substantive change.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 14

Proposed Change, Page #: 92 & 93

~~**Tire Inflation**~~

~~Tire is flat or has noticeable leak [393.75(a)(3)].~~

Tire~~**s**~~ ~~**Sidewall**~~

A. Any sidewall cut, worn or damaged to the extent that the steel or fabric cord is exposed [393.75(a)]; or *****

B. Any observable bump, bulge or knot related to sidewall or tread separation [393.75(a)]. *****

C. Tire is flat or has noticeable leak [393.75(a)(3)].*

D. So mounted or inflated that it comes in contact with any part of the vehicle [396.3(a)(1)] *

~~**Tire Tread Depth**~~

~~A.~~ **E.** Any front tire worn to less than 4/32 inch [393.75(b)]; or

~~B.~~ **F.** Any rear tire worn to less than 2/32 inch [393.75(c)].

~~**Tire Type**~~

~~A.~~ **G.** Any school bus operated with regrooved, recapped or retreaded tires on the front axle [393.75(d)]; or

~~B.~~ **H.** Any tire not of proper type (e.g., load range, size, mismatched on axle).

Wheels/Rims/Spiders

A. Any nuts, bolts, studs, lugs or holes that are elongated, broken, missing, damaged or loose [393.205(b)];

B. Any cracked or broken wheel or rim [393.205(a)]; or

C. Any lock or slide ring broken, cracked, improperly seated, sprung or has mismatched rings [393.205(a)]. *****

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Rationale for Change: To create 1 general "Tire" category and add an OOS inspection item based on the guidance from the CVSA OOS Criteria. Credit CVSA as the source of information where appropriate

Fiscal Impact if Any: None Noted

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IP – Proposal Number 15

Proposed Change, Page #: 95

BODY EXTERIOR
A. Visually inspect the body exterior to ensure that there is not any panel, rub rail or trim that is loose, torn, dislocated or protruding from the surface of the bus that would create a hazard.

B. **Inspect the body exterior for required color, lettering and reflective material.**

C. All engine, battery or other doors must be securely mounted and properly installed.

Rationale for Change: Add items for the recommended inspection procedure to the "Body Exterior" section.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 16

Proposed Change, Page #: 97

Seat, Driver
A. Visually inspect driver's seat to ensure that it is securely fastened to the vehicle.

B. Visually inspect the driver's seat for its ability to maintain the adjusted position. ~~**Inspect driver's restraining device (seat belt) for fraying, attaching hardware and the capacity of the seat belt for maintaining the driver in the seated position.**~~

Seatbelts/Occupant Restraints (for all seating positions)

A. **Inspect seatbelt webbing for cuts, fraying or extreme/unusual wear**
B. **Inspect buckle and latch for damage and proper operation by inserting the latch, listening for an audible click, tug the latch against the buckle attempting to withdraw it, then pushing buckle release button to eject latch.**
C. **Inspect shoulder upper anchorage guide – webbing must move freely through anchorage guide.**
D. **Inspect shoulder belt height adjuster (if equipped) – must slide freely and be free from damage. If equipped with mechanical adjustments, the adjuster must lock at each height position.**
E. **Inspect retractor for proper operation, webbing must fully retract.**
F. **Inspect buckle mounting and shoulder webbing anchorage hardware. Ensure that all items are properly installed and free from damage.**

Rationale for Change: Add seatbelt/occupant restraint inspection procedures.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 17

Proposed Change, Page #: 97 & 98 (Correct Section page appears to be 114)

Seat(s) and Barrier(s) **(Section reference and page 98 does not match proposed changes???? By RLK)**

~~**WHEELCHAIR LIFT**~~ **SPECIALLY EQUIPPED VEHICLES**

A. Wheelchair lift

1. **Lift Inoperable**
2. **Lift does not function as manufactured**
3. **Manual backup system inoperable**
4. **Manual backup accessories missing / damaged**
5. **Base plate / Arms / Towers / Platform - Any cracked component or cracked weld**
6. **Any hydraulic fluid leak**
7. **Wiring does not meet manufacturer's specifications**
8. **Jacking Prevention – any portion of the vehicle raises off of the ground during lift operation**
9.

B. Platform lift manufactured after April 1, 2005 must meet all the following criteria, (as referenced in FMVSS 403 and 404):

1. 1 **Shift/park brake interlock is inoperable**
2. **Lift platform retention device inoperable/hardware missing**
3. **Outer barrier, inner roll stop and threshold visual/audible warning system inoperable**
4. **Stow interlock inoperable**
5. **The inner/outer barrier non-deployment interlock inoperable**

C. Wheelchair Ramp (ADA 49 CFR 38.23)

1. **Any ramp that is cracked or damaged or unable to support a load of 600 lbs for ramps 30 inches or longer or 300 lbs for ramps shorter than 30 inches**
2. **Any non-slip resistant surface**
3. **Ramp surface has a protrusion greater than ¼ inch.**
4. **Ramp width of less than 30 inch clear space**
5. **Ramp threshold greater than ¼ lip with no beveled transition or a bevel with a slope greater than 1:2**
6. **Missing/Broken/Unsecured 2 inch barrier on each side of the ramp**
7. **Ramp exceeds maximum slope of 1:4 when deployed to ground level or**
    a. **1:4 if vehicle floor is 3 inches or less above a 6 inch curb**
    b. **1:6 if vehicle floor is 3-6 inches above a 6 inch curb**
    c. **1:8 if vehicle floor is 6-9 inches above a 6 inch curb**
    d. **1:12 if vehicle floor is greater than 9 inches above a 6 inch curb**

Page Continued:

8. **Any ramp that is not firmly attached to the vehicle when used for boarding or alighting**
9. **Any gap between the vehicle and the ramp that exceeds 5/8 inch**
10. **Vehicle does not provide for a method of stowage/securement of the ramps do not impinch on the wheelchair/mobility aid or pose any hazard to passengers in the event of a sudden stop or maneuver.**
11. **Hand Rails (if equipped)**
    a. **Not within 30-38 inches of above ramp surface**
    b. **Not capable of withstanding a force of 100 lbs without deformation**
    c. **Cross section diameter not between 1 ¼ inch and 1 ½ inches**
    d. **Hand rail interferes with mobility aid maneuverability when entering or exiting the vehicle**

D. Securement Device System

1. **Securement device system incomplete set, improperly installed or damaged**
2. **Floor/ceiling track damaged or unsecured**

E. Wheelchair Occupant Restraint System

1. **Restraint system incomplete or mismatched set.**
2. **Lap / shoulder belt, damaged / missing hardware (see "seatbelts/occupant restraints" under the seats section of the "recommended school bus inspection procedure".**
3. **Restraint system is not in compliance (571.222)**

Rationale for Change: Update the OOS components for the Specially Equipped buses.

Fiscal Impact if Any: None Noted

PROPOSED REVISION TO NATIONAL SCHOOL TRANSPORTATION SPECIFICATIONS AND PROCEDURES
Submitted by: **School Bus Inspections** Writing Committee.
Excerpted from 2015 National School Transportation Specifications and Procedures; **inserted language red, bold & underlined**; ~~**deleted language in strike-through**~~

IP – Proposal Number- 18

Proposed Change, Page #: See below

Pages 104-105
ELECTRICAL/BATTERY

~~**Windshield Wipers**~~
~~Operate wiper and washer system. The wiping system should be power-driven with at least two speeds and should be able to clean the area of the windshield within the wiping pattern. Wipers should operate with a minimum of 45 cycles per minute.~~

Pg. 114-115

WINDOWS

D. No operable defrosting and defogging system to clear the driver's windshield (571.103).

Windshield Wipers/Washers

Operate wiper and washer system. The wiping system should be power-driven with at least two speeds and should be able to clean the area of the windshield within the wiping pattern. Wipers should operate with a minimum of 45 cycles per minute

Rationale for Change: Move windshield wipers/washer from electoral section of the recommended inspection procedure to follow Windows.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 19

Proposed Change, Page #: 105

EMERGENCY EXITS

A. Visually inspect all emergency exits.

4. If equipped with the interlock systems, check the functionality of the system. The bus must not be capable of starting while the interlock is engaged and an alarm should sound. If the rear door interlock is engaged after the vehicle is running, an audible alarm should be given to alert the driver.

C. Ensure that all exits have an audible device to alert the driver **and occupants** of an open exit door or window.

Note: FMVSS 571.217 defines the number of exits for each type of bus.

Rationale for Change: To amend the Emergency Exit Inspection procedure to include testing the interlock systems.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 20

Proposed Change, Page #: 107

LAMPS/SIGNALS

A. Visually inspect all lamps, such as brakes, turn signals, tail, head (low beam), overhead warning lights (amber and red), hazard warning and stop arm lights to ensure proper visibility**, orientation** and operation. Turn signals should flash at a rate of 60 to 120 times per minute.

D. Inspection the stop arm for proper operation and compliance with FMVSS 571.131

E. Inspect the driver's area for proper operation of; instrument panel lights, warning lights, indicator lights, gauges and alarms.

Rationale for Change: To amend the Lamps/Lights sections to make it more all-inclusive of the required lamps/warning system. We are also adding the Stop Arm under this section.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 21

Proposed Change, Page #: 110 & 111

~~**Bumpers**~~
~~Visually inspect front and rear bumpers for missing attaching hardware or broken hardware. Ensure bumpers are properly mounted and secure and that there is no point protruding beyond the confines of the vehicle so as to create a hazard. 115~~

~~**Chassis/Frame/Unibody**~~
~~A. Visually inspect frame for cracks, loose attaching hardware, sagging, broken, or unapproved welds to frame side rail or flange.~~

~~B. Visually and physically inspect for body hold-down components for damage that would permit the shifting of the body.~~

~~C. Inspect for cracked, loose, bent, broken or unapproved welds to frame member that affect support of functional components (e.g., steering gear, engine, transmission, body parts or suspension). Welding to frame should be performed only by manufacturer or designee.~~

~~**Note**: Inspect for any crack 1 ½ inch or longer in the frame side rail web which is directed toward bottom flange or any crack extending from the frame side rail web around the radius and into the bottom flange.~~

~~**Crossmembers**~~
~~A. Visually and physically inspect all crossmembers, attaching hardware and other structural supports for cracks or deformations. Visually inspect for three or more adjacent cross members that are missing, broken, damaged or loose.~~

~~B. Inspect any area of the floor that is sagging, weak or damaged due to broken, damaged or loose crossmembers.~~

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Page Continued:

MOVE TO PAGE 103 JUST AHEAD OF DIFFERENTIAL)

Bumpers
Visually inspect front and rear bumpers for missing attaching hardware or broken hardware. Ensure bumpers are properly mounted and secure and that there is no point protruding beyond the confines of the vehicle so as to create a hazard. 115

Chassis/Frame/Unibody
A. Visually inspect frame for cracks, loose attaching hardware, sagging, broken, or unapproved welds to frame side rail or flange.

B. Visually and physically inspect for body hold-down components for damage that would permit the shifting of the body.

C. Inspect for cracked, loose, bent, broken or unapproved welds to frame member that affect support of functional components (e.g., steering gear, engine, transmission, body parts or suspension). Welding to frame should be performed only by manufacturer or designee.

~~**Note: Inspect for any crack 1 ½ inch or longer in the frame side rail web which is directed toward bottom flange or any crack extending from the frame side rail web around the radius and into the bottom flange.**~~
Crossmembers

A. Visually and physically inspect all crossmembers, attaching hardware and other structural supports for cracks or deformations. Visually inspect for three or more adjacent cross members that are missing, broken, damaged or loose.

B. Inspect any area of the floor that is sagging, weak or damaged due to broken, damaged or loose crossmembers.

Rationale for Change: Move Bumper and Chassis from "Suspension" category and correct change in Chassis to reflect change noted on page 91.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 22

Proposed Change, Page #: 114

*****(Relocate this section to follow "Mirrors" on page 107 so section headings are arranged alphabetically)*****

~~WHEELCHAIR LIFT~~ SPECIALLY EQUIPPED VEHICLES

~~A. Visually inspect and operate wheelchair lift to ensure proper function as designed. Inspect for any leaks that would hinder the operation of the lift.~~

~~B. Inspect all safety systems of the wheelchair lift (e.g., hand rails, ramp stops, etc.) and ensure that they are functioning as designed and in compliance with FMVSS 403 and 404.~~

A. Inspect service doors. (Handles, Hinges, Glass, and Door hold open feature)

B. Inspect for fluid leaks. (Stowed position and during operation)

C. Inspect lift platform retention hardware. (Missing or Broken)

D. Inspect switch controls for operation and OEM wiring.

E. Operate equipment to ensure proper function as designed by Manufacturer's.

F. Ensure that all pinch points are protected ~~from seated passengers~~ **for operator and passenger safety**.

~~D. Visually inspect all wheelchair and occupant securement devices to ensure none are missing or broken and that straps are not frayed.~~

G. Inspect all safety functions as designed and in compliance with FMVSS 403/404. Visual & Audible Alarm, Platform, Inner/Outer Barrier Pressure, Shift/Brake Interlock.

H. Visually inspect to account for complete securement sets for each position.

I. Inspect for broken or missing hardware, webbing not frayed, lap/shoulder belt condition.

~~E~~ **J**. Inspect that all components for each wheel chair position are compatible in accordance with manufacturers' specifications.

~~F~~ **K**. Visually and physically inspect all anchorage points, tracking and fasteners for securement.

L. If the vehicle is equipped with a ramp it shall be inspected to ensure compliance with ADA requirements for transportation vehicles as outlined in 49 CFR 38.23. See also the recommended out of service items for specially equipped vehicles.

Rationale for Change: Rename the Wheelchair Lift-Equipped Vehicles and add inspection components to the list of items to check.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 23

Proposed Change, Page #: 114 (New Addition)

VENTILATION/HEATING/COOLING SYSTEMS

A. Inspect auxiliary fans for operation and that they are equipped with a protective cage;
B. Check each heater/air conditioner for proper operation on all fan speeds;
C. Ensure that all access panels and protective coverings are in place (heater lines, cores and elements on the interior of the bus shall be shielded to prevent scalding or burning of the driver or passengers);
D. Check hoses/wiring for wear; and
E. Inspect heating and cooling systems for any fluid leaking into the interior of the bus.

Rationale for Change: Add "Ventilation" to the recommended inspection procedure.

Fiscal Impact if Any: None Noted

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IP – Proposal Number 24

Proposed Change, Page #:114 & 115

WINDOWS

~~A. Any glass or glazing that is broken through or missing (393.60);~~
~~B. Any glass not of approved type [393.60(a)];~~
~~C. Windshield has discoloration or other damage in that portion extending upward from the height of the topmost portion of the steering wheel, but not including a two-inch border at the top and a one-inch border at each side of the windshield or each panel thereof, except as follows:~~
~~1. Color or tint applied by the manufacturer for the reduction of glare;~~
~~2. Any crack not over . inch long, if not intersected by any other crack;~~
~~3. Any damaged area, that can be covered by a disc . inch in diameter, if not closer than three inches to any other such damaged area; or 83~~
~~4. Driver's side area window(s) have chips, clouding, or cracks that obscure the driver's vision [393.60(c)]; or~~
~~D. No operable defrosting and defogging system to clear the driver's windshield (571.103).~~

A. Visually inspect all glass for missing or broken glazing and are approved type. Visually inspect windshield to ensure that there is no discoloration or damage in that portion extending upward from the height of the top-most portion of the steering wheel, but not including a two inch border a the top and a one inch border at each side of the windshield or each panel thereof except as follows:

1. **Color or tint applied by manufacturer for the reduction of glare;**
2. **Any crack not over ¼ inch long, if not intersected by another crack;**
3. **Any damaged area, that can be covered by a disc ¾ inch in diameter, if not closer than three inches to any other such damaged area;**
4. **Any damage to the driver's side area window(s), or chips, clouding or cracks that obscure the driver's vision.**

B. Inspect that the defrosting and defogging system is operable to clear the driver's windshield.
C. Inspect windshield washer system for operation

Rationale for Change: Correct the inspection procedures for Windows, the inspection procedures was inadvertently removed from the 2010 standards and replaced with the recommended OOS language during the reorganization.

Fiscal Impact if Any: None Noted

End