**Section 441.APPENDIX I Seat Belt, Driver's through Steps, Entrance**

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| a) | | SEAT BELT, DRIVER'S | | | | | | |  | | | | | | |
|  | | | | | | | | | PROCEDURES/SPECIFICATIONS:  *Must be installed on driver's seat.* (Section 12-807 of the Illinois Vehicle Equipment Law) Belt material, buckle, tongue, etc. shall remain above floor when not in use. If retractors are installed, they shall be the automatic locking type. | | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  Driver's seat belt is dirty, frayed, torn, cracked or broken or if retractor or buckle does not operate properly. | | | | | | |
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| b) | SEAT,  DRIVER'S | | | | | | | |  | | | | | | |
|  | PROCEDURES/SPECIFICATIONS:  The driver's seat shall be rigidly positioned and shall afford vertical, forward and backward adjustments of not less than 3.9 inches (100 mm) without the use of a tool or non-attached device. The shortest distance between the steering wheel and the back rest of the operator's seat shall be no less than 11 inches (280 mm).  Seat padding and covering shall be in good condition, free from holes and tears. Seat cushions shall be securely fastened to the seat frame. | | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  Driver's seat is not securely anchored to floor; in poor condition; adjustment mechanism does not function properly. | | | | | | |
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| c) | SEATS, | | | | | | | |  | | | | | | |
|  | PASSENGER | | | | | | | | PROCEDURES/SPECIFICATIONS:  All seats shall have a minimum front to rear depth of 14 inches.  In determining seating capacity of a bus, individual seating width shall be 13 inches where 3-3 (three pupils on both sides of aisle) seating plan is used and 15 inches where 3-2 (three pupils on one side of aisle and two pupils on other side of aisle plan is used. (49 CFR 571.222)  All seats shall be forward facing and shall be securely fastened to that part or parts of the body which support them. No jump or portable seats are allowed (does not include child restraint systems).  The forwardmost seat on the right side of the bus shall be located so as not to interfere with the driver's vision and not be farther forward than the rear of the driver's seat when adjusted to its rearmost position.  The seat spacing shall be no more than 24 inches, measured from the seating reference point to the seat back or guard barrier in front of the seat. (49 CFR 571.222)  A minimum of 36 inches of headroom for the sitting position above the top of the undepressed cushion line of all seats shall be provided. Measurement shall be made vertically not more than 7 inches from the side wall at cushion height and at the front and rear center of cushion.  Seat backs of similar size shall be of the same width at the top and of the same height from the floor and shall slant at the same angle with the floor.  *Buses manufactured after June 30, 1987, shall be equipped with 28 inch seat backs.* (Section 12-807.1 of the Illinois Vehicle Equipment Law) Measure front of seat back from the top down to a point where the seat back meets the seat cushion. This measurement must be at least 28 inches.  All buses manufactured during and after September 1974 shall be equipped with energy absorbing padding on all exposed top and side rails. The side rails shall be padded in such a manner to retain the 12 inch aisle (15 inches at two inches below top of seat back for buses manufactured after June 30, 1987). On the rear of a seatback, the padding shall extend from the top of the seat back to the top level of the seat cushion. Seat padding and covering shall be of fire resistant material. Padding and covering shall be in good condition (i.e., free from holes and tears). Seat cushions shall be securely fastened to the seat frame.  Optional: The rearmost seats may be exempt from seatback padding requirement.  Exception: All buses manufactured prior to September 1974 are exempt from padding on top and side rails and seat back to cushion level.  A flip-up seat may be located only adjacent to any side emergency door. For buses manufactured on or after September 1, 1994, the flip-up seat must conform to the following: | | | | | | |
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|  | | | | | | | | | 1) | The seat must be designed so that, when in the folded position, the seat cushion is flat against the seat back to prevent a child's limb from becoming lodged between the seat cushion and seat back. | | | | | |
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|  | | | | | | | | | 2) | The seat must be designed to discourage a child from standing on the seat cushion when in the folded position. | | | | | |
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|  | | | | | | | | | 3) | The working mechanism under the seat must be covered to eliminate any tripping hazard. | | | | | |
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|  | | | | | | | | | 4) | All sharp metal edges on the seat must be padded to prevent any snagging hazard. | | | | | |
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|  | | | | | | | | | 5) | No portion of the door latch mechanism can be obstructed by a seat. | | | | | |
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|  | | | | | | | | | 6) | There must be at least 11.7 inches (30 cm) measured from the door opening to the seat back in front. (49 CFR 571.217) | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  Passenger seats are not firmly attached to body; broken frame; cushions not firmly attached; padding and covering not fire resistant. Padding or covering is loose, in poor condition, or missing; seats are torn or have holes; minimum seat dimensions or seat spacing is not in compliance.  For buses manufactured after June 30, 1987, seat back height does not meet requirements. | | | | | | |
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| d) | STEERING SYSTEM | | | | | | | |  | | | | | | |
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|  | | | 1) | | | Exterior | | |  | | | | | | |
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|  | | | | | | | A) | King  Pins |  | | | | | | |
|  | | | | | | | | PROCEDURES/SPECIFICATIONS:  Raise vehicle so as to unload kingpins (brakes should be applied to eliminate wheel bearing looseness). Either grasp wheel at top and bottom or use a bar for leverage. Attempt to rock wheel in and out. Check movement at extreme top or bottom of tire. If movement exists, place a dial indicator, tape measure, or a fixed device at the wheel and measure amount of movement.  Place leverage bar under tire. Raise bar to check for vertical movement between spindle and support axle. | | | | | | |
|  | | | | | | | | |  | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Wheel bearing movement exceeds ¼ inch; or kingpin movement exceeds: | | | | | | |
|  | | | | | | | | |  | | | | | | |
|  | | | | | | | | |  | | | | | | |
|  | | | | | | | | | Wheel Size | | | | Max allowed | |
|  | | | | | | | | |  | | | |  | | | |
|  | | | | | | | | | 16" or less | | | | ¼" | | | |
|  | | | | | | | | | 16.1" to 18" | | | | ⅜" | | | |
|  | | | | | | | | | over 18" | | | | ½" | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | B) | Linkage | PROCEDURES/SPECIFICATIONS:  For buses with single "I" beam or tube type front axle, hoist bus under axle. For buses with twin "I" beam type front axles or with "A frame" control arms, each axle or arm must be hoisted independently so as to load the ball joints. Grasp front and rear of tire and attempt to shake assembly right and left to determine linkage looseness. Measure movement of wheel.  Inspect for damage to or looseness in the following linkage components: | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | i) | | Ball Joints | | | | | |
|  | | | | | | | | | ii) | | Cotter Pins | | | | | |
|  | | | | | | | | | iii) | | Drag Link | | | | | |
|  | | | | | | | | | iv) | | Idler Arm | | | | | |
|  | | | | | | | | | v) | | Pitman Arm | | | | | |
|  | | | | | | | | | vi) | | Steering Box | | | | | |
|  | | | | | | | | | vii) | | Tie Rod | | | | | |
|  | | | | | | | | | viii) | | Tie Rod Ends | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Measurement is found to be in excess of: | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | Rim Diameter | | | Maximum Allowable Movement | | | | |
|  | | | | | | | | |  | | |  | | | | |
|  | | | | | | | | | 16" or less | | | ¼" | | | | |
|  | | | | | | | | | 17" and 18" | | | ⅜" | | | | |
|  | | | | | | | | | over 18" | | | ½" | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | Any linkage component is bent; welded; loose; insecurely mounted or missing. | | | | | | | |
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|  | | | | | | | C) | Power  Steering |  | | | | | | | |
|  | | | | | | | | | PROCEDURES/SPECIFICATIONS:  Manually and visually inspect: | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | i) | | Belts | | | | | |
|  | | | | | | | | | ii) | | Cylinders | | | | | |
|  | | | | | | | | | iii) | | Fluid Level | | | | | |
|  | | | | | | | | | iv) | | Hoses | | | | | |
|  | | | | | | | | | v) | | Mounting Brackets | | | | | |
|  | | | | | | | | | vi) | | Power Assist | | | | | |
|  | | | | | | | | | vii) | | Pump | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Steering Components are: | | | | | | | |
|  | | | | | | | | | i) | | Loose, frayed, cracked, missing; incorrect belts | | | | | |
|  | | | | | | | | | ii) | | Loose and/or leaking | | | | | |
|  | | | | | | | | | iii) | | Low fluid level | | | | | |
|  | | | | | | | | | iv) | | Cracked, leaking, rubbed by moving parts | | | | | |
|  | | | | | | | | | v) | | Cracked, loose, or broken | | | | | |
|  | | | | | | | | | vi) | | No assist is evident | | | | | |
|  | | | | | | | | | vii) | | Loose, leaking. | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | D) | Toe-in/  Toe-out |  | | | | | | | |
|  | | | | | | | | PROCEDURES/SPECIFICATIONS:  With wheels held in a straight ahead position, drive vehicle slowly over the approved drive-on side slip indicator.  Excessive toe-in or toe-out is a general indication that complete check should be made of all front wheel alignment factors (caster, chamber, steering axis inclination). | | | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  More than 30 feet per mile on the approved side slip indicator. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | E) | Wheel |  | | | | | | | |
|  | | | | | | | | Bearings | PROCEDURES/SPECIFICATIONS:  With the front end of the vehicle lifted so as to load any ball joints, grasp the front tire top and bottom, rock it in and out. Record movement. To verify that any looseness detected is in the wheel bearing, notice the relative movement between the brake drum or disc and the backing plate or splash shield. | | | | | | | |
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|  | | | | | AGENCY NOTE: | | | | Wheel bearing play can be eliminated by applying service brakes. | | | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  Relative movement between drum and backing plate, measured at tire, is ¼ inch or more. | | | | | | | |
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|  | | | | 2) | | Interior | | |  | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | A) | Column | PROCEDURES/SPECIFICATIONS:  Inspect to determine that column support bracket is properly tightened and all bolts are present. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Column support bracket is not properly tightened or bolts are missing. | | | | | | | |
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|  | | | | | | | B) | Lash | PROCEDURES/SPECIFICATIONS:  With road wheels in straight ahead position, turn steering wheel until a turning movement can be observed at the left road wheel. Slowly reverse steering wheel motion and measure lash. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Lash exceeds following acceptable limits: | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | Steering wheel maximum | | | | | Acceptable lash (inches) | | |
|  | | | | | | | | | diameter (inches) | | | | | measured at maximum | | |
|  | | | | | | | | |  | | | | | circumference | | |
|  | | | | | | | | |  | | | | |  | | |
|  | | | | | | | | | 16 or less | | | | | 2 | | |
|  | | | | | | | | | 18 | | | | | 2 ¼ | | |
|  | | | | | | | | | 20 | | | | | 2 ½ | | |
|  | | | | | | | | | 22 | | | | | 2 ¾ | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | C) | Shaft | PROCEDURES/SPECIFICATIONS:  Grasp steering wheel with both hands and attempt to move shaft up and down. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Steering shaft moves up and down. | | | | | | | |
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|  | | | | | AGENCY NOTE: | | | | Steering shafts on International-Navistar vehicles will move up and down but must be within manufacturer's tolerances. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | D) | Steering  Wheel |  | | | | | | | |
|  | | | | | | | | PROCEDURES/SPECIFICATIONS:  Inspect steering wheel condition. | | | | | | | |
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|  | | | | | | | | | REJECT VEHICLE IF:  Steering wheel is damaged. Any spokes are missing or reinforcement ring is exposed. | | | | | | | |
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|  | | | | | | | E) | Travel | PROCEDURES/SPECIFICATIONS:  Turn steering wheel through a full right and left turn checking for binding, jamming and complete travel left and right. | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Binding or jamming is present. Does not complete full turn from left to right. Tire rubs on fender or frame during turn. | | | | | | | |
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| e) | STEPS,  ENTRANCE | | | | | | | |  | | | | | | | |
|  | PROCEDURES/SPECIFICATIONS:  Steps shall be enclosed and shall not protrude beyond side body line. Surface shall be of nonskid material with 1½ to 3 inch white nosing as part of the nonskid material. Riser of upper step not more than 15 inches in height. When more than two steps are used, risers must be approximately of equal height, except when floor is plywood over steel. (Increase by thickness of plywood.) | | | | | | | |
|  | | | | | | | | |  | | | | | | | |
|  | | | | | | | | | REJECT VEHICLE IF:  Steps or risers are not solid. Steps, risers or nonskid material covering is missing, loose, or not in good condition. White nosing is missing or in poor condition. | | | | | | | |

(Source: Amended at 22 Ill. Reg. 11889, effective June 29, 1998)