SCHOOL BUS WINDOWS

ITEM AND METHOD OF INSPECTION  POINT VALUE AND REQUIREMENT DESCRIPTION

(#) Designates points to be deducted

XV. Window Glass

A. Wipers Not Operable (Left side)  25) A. A windshield wiping system, two speed or more, must be provided.

   The wipers must be operated by one or more air or electric motors of sufficient power to operate wipers. If one motor is used, the wipers must work in tandem to give full sweep of the windshield.

B. Defective wiper blades  (5) B. Wiper blades shall not be bent, torn, broken, or have other defects that impair the ability of the wiper to effectively clear the windshield of rain, snow, or other forms of moisture.

C. One Speed Defective (left side) or Right Inoperable  (10) C. If only one speed on the left wiper works, or the right wiper is inoperable.

D. Windshield glass  (10)D.1. All glass shall be of approved safety glass, so mounted that permanent mark is visible, and of sufficient quality to prevent distortion of view in all directions.

   *Note: Windshield marking should be AS1 or AS14. Side windows should be AS2 or AS3.

   2. Tint  2. A vehicle's windshield may be of a uniform tint throughout or may have a horizontal gradient band starting slightly above the line of driver's vision and gradually decreasing in light transmission to 20 percent or less at the top of the windshield.
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3. **Cracks & Cloudiness**

   3. No person shall operate a bus with a windshield clouded more than 3 inches on the bottom or more than 1 inch on the top. Also, the vehicle may not be operated if there is a crack in the windshield that intersects another crack or if there is a crack in the view of the driver. Windshield must meet requirements of MS 169.74.

4. **Chips**

   4. No person shall operate a school bus with a chip in the windshield larger than a penny.

E. **Side Glass/Rear Glass**

   1. **Laminated or Tempered Glass**

      1. Laminated or tempered glass is permitted in all side windows except that windshield, entrance, and rear emergency exit door must be of approved safety glass and be federally approved and marked as provided in MS.169.74.

   2. **Required Clear Glass**

      **Buses after 12/31/94**

      2. Required Clear Glass

         The entrance door glass, the first window behind the service door, and the window to the left of the driver must be of clear glass. The use of approved tinted glass is permitted in all other windows as approved by M.S. 169.71.

      **Buses before 1/1/95**

      2. The first two side passenger windows, rear door, and rear windows must be of clear glass. The use of approved tinted glass is permitted in all other side windows. The driver's window shall be adjustable for ventilation.

      MS 169.71 & 74.

3. **Side and Rear Window Glass**

   3. The glass in all side and rear windows shall be of AS-2 grade laminated safety glass as specified in American Standards Association Code Z26.1. In addition, all windows requiring this type of safety glass shall have a stamp on the glass saying "Safety Glass".
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4. **Emergency Opening**
   - Each full side window must provide an unobstructed emergency opening at least 9 inches high and 22 inches wide, obtained by lowering of the window.

5. **Glass Safeguards**
   - All exposed glass shall be banded, window glass must not be cracked so that the crack can be felt with the hand inside. Intersecting cracks are not allowed. If window is thermo pane, must be able to see through it.

   CFR 49/571.217  
   CFR 49/571.220

**F. Thermal Glass**
   - The window to the left of the driver, the upper service door windows, and the window immediately behind the entrance door must be thermal glass. The window to the left of the driver for Type A and B buses under 15,000 GVWR need not be thermal glass.

**G. Windshield Washer**
   - A windshield washing system is mandatory and must be in good working condition. A system devoid of washing fluid shall be deemed as inoperative.

   M.S. 169.4501