Amendment No.3 12 August 2014

To

AIS-063:2005 Requirements for School Buses

1. Page 2/6, Add following new clause 3.4.5 after clause 3.4.4

"3.4.5 For calculation of Seating Capacity of school bus with respect to the specified Gross Vehicle Weight (GVW) in kg, following formula shall be used:

 $GVW = A + (B \times 50^*)$

Where,

A = Vehicle weight in the kerb weight condition (as defined in IS 9211: 2003) + 150**(kg)

In the case of electric vehicles, the weight of traction batteries is to be subtracted from the kerb weight.

B = Number of seating positions for school children excluding the driver and attendant.

- * Weight per school child including his / her luggage (school bag, tiffin bag, etc.)
- ** Weight of driver and attendant including their luggage (75kg per person)"

PRINTED BY
THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA
P. B. NO. 832, PUNE 411 004

ON BEHALF OF AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE UNDER

CENTRAL MOTOR VEHICLES RULES - TECHNICAL STANDING COMMITTEE SET-UP BY
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS) GOVERNMENT OF INDIA

12 August 2014

Amendment No.2 17 September 2013

 T_0

AIS-063:2005 Requirements for School Buses

1. Page 2/6, Clause 3.4.2.2

Delete clause 3.4.2.2

PRINTED BY

THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA

P. B. NO. 832, PUNE 411 004

ON BEHALF OF

AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

UNDER

CENTRAL MOTOR VEHICLES RULES - TECHNICAL STANDING COMMITTEE

SET-UP BY

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)

GOVERNMENT OF INDIA

17 September 2013

AMENDMENT NO. 1: 2010

AIS-063: 2005 Requirements for School Buses

1. Page 1/6, cl. 1.0, Scope:

Substitute following scope for existing scope:

- 1.0 SCOPE This standard lays down special requirements for school buses over and above the requirements laid for buses in "AIS: 052- Code of Practice for Bus Body Design and Approval". The standard shall apply to buses with a seating capacity of 13 passengers and above excluding driver meant for transporting school children to and from school. These additional requirements are being laid down for the following reasons.
 - (i) To maximize safety and minimize severity of injuries.
 - (ii) To take care of specific needs related to school going children.
- 2. Page 1/6, cl. 3.1.2:

Substitute following text for existing text:

3.1.2 **Insignia Location**

The 'school bus insignia' shall have a dimension of 350 x 350 mm and a back drop of golden yellow colour with the symbol in black colour. The template drawn to 1:2 scale is shown in Figure 1. This shall be provided on the outer surface of the bus in a visible location on the front and the rear.

In case, if it is not possible to accommodate insignia of size 350 x 350 mm, size can be reduced to 200 x 200 mm.

3. Page 2/6, cl. 3.2.1:

Substitute following text for existing text:

3.2.1 **Position and Number of Emergency Exits:** All school buses other than mini & midi, shall have an emergency exit on the opposite side of the service door. In addition, there shall be an emergency exit on the rear side of the bus. However, in case of mini & midi school buses, there shall be a minimum of one emergency exit and same shall be situated either on the opposite side of the service door or at the rear side of the bus. The lower edge of the emergency door shall be at the level of the bus floor and top edge shall be at the level of window upper edge.

4. Page 2/6, cl. 3.2.2:

Substitute following text for existing text:

- 3.2.2 **Passenger Safety:** Whenever the bus passenger door or emergency-Exit/door opens, the driver of the bus must get the indication of the same through a buzzer. The emergency doors shall be kept closed in the normal condition.
- 5. Page 2/6, cl. 3.3:

Substitute following text for existing text:

- 3.3 **Vehicle Entry:** The lowest footstep height shall not be more than 300 mm from the ground and the vehicle may be provided with folding or retracting steps and if provided, vehicle shall be incapable of motion without folding or retracting the steps.
- 6. Page 2/6, cl. 3.4.1.1:

Substitute following text for existing text:

3.4.1.1 All parts in `Critical Safety Zone' shall have a radius of not less than 25 mm. Also, buses shall meet the requirements of interior fittings as specified in AIS-047 as amended from time to time.

Note: Critical Safety Zone is the vertical plane of height 400 mm and width 300 mm. The lower edge of rectangle is at height of 200 mm from seat top and centralized about each passenger body axis. (Refer Figure 2)

7. Page 2/6, cl. 3.4.2.1:

Substitute following text for existing text:

- 3.4.2.1 Storage racks of 300 mm minimum depth to be provided beneath all passenger seats, except the seats mounted above rear tyre hump and last row of seat.
- 8. Page 2/6, cl. 3.4.3:

Substitute following text for existing text:

3.4.3 **Seat Layout:** All seats should be forward facing except in the case of seats facing the passenger step well, which should not face the door. Alternatively a partition which prevents the child from falling into the step well shall be provided. However, this requirement of partition shall not be applicable to buses in which passenger step well does not exist.

- 9. Page 2/6 Add following new clause 3.4.4 after clause 3.4.3:
 - 3.4.4 **Seat Dimensions:** Every seating position for school children shall be at least 265 mm in width and 350 mm in depth.

PRINTED BY THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 411 004

 $\label{eq:onbehalfof} \text{ON BEHALF OF} \\ \text{AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE}$

UNDER

CENTRAL MOTOR VEHICLE RULES – TECHNICAL STANDING COMMITTEE SET-UP BY

MINISTRY OF ROAD TRANSPORT & HIGHWAYS (DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS) GOVERNMENT OF INDIA

April 2010

AUTOMOTIVE INDUSTRY STANDARD

Requirements for School Buses

PRINTED BY:

THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 412 004

ON BEHALF OF:

AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

UNDER

CENTRAL MOTOR VEHICLE RULES - TECHNICAL STANDING COMMITTEE

SET-UP BY
MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS
(DEPARTMENT OF ROAD TRANSPORT & HIFHWAYS)

GOVERNMENT OF INDIA

June 2005

Status Chart of the Standard to be used by the purchaser for updating the record

Sr. No.	Corr- igenda	Amend- ment	Revision	Date	Remark	Misc.

General Remarks:

INTRODUCTION

The Government of India felt the need for a permanent agency to expedite the publication of standards and development of test facilities in parallel when the work on the preparation of the standards is going on, as the development of improved safety critical parts can be undertaken only after the publication of the standard and commissioning of test facilities. To this end, the Ministry of Surface Transport (MOST) has constituted a permanent Automotive Industry Standard Committee (AISC) vide order No. RT-11028/11/97-MVL dated September 15, 1997. The standards prepared by AISC will be approved by the permanent CMVR Technical Standing Committee (CTSC). After approval, the Automotive Research Association of India, (ARAI), Pune, being the secretariat of the AIS Committee, has published this standard. For better dissemination of this information ARAI may publish this document on their Web site.

The need was felt to specially address the requirements pertaining to school buses, giving importance to the safety of school children.

This standard lays down the specific requirements for school buses and would be a necessary adjunct to the "Code of Practice for Bus Body Design and Approval – AIS-052."

The Automotive Industry Standards Committee responsible for preparation of this standard is given in Annexure: I

Requirements for School Buses

1.0 SCOPE:

This standard lays down special requirements for school buses over and above the requirements laid for buses in "AIS: 052 – Code of practice for bus body design and approval". The standard will apply to M2 and M3 category of vehicles with a seating capacity of 13 passengers and above excluding driver meant for school bus application. These additional requirements are applicable for buses used for transporting children to and from school, which is henceforth, referred to as "School Bus". These additional requirements are being laid down for the following reasons.

- (i) To maximize safety and minimize severity of injuries.
- (ii) To take care of specific needs related to school going children.

2.0 **DEFINITIONS**:

For the purposes of this standard the following definitions shall apply.

- 2.1 **'Stop signal arm'** is a device that can be extended outward from the side of school bus, to provide a signal to other motorists not to pass the bus because it has stopped to load or discharge passengers.
- 2.2 **'Speed governor'** is a device used to limit the speed of a school bus.
- 2.3 **'Retracting step'** is a step used for entry into bus, but when not in use can be retracted inward and upward to enable normal operation of the bus.
- 2.4 **'School bus insignia'** is the symbol to be imprinted on the bus. This is used internationally as a symbol for child safety (Refer Figure 1)

3.0 REQUIREMENTS:

3.1 **Identification:**

- 3.1.1 All school buses must have an external colour of 'Golden Yellow'. This colour shall be as per IS 5 1994 (as amended from time to time) For school identification, a band of 150mm wide of 'Golden Brown' colour may be provided on all sides of the bus below the window level.
- 3.1.2 The 'school bus insignia' shall have a dimension of 350 x 350 mm and a back drop of golden yellow colour with the symbol in black colour. The template drawn to 1:2 scale is shown in Figure 1. This shall be provided on the outer surface of the bus in a visible location preferably above the windscreen safety glass in the front and above the safety glass at the rear.

3.2 Emergency Exits:

- 3.2.1 **Position and Number of Emergency Exits :** All school buses shall have an emergency door on rear half of the bus on the right hand side. In addition, there shall be an emergency exit on the rear side of the bus. The lower edge of the emergency door shall be at the level of the bus floor and top edge shall be at the level of window upper edge.
- 3.2.2 **Passenger Safety:** Whenever the bus passenger door or the emergency door or rear emergency exit opens, the bus should be incapable of motion. Besides this the driver of the bus must get the indication of the same through a flashing light or buzzer or suitable means. The emergency doors shall be kept closed in the normal condition and children should also be trained to operate these doors.

3.3 Vehicle Entry:

The lowest footstep height shall not be more than 220 mm from the ground and the vehicle shall be incapable of motion without folding or retracting the steps.

3.4 Seat Design:

3.4.1 **Interior Protection**:

3.4.1.1 All parts in 'Critical Safety Zone' shall have a radius of not less than 25mm. Alternatively its shore hardness shall not be more than 20 Shore A hardness.

Note: Critical safety zone is the vertical plane of height 400mm and width 300mm. The lower edge of rectangle is at height of 200mm from seat top and centralized about each passenger body axis.(Refer Figure 2)

3.4.1.2 All parts in gangway up to height of 1200 mm from bus floor shall have a radius not less than 25mm. Alternatively its shore hardness shall not be more than 20 Shore A hardness.

3.4.2 **Storage Racks:**

- 3.4.2.1 Storage racks to be provided beneath all seats, except the driver seat, co-driver seat and the last row of seats.
- 3.4.2.2 Storage rack to be of dimensions not less than 350 mm depth, 500 mm width and clearance height of 300 mm to store the belongings of school children such as school bags, lunch box and water bottles.
- 3.4.3. **Seat Lay out:** All seats should be forward facing except in the case of seats facing the passenger step well, which should not face the door. Alternatively a partition which prevents the child from falling into the step well shall be provided.

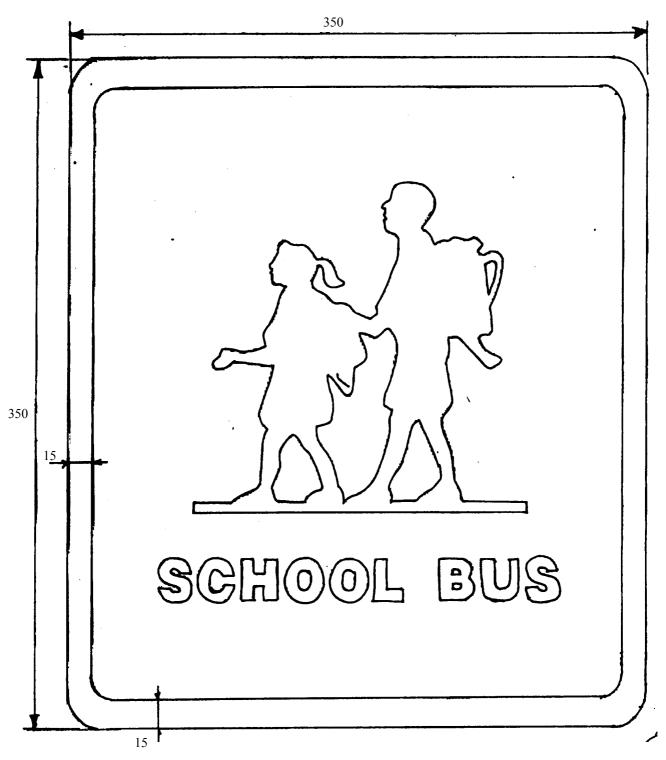
3.5 Stopping Signals:

Whenever the passenger door opens, the following 2 signals shall operate.

- 3.5.1 The stop signal arm should project out of the co-driver side with a minimum projection of 150 mm with the 'STOP' sign of minimum letter height of 40 mm to be installed.
- 3.5.2 The hazard warning shall operate automatically.

3.6 Speed Governor:

A tamper proof speed governor complying with the requirements of Rule 118 of CMV(A)R 1989, which prevents driver from speeding beyond the speed limits set by the local and State Transport Authorities, shall be provided.



All dimensions are in mm

Figure 1 – School Bus Insignia (See Para 3.1.2)

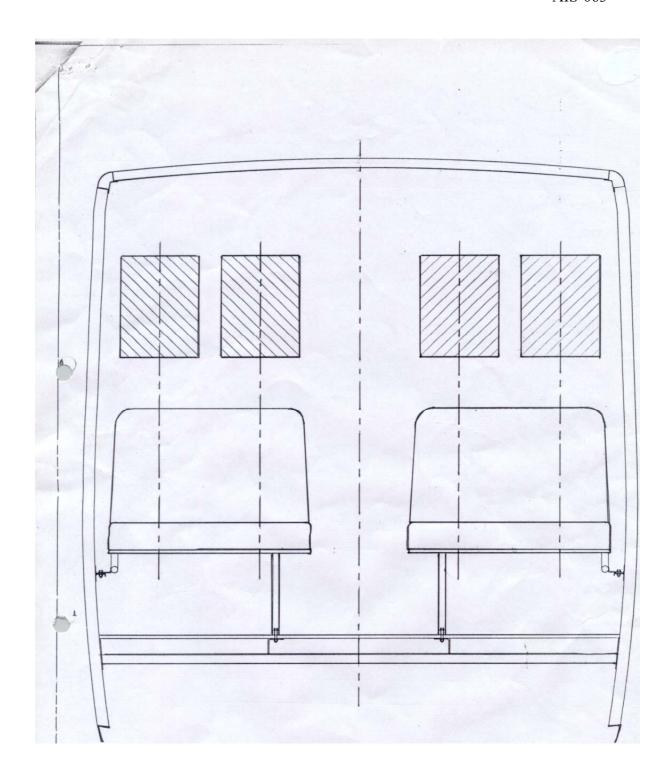


Figure 2 – Critical Safety Zone (See Para 3.4.1.1)

Annexure: I

(See Introduction)

COMMITTEE COMPOSITION

Automotive Industry Standards Committee

Chairman				
Shri B. Bhanot	Director The Automotive Research Association of India, Pune			
Members	Representing			
Shri Alok Rawat	Ministry of Shipping, Road Transport & Highways, (Department of Road Transport & Highways) New Delhi			
Shri Sushil Kumar	Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, New Delhi			
Shri. Chandan Saha	Office of the Development Commissioner Small Scale Industries, Ministry of Small Scale Industries, New Delhi			
Shri. L. R. Singh	Bureau of Indian Standards, New Delhi			
Shri A. S. Lakra Shri D. P. Saste (Alternate)	Central Institute of Road Transport, Pune			
Director	Indian Institute of Petroleum, Dehra 'Dun			
Shri R.C. Sethi Shri N. Karuppaiah (Alternate)	Vehicles Research & Development Establishment, Ahmednagar			
Shri Rajat Nandi	Society of Indian Automobile Manufacturers			
Shri T.C. Gopalan Shri Ramakant Garg (Alternate)	Tractor Manufacturers Association, New Delhi			
Shri K.N.D. Nambudiripad	Automotive Components Manufacturers Association			
Shri G. P. Banerji	Automotive Components Manufacturers Association			

Member Secretary

Mrs. Rashmi Urdhwareshe Sr. Assistant Director

The Automotive Research Association of India, Pune