

ICS 43.040
CCS T26



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 26512-2021

Replacing GB 26512-2011

**The protection of the occupants of the cab of commercial
vehicles**

商用车驾驶室乘员保护

Issued on: February 20, 2021

Implemented on: January 1, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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1 Scope

GB 26512-2021 is the Chinese national standard on the protection of the occupants of the cab of commercial vehicles, in the field of road vehicles engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 20 February 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2022. Classification: ICS 43.040, CCS T26. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the requirements, test methods and implementation of standard on the protection of the occupants of the cab of commercial vehicles. This Standard is applicable to Category N vehicles.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all

the modifications) is applicable to this document.

GB/T 3730.1 Motor Vehicles and Trailers - Types - Terms and Definitions

GB/T 4780 Terms for Motor Vehicle Body

GB 11551 The Protection of the Occupants in the Event of a Frontal Collision for Motor Vehicle

GB 11557 The Stipulation Protecting Drivers from being Injured by Motor Vehicle Steering Mechanism

GB/T 15089 Classification of Power-driven Vehicles and Trailers

GB/T 20913 The Protection of the Occupants in the Event of an Off-set Frontal Collision for Passenger Car

GB/T 29120 Procedure for H-point and R-point Determination

ISO 4130 Road Vehicles - Three Dimensional Reference System and Fiducial Marks - Definition

3 Terms and Definitions

What is defined in GB/T 3730.1, GB/T 4780, GB/T 15089 and GB/T 29120, and the following terms and definitions are applicable to this document.

4.1 General Requirements

4.1.1 The design of the cab and its connection to the vehicle shall eliminate the risk of injuring the occupants in the cab in the event of an accident as much as possible.

4.1.2 Category N1 vehicles and Category N2 vehicles with a total mass of not more than 7,500 kg shall comply with the relevant content of Test A, Test C and Test D specified in 5.5,

5.7 and 5.8. Vehicle types that satisfy the requirements for frontal collision specified in GB 11557 or GB 11551 or GB/T 20913, and vehicles of Category N1 derived from M1 that satisfy the stipulations of GB 11551 or GB/T 20913 may be deemed as compliant with the requirements for frontal impact test (Test A). Test C and Test D are merely conducted on vehicles with a separate cab.

4.1.3 Category N3 vehicles and Category N2 vehicles with a total mass of more than 7,500 kg shall comply with the relevant content of Test A, Test B, Test C and Test D specified in 5.5, 5.6,

5.7 and 5.8. Test C and Test D are merely conducted on vehicles with a separate cab.

4.1.4 The frontal impact test (Test A) is merely conducted on cab-over engine vehicles.

4.1.5 In order to verify the compliance with

4.1.2 or 4.1.3, the vehicle manufacturer shall determine to use 1, 2, 3 or 4 cabs for the tests. The two stages of Test C shall be carried out on the same cab.

4.1.6 If the vehicle manufacturer can perform computer simulations or calculations on the strength of each component of the cab in accordance with the test conditions specified in the standard, or prove through other modes that the cab does not have deformations (intrusion into the living space) that would endanger the occupants after being subjected to Test A, Test B, Test C and Test D, then, Test A, Test B, Test C and Test D may not be carried out.

4.2.1 After completing each test described in

4.1.2 or 4.1.3, there shall be a living space in the cab to accommodate the mannequin specified in Appendix A on the seat, and when the seat is in the middle position, the mannequin shall not come into contact with non-elastic components on the vehicle with a Shore A hardness of not less than 50. Non-elastic components that can be moved from the mannequin with a force less than 100 N without using any tools are not considered here. In order to facilitate the installation, the mannequin may be disassembled and put into the cab for assembly; the seat is allowed to be adjusted to the final position. After the assembly of the mannequin is completed, the "H" point and the "R" point of the seat shall coincide. The placement of the mannequin and the determination of the "R" point of the seat shall comply with the requirements of GB/T 29120; the reference data of the position of the f

---the distance between the swing arms, $f \geq 1,000 \text{ mm}$; L

---the length of the swing arms, $L \geq 3,500 \text{ mm}$. Figure 2 -- A-pillar Impact Test (Test B)

5.6.2 The impactor assembly shall be a rigid structure. The impactor is freely suspended by two swing arms rigidly fixed on it; the distance between the swing arms shall be not less than 1,000 mm (see f in Figure 2). The length of the swing arms, from the suspension axis to the geometric center of the impactor, shall be not less than 3,500 mm (see L in Figure 2).

5.6.3 The position where the impactor is suspended shall be such that it satisfies the following requirements when in a vertical position:

---The impact surface of the impactor is in contact with the frontmost part of the cab;

---The longitudinal centerline of the impactor is horizontal and perpendicular to longitudinal center plane of the cab;

---Along the longitudinal center plane of the windshield and the cab, conduct the measurement; the height of the center of gravity of the impact shall be located in the middle of the upper and lower frames of the windshield;

---The center of gravity of the impactor shall be located in the longitudinal center plane of

the cab;

---The length of the impactor shall be uniformly distributed along the breadth of the vehicle and cover the entire breadth between the two A-pillars.

5.6.4 The impactor shall impact the front of the cab in a front-to-rear direction. The impact direction shall be horizontal and parallel to the longitudinal center plane of the vehicle.

5.6.5 The impact energy shall be

5.7.1 General requirements

5.7.1.1 For Category N3 vehicles and Category N2 vehicles with a total mass of more than 7,500 kg, conduct the test specified in

5.7.2 And

5.7.3 in a certain sequence on the same cab.

5.7.1.2 For Category N1 vehicles and Category N2 vehicles with a total mass of not more than 7,500 kg, merely conduct the test specified in 5.7.3.