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

GB 14167-2024

Replacing GB 14167-2013

**Safety-belt anchorages and restraint systems anchorages for
occupants of power-driven vehicles**

机动车乘员用安全带和约束系统安装固定点

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1 Scope

GB 14167 is the companion to GB 14166: where that one governs the belt, this one governs the points on the vehicle body the belt is bolted to. It sets the minimum number and the location of the effective anchorages for each seating position, the strength they must withstand under static load, the alternative dynamic test, and the requirements for ISOFIX child seat anchorages, top tether anchorages and i-Size seating positions. It is the standard a body-in-white is designed and certified against, and the seven normative annexes carry the geometry and the test apparatus. Issued on 29 September 2024, in force since 1 July 2025, replacing GB 14167-2013. 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 edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This document specifies the technical requirements for the safety-belt anchorages and restraint systems anchorages for occupants of power-driven vehicles and describes the test methods and determination of the same type. This document is applicable to the following vehicles.

---Category-M and Category-N vehicles equipped with safety-belt anchorages for adult occupants of forward-facing, rear-facing or side-facing seats;

---Category-M1 vehicles equipped with ISOFIX anchorages system for child restraint system and their top tether anchorage, and other categories of vehicles equipped with ISOFIX anchorages system;

---Vehicles with i-Size seating position.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in the text. 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 11551-2014 The Protection of the Occupants in the Event of a Frontal Collision for Motor Vehicle

GB 11552-2009 The Interior Fittings of Passenger Car

GB 13057 The Strength of the Seats and Their Anchorages of Passenger Vehicles

GB 13094-2017 The Safety Requirements for Bus Construction

GB 14166-2024 Safety-belts and Restraint Systems for Occupants of Power-driven Vehicles

GB 27887 Restraining Devices for Child Occupants of Power-driven Vehicles

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

ISO 6487 Road Vehicles - Measurement Techniques in Impact Tests - Instrumentation

3 Terms and Definitions

The terms and definitions defined in GB 14166-2024, GB 27887 and GB/T 29120, and the following are applicable to this document.

3.1 belt anchorage A component used to install and fix the safety belt assembly on the vehicle body, seat or other parts of the vehicle.

3.2 effective belt anchorage The point, at which, each part of the safety belt is angled

relative to the user.

3.3 floor The underbody connected to the body side panel.

3.4 thorax load limiter function A device on the safety belt, seat and vehicle that can limit the restraint force on the chest of an occupant during a collision.

3.5 ISOFIX An international system that connects the child restraint system to the vehicle through two low anchorages on the vehicle, two corresponding rigid connection devices on the child restraint system, and a device that limits the rollover of the child restraint system.

3.6 ISOFIX position The position where the following child restraint systems are allowed to be installed.

4.1 General Requirements

4.1.1 The design, manufacture and installation of belt anchorages shall comply with the following requirements.

4.1.2 All ISOFIX anchorages systems and ISOFIX top tether anchorages used to install the ISOFIX child restraint system, and all vehicle floor contact surfaces for i-Size seating positions shall be designed and manufactured to.

4.1.3 The design and arrangement of the ISOFIX anchorages system shall comply with the following requirements.

4.1.4 The design of the ISOFIX top tether anchorages shall comply with the following requirements.

4.2.2 Minimum quantity requirements for ISOFIX positions and i-Size seating positions

4.2.2.1 All Category-M1 vehicles shall be equipped with at least 1 ISOFIX position and 1 i-Size seating position. The ISOFIX position shall simultaneously be equipped with both the ISOFIX anchorages system and ISOFIX top tether anchorage. The i-Size seating position may replace the above-mentioned ISOFIX position. The type and quantity of ISOFIX fixtures installed in each ISOFIX position are determined in accordance with GB 14166-2024.

4.4 Threaded Hole Size of Anchorages

4.4.1 The threaded hole of the anchorages shall be 7/16 (20 UNF 2B).

4.4.2 If the connection between the anchorages and the safety belt has been completed by the vehicle manufacturer, and these anchorages comply with other provisions of this document except 4.4.1, then, there is no need to satisfy the requirements of 4.4.1. In addition, the requirements of

4.4.1 do not apply to the additional anchorage that satisfies the requirements of

4.4.3 When removing the safety belt, the belt anchorages shall not be damaged.

4.5 Strength of Belt Anchorages, ISOFIX Anchorages System and Top Tether Anchorages and i-Size Seating Positions

4.5.1 All anchorages shall be subjected to the tests specified in

5.3 and 5.4. Within the specified time, if the specified force is continuously loaded, then, permanent deformation of the anchorages or surrounding area is allowed, including partial fracture or cracking. During the test, the minimum interval between lower effective anchorages shall satisfy the requirements of 4.3.2.5, and the upper effective anchorages shall satisfy the requirements of 4.3.3.6.

5.1 Test Preparation

5.1.1 The test shall be carried out on the vehicle body frame or on the entire vehicle.

5.1.2 Only when the following conditions are satisfied is the belt anchorage test of one seat or a group of seats allowed.

5.1.3 Doors or windows are allowed to be retained, and they may be closed or opened. Normal equipment that enhances the vehicle structure is allowed to be retained.

5.1.4 The seats shall be placed in the driving or use position that is the most unfavorable to strength. The position of the seats shall be stated in the inspection report. If the backrest angle is adjustable, it shall be adjusted to the position specified by the manufacturer;

5.2 Vehicle Fixation

5.2.1 During the test, all methods of fixing the vehicle shall not strengthen the belt anchorages and ISOFIX anchorages, as well as their surrounding parts, and meanwhile, they shall not weaken the normal deformation of the structure.

5.2.2 All devices for fixing the vehicle shall be no less than 500 mm in front or no less than 300 mm behind the measured anchorages, and shall not affect the body structure within the entire width range.

5.3 Test Conditions

5.3.1 All belt anchorages of the same seat group shall be simultaneously tested. If the test fails due to asymmetric loading of the seats or anchorages, then, an additional test may be performed.

5.3.2 In a direction parallel to the longitudinal center plane of the vehicle and 10° upward from the horizontal line, apply the load. Firstly, apply a preload of (10 ± 3)% of the total load, then, increase the load to the total load.