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

GB 26134-2024

Replacing GB 26134-2010

Roof crush resistance of passenger cars

乘用车顶部抗压强度

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 "Directives for standardization - Part

1. Rules for the structure and drafting of standardizing documents". This document replaces GB 26134-2010 "Roof crush resistance of passenger cars". Compared with GB 26134-2010, in addition to structural adjustments and editorial changes, the main technical changes are as follows: - ADD the term "sunroof" and its definition (see

3.1 of this document); - MODIFY the definition of the term "front windshield trim" (see

3.2 of this document,

2.4 of the 2010 edition); - MODIFY the limits of the load applied to the vehicle (see Clause 4 of this document, Clause 3 of the 2010 edition); - ADD the limits of the force bore by the head model (see Clause 4 of this document); - ADD the requirements for the vehicle's tilt angle when positioning the vehicle (see

5.1 of this document); - ADD the adjustment method of the front outer seats of the vehicle (see

5.2 of this document); - ADD the requirements for the head model (see

5.3 of this document); - ADD the determination of the same type (see Clause 6 of this document); - ADD the implementation of the standard (see Clause 7 of this document).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority of this document shall not be held responsible for identifying any or all such patent rights. This document was proposed by and shall be under the jurisdiction of Ministry of Industry and Information Technology of the People's

Republic of China. This document was first issued in 2010 and this is the first revision. Roof crush resistance of passenger cars

1 Scope

GB 26134-2024 is the Chinese national standard on roof crush resistance of passenger cars, 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 23 August 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2025. Classification: ICS 43.040.60, 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 document specifies the technical requirements, test method and determination of the same type for the roof crush resistance of passenger cars. This document applies to M1 vehicles and not to convertibles.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB 11551 The protection of the occupants in the event of a frontal collision for motor vehicle

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1 sunroof Fixed or movable (slide and/or tilt) roof cover.

3.2 front windshield trim Any trim between the front windshield and the outer surface of the roof.

3.3 raised roof The raised area on the roof system (located on the top of the passenger compartment, consisting of the frame, panel interior and related body accessories).

3.4 altered roof A replacement roof that is higher than the original roof after the original roof of the vehicle has been partially or completely removed.

4 Technical requirements

According to the test method specified in Clause 5, for vehicles with symmetrical body structures, one side is randomly selected to apply the load; for vehicles with asymmetrical body structures, the weaker side of the body structure is selected to apply the load.

5 Test method

5.1 Before the test, support the vehicle so that its tires are off the ground, rigidly fix the vehicle's sill beams and frame (if applicable) on a horizontal plane, adjust the vehicle so that the longitudinal tilt angle at the sill beams on both sides is $0^\circ \pm 0.5^\circ$, and the difference of the vertical distances between the reference point on the lower surface of the sill beams on both sides and the horizontal plane is not greater than 10 mm.

5.2 The front outer seats of the vehicle are adjusted to the specified positions as follows:

5.3 Adjust the front outer seats of the vehicle to the specified position in accordance with the provisions of 5.2, install the three-dimensional H-point device in accordance with the provisions of GB 11551, and adjust the calf length of the three-dimensional H-point device to 414 mm and the thigh length to 401 mm. Keep the position of the three-dimensional H-point device unchanged, remove two torso counterweights on each side, replace them with torso counterweights of the headrest measuring device, install the headrest measuring device on the three-dimensional H-point device, and adjust the headrest measuring device to make it horizontal.

5.4 The loading device is a rigid plate, and its lower surface is a flat rectangular surface of 1829 mm x 762 mm. Position the loading device as shown in Figure 1, so that its longitudinal axis is $5^\circ \pm 0.5^\circ$ tilt forward from the horizontal plane [see Figure 1a)] and is parallel to the vertical plane passing through the longitudinal centerline of the vehicle; the transverse axis is $25^\circ \pm 0.5^\circ$ tilt outward from the horizontal plane [see Figure 1b)].

5.6 For vehicles with raised roofs or altered roofs, adjust the position of the loading device in accordance with the provisions of 5.5. If the contact point between the loading device and the roof is located on the raised roof or altered roof behind the roof above the front seat area, the position of the loading device shall be adjusted so that the midpoint of the rear edge of its lower surface is within a range of no more than 10 mm from the last transverse vertical plane of the roof above the front seat area.

5.7 Move the loading device straight downward in a direction perpendicular to its lower surface. The loading speed shall not exceed 13 mm/s until the load specified in Clause 4 is reached. The loading process shall be completed within 120 seconds, and the loading device shall not rotate during the loading process.

6 Determination of the same type

If the following provisions are met, it is considered to be the same type.