

ICS 43.020
CCS T 09



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

GB/T 20913-2007

**The protection of the occupants in the event of an off-set
frontal collision for passenger car
(English Translation)**

Issued on: April 30, 2007

Implemented on: December 1, 2007

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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1 Scope

This Standard specifies the technical requirements and test methods for the protection of the occupants in the front outboard seats in the event of an off-set frontal collision for passenger car.

This Standard is applicable to the Class M1 vehicles with a maximum design total mass of 2 500kg or less. For Class M1 vehicles of which the mass exceeds this range and other types of vehicles, it can be referred to for implementation.

2 Normative references

The provisions in the following documents become the provisions of this

Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard. However, parties who reach an agreement based on this

Standard are encouraged to study if the latest editions of these documents are applicable. For undated references, the latest editions apply to this Standard.

GB 14166 Safety belts and restraint systems for adult occupants of motor vehicles

GB 14167 Safety-belt anchorages for vehicles

ISO 209 Wrought aluminium and aluminium alloys

3 Terms and definitions

The following terms and definitions are applicable to this Standard.

3.1 Protective system

It refers to the interior fittings and devices intended to restrain the occupants and contribute towards ensuring compliance with the requirements set out in

Clause 4.

3.2 Type of protective system

It refers to a category of protective devices which do not differ in such essential respects as.

3.3 Vehicle width

It refers to the distance between two planes parallel to the longitudinal median plane of the vehicle and touching the vehicle on either side of the said plane but excluding the rear-view mirrors, side marker lamps, tyre pressure indicators, direction indicator lamps, position lamps, flexible mud-guards and the deflected part of the tyre side-walls immediately above the point of contact with the ground.

3.4 Overlap

It refers to the percentage of the vehicle section directly in line with the barrier face and the vehicle width.

3.5 Deformable barrier

It refers to a crushable section mounted on the front of a rigid block.

4.1 General requirements

4.1.1

The "H" point for each seat shall be determined in accordance with the procedure described in Annex C.

4.1.2

When the protective system for the front seating positions includes belts, the belt components shall meet the requirements of GB 14166.

4.1.3

Seating positions where a dummy is installed and the protective system includes belts, shall be provided with anchorage points conforming to GB 14167.

4.2.1 The test of the vehicle carried out in accordance with the method

described in Clause 6 of this Standard shall be considered satisfactory if the following requirements are all met at the same time.

4.2.2 The performance criteria determined, in accordance with Annex D, on

the dummies in the front outboard seats shall meet the following requirements.

4.2.2.1

The head performance criterion (HPC) shall not exceed 1 000. The resultant head acceleration shall not exceed 80g for more than 3ms. However, it excludes rebound movement of the head.

4.2.2.2

The neck injury criteria (NIC) shall not exceed the values shown in Figures 1 and 2.

4.2.6 After the impact test, it shall be possible, without the use of tools, except for those necessary to support the weight of the dummy.

4.2.6.1 To open at least one door, if there is one, per row of seats and, where there is no such door, to move the seats or tilt their backrests as necessary to allow the evacuation of all the occupants; this is, however, only applicable to vehicles having a roof of rigid construction.

4.2.6.2 To release the dummies from their restraint system which, if locked, shall be capable of being released by a maximum force of 60N on the release control.

4.2.6.3 To remove the dummies from the vehicle without adjustment of the seats.

4.2.7 No leakage from the fuel feed system shall occur on collision.

4.2.8 After the impact test, if there is continuous leakage of liquid from the fuel feed system, the average rate of leakage in the first 5min after the collision shall not exceed 30 g/min; if the liquid from the fuel feed system mixes with liquids from the other systems and the various liquids cannot easily be separated and identified, all the liquids collected shall be taken into account in evaluating the continuous leakage.

5 Instructions for users of vehicles equipped with airbags

5.1

The vehicles shall carry information to the effect that it is equipped with airbags for seats.

5.1.1

For a vehicle fitted with an airbag assembly intended to protect the driver, this information or relevant information shall consist of the inscription "AIRBAG" located in the interior of the circumference of the steering wheel; this inscription shall be durably affixed and easily visible.

5.1.2 For a vehicle fitted with a passenger airbag intended to protect the

occupants, the warning label shall consist of the information described in paragraph 5.2 of this Standard.

5.2 A vehicle fitted with one or more passenger frontal protection airbags shall carry information about the extreme hazard associated with the use of rearward-facing child restraints on seats equipped with airbag assemblies.

5.2.1 As a minimum, this information shall consist of a label containing a pictogram and text warning as indicated in Figure 4.

5.2.2 The warning label shall consist of prescriptions in Chinese.

5.2.3 In the case of a frontal protection airbag on the front passenger seat, the warning shall be durably affixed to each face of the passenger front sun visor in such a position that at least one warning on the sun visor is visible at all times, irrespective of the position of the sun visor. Alternatively, one warning shall be on the visible face of the stowed sun visor and a second warning shall be on the roof behind the visor, so, at least one warning is visible all times. The text size must allow the label to be easily read by a normal sighted user seated on the seat concerned.

5.2.4 Detailed information shall be contained in the user manual of the vehicle in Chinese. "Do not use a rearward-facing child restraint on a seat protected by an airbag!" The text shall be accompanied by an illustration of the warning.

6.1.1 Testing ground

The testing ground shall be large enough to accommodate the run-up track, barrier and technical installations necessary for the test. The last part of the track, for at least 5m before the barrier, shall be horizontal, flat and smooth.

6.1.2 Barrier

The front face of the barrier consists of a deformable structure as defined in

Annex E of this Standard. The front face of the deformable structure is perpendicular to the direction of travel of the test vehicle, with an allowable deviation of within $\pm 1^\circ$.