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NATIONAL STANDARD OF THE
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UDC 629.113/.115.001.4
T 04

GB/T 12541-90

Replacing GB 1334-77

Motor Vehicles - Passing Topography Capacity - Test Method

汽车地形通过性试验方法

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Issued on: December 12, 1990

Implemented on: September 01, 1999

Issued by: State Bureau of Technical Supervision

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NATIONAL STANDARD
OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 12541-90

**Motor Vehicles -
Passing Topography Capacity - Test Method**

1 Subject Content and Application Scope

This Standard specifies test method of passing topography capacity of motor vehicles.

This Standard is applicable to cross-country vehicle. Other motor vehicles may refer to this Standard.

2 Normative References

GB/T 12534 Motor Vehicles - General Rules of Road Test Method

3 Term

3.1 Passing topography capacity of motor vehicles

It refers to the capacity of motor vehicles to pass some topographies (such as vertical obstacle, convex hills, level ditch, road ditch, shell hole, and wading pool etc.).

4 Test Conditions

4.1 General test conditions shall meet the requirements of GB/T 12534.

4.2 Test instruments and equipment

- a. Remote thermometer;
- b. Tape (or steel tape);
- c. Stopwatch;
- d. Camera;

6.6 Test of passing road ditch

Drive the vehicle at a low speed according to the gear used in Article 6.2. The test vehicle shall drive in 45°-angle and 90°-angle to the road ditch, when passing the road ditch. After the test, inspect whether each component and connecting piece of motor vehicles are loose; judge whether the working condition of each assembly is normal.

6.7 Test of passing shell hole

Drive the vehicle over shell hole at a low speed according to the gear used in Article 6.2.

6.8 Wading test

Inspect and adjust the technical conditions of the motor vehicles according to technical requirements for the wading of the vehicles.

In an artificial wading pool, the motor vehicle drives with all-wheels and over the pool of which the water depth meets the design specification requirements. Determine the passing time and engine outlet temperature, machine oil temperature; and observe the water inflow and sealing conditions of cabs; perform 1 test of to-and-fro trip; use camera to record the passing condition.

After the test is completed, immediately stop the vehicle and shut off the engine; inspect the sealing condition after wading; after 5~15 min, restart the vehicles, and observe whether the various components work normally.

6.9 Test results shall be filled into all the tables listed in Appendix B (supplementary).

7 Test report

Test report shall usually include the following contents:

- a. Test purposes;
- b. Test contents;
- c. Test topography facilities description or structure and schematic diagram;
- d. Test results and assessment;
- e. Test execution organization, participator and reporter;
- f. Reporting date.

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Table B5 Test of Passing Shell Hole

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Test number	Shell hole dimension	Passing condition	Remark

Table B6 Wading Performance Test

Test number		
Test direction		
Initial thermal conditions °C	Engine water temperature	
	Engine oil temperature	
Ending thermal conditions °C	Engine water temperature	
	Engine oil temperature	
Starting time		
Ending time		
Passing time		
Passing distance, km		
Components' working condition before wading		
Components' working condition after wading (starter, clutch, electric accessories and braking system)		
Seal condition after wading (cab, drive axle, transfer case, and front- and back-wheel hub)		
Remark		

Additional Explanation:

This Standard was proposed by China Automobile Industry Corporation.

This Standard shall be under the jurisdiction of the National Technical Committee on Road Vehicles of Standardization Administration of China.

This Standard is responsibly drafted by the automotive test field of the General Logistics Department of PLA.

Chief Drafting Staff of this Standard: Wu Ke.

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Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

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