ICS

National Standards of the People's Republic of China

GB 15082-XXXX
Superseding GB 15082-1999

Speedometers for Motor Vehicles

(Draft for Approval)

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General Administration of Quality Supervision, Inspection and Quarantine
of the People's Republic of China

Foreword

All technical contents of this standard are mandatory.

This standard is compiled with reference to the UN-ECE R 39 Standard and by revising GB 15082-1999 in line with the requirements of GB1.1-2000.

In comparison with GB 15082-1999 the main changes to this standard are as follows:

- The content of General Requirements has been modified;
- The basic error relationship formula has been modified.

This standard was proposed by the National Development and Reform Commission of China.

This standard is under the jurisdiction of the National Automotive Standardisation Technical Committee.

The main drafting organisations of this standard were Anhui Qinhaida Automobile Electronics Co. Ltd, Wuhu Motor Instrument Research Institute and Hefei Haitaike Automobile Electronics Co. Ltd.

The main drafters of this standard were Chen Qianhai, Qian Xiaoxia, Xia Linping and Zhong Gezhu.

The standard supersedes the following previously issued versions:

- GB 15082-94, GB 15082-1999

Speedometers for Motor Vehicles

1 Scope

This standard specifies the general requirements, including error and testing rules, for speedometers installed in motor vehicles.

2 Normative References

The provisions of the following documents become provisions of this standard after being referenced. For dated reference documents, all later amendments (excluding corrigenda) and versions do not apply to this standard; however, any parties that come to an agreement under this standard are encouraged to consider adopting the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T General Rules for Motor Vehicles – Road Test Method

3 General Requirements

3.1 The dial of the speedometer shall be within the driver's direct field of vision and shall be clearly legible day and night.

3.2 The range of speeds covered by the speedometer shall include the vehicle model's maximum speed as specified by the motor manufacturer.

3.3 The speed display unit of the speedometer shall be km/h. Scaling by 1 km/h, 2 km/h, 5 km/h or 10 km/h may be used. The speed indication on the speedometer dial shall be displayed as follows:

- The indicated speed value should be displayed in intervals of less than 20 km/h for speedometers with a maximum speed not exceeding 200 km/h;
- The indicated speed value should be displayed in intervals of less than 30 km/h for speedometers with a maximum speed exceeding 200 km/h.

3.4 The intervals of the speed values on the speedometer dial do not have to be equal.

4 Indication Error

The indicated speed shall not be lower than the actual vehicle speed. The relationship between the indicated speed (V_1) and the actual vehicle speed (V_2) shall conform to the following relationship formula:

$$0 \leqslant V_1 - V_2 \leqslant \frac{V_2}{10} + 4 \qquad (1)$$

5 Test Rules

5.1 The reference temperature of the speedometer during testing shall be 23±5ºC.

5.2 The error margin of the test instrument used to measure the vehicle speed shall be no greater than ±1.0%.

5.3 The requirements for the condition of the motor vehicle before the test are as follows:

5.3.1 The motor vehicle shall be at its kerb weight.

5.3.2 The tyre pressure of the motor vehicle shall be normal driving pressure, i.e. the inflating pressure for the tyres when cold, as specified by the vehicle manufacturer, plus 0.02 MPa.

5.4 Other test conditions shall meet the relevant requirements of GB/T 12534. The road surface for the road test shall be flat and dry and with enough surface adhesion.

5.5 The speedometer shall be tested at three vehicle speeds of 40 km/h, 80 km/h and 120 km/h (if the maximum vehicle speed is lower than 150 km/h, the speed for the final speed test shall be 80% of the maximum vehicle speed specified by the manufacturer).