

ICS 13.040.50

CCS Z 64



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

GB 14621-2011

Replacing GB 14621-2002

**Limits and measurement methods for exhaust pollutants from
motorcycles and mopeds under two-speed idle conditions**

摩托车和轻便摩托车排气污染物排放限值及测量方法（双怠速法）

Issued on: May 12, 2011

Implemented on: October 1, 2011

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

Table of Contents

1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Pollutant emission control requirements	
6 Before	
7 Test results to determine the rules	
8 Standard	
Appendix A	

Foreword

To implement the "People's Republic of China Environmental Protection Law" and "People's Republic of China Air Pollution Prevention Law," Prevention for motorcycles and mopeds Motorcycle pollution, improve air quality, the development of this standard. This standard specifies the mopeds and motorcycles emission limits and measurement methods for idle and high idle exhaust pollutants. This standard is "motorcycles and mopeds exhaust emission limits and measurement methods (idle speed)" (GB 14621-2002) Amendments. The main content of the amendments are as follows: - Increase the high idle speed measurement methods and emission limits. This standard replaces the previous standard release case. GB 14621-1993, GB 14621-2002. From the date of implementation of this standard, "motorcycles and mopeds exhaust emission limits and measurement methods (idle speed)." (GB 14621-2002) abolished. Appendix A of this standard is a normative appendix. This standard is developed by the Ministry of Environmental Protection Science, Technology organization. This standard is drafted. Tianjin Motorcycle Technical Center, Chinese Research Academy of Environmental Sciences. Participated in the drafting of this standard. Jiangmen Grand River Group Co., Ltd., Wuyang - Honda Motors (Guangzhou) Co., Ltd., China Jialing Industrial Co., Ltd. (Group), Zhejiang Qianjiang Motorcycle Co., Ltd., Jinan Qingqi Motorcycle Co., Ltd., Beijing Jin Kai Star Technology Co., Ltd., Zhejiang Feiya Electronics Co., Ltd. This standard MEP April 15, 2011 for approval. This standard since October 1, 2011 implementation. The standard explanation by the Ministry of Environmental Protection. Motorcycles and exhaust emission limits and measurement methods (Two-speed idle)

1 Scope

GB 14621 is the in-use test for motorcycles and mopeds: the two-speed idle method used

at roadside and periodic inspection, where carbon monoxide and hydrocarbons are measured at idle and at a raised engine speed rather than on a chassis dynamometer. It sets the emission limits, the measurement method, the particular requirements for gas-fuelled and dual-fuel machines, the rules for judging the result and the implementation provisions. Note that GB 14622-2016 lists this standard among those it replaces, so it is being superseded by the China IV motorcycle emission standard. Issued on 12 May 2011, in force since 1 October 2011. 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.

Note 1. the volume fraction of contaminants.

Note 2. HC body integral value by n-hexane equivalents.

4.2 car emission limits From the date specified in this standard, with motorcycles and mopeds exhaust emissions to comply with Table 2. Table 2 two-speed idle in car emission limits Requirements and implementation dates Conditions Idle condition high idle condition CO /% HC/10-6 CO /% HC/10-

2 Normative references

The standard content of the following documents cited in the articles. Where undated references, the latest version applies to this standard.

GB 14622-2007 motorcycle emission limits and measurement methods (case law, China stage III) Motor gasoline GB 17930 GB 18047 CNG

GB 18176-2007 mopeds emission limits and measurement methods (case law, China stage III)

GB 19159 Liquefied petroleum gas

GB/T 15089 classification of motor vehicles and trailers HJ/T 3-1993 gasoline vehicle idling exhaust monitor technical conditions HJ/T 289-2006 idling gasoline dual exhaust emission measuring equipment technical requirements

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 motorcycle GB/T 15089 stipulated motorcycle (L3 category), sidecar (L4 category) and three-wheeled motorcycles (L5 category).

3.2 Moped GB/T 15089 regulations two-wheeled mopeds (L1 category) and three-wheeled mopeds (L2 type).

3.3 Exhaust pollutants Tailpipe emissions of carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NO_x).

3.4 Idle and high idle condition Idling condition of an engine with no load minimum steady state operation, the normal operation of the engine, the transmission is in neutral, throttle control at At minimum position, fully open choke, the engine speed comply with the manufacturer's technical documentation. High idle condition that meets the above conditions (except position throttle control, automatic transmission vehicle, wheels should be in a free state), By adjusting the throttle control, stability control engine speed at the factory technical documentation specified high idle speed, but high idle speed can not be Less than 2 000 r/min. If the technical documentation does not require, the engine speed control at 2 500 r/min $\pm$ 250 r/min.

3.5 Carbon monoxide (CO), hydrocarbons (HC), carbon dioxide (CO₂) is the volume fraction Carbon monoxide (CO) in the exhaust gas volume fraction of carbon monoxide (CO) is the volume percentage, expressed in%; hydrocarbon (HC) The volume fraction of the exhaust gas of hydrocarbons (HC) in parts per million volume, expressed in 10⁻⁶; dioxide (CO₂) is the volume fraction Exhaust gas carbon dioxide (CO₂) volume percent, expressed in%.

3.6 Gaseous fuels Natural Gas (NG) GB 18047 provisions LPG or GB 19159 provisions (LPG).

3.7 Dual-fuel vehicles Both fueled with gasoline can burn in a gaseous fuel, but the two can not be burning fuel motorcycle.

3.8 Single gas fuel vehicles Only a certain kind of gas fuel burning motorcycle, or can be fueled with a gas fuel [natural gas (NG) or liquefied petroleum gas (LPG)] And gasoline, but gasoline is used only for emergencies or start with a motorcycle engine.

3.9 Conformity of Production It refers to factory production of motorcycles and mopeds were two-speed idle emissions tests.

3.10 In car It has been registered and obtain license plate for motorcycles and mopeds.

4 Pollutant emission control requirements

4.1 type approval and production consistency check emission limits From the date specified in this standard, motorcycles and mopeds in accordance with GB 14622-2007, GB 18176-2007 requirements respectively Type approval and production consistency check at the same time, provisions should be the standard two-speed idle emissions testing exhaust emissions shall comply Specified in Table 1 together. Table 1 two-speed idle type approval and production consistency check emission limits Requirements and implementation dates Conditions Idle condition high idle condition CO /% HC/10⁻⁶ CO /% HC/10⁻⁶

6 Before

1 July 2003, the production of motorcycles and Mopeds (two-stroke). 8 4.5 000 - - Before

1 July 2003, the production of motorcycles and Mopeds (four-stroke) 4.52 200 - - From July

1, 2003 the production of motorcycles and Mopeds (two-stroke) 4.5 4 500 - - From July 1,

2003 the production of motorcycles and Mopeds (four-stroke) 4.51 200 - - From July 1,

2010 the production of two-wheeled motorized Two cars and mopeds 3.0 400 3.0 400 From

July 1, 2011 the production of three-wheeled motorcycle Cars and three-wheeled mopeds

Note 1. the volume fraction of contaminants.

Note 2. HC body integral value by n-hexane equivalents.

5 exhaust emissions measurement methods

Two-speed idle emissions testing using the method set out in Appendix A. 6 single gas and dual-fuel vehicle fuel testing requirements For a single gas fuel vehicles, only by burning gaseous fuel emissions testing; for dual-fuel vehicles, fuel respectively into the two requirements Line emissions testing.

7 Test results to determine the rules

Is lower than the concentration of pollutant vehicle is detected or equal to the emission limits specified in this standard, it is determined that compliance; any of the pollutants Concentrations exceeding emission limits, it is judged excessive. Example

8 Standard

8.1 type approval and production conformity inspection requirements by the state to oversee the implementation of the type approval authority.

8.2 car emission control requirements by the people's governments above the county level environmental protection administrative department responsible for overseeing implementation.

Appendix A

(Normative) Two-speed idle measurement method A.1 Measuring Instruments Exhaust pollutant measuring equipment shall comply with the provisions of HJ/T 289-2006 in.

Performs only idling emission measurement tests, operators can also be used Co HJ/T 3-1993 exhaust monitor, this time may be corrected CO measurement results. A.2

Measurement Program A.2.1 Instrument Preparation and Use According to the instrument manufacturers instructions for the preparation (including the warm-up) and use of the instrument.

A.2.2 fuel and vehicle preparation A.2.2.1 type approval test fuel shall meet the