

ICS 13.040.50
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中华人民共和国国家标准
NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 18176-2016
Replace GB 18176-2007 & GB 20998-2007, and Partly Replace GB 14621-2011

轻便摩托车污染物排放限值及测量方法
(中国第四阶段)
LIMITS AND MEASUREMENT METHODS FOR EMISSIONS FROM
MOPEDS (CHINA IV)

Issued on August 22, 2016

Implemented on July 01, 2018

Jointly Issued by
Ministry of Environmental Protection of the People's Republic of China & General Administration
of Quality Supervision, Inspection and Quarantine of the People's Republic of China

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Limits and Measurement Methods for Emissions from Mopeds (CHINA IV)

1 SCOPE

This Standard specifies the limits and measurement methods for tailpipe emissions and evaporative emissions, the requirements for crankcase emissions, the durability requirements for emission control devices and the technical requirements for on-board diagnostic (OBD) systems with respect to the mopeds.

This Standard also specifies the requirements for type test of mopeds, and the methods of checking and verifying the conformity of production (COP).

This Standard applies to the two-wheel or three-wheel mopeds, which are propelled by a positive ignition engine, of which the engine capacity is not greater than 50 ml, and of which the maximum design speed is is not greater than 50 km/h.

2 NORMATIVE REFERENCES

The following normative documents or contain provision are referred to in this national standard. For all undated references, the valid edition of the normative document referred to applies.

GB/T 15089-2001	Classification of power-driven vehicles and trailers
HJ/T 289	Equipment specifications and quality control requirements for Gasoline vehicles in two-speed idle exhaust emission test
QC/T 1003	Determination of precious metal in metal support catalytic converter for Motorcycles
ISO 2575:2010	Road vehicles - Symbols for controls, indicators and tell-tales
ISO 9141-2	Road vehicles - Diagnostic systems - Part 2: CARB requirements for interchange of digital information
ISO 14229-3	Road vehicles - Unified diagnostic services (UDS) - Part 3: Unified diagnostic services on CAN implementation (UDSonCAN)
ISO 14229-4	Road vehicles - Unified diagnostic services (UDS) - Part 4: Unified diagnostic services on FlexRay implementation (UDSonFR)
ISO 14230-4	Road vehicles - Diagnostic systems -- Keyword Protocol 2000 - Part 4: Requirements for emission-related systems
ISO 15031-3	Road vehicles – Communication between vehicle and external equipment for emissions-related diagnostics – Part 3: Diagnostic connector and related electrical circuits, specification and use
ISO 15031-4:2014	Road vehicles - Communication between vehicle and external equipment for emissions-related diagnostics - Part 4: External test equipment
ISO 15031-5:2011	Road vehicles - Communication between vehicle and external equipment for emissions-related diagnostics - Part 5: Emissions-related diagnostic services
ISO 15031-6:2010	Road vehicles - Communication between vehicle and external equipment for emissions-related diagnostics - Part 6: Diagnostic trouble code definitions
ISO 15765-4	Road vehicles - Diagnostics on Controller Area Network (CAN) - Part 4: Requirements for emissions-related systems
ISO 19689	Motorcycles and mopeds - Communication between vehicle and external equipment for diagnostics - Diagnostic connector and related electrical circuits, specification and use
ISO 22901-2	Road vehicles - Open diagnostic data exchange (ODX) - Part 2: Emissions-related diagnostic data

3 TERMS AND DEFINITIONS

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

3.1

Moped

as specified in GB/T 15089-2001:

Two-wheeled moped (Category L₁): A two-wheeled vehicle with an engine cylinder capacity in the case of a thermic engine not exceeding 50 ml and whatever the means of propulsion a maximum design speed not exceeding 50 km/h.

Three-wheeled moped (Category L₂): A vehicle with three wheels, arranged in any form, with an engine cylinder capacity in the case of a thermic engine not exceeding 50 ml and whatever the means of propulsion a maximum design speed not exceeding 50 km/h.

3.2

Type test

the type approval test for a trial-produced new product after the design of such a moped type is completed, to check whether the product meets the technical requirements of this standard

3.3

Gas fuel

Means Liquefied Petroleum Gas (LPG) or Natural Gas (NG)

3.4

Bi-fuel moped

Moped that can use both gasoline and a gas fuel, but not use both at the same time

3.5

Mono fuel gas moped

Moped that can use only one type of gas fuel (LPG or NG), or moped that can use both gas fuel (LPG or NG) and gasoline, but gasoline is used only for emergency or to start the engine

3.6

Equivalent inertia

Mass that is equivalent to the inertia of movement and moment which is simulated by the inertia simulator equipped on the chassis dynamometer during moped operating

3.7

Reference mass

Means the unladen mass of the moped increased by the driver's mass of 75 kg

3.8

Diluted gases

Means the homogeneous exhaust gas mixture, after the moped exhaust gases are diluted with ambient air

3.9

Gaseous pollutants

Means the exhaust gas emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), expressed in nitrogen dioxide (NO₂) equivalent, and hydrocarbons assuming a ratio of:



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