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

GB 18176-2016

Replacing GB 18176-2007

**Limits and measurement methods for emissions of pollutants
from mopeds (CHINA IV)**

轻便摩托车污染物排放限值及测量方法（中国第四阶段）

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1 Scope

This standard sets the emission limits and the measurement methods for the exhaust pollutants and the evaporative pollutants of mopeds, together with the crankcase emission requirements, the durability requirements for the pollution control devices and the technical requirements for the on-board diagnostic (OBD) system.

This standard also sets the requirements for the type test of mopeds and the methods for the inspection and the judgement of conformity of production.

This standard applies to two-wheeled or three-wheeled mopeds powered by a positive-ignition engine, with an engine displacement of not more than 50 ml and a maximum design speed of not more than 50 km/h.

2 Normative references

This standard cites the following documents or clauses of them. For undated references the latest edition applies to this standard.

The domestic documents cited are GB/T 15089-2001 Classification of power-driven vehicles and trailers, HJ/T 289 Technical requirements for equipment measuring exhaust pollutants of gasoline vehicles by the double idle speed method, and QC/T 1003 Method for measuring the precious metal coating of metal-substrate catalysts for motorcycles.

The international documents cited are 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 and ISO 14229-4 Road vehicles - Unified diagnostic services (UDS), Part 3 on CAN implementation and Part 4 on FlexRay implementation; ISO 14230-4 Road vehicles - Diagnostic systems - Keyword Protocol 2000 - Part 4: Requirements for emission-related systems.

Also cited are ISO 15031-3, ISO 15031-4:2014, ISO 15031-5:2011 and ISO 15031-6:2010 Road vehicles - Communication between vehicle and external equipment for emissions-related diagnostics, on the diagnostic connector and related electrical circuits, the external test equipment, the emissions-related diagnostic services and the 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 diagnostic equipment - 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; and SAE J1850 Class B data communications network interface.

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 moped - As laid down in GB/T 15089-2001: a two-wheeled moped (category L1) is a two-wheeled vehicle whose cylinder capacity, where a thermal engine is used, does not exceed 50 ml and whose maximum design speed does not exceed 50 km/h, whatever the drive arrangement; a three-wheeled moped (category L2) is a three-wheeled vehicle with any wheel arrangement whose cylinder capacity, where a thermal engine is used, does not exceed 50 ml and whose maximum design speed does not exceed 50 km/h, whatever the drive arrangement.

3.2 type test - The finalization test carried out on the newly built product of a moped model once its design is complete, in order to verify whether the product meets the technical requirements of this standard.

3.3 gas fuel - Liquefied petroleum gas (LPG) or natural gas (NG).

3.4 bi-fuel moped - A moped that can run on gasoline and also on one gas fuel, but not on both fuels at the same time.

3.5 mono fuel gas moped - A moped that can burn only one gas fuel (LPG or NG), or that can burn a gas fuel (LPG or NG) and gasoline where the gasoline is used only in an emergency or for starting the engine.

3.6 equivalent inertia - The mass corresponding to the translational and rotational inertia of a moped in motion, reproduced on a chassis dynamometer by an inertia simulator.

3.7 reference mass - The kerb mass of the complete moped plus a driver mass of 75 kg.

Relationship to previous standards

The front page carries a replacement note naming three earlier standards. From the date it takes effect this standard replaces GB 18176-2007 Limits and measurement methods for emissions of pollutants from mopeds (working cycle, China III stage) and GB 20998-2007 Limits and measurement methods for evaporative fuel pollutants from motorcycles and mopeds, and it partly replaces GB 14621-2011 Limits and measurement methods for exhaust pollutants from motorcycles and mopeds (double idle speed method), namely the type-test and conformity-of-production emission limits of that standard.

The foreword states that type testing may be carried out to this standard from the date of publication, and that from 1 July 2018 every moped submitted to type testing has to meet its requirements. It also records that the standard was approved by the Ministry of Environmental Protection on 11 May 2016 and that the Ministry of Environmental Protection is responsible for its interpretation.