

HJ

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

HJ/T 390-2007

**Technical requirement for environmental labeling products -
Control system of fuel evaporative pollutants from vehicle with
petrol engine**

(English Translation)

Issued on: December 3, 2007

Implemented on: March 1, 2008

**Issued by: State Environmental Protection Administration State
Environmental Protection Administration Announcement**

Table of Contents

Foreword...	6
1 Scope...	7
2 Normative references...	7
3 Terms and definitions...	7
4 Fuel and gas...	9
5 Requirements...	9
6 Test methods...	11
7 Test rules...	15
8 Marking, packaging, transportation and storage...	16

Foreword

In order to implement the Environmental Protection Law of the People's Republic of China, reduce the impact of automobiles on the environment and human health during use, and improve environmental quality, this Standard is formulated.

This Standard, which is formulated according to the current industry technology and equipment level, puts forward requirements for the control system of fuel evaporative pollutants from vehicle with petrol engine.

From the date of implementation of this Standard, Technical requirement for environmental protection product - Control system of fuel evaporative pollutants from vehicle with petrol engine (HBC 32-2004) shall be abolished.

This Standard is an instructive standard.

Compared with HBC 32-2004, the major changes of this Standard are as follows.

- Add GB 18352.3-2005, Limits and measurement methods for emissions from light-duty vehicles to the performance requirements after assembly;
- Add GB 4763-2005 Limits and measurement methods for fuel evaporative pollutants from heavy-duty vehicles equipped with P.I engines (Trap method) to the performance requirements of assembly;

This Standard is proposed by the Science and Technology Standards Department of the State Environmental Protection Administration.

Main drafting organizations of this Standard. China Association of Environmental Protection Industry (Technical Committee for Motor Vehicle Pollution Prevention and Control), China Automotive Technology and Research Center Co., Ltd., Beijing Automotive Institute Co., Ltd., AVIC Hongguang Airborne Equipment Co., Ltd., Langfang Huaan Automotive Equipment Co., Ltd., Research Institute of Highway Ministry of Transport.

This Standard was approved by the State Environmental Protection Administration on December 3, 2007.

This Standard was implemented since March 1, 2008.

This Standard is interpreted by the State Environmental Protection Administration.

Technical requirement for environmental protection product
Control system of fuel evaporative pollutants from vehicle
with petrol engine

1 Scope

This Standard specifies the definition, technical requirements, test methods, inspection rules and marking, packaging, transportation and storage requirements for the control system of fuel evaporative pollutants from vehicle with petrol engine.

This Standard applies to the control system of fuel evaporative pollutants from vehicle with petrol engine (hereinafter referred to as control system).

2 Normative references

The content of this Standard refers to the clauses in the following documents. For undated references, the valid edition applies to this Standard.

GB/T 191, Packaging - Pictorial marking for handling of goods

GB 2828.1, Sampling procedures for inspection by attributes - Part 1. Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

GB/T 6388, Transport package shipping mark

GB 14763-2005, Limits and measurement methods for fuel evaporative pollutants from heavy-duty vehicles equipped with P.I engines (Trap method)

GB 17930, Gasoline for motor vehicles

GB 18352.3-2005, Limits and measurement methods for emissions from light-duty vehicles

3 Terms and definitions

The following terms and definitions are applicable to this Standard.

3.1 Control system

A system - composed of some or all of the devices such as overturn flow-stop, liquid-gas separation, vapor storage, carburetor vapor control, and desorption control - that uses activated carbon as adsorbent to control the emission of fuel evaporative pollutants from vehicle with petrol engine.

3.2 Overturn flow-stop device

A device that prevents fuel from flowing out of the fuel tank when the vehicle is turned over or the fuel tank is upside down.

3.3 Liquid-gas separation device

A device that separates liquid fuel from fuel vapor.

3.4 Vapor storage device

A device for storing fuel vapor.

3.5 Carburetor vapor control device

A device that controls the entry of fuel vapor evaporated by the carburetor into the vapor storage device.

3.6 Desorption control device

A device that controls the desorption process of fuel vapor in a vapor storage device.

4.1 Gasoline

The gasoline used shall comply with the regulations of GB 17930 Gasoline for motor vehicles.

5.1.1 The performance and quality of the control system and its components shall

comply with the provisions of this technical requirement, and shall be manufactured in accordance with the drawings and technical documents approved through prescribed procedures.

5.2.1 Control system ventilation resistance performance

Carry out the test according to 6.2.1. The pressure difference shall be less than or equal to 0.98 kPa.

5.2.2 Control system sealing performance

Carry out the test according to 6.2.2. There shall be no leakage at each connection.

5.2.5 Initial working capacity of vapor storage device

Carry out the test in accordance with 6.2.5. Initial working capacity of the vapor storage device. GWC shall be greater than or equal to 6.5 g/100 ml; or BWC shall be greater than or equal to 7.0 g/100 ml.

5.2.6 Final working capacity of vapor storage device

Carry out the test in accordance with 6.2.5. Final working capacity of the vapor storage device. GWC shall be greater than or equal to 5.2 g/100 ml; or BWC shall be greater than or equal to 5.6 g/100 ml.

5.2.2.

5.3.1 Sealing performance

Carry out the test in accordance with 6.3.1. The pressure drop shall not exceed 0.49 kPa.