

HJ

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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**In-service conformity of compression ignition and gas fuelled
positive ignition engines of vehicles**
(English Translation)

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Foreword

According to Environmental Protection Law of the People's Republic of China and The People's

Republic of China on The Prevention and Control of Air Pollution, and in order to prevent the

pollutions of automobile emissions of automotive compression ignition and gas fuelled positive ignition engines TO the environment, improve the environment quality, this standard is formulated.

This standard specifies in-service vehicle conformity requirements of automobile equipped with compression ignition engine and its compression ignition engine, the spark ignition engine automobile, and its spark ignition engine with NG or LPG as fuel. This standard is the supplement of in-service vehicle / engine conformity contents TO GB 17691-2005 Limits and Measurement Methods for Exhaust Pollutants from Compression Ignition

and Gas Fuelled Positive Ignition Engines of Vehicles (China III, IV, V stage).

The modification of technical contents in this standard adopts EU order 2005/55/EC the council order in regard to coordinating with all member states to adopt measures to prevent gaseous pollutant and particulate matter emissions laws of automotive compression ignition engine and automotive spark ignition engines of burning natural gas or liquefied petroleum gas,

as well as the contents of relevant in-service vehicle / engine conformity in the revision orders 2005/78/EC and 2006/51/EC.

Annex A of this standard is normative.

This standard is first-time issued.

This standard is organized and formulated by Department of Science, Technology and Standards of Ministry of Environmental Protection.

Main drafting organizations of this standard. China Research Academy of Environmental Sciences, JNATC (Jinan Automotive Test Center), and Chinese Automotive Technology & Research Centre.

The standard was approved by Ministry of Environmental Protection on June 24, 2008.

This standard shall be implemented from July 1, 2008.

The Ministry of Environmental Protection is responsible for the interpretation of this standard.

In-service conformity of compression ignition and gas fuelled positive ignition engines of vehicles

1 Application scope

The standard specifies the in-service vehicle / engine conformity requirements of automobile equipped with compression ignition engine and its compression ignition engine, the spark ignition engine automobile and its spark ignition engine with NG or LPG as fuel.

This standard applies to the in-service vehicle / engine conformity inspection of M2, M3, N1,

N2 and N3 classes of vehicles whose designing speed are larger than 25km/h; and M1 class vehicle equipped with compression ignition engines (including gas fuelled positive ignition type) and its automobile whose total mass is larger than 3500kg.

If the N1 and M2 classes of vehicles equipped with compression ignition engines (including gas fuelled positive ignition type) engine have been conducted the conformity inspection of in-service vehicle according to the standards of GB 18352.3-2005 Limits and

Measurement Methods for Light Car Pollutant Emission (China III, IV stage), it doesn't have to perform this standard.

2 Normative references

The articles contained in the following documents have become part of this standard when they are quoted herein. For the undated documents so quoted, the latest editions shall be applicable to this standard.

GB 17691 Limits and measurement methods for exhaust pollutants from compression ignition and gas fuelled positive ignition engines of vehicles (III IV V)

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

HJ 437-2008 Technical specification for on-board diagnostic (OBD) system of compression ignition and gas fuelled positive ignition engines of vehicles

HJ 438-2008 Durability of Emission Control Systems of compression ignition and gas fuelled positive ignition engines of vehicles

3 Terms and definitions

The related terms and definitions defined in GB 17691, HJ 437-2008 Automotive

Compression Ignition and Gas Fuelled Positive Ignition Engines and Cars On-board Diagnosis

System Technical Requirements and HJ 438-2008 Automotive Compression Ignition and Gas

Fuelled Positive Ignition Engines and Durability Technical Requirements of Vehicle Emissions

Control System apply to this standard.

4.1 The manufacturing enterprise shall adopt appropriate measures to guarantee that the

emission control device of the installed engine of vehicle, under the condition of normal use within the normal lifetime, is always in a normal operation.

4.2 The conformity of in-service vehicle / engine shall be inspected periodically within the

actual life of automotive engine. And it shall satisfy the limiting value requirements of Table

4.3 The conformity inspection of in-service vehicle / engine shall be implemented

according to the provisions of chapter 5. Figure 1 is the audit procedure of in-service conformity.

5.1 The type approval agency shall implement the conformity inspection for in-service

vehicle / engine through the in-service vehicle / engine conformity report provided by the manufacturing enterprise, or (and) the supervision test of type approval agency.

5.2.1 The contents of in-service vehicle / engine conformity report shall meet the provisions of Annex A.

5.2.2 In order to evaluate whether the in-service vehicle performance complies with the

specified normal service condition, the manufacturing enterprise shall collect sufficient information. And it can represent that the manufacturing enterprise has well-known the region and market.

actual use of engine family.

5.4.1.1 If the type approval agency is unsatisfied with the in-service vehicle / engine

conformity report of manufacturing enterprise, the type approval agency can instruct the manufacturing enterprise to conduct verification test as per the Article 5.2.4. The type approval agency will audit the verification test report provided by the manufacturing enterprise.

5.4.2 The verification test shall be conducted as per the provisions on Article 5.3. The

sample engine for test shall be the engine dismantled from the normal-use vehicle.