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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 3847-2018
Replaces GB 3847-2005, HJ/T 241-2005

**Limits and Measurement Methods for Emissions from
Diesel Vehicles under Free Acceleration and Lug down
Cycle**

**柴油车污染物排放限值及测量方法
(自由加速法及加载减速法)**

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Limits and Measurement Methods for Emissions from Diesel Vehicles under Free Acceleration and Lug down Cycle

1 SCOPE

This Standard specifies the limits and measurement methods for exhaust emissions from diesel vehicles under free acceleration and lug down cycle. This standard also prescribes the methods for visual inspection and OBD inspection of diesel vehicles, and their determination criteria.

This Standard applies to inspection for new produced diesel vehicle at end of production line, inspection for register vehicle and inspection for in-use vehicle.

This Standard also applies to other vehicles equipped with compression ignition engine (CIE).

This Standard doesn't apply to low-speed goods vehicles or three-wheeled vehicles.

2 NORMATIVE REFERENCES

The standard refers to the following normative documents or the provisions contained therein. For undated references, the latest edition of the referenced document applies.

GB 5181-2001	Automotive emission-Terms and definitions
GB 7258	Technical Specifications for Safety of Power-driven Vehicles Operating on Roads
GB 17691	Limits and measurement methods for exhaust pollutants from compression ignition and gas fuelled positive ignition engines of vehicles
GB 17691-2018	Limits and measurement methods for emissions from diesel fuelled heavy-duty vehicles (CHINA VI)
GB/T 17692	Measurement methods of net power for automotive engines
GB 18352	Limits and measurement methods for emissions from light-duty vehicles
GB 19147	Automobile diesel fuels
HJ 437	Technical specification for on-board diagnostic (OBD) system of compression ignition and gas fuelled positive ignition engines of vehicles
HJ 845-2017	Measurement method and specifications for exhaust pollutants from in-use diesel vehicles by remote sensing method

3 TERMS AND DEFINITIONS

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

3.1

净功率 Net power

“Net power” means the net power measured in accordance with GB/T 17692.

3.2

压燃式发动机 Compression ignition engine

“Compression ignition engine” means an engine which operates on the compression-ignition principle (e.g. diesel engine).

3.3

不透光烟度计 Opacity meter

“Opacity meter” means an instrument for continuous measurement of the optical absorption coefficients of the exhaust gases emitted by vehicles, as specified in Annex C to this standard.

3.4

最高额定转速 Maximum rated engine speed

“Maximum rated engine speed” means the maximum speed permitted by the diesel engine at full load.

3.5

最低额定转速 Minimum rated engine speed

“Minimum rated engine speed” means,

- either the highest of the following three engine speeds: 45% of maximum rated speed; 1000 rpm; minimum idling speed; or
- a lower speed as required by the manufacturer.



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