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Performance Test Code for Road Vehicle Engines
汽车发动机性能试验方法

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Performance Test Code for Road Vehicle Engines

1 SCOPE

This document describes the bench test methods for the performance of vehicle engines, and is intended to evaluate the performance of road vehicle engines.

This document is applicable to the gasoline and diesel engines (either reciprocating or rotor, but excluding free piston type) of motor vehicles of Categories M and N.

With respect to the engines for vehicles of other fuel type, this document may be used as a reference.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

GB/T 1883.1 Reciprocating internal combustion engines-Vocabulary-Part 1: Terms for engine design and operation

GB/T 15089 Classification of power-driven vehicles and trailers

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB/T 1883.1 and GB/T 15089, as well as the following apply.

3.1 observed brake power

The power¹ output by the engine under the actual inlet conditions

3.2 corrected brake power

The observed brake power corrected to the standard inlet conditions

3.3 net power

The power measured at the end of the engine crankshaft or its equivalent at the corresponding engine speed with the complete set of auxiliaries fitted, and corrected under the standard inlet conditions

Note: Complete set of auxiliaries refers to all accessories that serve the engine itself in the same condition as installed in the complete vehicle, as specified in Clause 7.

¹The power used in this document refers to the power, expressed in kilowatts (kW), calculated from the measured speed and torque values under different conditions at full load (i.e., with the throttle in the fully open position).



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