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Road vehicles — Engine test code — Net power

Véhicules routiers — Code d'essai des moteurs — Puissance nette

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 34, *Propulsion, powertrain and powertrain fluids*.

This fourth edition cancels and replaces the third edition (ISO 1585:1992), which has been technically revised. The main changes compared to the previous edition are as follows:

— the air induction system definition has been updated to clarify included components;

— a requirement for exhaust particulate filter restriction has been added;

— a requirement for engine cooling active thermal management system settings has been added;

— a power correction factor for turbocharged engines with a system compensating the ambient conditions has been added.

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Road vehicles — Engine test code — Net power

1 Scope

This document specifies a method for testing engines designed for automotive vehicles. It applies to the evaluation of their performance with a view, in particular to presenting curves of power and specific fuel consumption at full load as a function of engine speed.

It applies only to net power assessment.

This document concerns internal combustion engines used for propulsion of passenger cars, trucks and other motor vehicles, excluding motorcycles, mopeds and agricultural tractors normally travelling on roads, and included in one of the following categories:

— reciprocating internal combustion engines (spark-ignition or compression-ignition) but excluding free piston engines;

— rotary piston engines.

These engines can be naturally aspirated or pressure-charged, either using a mechanical supercharger or turbocharger.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2710-1, *Reciprocating internal combustion engines — Vocabulary — Part 1: Terms for engine design and operation*

ISO 7876-1, *Fuel injection equipment — Vocabulary — Part 1: Fuel injection pumps*

ISO 7967-1, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 1: Structure and external covers*

ISO 7967-2, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 2: Main running gear*

ISO 7967-3, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 3: Valves, camshaft drives and actuating mechanisms*

ISO 7967-4, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 4: Pressure charging and air/exhaust gas ducting systems*

ISO 7967-5, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 5: Cooling systems*

ISO 7967-8, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 8: Starting systems*

ISO 11614, *Reciprocating internal combustion compression-ignition engines — Apparatus for measurement of the opacity and for determination of the light absorption coefficient of exhaust gas*

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