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Road vehicles — Engine test code — Net power

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



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Contents						
Fore	eword			v		
1	Scope			1		
2	Norm	ative ref	Gerences	1		
3			finitions			
4	Accuracy of measuring equipment and instruments					
		Torque.		2		
	4.2 4.3		speed (rotational frequency)w			
	4.4		nperature			
	4.5	*				
	4.6		tric pressure			
	4.7		ressure in exhaust system			
	4.8	Depress	sion in inlet system	3		
	4.9	Absolut	e pressure in inlet duct	3		
5	Tests.			6		
	5.1	Auxiliai	ries			
		5.1.1	Auxiliaries to be fitted			
		5.1.2	Auxiliaries to be removed			
	5.2	5.1.3	Compression-ignition engine starting auxiliariesconditions			
	5.2		nditions			
	5.4		ocedure			
	5.5		be recorded			
6	Dowoi	r correct	tion factors	Q		
U	6.1		on of factor $lpha$ for power correction			
	6.2		pheric conditions			
			Reference atmospheric conditions			
		6.2.2	Test atmospheric conditions	9		
	6.3		ination of power correction factors	9		
		6.3.1	Naturally aspirated and pressure-charged spark-ignition engines — Factor	$\chi_{\rm a}$ 10		
		6.3.2 6.3.3	Compression-ignition engines — Factor α_c Turbocharged engine with a system compensating the ambient conditions	10 12		
		6.3.4	Other types of engine	12		
_	3.6					
7	Measu 7.1	Correct	of and correction for smoke value for compression-ignition enginesion factor for light absorption coefficient of smoke	1 2 12		
	7.1	Determ	ination of correction factor for light absorption coefficient of smoke	13		
	7.3		of application			
0						
8	8.1		ession-ignition engines — Essential characteristics			
	0.1	8.1.1	Description of engine	13		
		8.1.2	Cooling system	14		
		8.1.3	Temperatures specified by the manufacturer	14		
		8.1.4	Pressure charger (with/without) (delete where inapplicable)	15		
		8.1.5	Inlet system	15		
		8.1.6	Additional smoke control devices (if any, and if not covered by another	4 5		
		8.1.7	heading)	15 17		
		8.1.7 8.1.8	Fuel feed systemValve timing			
		8.1.9	Exhaust system			
		8.1.10	Lubrication system			
		8.1.11	Electrical equipment			
		8.1.12	Other engine-driven equipment	17		

ISO 1585:2020(E)

8.2.1 Description of engine		Spark-ignition engines — Essential characteristics	
8.2.3 Temperature specified by the manufacturer 19 8.2.4 Pressure charger (with/without) (delete where inapplicable) 19 8.2.5 Inlet system 19 8.2.6 Additional anti-pollution devices (if any, and if not covered by another heading) 20 8.2.7 Fuel feed system 20 8.2.8 Valve timing 20 8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 Orgraphy 32		1 0	
8.2.4 Pressure charger (with/without) (delete where inapplicable) 19 8.2.5 Inlet system 19 8.2.6 Additional anti-pollution devices (if any, and if not covered by another heading) 20 8.2.7 Fuel feed system 20 8.2.8 Valve timing 20 8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.1 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3.1 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 <td></td> <td></td> <td>18</td>			18
8.2.5		8.2.3 Temperature specified by the manufacturer	19
8.2.5		8.2.4 Pressure charger (with/without) (delete where inapplicable)	19
8.2.6 Additional anti-pollution devices (if any, and if not covered by another heading) 20 8.2.7 Fuel feed system 20 8.2.8 Valve timing 20 8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3.1 Power 26 9.3.2 Torque 26 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances			
heading 20 8.2.7 Fuel feed system 20 8.2.8 Valve timing 20 8.2.9 Ignition system 21 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24	4		
8.2.7 Fuel feed system 20 8.2.8 Valve timing 20 8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 orgraphy </td <td></td> <td></td> <td>20</td>			20
8.2.8 Valve timing 20 8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
8.2.9 Ignition system 20 8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
8.2.10 Exhaust system 21 8.2.11 Lubrication system 21 8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32		0	
8.2.11 Lubrication system		9 9	
8.2.12 Electrical equipment 22 8.2.13 Other auxiliaries fitted to engine 22 8.3 Test conditions for measuring engine net power 22 8.4 Statement of results as function of engine speed 24 Verification of engine performance 25 9.1 Designation 25 9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 Ography 32			
8.2.13 Other auxiliaries fitted to engine			
8.3 Test conditions for measuring engine net power 8.4 Statement of results as function of engine speed Verification of engine performance 9.1 Designation 9.2 Notation 9.2.1 Declared net power and corresponding engine speed (range) 9.2.2 Declared net torque and corresponding engine speed (range) 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 9.3 Tolerances — Declared values 9.3.1 Power 9.3.2 Torque 9.3.2 Torque 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 29 29 29 29 29 29 29 29 29		1 1	
8.4 Statement of results as function of engine speed			
8.4 Statement of results as function of engine speed	8.3	Test conditions for measuring engine net power	22
Verification of engine performance259.1 Designation259.2 Notation259.2.1 Declared net power and corresponding engine speed (range)259.2.2 Declared net torque and corresponding engine speed (range)269.2.3 Declared specific net fuel consumption and corresponding engine speed (range)269.3 Tolerances — Declared values269.3.1 Power269.3.2 Torque279.3.3 Specific fuel consumption279.3.4 Numerical tolerances27ography32	8.4		
9.1 Designation			
9.2 Notation 25 9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 pography 32			
9.2.1 Declared net power and corresponding engine speed (range) 25 9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 0graphy 32	9.2		
9.2.2 Declared net torque and corresponding engine speed (range) 26 9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
9.2.3 Declared specific net fuel consumption and corresponding engine speed (range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
(range) 26 9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
9.3 Tolerances — Declared values 26 9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			26
9.3.1 Power 26 9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 Ography 32	93		
9.3.2 Torque 27 9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32	7.5		
9.3.3 Specific fuel consumption 27 9.3.4 Numerical tolerances 27 ography 32			
9.3.4 Numerical tolerances 27 ography 32		±	
ography32			2 /
		9.3.4 Numerical tolerances	2/
	ograph	1y	32
	ograph	ıy	32
	ograph	ıy	32
	ograph	2	32
	ograph	2	32
	ograpł	2	32
	ograpł		
	ograpł		
	ograph		
0,	ograph		
	ograph		

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

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.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

2

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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