
International Standard 1585

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Road vehicles — Engines test code — Net power

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

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1585 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in April 1981.

It has been approved by the member bodies of the following countries :

Australia	Iran	South Africa, Rep. of
Austria	Iraq	Spain
Belgium	Japan	Sweden
Brazil	Korea, Dem. P. Rep. of	Switzerland
Canada	Korea, Rep. of	United Kingdom
Czechoslovakia	Netherlands	USA
Egypt, Arab Rep. of	New Zealand	USSR
France	Poland	
Germany, F.R.	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

Italy

This second edition cancels and replaces the first edition (i.e. ISO 1585-1974).

Road vehicles — Engines test code — Net power

1 Scope

This International Standard specifies a method for testing engines designed for automobile vehicles. It is applicable to the evaluation of their performances 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 the net power study.

2 Field of application

This International Standard concerns internal combustion engines used for propulsion of private cars and other motor vehicles [excluding motorcycles (see ISO 4106) and agricultural tractors (see ISO 2288)] normally travelling on roads and included in one of the following categories :

- reciprocating internal combustion engines (spark ignition or diesel) but excluding free piston engines;
- rotary piston engines.

These engines may be naturally aspirated or pressure-charged

3 References

ISO 2288, *Agricultural tractors and machines — Engine test code (bench test) — Net power.*

ISO 2710, *Reciprocating internal combustion engines — Vocabulary.*

ISO 3173, *Road vehicles — Apparatus for measurement of the opacity of exhaust gas from diesel engines operating under steady state conditions.*

ISO 4106, *Road vehicles — Motorcycles — Engine test code — Net power.*

4 Definitions

4.1 net power : The power obtained on a test bed at the end of the crankshaft or its equivalent¹⁾ at the corresponding engine speed with the auxiliaries listed in table 1.

4.2 standard production equipment : Any equipment provided by the manufacturer for a particular engine application.

5 Accuracy of measuring equipment and instruments

5.1 Torque

± 1 % of measured torque²⁾

5.2 Engine speed

± 0,5 % of measured speed

5.3 Fuel consumption

± 1 % of measured consumption

5.4 Fuel temperature

± 2 K

5.5 Air temperature

± 2 K

5.6 Barometric pressure

± 100 Pa*

5.7 Pressure in exhaust duct

[see note 1b) in table 1]

± 200 Pa

5.8 Pressure in intake duct

[see note 1a) in table 1]

± 50 Pa

1) If the power measurement can be carried out with a mounted gear box only, the efficiency of the gear box shall be taken into account.

2) The torque measuring system to be calibrated to take into account friction losses.

* 1 Pa = 1 N/m²