

ICS 53.100

P 97



**NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC  
OF CHINA**

**中华人民共和国国家标准**

**GB/T 16936-2007**

**Replace GB/T 16936-1997**

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**Earth-moving machinery—Engine test  
code—Net power**

**土方机械 发动机净功率试验规范**

(ISO 9249: 1997, MOD)

**Issued on November 01, 2007**

**Implemented on January 01, 2008**

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**Issued by General Administration of Quality Supervision, Inspection  
and Quarantine of the People's Republic of China**

**Standardization Administration of the People's Republic of  
China**

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## Foreword

This standard modification adopts ISO 9249:1997 *Earth-moving machinery—Engine test code—Net power* (English edition), including its technical corrigendum ISO 9249 Cor. 1:1999.

This standard is redrafted according to ISO 9249:1997.

The main technical differences between this standard and ISO 9249:1997 are as follows:

——Take our country's standard to replace the corresponding international standard which is referenced from ISO 9249:1997.

——Have renumbered the footnote as <sup>a)</sup>, <sup>b)</sup>, <sup>c)</sup>..... instead of <sup>1a)</sup>, <sup>1b)</sup>, <sup>2)</sup>..... in table 1.

——Have renumbered the footnote of full text, and have added the number for the formula of the full text.

——Table 4 has been added, and the content in table 8.4 has been moved into table 4 with the renumbering of its footnote. The original table 4 is changed to table 5.

——The tolerance values which is expressed by a%, b%, c% has been changed to the other forms of expression such as a, b, c and d (the a, b, c and d have been defined as percentages as specified in 9.3.1.4).

For ease of use, the following editorial modifications have been made in this standard:

——‘The international standard’ is changed to ‘the standard’;

——The decimal point ‘,’ is changed into decimal point ‘.’;

——The foreword of the international standard is deleted.

This standard is a modification for GB/T 16936—1997 *Earth-moving machinery—Engine test code—Net power*.

Compared with GB/T 16936—1997, the main modifications of this standard are as follows:

——Some contents (such as intake pressure drop, absolute pressure of engine import, exhaust back pressure and so on) have been added in chapter 5.3;

——In chapter 5.3, the fuel oil temperature is stipulated according to the stipulation

of spark ignition engine and compression ignition engine;

——Have carried on the detailed provisions for the 'measurement and calibration of smoke intensity of compression ignition engine' in chapter 7;

——Stipulations have been made for the compression ignition engine and the spark ignition engine respectively in chapter 8;

——The stipulation of '9.3 tolerance' has been added.

This standard will replace GB/T 16936-1997 from implementation date.

This Standard is proposed by China Machinery Industry Federation

This Standard is under the jurisdiction of China Machinery Industry Federation.

The responsible drafting organization is Tianjin Engineering Machinery Research Institute.

The chief drafting staff of this standard includes Yan Kun.

This Standard is drafted according to the rules specified in GB/T 1.1-2009

This standard replaces the following historical editions issued:

— GB/T 16936-1997

# **Earth-moving machinery—Engine test code—Net power**

## **1 Scope**

This standard specifies a method for testing internal combustion engines intended for propulsion of earth-moving machinery as defined in GB/T 8498.

It applies to evaluation of performance with a view, in particular, to presenting curves of power and specific fuel consumption at full load as a function of engine speed. These engines may be naturally aspirated or pressure-charged, either using a mechanical pressurecharger or turbocharger..

This standard concerns internal combustion engines used in earth-moving machinery 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.

NOTE - This standard provides engine power correction factors in conformity with ISO 1585:1992.

## **2 Normative references**

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this standard.

GB/T 1883.1 Reciprocating internal combustion engines— Vocabulary— Part1: Terms for engine design and operation (GB/T 1883.1-2005, ISO 2710-1:2000, IDT)

GB/T 1883.2 Reciprocating internal combustion engines—Vocabulary—Part2: Terms for engine maintenance (GB/T 1883.2-2005, ISO 2710-2:1999, IDT)



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