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

GB/T 1147.1-2025

Replacing GB/T 1147.1-2017

**Small and medium power internal combustion engines - Part 1:
General technical specifications**

中小功率内燃机 第1部分：通用技术规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 1 of GB/T 1147 "Internal Combustion Engines of Medium and Small Power". GB/T 1147 has already published the following parts.

1.General Technical Specifications;

2.Experimental Methods. This document replaces GB/T 1147.1-2017 "Small and Medium Power Internal Combustion Engines - Part

1.General Technical Conditions", and is consistent with GB/T 1147.1- Compared to.2017, aside from structural adjustments and editorial changes, the main technical changes are as follows:

a) Added terms and definitions (see Chapter 3);

b) The calibration requirements for fuel and oil consumption rates have been changed (see 4.4,

3.4 in the.2017 edition);

c) The uniformity of operation for each cylinder has been changed (see 4.6, 3.8 in the.2017 version);

d) The torque reserve requirement has been changed (see 4.7, 3.9 in the.2017 version);

e) The speed regulation characteristic requirements have been changed (see 4.8,

3.10 in the 2017 version);

1 Scope

GB/T 1147.1-2025 is the Chinese national standard on small and medium power internal combustion engines - part 1: general technical specifications, in the field of energy and heat transfer engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 27.020, CCS J 91. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the technical requirements, inspection rules, marking, packaging, and transportation of small and medium power internal combustion engines (rated power not exceeding 560kW). The corresponding experimental methods are described, including storage and other aspects. This document applies to small and medium power vehicles, ships, agricultural tractors and forestry machinery, construction machinery, generator sets, and irrigation and drainage machinery. For internal combustion engines, other small and medium-power internal combustion engines for which there are currently no applicable documents shall refer to this guideline.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 191 Pictorial Symbols for Packaging and Storage

GB/T 725 Rules for Compiling Product Names and Model Numbers for Internal Combustion Engines

GB/T 726 Direction of rotation, cylinder and cylinder head valve markings for reciprocating internal combustion engines; right and left engine markings for inline internal combustion engines. Definition of engine orientation

GB/T 1147.2-2025 Small and Medium Power Internal Combustion Engines - Part

4 Speed regulation

GB/T 6388 Transport Packaging Receipt and Delivery Marks

GB/T 6809 (All Parts) Terminology for Components and Systems of Reciprocating Internal Combustion Engines

GB/T 7184-2023 Vibration Assessment Method for Reciprocating Internal Combustion Engines

GB 8840 Exhaust smoke limits for marine diesel engines

GB/T 9486 Steady-state exhaust smoke opacity and its determination method for diesel engines

GB/T 10398 Vibration rating and test methods for small gasoline engines

GB/T 10826 (All Parts) Vocabulary of Fuel Injection Devices

GB 11871 Limits for air noise radiated by marine diesel engines

GB/T 14097-2023 Noise Limits for Reciprocating Internal Combustion Engines

GB 14023-2022 Limits and methods of measurement for radio interference characteristics of vehicles, ships and internal combustion engines for protection of external receivers.

GB 14762-2008 Emission limits and measurement methods for exhaust pollutants from gasoline engines and automobiles for heavy-duty vehicles (China Stage III and IV)

GB 15097-2016 Emission Limits and Measurement Methods for Exhaust Pollutants from Marine Engines (China Phase I and II)

GB/T 15370 (all parts) General technical conditions for agricultural tractors