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

GB/T 1149.1-2008

Replacing GB/T 1149.1-1994

**Internal combustion engines -- Piston rings -- Part 1: General
specifications**

内燃机 活塞环 第1部分：通用规则

(English Translation)

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Foreword

GB/T 1149 "Piston Ring" for the series of standards, divided into sixteen sections.

- Part 1. General rules;
- Part 2. Terminology;
- Part 3. Material specifications;
- Part 4. Quality requirements;
- Part 5. Test methods;
- Part 6. Cast wiper;
- Part 7. rectangular cast iron ring;
- Part 8. rectangular steel ring;
- Part 9. trapezoidal cast iron ring;
- Part 10. trapezoidal steel ring;
- Part 11. Cast iron wedge ring;
- Part 12. wedge-shaped steel ring;

- Part 13. Oil ring;
- Part 14. Spiral spring supporting oil ring;
- Part 15. Cast iron spiral stays reed thin oil ring;
- Part 16. strip combination oil ring.

This section GB/T 1149 Part 1.

This part identical with ISO 6621-4:2003 "Piston Ring Part 4. General rules" (in English).

This section is equivalent translation ISO 6621-4:2003 (English version).

For ease of use, this section made the following editorial changes.

- "ISO 6621 this part" to "this Part";
- Remove the foreword and introduction of international standards.

This part of ISO 6621-4:2003 and other international standards adopted, where the country has been adopted as a standard by our standards instead of phase Corresponding to international standards; our country has not been adopted as a standard, still direct use of international standards.

This part is GB/T 1149.1-1994 "General Rules Piston Ring" amendment, this part of the GB/T 1149.1-the main difference is 1994.

--- GB/T 1149.1-1994 is equivalent to ISO 6621-4. 1988, and the Department is divided into identical with ISO 6621-4:2003.

Since the implementation of this section instead of GB/T 1149.1-1994 "General Rules Piston Ring." this part is proposed by China Machinery Industry Federation.

This part of the internal combustion engine by the National Standardization Technical Committee (SAC/TC177) centralized.

1 Scope

This section GB/T 1149 specifies the general characteristics of the piston ring (single dimensional characteristics specified in the relevant national standards), on behalf of the Numbers, marks and logos.

This section applies to a cylinder diameter of less than or equal to reciprocating internal combustion engines and compressors, piston ring of 200mm.

2 Normative references

The following documents contain provisions which, through reference to GB/T 1149 to the present, constitute provisions of this section. For dated reference documents Member, all

subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1149.5-2008 Piston Ring Part 5. Test method (ISO 6621-2:2003, IDT) GB/T 4340.3 Vickers hardness test - Part 3. Calibration (GB/T 4340.3-1999 standard hardness block idt ISO 6507-3:1997)

2007 The first part of the internal combustion engine piston ring 1.. ISO 6621-1 term

3 Terms and Definitions

Terms and definitions used in this section in accordance with the provisions of ISO 6621-1.

4 Piston ring Code

Piston ring code and their descriptions are shown in Table 1.

Table 1 code and its description

Code	Description	Related Standards
R	cylinder rectangular ring	ISO 6621-3, GB/T 1149.8
B	side barrel rectangular ring	ISO 6621-3, GB/T 1149.8
BA	plane asymmetrical barrel rectangular ring	ISO 6621-3, GB/T 1149.8
M1 ~ M5	tapered rectangular ring	ISO 6621-3, GB/T 1149.8
N	nose-ring (undercut Taiwan)	GB/T 1149.6
NM1 ~ NM4	tapered nose ring (undercut Taiwan)	GB/T 1149.6
E	exo twist ring (exo Taiwan)	GB/T 1149.6
EM1 ~ EM4	cone circumscribed twisted ring (exo Taiwan)	GB/T 1149.6
T	cylinder 6 ° trapezoidal ring	GB/T 1149.9, ISO 6624-3
TB	barrel surface 6 ° trapezoidal ring	GB/T 1149.9, ISO 6624-3
TBA	asymmetry barrel surface 6 ° trapezoidal ring	GB/T 1149.9, ISO 6624-3
TM1 ~ TM5	cone 6 ° trapezoidal ring	GB/T 1149.9, ISO 6624-3
K	cylinder 15 ° trapezoidal ring	GB/T 1149.9, ISO 6624-3

GB/T 1149.1-2008/ISO 6621-4:2003