



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

GB/T 1149.6-2021

**Internal combustion engines - Piston rings - Part 6: Scraper
rings made of cast iron**

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Foreword

GB/T

1149 "Internal Combustion Engine Piston Ring" is divided into sixteen parts.

- Part 1.General rules;
- Part 2.Terminology;
- Part 3.Material specifications;
- Part 4.Quality requirements;
- Part 5.Inspection methods;

- Part 6.Cast iron scraper;
- Part 7.Rectangular cast iron ring;
- Part 8.Rectangular steel ring;
- Part 9.Trapezoidal cast iron ring;
- Part 10.Trapezoidal steel ring;
- Part 11.Wedge-shaped cast iron ring;
- Part 12.Wedge-shaped steel ring;
- Part 13.Oil ring;
- Part 14.Spiral spring oil ring;
- Part 15.Thin cast iron spiral spring oil ring;
- Part 16.Steel belt combination oil ring.

This part is GB/T

Part 6 of 1149.

This part is in accordance with GB/T

Drafting of the rules given in 1.1-2009.

This part replaces GB/T

1149.6-2008

"Piston Rings for Internal Combustion Engines Part 6.Cast Iron Scrapers", and GB/T

1149.6-

Compared with.2008, in addition to editorial changes, the main technical changes are as follows.

- Added the type of cast iron scraper (RU type) (see 5.4);
- Modified the size parameters of Table 3, and added footnotes in Table 8 and Table 9 Table 8 and Table 9);
- Standardize the expression in the chart (see the full text chart).

The translation method used in this part is equivalent to the ISO

6623.2013 "Internal combustion engine piston ring cast iron scraper ring".

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T

1149.1-2008 Piston rings for internal combustion engines Part 1.General rules (ISO

6621-4.2003, IDT)

This section has made the following editorial changes.

---Modified the standard name.

This part was proposed by China Machinery Industry Federation.

This part is organized by the National Internal Combustion Engine Standardization Technical Committee (SAC/TC

177) Concentration.

Drafting organizations of this section. Anqing Di Booz Piston Ring Co., Ltd., Fujian Dongya Machinery Co., Ltd., Yizheng ASIMCO Shuanghuan Piston Ring Co., Ltd.

Company, Nanjing Feiyan Piston Ring Co., Ltd., Shandong Hengyuan Precision Parts Co., Ltd., Shanghai Internal Combustion Engine Research Institute Co., Ltd.

1 Scope

GB/T

This part of 1149 specifies the basic dimensional characteristics of cast iron scraper rings with piston ring models of N, NM, E and EM.

This section applies to cylinder diameters from 30

mm~200

mm Cast iron for reciprocating internal combustion engines used in road vehicles and other purposes

Scraping ring.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

ISO

6621-4 Piston Rings for Internal Combustion Engines Part 4.General Rules (Internal combustion

engines-Piston

rings-

Part

4.

General

specifications)

3 overview

Scraper ring types are shown in Table 1 to Table 2 and Figures 1 to 5, and the general features and dimensions are shown in Table 3 to Table 5 and Figures 6 to 9. Different types of rings

The coefficient of elasticity is shown in Table 6 and Table 7, and the size and elasticity of the scraper ring are shown in Table 8 and Table 9.

Table 8 and Table 9 respectively provide two choices of radial thickness rings.

---The radial thickness is "normal";

---The radial thickness is "D/22".

The general features and size tables in this section all give a wide range of variables. The designer should select a specific piston ring based on the piston ring.

The working conditions of the ring are selected.

The designer needs to consider ISO before making a selection

6621-3[4] and ISO

Material specifications and technical requirements specified by 6621-4.

4.1 N-type, NM-type, E-type and EM-type scraper rings---general characteristics

The general characteristics of N-type, NM-type, E-type and EM-type scraper rings are shown in Figure 1.

Note.

See Table 8 and Table 9 for dimensions and elasticity.

6623.2013