
**Internal combustion engines — Piston
rings — Scraper rings made of cast iron**

*Moteurs à combustion interne — Segments de piston — Segments
racleurs mixtes en fonte moulée*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6623 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 6623:1986), which has been technically revised.

Introduction

ISO 6623 is one of a number of series of International Standards dealing with piston rings for reciprocating internal combustion engines. Others are ISO 6621 [2], [3], [4], [5], ISO 6622 [6], [7], ISO 6624 [8], [9], [10], [11], ISO 6625 [12], ISO 6626 [13], [14] and ISO 6627 [15] (see Bibliography for details).

The common features and dimensional tables presented in this International Standard constitute a broad range of variables and the designer, in selecting a particular ring type, shall bear in mind the conditions under which it will be required to operate.

It is also essential that the designer refer to the specifications and requirements of ISO 6621-3 [4] and ISO 6621-4 before completing his selection.

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Internal combustion engines — Piston rings — Scraper rings made of cast iron

1 Scope

This International Standard specifies the essential dimensional features of scraper rings made of cast iron, types N, NM, E and EM, having diameters of from 30 mm up to and including 200 mm, used in reciprocating internal combustion engines. It is also applicable to piston rings of compressors working under similar conditions.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6621-4, *Internal combustion engines — Piston rings — Part 4: General specifications*

3 Overview

The scraper ring types are specified in Tables 1 and 2 and Figures 1 to 5. Their common features and the dimensions of those features are specified in Tables 3 to 5 and Figures 6 to 9. Tables 6 and 7 give the force factors for the different ring types, while Tables 8 and 9 give the dimensions and forces of the scraper rings.

Tables 8 and 9, respectively, offer a choice between two radial wall thicknesses:

- radial wall thickness “regular”;
- radial wall thickness “D/22”.