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Internal combustion engines — Piston rings —

Part 2: Inspection measuring principles

Moteurs à combustion interne — Segments de piston —
Partie 2: Principes de mesure pour inspection

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 34, *Propulsion, powertrain and powertrain fluids*.

This third edition cancels and replaces the second edition (ISO 6621-2:2003), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Oil ring diameter range for ring widths 3,0 mm and 3,5 mm increased up to 160 mm.

A list of all parts in the ISO 6621 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document is one of a number of International Standards dealing with piston rings for reciprocating internal combustion engines. Others are ISO 6621-1, ISO 6621-3, ISO 6621-4, ISO 6621-5, ISO 6622, ISO 6623, ISO 6624, ISO 6625, ISO 6626 and ISO 6627 (see Bibliography for details).

The common features and dimensional tables presented in this document constitute a broad range of variables, and the designer, in selecting a particular ring type, should 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 and ISO 6621-4 before completing their selection.

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Internal combustion engines — Piston rings —

Part 2: Inspection measuring principles

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1 Scope

This document defines the measuring principles to be used for measuring piston rings; it applies to piston rings up to and including 200 mm diameter for reciprocating internal combustion engines.

This document can be used for piston rings for compressors working under analogous conditions.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

ISO 6621-1, *Internal combustion engines — Piston rings — Part 1: Vocabulary*

ISO 6624-1, *Internal combustion engines — Piston rings — Part 1: Keystone rings made of cast iron*

ISO 6624-2, *Internal combustion engines — Piston rings — Part 2: Half keystone rings made of cast iron*

ISO 6624-3, *Internal combustion engines — Piston rings — Part 3: Keystone rings made of steel*

ISO 6624-4, *Internal combustion engines — Piston rings — Part 4: Half keystone rings made of steel*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6621-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
h_1
distance between the sides, at any particular point perpendicular to the reference plane measured in millimetres

Note 1 to entry: See Figures 1 and 2.

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