

Internal combustion engines — Piston rings —

Part 5: Quality requirements

ICS 43.060.10

National foreword

This British Standard reproduces verbatim ISO 6621-5:2005 and implements it as the UK national standard. It supersedes BS 5341-6-5:1992 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee MCE/14, RIC engines, to Subcommittee MCE/14/-/10, RIC engines — Cylinders, pistons and rings, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 15 and a back cover.

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Internal combustion engines — Piston rings —

Part 5: Quality requirements

*Moteurs à combustion interne — Segments de piston —
Partie 5: Exigences de qualité*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 6621-5 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 6621-5:1988), which has been technically revised.

ISO 6621 consists of the following parts, under the general title *Internal combustion engines — Piston rings*:

- *Part 1: Vocabulary*
- *Part 2: Inspection measuring principles*
- *Part 3: Material specifications*
- *Part 4: General specifications*
- *Part 5: Quality requirements*

Introduction

ISO 6621 is one of a number of series of International Standards dealing with piston rings for reciprocating internal combustion engines. Others are ISO 6621 ^[1], 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 part of ISO 6621 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. The designer also refers to the specifications and requirements of ISO 6621-3 and ISO 6621-4 before completing his selection.

The difficulty of trying to define in absolute terms the quality attainable in normal commercial manufacture of piston rings is well known. In this part of ISO 6621, the commonly encountered aspects of quality in terms of casting defects and other departures from ideal are quantified. Many minor defects are clearly quite acceptable; other defects because of size or number are inadmissible.

