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BS ISO 6626-2:2013



BSI Standards Publication

Internal combustion engines — Piston rings

Part 2: Coil-spring-loaded oil control rings
of narrow width made of cast iron

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This British Standard is the UK implementation of ISO 6626-2:2013.

The UK participation in its preparation was entrusted to Technical Committee MCE/14/-/10, RIC engines - Cylinders, pistons and rings.

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

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ISBN 978 0 580 69380 9

ICS 43.060.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2013.

Amendments issued since publication

Date	Text affected
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Second edition
2013-08-01

Internal combustion engines — Piston rings —

Part 2: Coil-spring-loaded oil control rings of narrow width made of cast iron

Moteurs à combustion interne — Segments de piston —

Partie 2: Segments racleurs régulateurs d'huile étroits, en fonte, mis en charge par ressort hélicoïdal



Reference number
ISO 6626-2:2013(E)

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Published in Switzerland

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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. 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. 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.

The committee responsible for this document is ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 6626-2:2003), which has been technically revised.

ISO 6626 consists of the following parts, under the general title *Internal combustion engines — Piston rings*:

- *Part 2: Coil-spring-loaded oil control rings of narrow width made of cast iron*
- *Part 3: Coil-spring-loaded oil control rings made of steel*

ISO 6626:1989 (*Internal combustion engines — Piston rings — Coil-spring-loaded oil control rings*) is to be withdrawn and replaced with a part 1 (i.e. a revision) at a later date.

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Introduction

ISO 6626 (all parts) is one of a series of International Standards dealing with piston rings for reciprocating internal combustion engines. The others are ISO 6621 (all parts), ISO 6622 (all parts),^[2] ISO 6623,^[3] ISO 6624 (all parts),^[4] ISO 6625^[5] and ISO 6627.^[6]

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Internal combustion engines — Piston rings —

Part 2:

Coil-spring-loaded oil control rings of narrow width made of cast iron

1 Scope

This part of ISO 6626 specifies the essential dimensional features of coil-spring-loaded oil control rings made of cast iron, types DSF-C, SSF, GSF, DSF, SSF-L, DSF-NG and DSF-CNP. It is applicable to those piston rings in sizes 60 mm to 110 mm, inclusive, for reciprocating internal combustion engines for road vehicles and other applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable to its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6621-2, *Internal combustion engines — Piston rings — Part 2: Inspection measuring principles*

ISO 6621-3, *Internal combustion engines — Piston rings — Part 3: Material specifications*

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

ISO 6621-5, *Internal combustion engines — Piston rings — Part 5: Quality requirements*

3 Overview

The coil-spring-loaded oil control ring types are specified in [Figures 1 to 8](#). Their common features and the dimensions of the features are specified in [Tables 1 and 2](#) and shown in [Figures 9 to 11](#). Essential features of coil-springs are shown in [Figures 12 to 16](#). [Table 3](#) specifies different classes of contact pressure. [Tables 4 to 9](#) give the dimensions and forces of coil-spring-loaded oil control rings.

The common features and dimensional tables presented in this part of ISO 6626 constitute a broad range of variables and, in selecting a particular ring type, the designer 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 and ISO 6621-4 before completing a selection.

For the cast iron part, the recommended material is class 10 and shall be in accordance with ISO 6621-3. For special applications, material classes 20 to 50 may be used.

Variation from these in face design and spring groove may be used, as recommended by individual manufacturers, in plain or chromed versions.