



BSI Standards Publication

Internal combustion engines — Piston rings — Expander/rail oil-control rings

National foreword

This British Standard is the UK implementation of ISO 6627:2022. It supersedes BS ISO 6627:2011, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/22, Engines for road vehicles.

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

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Third edition
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Internal combustion engines — Piston rings — Expander/rail oil-control rings



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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).

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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 6627:2011), which has been technically revised.

The main changes are as follows:

- previous nomenclature referred to the rails as segments;
- barrel faced rail was added;
- PVD specification for rails was added;
- figures and tables were revised;
- new dimension introduced for expander;
- applicable bore diameter range increased to 140mm.

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.

Introduction

This document is one of a series of International Standards dealing with piston rings for reciprocating internal combustion engines. Others are the ISO 6621 series, the ISO 6622 series, ISO 6623, the ISO 6624 series, ISO 6625 and the ISO 6626 series (see [Clause 2](#) and the Bibliography).

The common features and dimensional tables included in this document represent a broad range of variables. In selecting a ring type, the designer will above all need to consider the particular operating conditions. Moreover, it is essential that the designer refers to the specifications and requirements of ISO 6621-3 and ISO 6621-4 before completing the selection.

