
**Internal combustion engines — Piston
pins —**

Part 1:
General specifications

*Moteurs à combustion interne — Axes de pistons —
Partie 1: Spécifications générales*



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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 (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 18669-1:2013), which has been technically revised.

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

- [Clause 2](#) added,
- [Table 4](#) “Waviness” added,
- [Table 18](#) “Roughness machined surfaces” changed,
- Subclause [10.1.2](#) “Roughness of coated surfaces” added,
- [Table 20](#) “Material defects” changed,
- [Table 21](#) “Visual defects” changed,
- editorial changes.

A list of all parts in the ISO 18669 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.

Internal combustion engines — Piston pins —

Part 1: General specifications

1 Scope

This document specifies the essential dimensional characteristics of piston pins with a nominal outer diameter from 8 mm up to and including 100 mm, for reciprocating internal combustion engines for road vehicles and other applications. In certain applications, except road vehicles, and provided that mutual agreement is made between the customer and the manufacturer, this document can be used with suitable modifications.

In addition, it establishes a vocabulary, a pin-type classification, material description based on mechanical properties, common features and quality requirements.

The use of this document can require a manufacturer and customer statistical process control agreement.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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 <https://www.electropedia.org/>

3.1 General

3.1.1

piston pin

precision cylindrical component that connects the piston to the connecting rod and has a smooth hard peripheral surface

3.2 Geometrical and manufacturing features of piston pins

3.2.1 Bore types

3.2.1.1

cylindrical bore

pin having a straight cylindrical bore