

BUREAU OF INDIAN STANDARDS

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*भारतीय मानक मसौदा*

आंतरिक दहन इंजन — पिस्टन रिंग — भाग 4: सामान्य विशिष्टताएँ

*Draft Indian Standard*

**INTERNAL COMBUSTION ENGINES — PISTON RINGS — PART 4: GENERAL  
SPECIFICATIONS**

ICS: 43.060.10

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Last date for receipt of comments  
is **27/02/2024**

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Automotive Prime Movers, Transmissions Systems and Internal Combustion Engines Sectional Committee, TED 02

## NATIONAL FOREWORD

This draft Indian Standard which is identical with ISO 6621-4:2015 ‘Internal combustion engines — Piston rings — Part 4: General specifications’ issued by International Organization for Standardization (ISO), will be adopted by the Bureau of Indian Standards on the recommendations of Automotive Prime Movers, Transmissions Systems and Internal Combustion Engines Sectional Committee and approval of the Transport Engineering Division Council

This standard is one of the series of Indian Standards published on ‘Internal combustion engines — Piston rings’. Other standards in this series are:

- a) Part 1: Vocabulary
- b) Part 2: Inspection measuring principles
- c) Part 3: Material specifications
- d) Part 5: Quality requirements

The text of ISO standard is proposed for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, references appear to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

| <i>International Standard</i>  | <i>Corresponding Indian Standard</i>  | <i>Degree of Equivalence</i>   |
|--|---|--------------------------------|
| ISO 6507-3: 2018<br>Metallic materials — Vickers hardness test — Part 3: Calibration of reference blocks | IS 1501 (Part 3): 2020/ISO 6507-3: 2018<br>Metallic Materials — Vickers Hardness Test — Part 3: Calibration of Reference Blocks | Identical under dual numbering |

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**DECEMBER 2023**

| <i>International Standard</i>  | <i>Corresponding Indian Standard</i>  | <i>Degree of Equivalence</i>     |
|--|---|----------------------------------|
|  | (Fifth Revision)  |                                  |
| ISO 6621-1: 2018<br><br>Internal combustion engines — Piston rings — Part 1: Vocabulary                      | IS/ISO 6621-1: 2018<br><br>Internal Combustion Engines — Piston Rings — Part 1: Vocabulary (First Revision)                     | Identical under single numbering |
| ISO 6621-2: 2020<br><br>Internal combustion engines — Piston rings — Part 2: Inspection measuring principles | IS/ISO 6621-2: 2020<br><br>Internal Combustion Engines — Piston Rings— Part 2: Inspection Measuring Principles (First Revision) | Identical under single numbering |

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

The standard also makes a reference to the BIS Certification Marking of the product. Details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2: 2022 ‘Rules for rounding off numerical values (*Second Revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**SCOPE**

This part of ISO 6621 specifies the general characteristics of piston rings for reciprocating internal combustion engines for road vehicles and other applications (the individual dimensional criteria for these rings are given in the relevant International Standards). It also provides a system for ring coding, designation, and marking. It is applicable to all such rings of a nominal diameter from 30 mm up to and including 200 mm.

**FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 6621-4:2015 or CONTACT:**

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**NATIONAL ANNEX A**  
*(National Foreword)*

**A-1 BIS CERTIFICATION MARKING**

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.