## भारतीय मानक मसौदा

# आंतरिक दहन इंजन — पिस्टन रिंग — तेल नियंत्रण रिंग

Draft Indian Standard

### **Internal Combustion Engines** — **Piston Rings** — **Oil Control Rings**

ICS: 43.060.10

Not to be reproduced without permission of BIS commentsor used as standard

Last date for receipt of is 11/03/2024

Automotive Prime movers, Transmission Systems and Internal Combustion Engine Sectional Committee, TED 02

#### NATIONAL FOREWORD

This draft Indian Standard which is identical with ISO 6625: 1986 'Internal Combustion Engines — Piston Rings — Oil Control Rings' issued by International Organization for Standardization (ISO), will be adopted by the Bureau of Indian Standards on the recommendations of Automotive Prime movers, Transmission Systems and Internal Combustion Engine Sectional Committee and approval of the Transport Engineering Division Council.

This draft standard when published, will supersede, was originally published as IS 8422 (Part 6): 1977 'Specification for piston rings for IC engines: Part 6 slotted oil control rings from 50 up to 200 mm nominal diameter S - Rings', IS 8422 (Part 7): 1977 'Specification for piston rings for IC engines: Part 7 double bevelled slotted oil control rings from 50 up to 200 mm nominal diameter G - Rings' and IS 8422 (Part 8): 1977 'Specification for piston rings for IC engines: Part 8 narrow land slotted oil control rings from 50 up to 200 mm nominal diameter D - Rings', as this draft standard covers specifications for S-Rings, G-Rings, D-Rings along with DV-Type oil control piston rings.

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, reference appears 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:

| International Standard    | Corresponding Indian Standard    | Degree of Equivalence |
|---------------------------|----------------------------------|-----------------------|
|                           | / Document No. of Draft Under    |                       |
|                           | Development                      |                       |
| ISO 1101                  | IS 8000 (Part 1): 2019           | Identical under dual  |
|                           | ISO 1101 : 2017                  | numbering             |
| Technical Drawings —      |                                  |                       |
| Geometrical Tolerancing   | Geometrical Product              |                       |
| Tolerancing of form,      | Specifications (GPS)             |                       |
| orientation, Location and | Geometrical Tolerancing: Part 1  |                       |
| Run-out Generalities,     | Tolerances of form, Orientation, |                       |
| Definitions, Symbols,     | Location and Run-out (Second     |                       |

| Indications on Drawings. | Revision)                       |                      |
|--------------------------|---------------------------------|----------------------|
| ISO 6621-3               | IS 5791 : 2006                  | Identical under dual |
|                          | ISO 6621-3                      | numbering            |
| Internal Combustion      |                                 |                      |
| Engines — Piston Rings — | Internal Combustion Engines -   |                      |
| Part 3: Material         | Piston Rings - Material         |                      |
| Specifications.          | Specifications (Third Revision) |                      |
| ISO 6621-4               | TED/02/24507*                   | Identical under dual |
|                          |                                 | numbering            |
| Internal Combustion      | Internal Combustion Engines     |                      |
| Engines — Piston Rings — | Piston Rings Part 4: General    |                      |
| Part 4: General          | Specifications                  |                      |
| Specifications           |                                 |                      |

<sup>\*</sup>Draft Under Development

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.

#### INTRODUCTION

ISO 6625 is one of a series of International Standards dealing with piston rings for reciprocating internal combustion engines:'

ISO 6621, Internal combustion engines — Piston rings —

Part 1: Vocabulary.

Part 2: Measuring principles.

Part 3: Material specifications.

Part 4: General specifications.1)

Part 5: Quality requirements.1)

ISO 6622, Internal combustion engines — Piston rings —

Part 1: Rectangular rings.

Part 2: Rectangular rings with narrow ring width.2)

ISO 6623, Internal combustion engines — Piston rings — Scraper rings.

ISO 6624, Internal combustion engines — Piston rings —

Part 1: Keystone rings.

Part 2: Half keystone rings.3)

ISO 6625, Internal combustion engines — Piston rings — Oil control rings.

ISO 6626, Internal combustion engines — Coil spring loaded oil control rings.1)

The common features and dimensional tables presented in this International Standard constitute a broad range of variables, and the designer, in selecting a particular ring type, shall bear in mind the conditions under which it will be required to operate.

It is also essential that the designer refers to the specifications and requirements of ISO 6621/3 and ISO 6621/4, before completing his selection.

#### SCOPE AND FIELD OF APPLICATION

This International Standard specifies the essential dimensional features of S-, G-, D- and DV-oil control piston ring types.

The normal range for the axial width of oil control rings (2,5 to 8 mm inclusive) is divided into 0,5 or 1,0 mm increments. In table 7, dimensions in inch units are given for oil control rings with axial width 4,75 mm (equal to 3/16 in) for existing applications.

The requirements of this International Standard apply to oil control rings for reciprocating internal combustion piston engines, up to and including 200 mm diameter. It may also be used for piston rings of compressors working under similar conditions.

# FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 6625: 1986 or CONTACT:

P. V. Srikanth
Scientist- D & Head
Transport Engineering Department
Bureau of Indian Standards
9 Bahadur Shah Zafar Marg
New Delhi 110 002

Email: ted@bis.org.in, hted@bis.org.in

Telefax: 011- 2323 6311