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Second edition
2007-09-15

Rotary shaft lip-type seals incorporating elastomeric sealing elements —

Part 1: Nominal dimensions and tolerances

Bagues d'étanchéité à lèvres pour arbres tournants incorporant des éléments d'étanchéité en élastomère —

Partie 1: Dimensions nominales et tolérances



Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 6194-1 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 7, *Sealing devices*.

This second edition cancels and replaces the first edition (ISO 6194-1:1982), which has been technically revised.

ISO 6194 consists of the following parts, under the general title *Rotary shaft lip-type seals incorporating elastomeric sealing elements*:

- *Part 1: Nominal dimensions and tolerances*
- *Part 2: Vocabulary*
- *Part 3: Storage, handling and installation*
- *Part 4: Performance test procedures*
- *Part 5: Identification of visual imperfections*

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Introduction

Rotary shaft lip-type seals are used to retain fluid, e.g. lubricant, in equipment where the differential pressure is relatively low. Typically the shaft rotates, and the housing is stationary, although in some applications the shaft is stationary, and the housing rotates.

Dynamic sealing is normally the result of a designed interference-fit between the shaft and a flexible element incorporated in the seal.

Similarly, a designed interference-fit between the outside diameter of the seal, and the diameter of the housing bore, retains the seal and prevents static leakage.

Careful storage, handling, and proper installation of all seals are necessary to avoid hazards, both prior to and during installation, which would adversely affect service life.