INTERNATIONAL STANDARD

ISO 6194-5

> Second edition 2008-04-15

Rotary-shaft lip-type seals incorporating elastomeric sealing elements —

Part 5: **Identification of visual imperfections**

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

Partie 5: Identification des imperfections visuelles

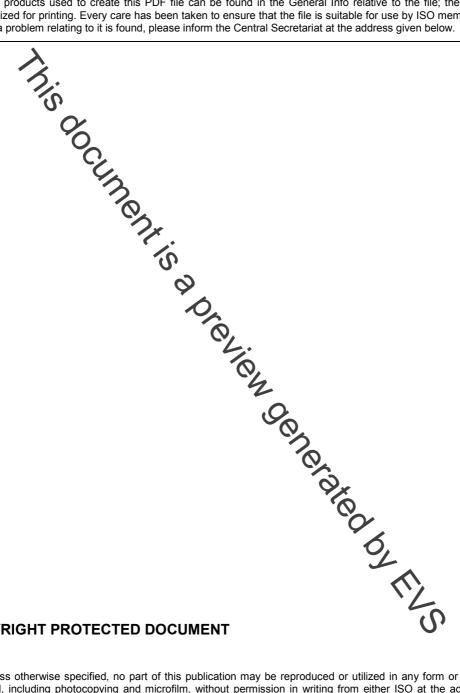


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Published in Switzerland

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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 Maison 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 control tees 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 applying 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 6194-5 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 6194-5:1990) 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: 1 Ocherated by FILS

- 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

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.

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 can enversely affect service life.

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Rotary-shaft lip-type seals incorporating elastomeric sealing elements —

Part 5:

Identification of visual imperfections

1 Scope

This part of ISO 6194 describes seals utilizing elastomeric sealing elements. They are normally considered suitable for use only at low pressures (see ISO 6194-1:2007, 6.1).

This part of ISO 6194 defines and classifies typical surface imperfections that can impair the function of the seals and is intended as a convenience for purchasers and manufacturers in their discussions concerning the importance of these imperfections in different applications.

NOTE ISO 6194 (all parts) is complementary to ISO 16589 (all parts), which covers seals incorporating thermoplastic sealing elements.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5598, Fluid power system and components — Vocabulan

ISO 6194-2, Rotary-shaft lip-type seals incorporating elastomer elastomer elements — Part 2: Vocabulary

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5598 and ISO 6194-2 apply.

4 Characteristic imperfections

4.1 Definition of sealing lip critical area

See Figure 1 and Table 1.

Dimensions x and y were chosen because, in cases of wear, imperfections in this area can impair the function of the rotary-shaft lip-type seal during its lifetime.

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