

# INTERNATIONAL STANDARD

**ISO**  
**6194-5**

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## **Rotary shaft lip type seals —**

### **Part 5:**

### **Identification of visual imperfections**

*Bagues d'étanchéité à lèvre pour arbres tournants —*

*Partie 5: Identification des imperfections visuelles*



Reference number  
ISO 6194-5:1990(E)

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.

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.

International Standard ISO 6194-5 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

ISO 6194 consists of the following parts, under the general title *Rotary shaft lip type seals*:

- 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

Lip type seals are used for retaining fluid or grease in equipment employing rotating shafts. In some instances, the shaft is stationary and the housing rotates. Sealing of a lip type seal with low differential pressure is normally a result of a designed interference fit between the shaft and the flexible sealing element, which is usually fitted with a garter spring. An interference fit between the outside surface of the seal and the housing bore surface retains the seal in the housing and prevents leakage at the outer diameter.

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Rotary shaft lip type seals —

Part 5:  
Identification of visual imperfections

1 Scope

This part of ISO 6194 shows and identifies visual imperfections on typical rotary shaft lip type seals, dimensionally standardized in ISO 6194-1, as a convenience for purchasers and manufacturers of rotary shaft lip type seals in their discussions about the importance of imperfections in different applications.

It defines and classifies typical surface imperfections that often impair the function of the rotary shaft lip type seal.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 6194. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 6194 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5598:1985, *Fluid power systems and components — Vocabulary.*

ISO 6194-1:1982, *Rotary shaft lip type seals — Part 1: Nominal dimensions and tolerances.*

ISO 6194-2:—<sup>1)</sup>, *Rotary shaft lip type seals — Part 2: Vocabulary.*

1) To be published.

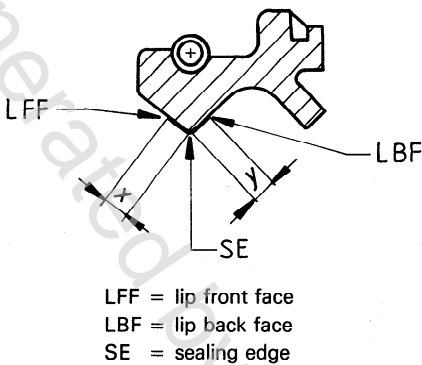
3 Definitions

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

4 Characteristic imperfections

4.1 Imperfections of configuration

4.1.1 Definition of area of sealing edge (see figure 1 and table 1)



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

Figure 1 — Area of sealing edge