International Standard 6194/1

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Rotary shaft lip type seals — Part 1 : Nominal dimensions and tolerances

Bagues d'étanchéité à lèvres pour arbres tournants — Partie 1 : Dimensions nominales et tolérances

First edition — 1982-10-01

UDC 62-762.8 : 621.824 **Ref. No. ISO 6194/1-1982 (E)**

Descriptors : fluid power, hydraulic fluid power, hydraulic equipment, seals (stoppers), dimensions, dimensional tolerances.

Price based on 7 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6194/1 was developed by Technical Committee ISO/TC 131, *Fluid power systems*, and was circulated to the member bodies in March 1981.

It has been approved by the member bodies of the following countries :

Austria	Hungary	Romania
Belgium	India	Spain
Canada	Japan	Sweden
China	Mexico	Switzerland
Egypt, Arab Rep. of	Netherlands	United Kingdom
Finland	Norway	USA
Germany, F. R.	Poland	USSR

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Australia
Czechoslovakia
France
Italy

This International Standard represents the first part of ISO 6194, *Rotary shaft lip type seals*. It will be completed by Part 2, *Terminology*; Part 3, *Guide to application and use*; and Part 4, *General performance test procedure.*

Rotary shaft lip type seals — Part 1 : Nominal dimensions and tolerances

0 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.

1 Scope and field of application

1.1 This part of ISO 6194 lays down the nominal dimensions relating to rotary shaft lip type seals suitable for shafts from 6 to 400 mm diameter and accompanying housings from 16 to 440 mm. Seals of this type are not normally suitable for high pressure.

1.2 This part of ISO 6194 also includes dimensional limits for the shafts and housings to assure interchangeability of seals made by different seal manufacturers.

1.3 The recommended tolerances are also given for the principal seal dimensions.

1.4 The six basic types of seals covered by this International Standard are described and shown in figure 1.

1.5 The annex includes a recommended form for reaching agreement between purchaser and manufacturer.

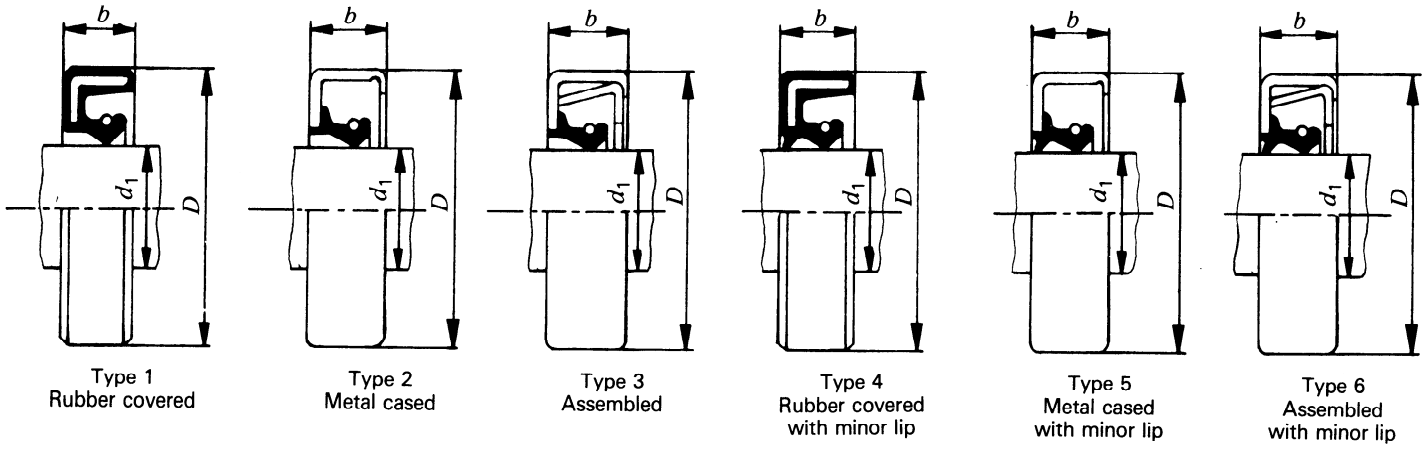

Figure 1 — Six basic types of seals

NOTE — Because of some variations in design details or seals made by different manufacturers, the constructions shown are intended only as representative examples of the six basic types.