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## Horology — Functional and non-functional jewels

*Horlogerie — Pierres fonctionnelles et non fonctionnelles*



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## Foreword

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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 1112 was prepared by Technical Committee ISO/TC 114, *Horology*.

This third edition cancels and replaces the second edition (ISO 1112:1999), which has been technically revised.

## Introduction

Horological functional jewels, by stabilizing friction and reducing wear, contribute to the quality and longevity of the timekeeping instruments comprising mobile parts. Thus, the number of functional jewels of a timekeeper is a sign of quality. The watch manufacturers use this fact to promote their products and some watch-importing countries use it as a basis for defining custom duties.

The extent of these stakes led to the creation of ISO 1112, in order to specify what are horological functional jewels.

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# Horology — Functional and non-functional jewels

## 1 Scope

This International Standard specifies the technical definitions of functional and non-functional horological movement jewels. It describes the different types of jewels used, and how this is to be marked on a timekeeping instrument or used in advertising.

## 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 6426-2, *Horological vocabulary — Part 2: Technical and commercial definitions*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6426-2 and the following apply.

### 3.1

#### **horological jewel**

non-metallic movement components whose hardness is higher than HV 1 200

### 3.2

#### **functional jewel**

**horological jewel** (3.1) that serves to stabilize friction and reduce the wear rate of contacting surfaces of the components of a timekeeping instrument and which satisfy the criteria of Clause 4

NOTE Adapted from ISO 6426-2:2002, definition 8.23.

### 3.3

#### **non-functional jewel**

**horological jewel** (3.1) that does not satisfy the criteria for a **functional jewel** (3.2)

## 4 Functional jewels

### 4.1 General

The following are considered as functional jewels, whatever their shape.

### 4.2 Jewels with a hole serving as radial or axial bearings (or both)

- a) Fixed, with movable arbor (see Figure 1).
- b) Movable, with fixed arbor (see Figure 2).