
INTERNATIONAL STANDARD



1112

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

Horology — Functional and non-functional jewels

Horlogerie — Pierres fonctionnelles et non fonctionnelles

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[ISO 1112:1974](#)

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UDC 681.11.035.2

Ref. No. ISO 1112-1974 (E)

Descriptors : clocks, bearings, antifriction bearings, jewel bearings, classification.

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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 114 has reviewed ISO Recommendation R 1112 and found it technically suitable for transformation. International Standard ISO 1112 therefore replaces ISO Recommendation R 1112-1969, to which it is technically identical.

ISO Recommendation R 1112 was approved by the Member Bodies of the following countries :

Czechoslovakia	Israel	South Africa, Rep. of
Egypt, Arab Rep. of	Italy	Spain
France	Japan	Switzerland
Germany	Netherlands	Thailand
Greece	New Zealand	United Kingdom
India	Poland	U.S.S.R.

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1112 into an International Standard.

Horology — Functional and non-functional jewels

1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the technical definition of "functional" and "non-functional" horological jewels.

2 DEFINITION

A horological jewel may be natural or synthetic. It is called a functional jewel only if it serves to stabilize friction and to reduce the wear-rate of contacting surfaces of the components of a timekeeping instrument.

3 FUNCTIONAL JEWELS

The following are regarded as *functional* jewels, irrespective of their form :

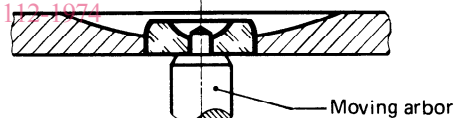
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3.1 Jewels with holes serving as radial or axial bearings (or both)

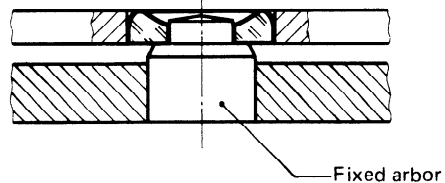
ISO 1112:1974

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3.1.1 fixed, with moving arbor,

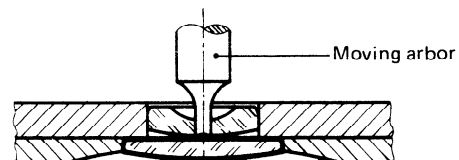


3.1.2 moving, with fixed arbor;

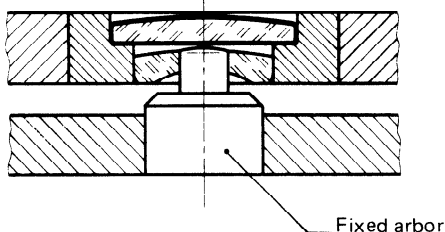


3.2 Jewels without holes, serving as axial bearings

3.2.1 fixed, with moving arbor,



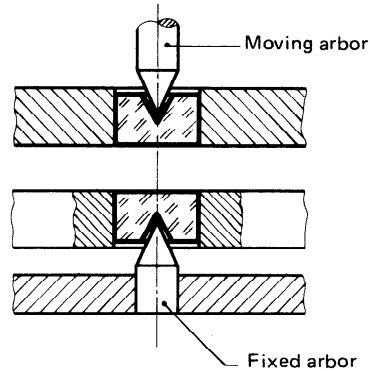
3.2.2 moving, with fixed arbor;



3.3 Jewels with conical recesses (cup bearings), serving both as radial and axial bearings

3.3.1 fixed, with moving arbor,

3.3.2 moving, with fixed arbor;



3.4 Jewels contributing to the transmission of a force or a movement, or both simultaneously, for example, the jewels used for the maintenance of an oscillating system;

3.5 The elements comprising several jewels such as ball bearings or clutch devices for automatic winding mechanisms. Each unit should be counted as a single functional jewel in the description and marking of the instrument (see clause 5).

4 NON-FUNCTIONAL JEWELS

All jewels which do not comply with the requirements of clauses 2 and 3 are regarded as non-functional, in particular :

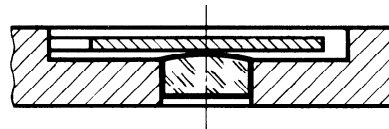
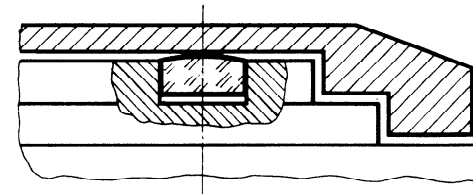
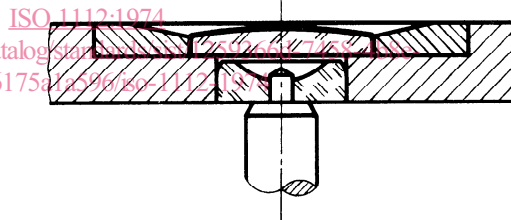
4.1 Jewels for ornament and replacement;

4.2 Jewels covering a jewel hole but not serving as an axial bearing (for example : oil chamber, dust protection);

4.3 Jewels serving as a support for moving parts such as the hour wheel, the ratchet wheel, the transmission wheel, the winding shaft, etc.;

4.4 Jewels serving to limit the occasional displacement of an oscillating mass or serving as a support for date and calendar discs, etc.

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5 DESCRIPTION AND MARKING

Only the number of functional jewels and functional jewelled units (see 3.5) shall be mentioned in describing the characteristics of the timekeeping instrument in sales literature and general advertising and in marking the instrument.