

INTERNATIONAL STANDARD



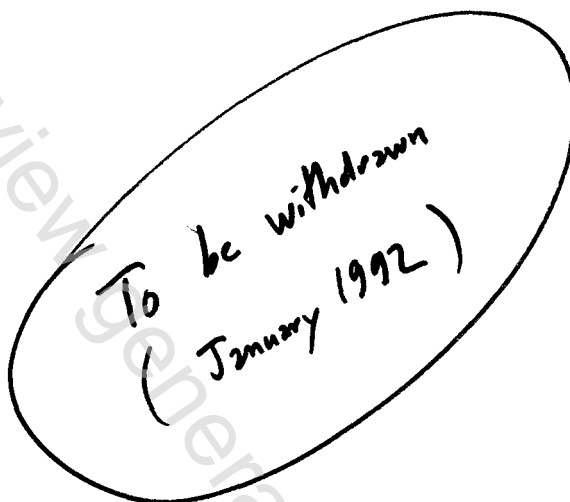
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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Rolling bearings for railway axle-boxes — Acceptance inspection

Roulements pour boîtes d'essieux de matériel ferroviaire — Contrôle de réception

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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 4 has reviewed ISO Recommendation R 1160 and found it technically suitable for transformation. International Standard ISO 1160 therefore replaces ISO Recommendation R 1160-1970 to which it is technically identical.

ISO Recommendation R 1160 was approved by the Member Bodies of the following countries :

Australia	Hungary	Poland
Austria	India	Portugal
Belgium	Ireland	Romania
Brazil	Israel	Spain
Chile	Italy	Sweden
Czechoslovakia	Japan	Switzerland
France	Korea, Rep. of	Turkey
Germany	Netherlands	U.S.S.R.
Greece	Norway	Yugoslavia

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

United Kingdom*

* Subsequently, this Member Body approved the Recommendation.

No Member Body disapproved the transformation of ISO/R 1160 into an International Standard.

Rolling bearings for railway axle-boxes — Acceptance inspection

1 SCOPE AND FIELD OF APPLICATION

This International Standard deals with the supply of rolling bearings for railway axle-boxes. It specifies technical requirements, properties and tolerances and provides the relevant inspection methods applicable to acceptance inspection. It excludes trade clauses in current use, such as guarantees, which are covered by agreements between customer and supplier.

Three types of rolling bearings for railway axle-boxes are considered in this International Standard :

- cylindrical roller bearings;
- tapered roller bearings;
- self-aligning roller bearings.

Bearings may have either cylindrical or tapered bore.

2 REFERENCE

ISO/R 80, *Rockwell hardness test (B and C scales) for steel*.

3 PROPERTIES, REQUIREMENTS AND TOLERANCES

3.1 General inspection

Independent of any other inspection considered necessary by the supplier to guarantee the quality of his product, the following properties of all bearings shall be compulsorily checked by the supplier, possibly in the presence of the customer.

3.1.1 Dimensions and appearance

3.1.2 Functioning

3.2 Sampling inspection

On each sample bearing the customer may inspect, at his discretion, all or some of the following properties :

3.2.1 Appearance

All essential portions of the roller bearings shall be clean and free from defects such as : porosity, burrs, hardening cracks, grinding marks, indentations, rust marks, etc.

Surfaces other than

- those portions of the roller faces which are not in contact with the ring ribs,
- the roller chamfers, and
- the reliefs at the ends of the outer and inner ring raceways

shall be smooth.

3.2.2 Dimensions, radial run-out and radial internal clearance

The following dimensions and properties shall be inspected :

- bore diameter (cylindrical bores);
- outside diameter;
- inner ring width;
- outer ring width (except for tapered roller bearings, for which the bearing width is measured);
- inner ring width variation;
- radial run-out of inner and outer rings in the assembled bearing;
- radial run-out of inner and outer ring raceways (this is inspected only if run-out is not inspected on the assembled bearing);
- radial internal clearance (except for tapered roller bearings);
- interchangeability of inner rings of cylindrical roller bearings (if stipulated).

The dimensions of the bearings shall be as stated on the drawings or, failing these, in accordance with national standards or International Standards.

The dimensional deviations, as well as the radial run-out and the radial internal clearance, shall be within the limits stipulated on the drawings or, failing these, according to national standards or International Standards.

3.2.3 Defects detectable by magnetic particle testing

When subjected to magnetic particle testing, the rings and the rollers shall not show any signs of cracks or other harmful defects.