INTERNATIONAL STANDARD

ISO 10317

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Rolling bearings — Metric tapered roller bearings — Designation system

Roulements — Roulements métriques à rouleaux coniques — Système de désignation

Reference number
ISO 10317:1992(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 10317 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Sub-Committee SC 9, *Tapered roller bearings*.

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Rolling bearings — Metric tapered roller bearings — Designation system

1 Scope

This International Standard establishes a system for the designation of metric tapered roller bearings made in accordance with ISO 355, ISO 355/Add.1 and ISO 355/Add.2.

The system covers designations for single-row bearings, double-row bearings and bearings with flanged cups. It also establishes designations for separate cone assemblies or cups of such bearings.

This International Standard does not apply to bearings or cone assemblies or cups which in any respect deviate from ISO 355 and its addenda.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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 355:1977, *Rolling bearings — Metric tapered roller bearings — Boundary dimensions and series designations.*

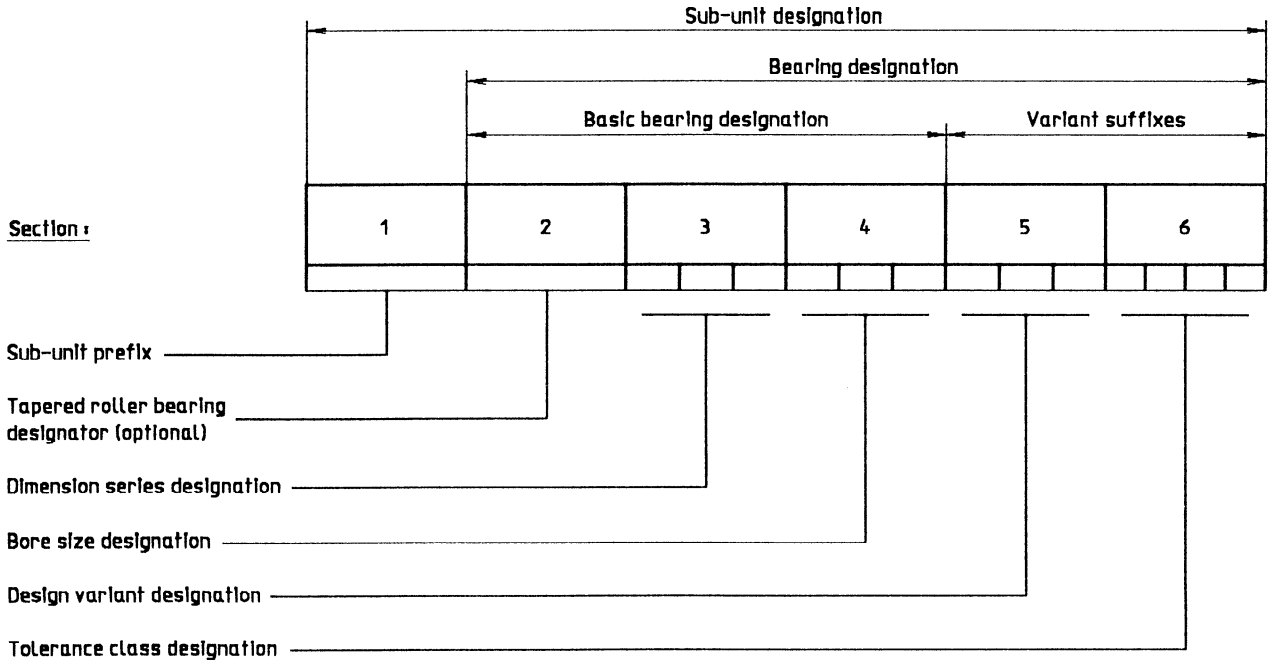
ISO 355:1977/Add.1:1980, *Metric tapered roller bearings — Boundary dimensions and series designations. Addendum 1: Double row bearings.*

ISO 355:1977/Add.2:1980, *Metric tapered roller bearings — Boundary dimensions and series designations. Addendum 2: Flanged cups.*

ISO 492:1986, *Rolling bearings — Radial bearings — Tolerances.*

3 Designation structure

The designation structure is a system of groups of symbols (alpha and/or numeric). Each group is called a section. The symbols used in the different sections are given in clauses 4 to 9.



3.1 Bearing designations

The designation of a complete single-row bearing comprises sections 2 to 4 (basic bearing designation), plus sections 5 and/or 6 (variant suffixes) as appropriate.

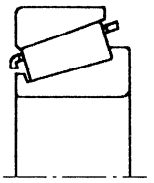
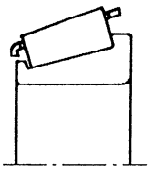
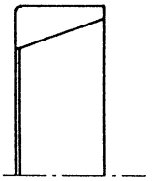
The designation of a complete double-row bearing comprises sections 2 to 5, plus section 6, if appropriate.

Examples of bearing and sub-unit designations are given in clause 10.

3.2 Sub-unit designations

The designation of a separate sub-unit (a cone assembly or cup) comprises a sub-unit prefix (section 1) plus the designation of the complete bearing.

4 Sub-unit prefix (section 1)

Symbol	Designation item
None	Complete bearing 
R	Cone assembly (cone, cage and rollers) 
L	Cup 

5 Tapered roller bearing designator (section 2)

The letter T is used in the first position of the basic bearing designation (i.e. preceding the dimension series and bore size designations) to distinguish metric tapered roller bearings from other bearing types. Its use is optional.

6 Dimension series designation (section 3)

Each bearing is assigned to a dimension series, designated by three symbols as explained in ISO 355:1977, clause 3. The relevant symbols to be used in section 3 are given in the last column of the boundary dimension tables of ISO 355:1977.

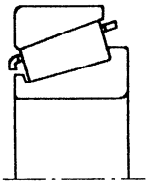
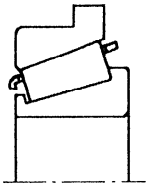
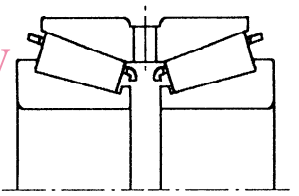
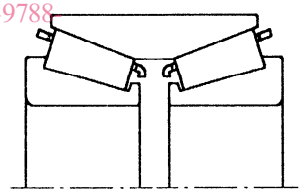
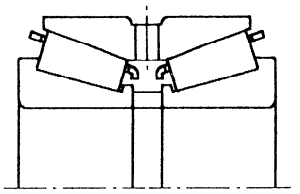
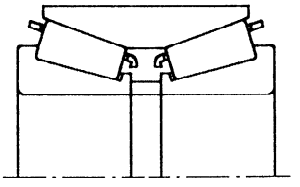
7 Bore size designation (section 4)

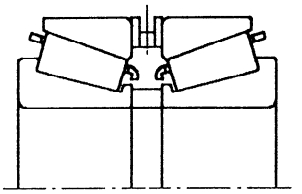
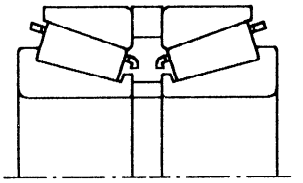
The bore size designation consists of three numerals, indicating nominal bearing bore diameter in millimetres. For bearings with bore diameters less than 100 mm, a zero is used as the first numeral.

If in the future bearings with a bore diameter of 1 000 mm or more are included in a new edition of ISO 355, section 4 may be expanded to four numerals.

8 Design variant designation (section 5)

This section, which consists of one, two or three letters, is used to designate variants of the basic single-row bearing, as specified in Addendum 1 and Addendum 2 to ISO 355.

Symbols	Designated item
None	Single-row bearing in accordance with ISO 355. 
R	Single-row bearing with flanged cup. 
DZ	Double-row bearing comprising two single-cone assemblies and a double cup with lubrication groove and holes. 
DZU	Double-row bearing comprising two single-cone assemblies and a double cup without lubrication groove or holes. 
D*)	Double-row bearing comprising two single-cone assemblies, a cone spacer and a double cup with lubrication groove and holes. 
DU*)	Double-row bearing comprising two single-cone assemblies, a cone spacer and a double cup without lubrication groove or holes. 

Symbols	Designated item
DB	Double-row bearing assembly comprising two single-row bearings, a cone spacer and a cup spacer with lubrication groove and holes. 
DBU	Double-row bearing assembly comprising two single-row bearings, a cone spacer and a cup spacer without lubrication groove or holes. 
*) To be used with prefix L for a separate double cup.	

9 Tolerance class designation (section 6)

This section, which consists of up to four symbols, is used to designate a standardized tolerance class other than the normal class.

Symbols	Tolerance class ISO 492
None	Normal
/P6X	Class 6X
/P5	Class 5
/P4	Class 4

10 Examples

The following examples refer to bearings of dimension series 3CC, with a bore diameter of 20 mm, and made in accordance with ISO 355, with ISO 355 and ISO 355/Add.1 or with ISO 355 and ISO 355/Add.2.

a)	Single-row bearings Normal tolerance class	T3CC020
b)	Single-row bearing Tolerance class 6X	T3CC020/P6X
c)	Double-row bearing comprising two single-cone assemblies, a cone spacer and a double cup with lubrication groove and holes Normal tolerance class	T3CC020D
d)	Double-row bearing comprising two single-cone assemblies, and a double cup with lubrication groove and holes Tolerance class 5	T3CC020DZ/P5
e)	Single-row bearing with flanged cup Normal tolerance class	T3CC020R
f)	Separate single-row bearing cone assembly Normal tolerance class	RT3CC020
g)	Separate single-row bearing cup Normal tolerance class	LT3CC020
h)	Separate single-row bearing flanged cup Normal tolerance class	LT3CC020R
i)	Separate double-row bearing double cup with lubrication groove and holes Normal tolerance class	LT3CC020D
j)	Separate double-row bearing double cup without lubrication groove or holes Normal tolerance class	LT3CC020DU

NOTE 1 Tapered roller bearing designator T is optional.

11 Marking

The marking of bearings or bearing parts with designations in accordance with this International Standard is optional.

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