International Standard 6979

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

Needle roller bearings — Heavy series — Dimensions and tolerances

Roulements à aiguilles — Série lourde — Dimensions et tolérances

First edition — 1982-06-01

UDC 621.822.8 **Ref. No. ISO 6979-1982 (E)**

Descriptors : bearings, rolling bearings, needle bearings, dimensions, dimensional tolerances.

Price based on 4 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 6979 was developed by Technical Committee ISO/TC 4, *Rolling bearings*, and was circulated to the member bodies in May 1981.

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

Australia	Germany, F. R.	Poland
Austria	Hungary	Romania
Brazil	India	Spain
Canada	Italy	Sweden
China	Japan	Switzerland
Czechoslovakia	Korea, Rep. of	United Kingdom
Egypt, Arab Rep. of	Mexico	USA
France	Netherlands	USSR

No member body expressed disapproval of the document.

Printed in Switzerland

Needle roller bearings — Heavy series — Dimensions and tolerances

1 Scope and field of application

This International Standard specifies boundary dimensions and normal class tolerances for complete needle roller bearings, heavy series. Dimensions and tolerances for inner rings and for bearings without inner ring are also specified.

The boundary dimensions of this heavy series do not belong to any of the dimension series in ISO 15.

The chamfer dimension limits are given in ISO 582.

This International Standard does not apply to drawn cup needle roller bearings.

2 References

ISO 15, *Radial bearings — Boundary dimensions — General plan.*

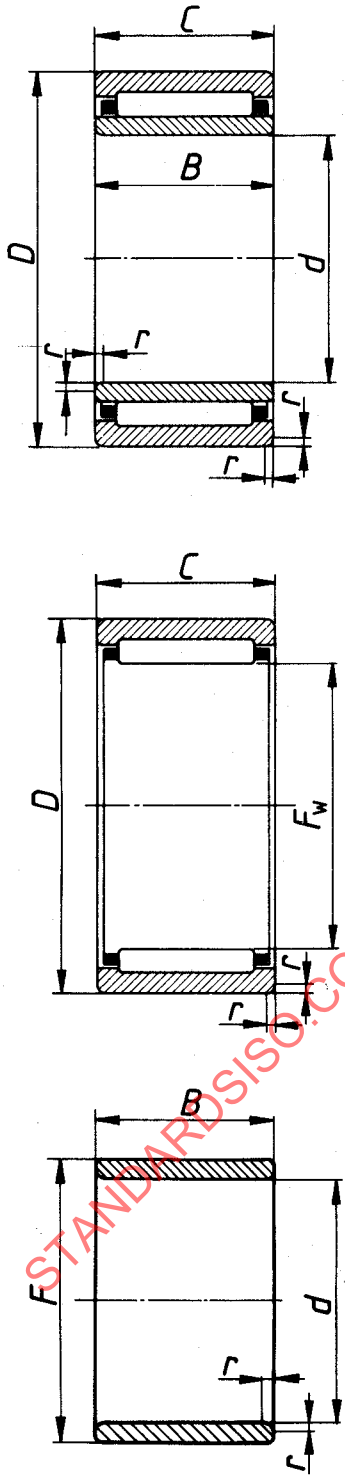
ISO 582, *Rolling bearings — Metric series — Chamfer dimension limits.*

ISO 1132, *Rolling bearings — Tolerances — Definitions.*

3 Definitions

The concepts to which the tolerances specified in this International Standard apply are defined in ISO 1132.

4 Symbols



d	=	nominal bore diameter
Δ_{dmp}	=	single plane mean bore diameter deviation
V_{dmp}	=	mean bore diameter variation
D	=	nominal outside diameter
Δ_{Dmp}	=	single plane mean outside diameter deviation
V_{Dmp}	=	mean outside diameter variation
F	=	inner ring raceway diameter, nominal
Δ_{Fmp}	=	single plane mean inner ring raceway diameter deviation
F_w	=	needle roller complement bore diameter, nominal
$F_{w\,min}$	=	smallest single diameter of the needle roller complement bore[1)]
$\Delta_{Fw\,min}$	=	deviation of the smallest single diameter of the needle roller complement bore (difference between $F_{w\,min}$ and F_w)
B	=	nominal inner ring width
Δ_{Bs}	=	deviation of a single inner ring width
V_{Bs}	=	inner ring width variation
C	=	nominal outer ring width
Δ_{Cs}	=	deviation of a single outer ring width
V_{Cs}	=	outer ring width variation
K_i	=	inner ring raceway to bore thickness variation
K_{ia}	=	radial runout of assembled bearing inner ring
K_{ea}	=	radial runout of assembled bearing outer ring
r	=	chamfer dimension
$r_{s\,min}$	=	smallest permissible single chamfer dimension

1) The "smallest single diameter of the needle roller complement bore" is defined as the diameter of the cylinder with which, when used instead of a bearing inner ring, zero radial internal clearance is obtained in at least one radial direction.