UDC 621.822

Ref. No.: ISO / R 533 - 1966 (E)

annulée

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 533

ROLLING BEARINGS

DOUBLE ROW CYLINDRICAL ROLLER BEARINGS TYPE RD WITH TAPERED BORE 1:12

TOLERANCE CLASS 5

SPECIAL REQUIREMENT

1st EDITION

December 1966

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 533, *Rolling Bearings—Double Row Cylindrical Roller Bearings, Type RD with Tapered Bore 1:12 Tolerance Class 5—Special Requirement*, was drawn up by Technical Committee ISO/TC 4, *Rolling Bearings*, the Secretariat of which is held by the Sveriges Standardiseringskommission (SIS).

Work on this question by the Technical Committee began in 1959 and led, in 1961, to the adoption of a Draft ISO Recommendation.

In April 1963, this Draft ISO Recommendation (No. 471) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Australia	Greece	Spain
Austria	Hungary	Sweden
Belgium	India	Switzerland
Brazil	Italy	Turkey
Canada	Japan	United Kingdom
Chile	Netherlands	U.S.A.
Czechoslovakia	Poland	U.S.S.R.
Germany	Romania	Yugoslavia

One Member Body opposed the approval of the Draft:

France.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in December 1966, to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 533 December 1966

ROLLING BEARINGS

DOUBLE ROW CYLINDRICAL ROLLER BEARINGS, TYPE RD WITH TAPERED BORE 1 : 12

TOLERANCE CLASS 5

SPECIAL REQUIREMENT

The tolerance for the relative radial position of the raceways of the inner ring of the bearing is specified for the ring mounted on a tapered journal and forced up axially on the journal.

The actual difference between the diameters of the journal, measured in radial planes at a distance apart equal to the width of the ring, should not differ by more than $\pm \frac{IT3}{2}$ from the theoretical difference for a taper of 1 : 12.

The inner ring of the bearing should be forced up axially on the journal a distance equal to 0.0035 times the nominal bore diameter.

Under the conditions specified above, the difference in radial distance from the journal axis to the middle of each of the raceways of the inner ring in a common axial plane should not exceed $\frac{IT4}{2}$ in any axial plane.

N.B. The tolerances are based on the nominal bore diameter.

NOTE. — The symbols used in this ISO Recommendation and stated below are those indicated in ISO Recommendation R 286, *ISO System of Limits and Fits, Part I, General, Tolerances and Deviations.*

IT3 = International Standard Tolerance Grade 3;

IT4 = International Standard Tolerance Grade 4;

$\pm \frac{IT3}{2}$ = plus or minus half the value of IT3;

$\frac{IT4}{2}$ = half the value of IT4.