

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 355

PART VI
ROLLING BEARINGS
TAPERED ROLLER BEARINGS
BOUNDARY DIMENSIONS
METRIC SERIES
DIMENSION SERIES 31 AND 32

1st EDITION

November 1970

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BRIEF HISTORY

The ISO Recommendation R 355/VI, *Rolling bearings – Tapered roller bearings – Boundary dimensions – Metric series – Dimension series 31 and 32*, 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 led to the adoption of Draft ISO Recommendation No. 1644, which was circulated to all the ISO Member Bodies for enquiry in October 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

| | | |
|----------------|-----------------------|----------------|
| Australia | Hungary | Sweden |
| Austria | India | Switzerland |
| Belgium | Israel | Thailand |
| Canada | Italy | Turkey |
| Chile | Netherlands | U.A.R. |
| Czechoslovakia | Poland | United Kingdom |
| France | Romania | U.S.A. |
| Germany | South Africa, Rep. of | U.S.S.R. |
| Greece | Spain | |

No Member Body opposed the approval of the Draft.

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

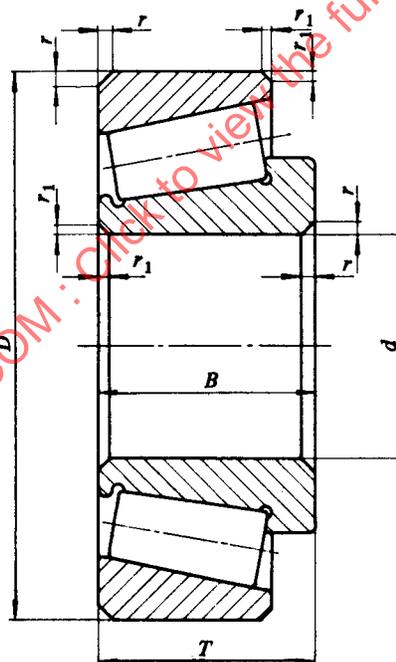
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PART VI
 ROLLING BEARINGS
 TAPERED ROLLER BEARINGS
 BOUNDARY DIMENSIONS
 METRIC SERIES
 DIMENSION SERIES 31 AND 32

1. SCOPE

This ISO Recommendation specifies the boundary dimensions, in millimetres and in inches, of tapered roller bearings of the metric series, dimension series 31 and 32.

2. SYMBOLS AND ABBREVIATIONS



- d = bearing bore diameter
- D = bearing outside diameter
- B = inner ring width
- T = bearing width* (width over bearing rings)
- r = chamfer dimension** (height and width) on inner and outer ring back faces
- r_1 = chamfer dimension** (height and width) on inner and outer ring front faces

* Attention is called to the fact that the cage may project beyond the bearing width.

** Nominal chamfer dimensions do not control the shape of the bearing corner.

3. BOUNDARY DIMENSIONS

3.1 Dimension series 31

Dimensions in millimetres

| Bore diameter <i>d</i> | Outside diameter <i>D</i> | Width <i>B = T</i> | Chamfer | |
|---------------------------|------------------------------|-----------------------|---------------------|----------------------------------|
| | | | <i>r</i> nominal | <i>r</i> ₁ nominal |
| 40 | 75 | 26 | 2 | 0.8 |
| 45 | 80 | 26 | 2 | 0.8 |
| 50 | 85 | 26 | 2 | 0.8 |
| 55 | 95 | 30 | 2 | 0.8 |
| 60 | 100 | 30 | 2 | 0.8 |
| 65 | 110 | 34 | 2 | 0.8 |
| 70 | 120 | 37 | 2.5 | 0.8 |
| 75 | 125 | 37 | 2.5 | 0.8 |
| 80 | 130 | 37 | 2.5 | 0.8 |
| 85 | 140 | 41 | 3 | 1 |
| 90 | 150 | 45 | 3 | 1 |
| 95 | 160 | 49 | 3 | 1 |
| 100 | 165 | 52 | 3 | 1 |
| 105 | 175 | 56 | 3 | 1 |
| 110 | 180 | 56 | 3 | 1 |
| 120 | 200 | 62 | 3 | 1 |

Dimensions in inches

| Bore diameter <i>d</i> | Outside diameter <i>D</i> | Width <i>B = T</i> | Chamfer | |
|---------------------------|------------------------------|-----------------------|---------------------|----------------------------------|
| | | | <i>r</i> nominal | <i>r</i> ₁ nominal |
| 1.574 80 | 2.952 76 | 1.023 6 | 0.079 | 0.031 |
| 1.771 65 | 3.149 61 | 1.023 6 | 0.079 | 0.031 |
| 1.968 50 | 3.346 46 | 1.023 6 | 0.079 | 0.031 |
| 2.165 35 | 3.740 16 | 1.181 1 | 0.079 | 0.031 |
| 2.362 20 | 3.937 01 | 1.181 1 | 0.079 | 0.031 |
| 2.559 06 | 4.330 71 | 1.338 6 | 0.079 | 0.031 |
| 2.755 91 | 4.724 41 | 1.456 7 | 0.098 | 0.031 |
| 2.952 76 | 4.921 26 | 1.456 7 | 0.098 | 0.031 |
| 3.149 61 | 5.118 11 | 1.456 7 | 0.098 | 0.031 |
| 3.346 46 | 5.511 81 | 1.614 2 | 0.118 | 0.039 |
| 3.543 31 | 5.905 51 | 1.771 7 | 0.118 | 0.039 |
| 3.740 16 | 6.299 21 | 1.929 1 | 0.118 | 0.039 |
| 3.937 01 | 6.496 06 | 2.047 2 | 0.118 | 0.039 |
| 4.133 86 | 6.889 77 | 2.204 7 | 0.118 | 0.039 |
| 4.330 71 | 7.086 61 | 2.204 7 | 0.118 | 0.039 |
| 4.724 41 | 7.874 02 | 2.440 9 | 0.118 | 0.039 |