

# 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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ISO/R 355-6:1970

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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	

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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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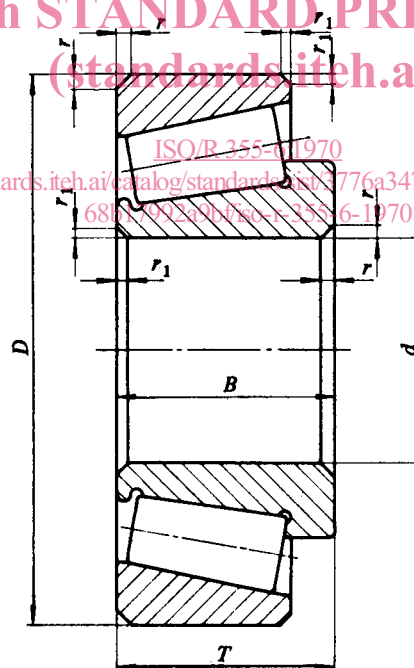
1. SCOPE

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

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- $d$  = 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> <sub>1</sub> 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> <sub>1</sub> 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

3.2 Dimension series 32

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> <sub>1</sub> nominal
25	52	22	1.5	0.5
28	58	24	1.5	0.5
30	62	25	1.5	0.5
32	65	26	1.5	0.5
35	72	28	2	0.8
40	80	32	2	0.8
45	85	32	2	0.8
50	90	32	2	0.8
55	100	35	2.5	0.8
60	110	38	2.5	0.8
65	120	41	2.5	0.8
70	125	41	2.5	0.8
75	130	41	2.5	0.8
80	140	46	3	1
85	150	49	3	1
90	160	55	3	1
95	170	58	3.5	1.2
100	180	63	3.5	1.2
105	190	68	3.5	1.2

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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> <sub>1</sub> nominal
0.984 25	2.047 24	0.866 1	0.059	0.020
1.102 36	2.283 46	0.944 9	0.059	0.020
1.181 10	2.440 94	0.984 3	0.059	0.020
1.259 84	2.559 06	1.023 6	0.059	0.020
1.377 95	2.834 65	1.102 4	0.079	0.031
1.574 80	3.149 61	1.259 8	0.079	0.031
1.771 65	3.346 46	1.259 8	0.079	0.031
1.968 50	3.543 31	1.259 8	0.079	0.031
2.165 35	3.937 01	1.378 0	0.098	0.031
2.362 20	4.330 71	1.496 1	0.098	0.031
2.559 06	4.724 41	1.614 2	0.098	0.031
2.755 91	4.921 26	1.614 2	0.098	0.031
2.952 76	5.118 11	1.614 2	0.098	0.031
3.149 61	5.511 81	1.811 0	0.118	0.039
3.346 46	5.905 51	1.929 1	0.118	0.039
3.543 31	6.299 21	2.165 4	0.118	0.039
3.740 16	6.692 91	2.283 5	0.138	0.047
3.937 01	7.086 61	2.480 3	0.138	0.047
4.133 86	7.480 31	2.677 2	0.138	0.047

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