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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 355

PART II

ROLLING BEARINGS

TAPERED ROLLER BEARINGS
BOUNDARY DIMENSIONS

1st EDITION

December 1965

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

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BRIEF HISTORY

The ISO Recommendation R 355, *Rolling Bearings. Tapered Roller Bearings, Boundary Dimensions, Part II*, was drawn up by Technical Committee ISO/TC 4, *Rolling Bearings*, the Secretariat of which is held by the Sveriges Standardiseringskomission (SIS).

Work on this question by the Technical Committee began in 1958 and led, in 1961, to the adoption of a Draft ISO Recommendation.

In January 1963, this Draft ISO Recommendation (No. 472) 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
Canada	Italy	Turkey
Chile	Japan	United Kingdom
Czechoslovakia	Netherlands	U.S.S.R.
France	Poland	Yugoslavia
Germany	Romania	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in December 1965, to accept it as an ISO RECOMMENDATION.

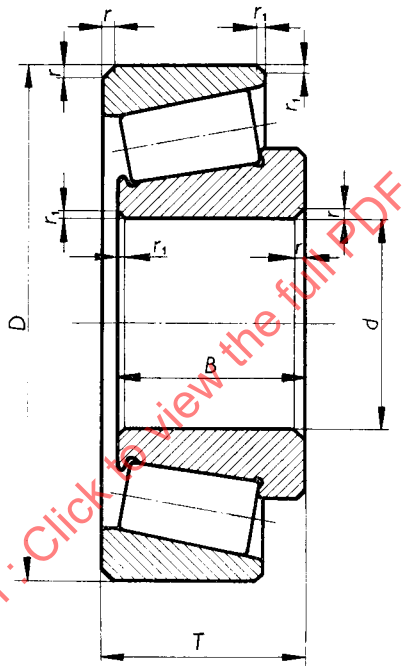
ISO Recommendation R 355 December 1965

ROLLING BEARINGS

TAPERED ROLLER BEARINGS
BOUNDARY DIMENSIONS

PART II

1. METRIC SERIES: EXTENSION OF DIAMETER SERIES 2 AND 3



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

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* 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.

1.1 Diameter Series 2

1.1.1 *Dimensions in millimetres*

Bore diameter *d*	Outside diameter *D*	Dimension series 02		Dimension series 22		Chamfers	
		Inner ring width *B*	Bearing width *T*	Inner ring width *B*	Bearing width *T*	*r* nominal	r_1 nominal
120	215	40	43.5	—	—	3.5	1.2
130	230	40	43.75	—	—	4	1.5
140	250	42	45.75	—	—	4	1.5
150	270	45	49	—	—	4	1.5
160	290	48	52	80	84	4	1.5
170	310	52	57	86	91	5	2
180	320	52	57	86	91	5	2
190	340	55	60	92	97	5	2
200	360	58	64	98	104	5	2
220	400	65	72	108	114	5	2
240	440	72	79	120	127	5	2
260	480	80	89	—	—	6	2.5
280	500	80	89	—	—	6	2.5
300	540	85	96	—	—	6	2.5
320	580	92	104	—	—	6	2.5

1.1.2 *Dimensions in inches*

Bore diameter	Outside diameter	Dimension series				Chamfers	
		02		22			
		Inner ring width	Bearing width	Inner ring width	Bearing width		
d	*D*	*B*	*T*	*B*	*T*	*r* nominal	r_1 nominal
4.724 41	8.464 57	1.574 8	1.712 6	—	—	0.138	0.047
5.118 11	9.055 12	1.574 8	1.722 4	—	—	0.157	0.059
5.511 81	9.842 52	1.653 5	1.801 2	—	—	0.157	0.059
5.905 51	10.629 92	1.771 7	1.929 1	—	—	0.157	0.059
6.299 21	11.417 32	1.889 8	2.047 2	3.149 6	3.307 1	0.157	0.059
6.692 91	12.204 72	2.047 2	2.244 1	3.385 8	3.582 7	0.197	0.079
7.086 61	12.598 43	2.047 2	2.244 1	3.385 8	3.582 7	0.197	0.079
7.480 31	13.385 83	2.165 4	2.362 2	3.622 0	3.818 9	0.197	0.079
7.874 02	14.173 23	2.283 5	2.519 7	3.858 3	4.094 5	0.197	0.079
8.661 42	15.748 03	2.559 1	2.834 6	4.252 0	4.488 2	0.197	0.079
9.448 82	17.322 83	2.834 6	3.110 2	4.724 4	5.000 0	0.197	0.079
10.236 22	18.897 64	3.149 6	3.503 9	—	—	0.236	0.098
11.023 62	19.685 04	3.149 6	3.503 9	—	—	0.236	0.098
11.811 02	21.259 84	3.346 5	3.779 5	—	—	0.236	0.098
12.598 43	22.834 65	3.622 0	4.094 5	—	—	0.236	0.098

1.2 Diameter series 3

1.2.1 *Dimensions in millimetres*

Bore diameter *d*	Outside diameter *D*	Dimension series 03		Dimension series 13		Chamfers	
		Inner ring width *B*	Bearing width *T*	Inner ring width *B*	Bearing width *T*	r nominal	r_1 nominal
100	215	47	51.5	51	56.5	4	1.5
105	225	49	53.5	53	58	4	1.5
110	240	50	54.5	57	63	4	1.5
120	260	55	59.5	62	68	4	1.5
130	280	58	63.75	66	72	5	2
140	300	62	67.75	70	77	5	2
150	320	65	72	75	82	5	2
160	340	68	75	79	87	5	2
170	360	72	80	84	92	5	2
180	380	75	83	88	97	5	2
190	400	78	86	92	101	6	2.5
200	420	80	89	97	107	6	2.5
220	460	88	97	106	117	6	2.5
240	500	95	105	114	125	6	2.5
260	540	102	113	123	135	8	3.5
280	580	108	119	132	145	8	3.5
300	620	—	—	140	154	10	3.5