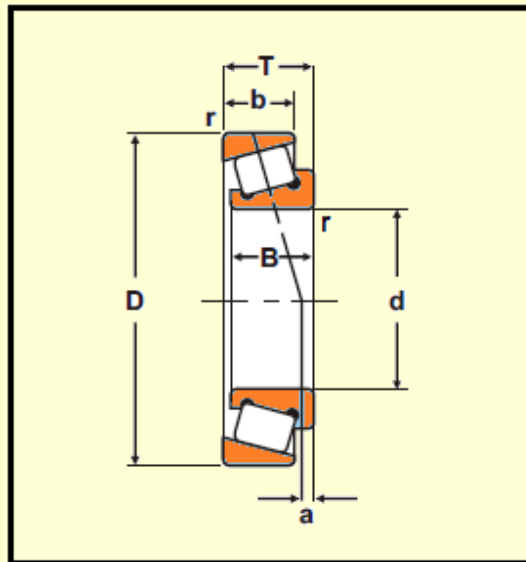
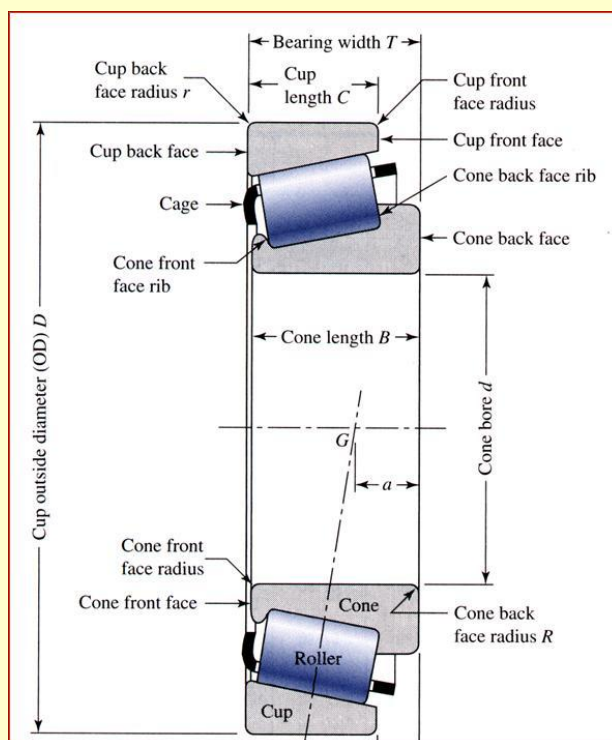


We are pleased to introduce JK Pioneer Taper Roller Bearings for Industrial Applications. For Taper Roller Bearings, the inner and outer ring raceways are segments of cones and the rollers are also made with a taper so that the conical surfaces of the raceways and the roller axes if projected, would all meet at a common point on the main axis of the bearing.

Designed to withstand high radial loads, high thrust loads, and combined loads at moderate to high speeds. They can also withstand repeated shock loads.



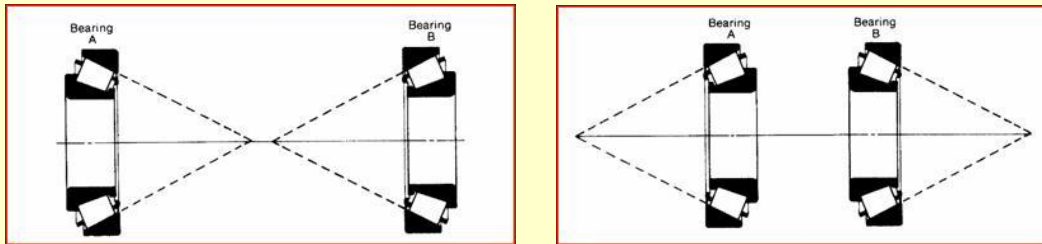
Tapered roller bearings are separable and have the following components: outer ring, inner ring, and roller assembly (containing the rollers and a cage). The non-separable inner ring and roller assembly is called the *cone*, and the outer ring is called the *cup*. Internal clearance is established during mounting by the axial position of the cone relative to the cup.



Tapered roller bearings are separable and have the following components: outer ring, inner ring, and roller assembly (containing the rollers and a cage). The non-separable inner ring and roller assembly is called the *cone*, and the outer ring is called the *cup*. Internal clearance is established during mounting by the axial position of the cone relative to the cup.

Metric tapered roller bearings follow the designation system defined by ISO 355.

In many applications tapered roller bearings are used in back-to-back pairs so that axial forces can be supported equally in either direction.



I. Applications:

Tapered roller bearings are commonly used for moderate speed, heavy duty applications where durability is required. The most common real world applications are in agriculture, construction and mining equipment, Axle systems, Gear box, Motors , Gear Reducers, Rolling Mills etc.

All Worm Gearboxes are fitted with Taper Roller Bearings to take care of Axial Load as well as shock Load. The following Chart shows the size wise details towards standard Worm Gearboxes in India.

Taper Roller Bearings used in Standard Worm Reduction Gearboxes			
Gearbox size	Taper Roller Bearing used	Gearbox size	Taper Roller Bearing used
A-112	6203	U/O/V 400	TRB 30308
	6302		TRB 30210
A - 162	TRB 30204	U/O/V 500	TRB 30310
	TRB 30205		TRB 30212
A- 200	TRB 30204	U/O/V 600	TRB 30311
	TRB 30206		TRB 30213
A-237	TRB 30304	U/O/V 700	TRB 30312
	TRB 30207		TRB 30215
A-287	TRB 30305	U/O/V 800	TRB 30313
	TRB 30207		TRB 30216
A-337	TRB 30306	V 900	TRB 32214
	TRB 30209		TRB 30316
U-300	TRB 32206	U/O 1000	TRB 32216
	TRB 32208		TRB 30315
			TRB 32218

Apart From above following are major application for Taper Roller Bearings

- All Types of Diesel Engines
- Thresher Machines
- Rice Mill Machineries
- Line Shaft Applications
- Jute & Textile Mills
- Rolling Mills

II. ADVANTAGES OF TAPER ROLLER BEARINGS

- ✓ **Dimensional Stability**
- ✓ **Long life even in Contaminated Lubricant.**
- ✓ **Durable Steel Cage**
- ✓ **Dimensionally interchangeable with other Bearing manufacturers.**

III. The Ranges

Taper Roller Bearing comes in both Inch series and Metric series. Based on various applications and Types of loads, there are lot many variety possible viz, Single Row Taper Roller Bearings, Double Row or even 4 row Taper Roller Bearings.



Double row Taper Roller Bearing



Four row Taper Roller Bearing

We are presently focusing only on the Metric Series, Single Row Taper Roller Bearings, which are most commonly used by various Industries and simplest form of applications to fulfill Replacement Demand.

The Range we are focusing at present are as follows (The most fast moving range):

- 302 series from 30203 to 30216
- 303 series from 30302 to 30313
- 322 series from 32206 to 32216



IV. Market of Taper Roller Bearings

- ❖ According to consumption of Bearings under various category, the Second Highest Share of Business after Deep groove Ball Bearings, goes to Taper Roller Bearings with almost 30% of Total Market Demand.
- ❖ Taper Roller Bearings are the most common type of Bearings after Deep Groove Ball Bearings. The competition in this segment is moderate and the market is also fragmented.

V. Dimensional Details and Equivalent chart :

JK Pioneer Bearing Size	Bearing Dimension			OTHER EQUIVALENT MAKE					
	BORE	O/D	WIDTH	SKF / FAG	NTN / NSK / KOYO / NACHI	NBC / ABC / TATA	ZKL / FLT / URB	RUSSIA	RIV
30203	17.00	40.00	13.25	30203	30203 J	30203	30203	7203	01/02/7203
30204	20.00	47.00	15.25	30204	30204 J	30204	30204	7204	01/02/7204
30205	25.00	52.00	16.25	30205	30205 J	30205	30205	7205	01/02/7205
30206	30.00	62.00	17.25	30206	30206 J	30206	30206	7206	01/02/7206
30207	35.00	72.00	18.25	30207	30207 J	30207	30207	7207	01/02/7207
30208	40.00	80.00	19.25	30208	30208 J	30208	30208	7208	01/02/7208
30209	45.00	85.00	20.75	30209	30209 J	30209	30209	7209	01/02/7209
30210	50.00	90.00	21.75	30210	30210 J	30210	30210	7210	01/02/7210
30211	55.00	100.00	22.75	30211	30211 J	30211	30211	7211	01/02/7211
30212	60.00	110.00	23.75	30212	30212 J	30212	30212	7212	01/02/7212
30213	65.00	120.00	24.75	30213	30213 J	30213	30213	7213	01/02/7213
30214	70.00	125.00	26.50	30214	30214 J	30214	30214	7214	01/02/7214
30215	75.00	130.00	27.50	30215	30215 J	30215	30215	7215	01/02/7215
30216	80.00	140.00	28.25	30216	30216 J	30216	30216	7216	01/02/7216
30302	15.00	42.00	14.25	30302	30302 J	30302	30302	7302	01/02/7302
30305	25.00	62.00	18.25	30305	30305 J	30305	30305	7305	01/02/7305
30306	30.00	72.00	20.75	30306	30306 J	30306	30306	7306	01/02/7306
30307	35.00	80.00	22.75	30307	30307 J	30307	30307	7307	01/02/7307
30308	40.00	90.00	25.25	30308	30308 J	30308	30308	7308	01/02/7308
30309	45.00	100.00	27.25	30309	30309 J	30309	30309	7309	01/02/7309
30310	50.00	110.00	29.25	30310	30310 J	30310	30310	7310	01/02/7310
30311	55.00	120.00	31.50	30311	30311 J	30311	30311	7311	01/02/7311
30312	60.00	130.00	33.50	30312	30312 J	30312	30312	7312	01/02/7312
30313	65.00	140.00	36.00	30313	30313 J	30313	30313	7313	01/02/7313
32206	30.00	62.00	21.25	32206	32206 J	32206	32206	7506	01/02/7506
32207	35.00	72.00	24.25	32207	32207 J	32207	32207	7507	01/02/7507
32208	40.00	80.00	24.75	32208	32208 J	32208	32208	7508	01/02/7508
32209	45.00	85.00	24.75	32209	32209 J	32209	32209	7509	01/02/7509
32210	50.00	90.00	24.75	32210	32210 J	32210	32210	7510	01/02/7510
32211	55.00	100.00	26.75	32211	32211 J	32211	32211	7511	01/02/7511
32212	60.00	110.00	29.75	32212	32212 J	32212	32212	7512	01/02/7512
32213	65.00	120.00	32.75	32213	32213 J	32213	32213	7513	01/02/7513
32214	70.00	125.00	33.25	32214	32214 J	32214	32214	7514	01/02/7514
32215	75.00	130.00	33.25	32215	32215 J	32215	32215	7515	01/02/7515
32216	80.00	140.00	35.25	32216	32216 J	32216	32216	7516	01/02/7516

VI. Technical Details :

JK Pioneer Bearing Size	Bearing Dimension (in mm)					Basic Load Rating (N)		r / R (mm)	Limiting Speed (rpm)		Mass (Kg)
	BORE (d)	O/D (D)	WIDTH (T)	Cone Length (B)	Cup Length (C)	Dynamic C	Static C ₀		Grease	Oil	
30203	17.00	40.00	13.25	12.00	11.00	17100	16800	1.0/1.0	8100	11700	0.0750
30204	20.00	47.00	15.25	14.00	12.00	24800	25200	1.0/1.0	7200	9900	0.1200
30205	25.00	52.00	16.25	15.00	13.00	27800	30200	1.0/1.0	6800	9000	0.1500
30206	30.00	62.00	17.25	16.00	14.00	32400	37800	1.0/1.0	5700	7700	0.2300
30207	35.00	72.00	18.25	17.00	15.00	34700	39200	1.5/1.5	4800	6300	0.3200
30208	40.00	80.00	19.25	18.00	16.00	45700	52900	1.5/1.5	4400	5700	0.4200
30209	45.00	85.00	20.75	19.00	16.00	49500	60500	1.5/1.5	4100	5400	0.4800
30210	50.00	90.00	21.75	20.00	17.00	68900	82400	1.5/1.5	3900	5100	0.5400
30211	55.00	100.00	22.75	21.00	18.00	74800	98600	2.0/1.5	3500	4500	0.7000
30212	60.00	110.00	23.75	22.00	19.00	89100	102600	2.0/1.5	3100	4100	0.8800
30213	65.00	120.00	24.75	23.00	20.00	114000	134000	2.0/1.5	3000	4000	1.1500
30214	70.00	125.00	26.50	24.00	21.00	112500	140400	2.0/1.5	2700	3600	1.2500
30215	75.00	130.00	27.50	25.00	22.00	126000	158400	2.0/1.5	2600	3500	1.4000
30216	80.00	140.00	28.25	26.00	22.00	124700	168500	2.5/2.0	2200	3100	1.6000
30302	15.00	42.00	14.25	13.00	11.00	20200	18000	1.0/1.0	8100	11700	0.0950
30305	25.00	62.00	18.25	17.00	15.00	36500	38300	1.5/1.5	6100	8100	0.2600
30306	30.00	72.00	20.75	19.00	16.00	44100	49100	1.5/1.5	5100	6800	0.3900
30307	35.00	80.00	22.75	21.00	18.00	64900	66200	2.0/1.5	4500	6100	0.5200
30308	40.00	90.00	25.25	23.00	20.00	71900	86900	2.0/1.5	4100	5400	0.7200
30309	45.00	100.00	27.25	25.00	22.00	97200	108000	2.0/1.5	3600	4800	0.9700
30310	50.00	110.00	29.25	27.00	23.00	112500	126000	2.5/2.0	3300	4400	1.2500
30311	55.00	120.00	31.50	29.00	25.00	127800	146700	2.5/2.0	2900	3900	1.5500
30312	60.00	130.00	33.50	31.00	26.00	151200	176400	3.0/2.5	2700	3600	1.9500
30313	65.00	140.00	36.00	33.00	28.00	174600	205200	3.0/2.5	2400	3300	2.4000
32206	30.00	62.00	21.25	20.00	17.00	32200	37600	1.0/1.0	5700	7700	0.2800
32207	35.00	72.00	24.25	23.00	19.00	59400	70200	1.5/1.5	4800	6300	0.4300
32208	40.00	80.00	24.75	23.00	19.00	74800	86500	1.5/1.5	4800	6300	0.5300
32209	45.00	85.00	24.75	23.00	19.00	72800	88200	1.5/1.5	4100	5400	0.5800
32210	50.00	90.00	24.75	23.00	19.00	74300	90000	1.5/1.5	3900	5100	0.6100
32211	55.00	100.00	26.75	25.00	21.00	83700	112500	2.0/1.5	3300	4400	0.8700
32212	60.00	110.00	29.75	28.00	24.00	112500	144000	2.0/1.5	3100	4100	1.1500
32213	65.00	120.00	32.75	31.00	27.00	116600	164600	2.0/1.5	2700	3600	1.5000
32214	70.00	125.00	33.25	31.00	27.00	141300	187200	2.0/1.5	2600	3500	1.6000
32215	75.00	130.00	33.25	31.00	27.00	144900	190800	2.0/1.5	2400	3300	1.7000
32216	80.00	140.00	35.25	33.00	28.00	153600	218400	2.5/2.0	2200	3100	2.0500