



CKA Birla Group |



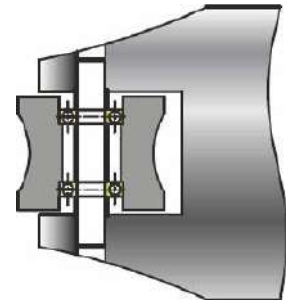
Wire Guide Box Bearings

Tapered Roller Bearings



Special Series Tapered Roller Bearings for Guide Box

The guide box bearings go through very harsh operating conditions. Major challenges faced in guide box bearings are:



Contamination

Contaminants like dirt and water infiltrate bearings, causing accelerated wear and potential failure.

Frequent Cage Pocket Wear

High contamination and frequent acceleration/declaration leads to cage pocket wear.

High Speed

Bearings at high speeds and under rapid acceleration experience higher friction and heat. This results in lubrication film depletion and can cause bearing wear.

Lubricant Washout

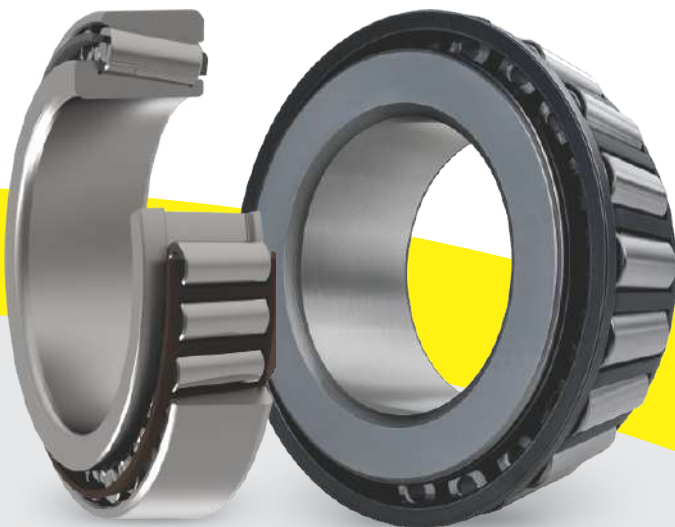
Due to harsh conditions and continuous water flow, lubricant washout is a major problem in guide box applications.

Frequent Acceleration/Deceleration

High and frequent acceleration/ deceleration impacts the cage and can damage it.

Corrosion

Exposure to moisture can cause corrosion in bearings, which may lead to failure.



Improved Surface Finish

- **Reduced Friction:** Smoother surface and precise accuracy minimize friction which enhances bearing performance at higher speeds.
- **Better Lubrication:** Improved surface finish helps in better lubrication film formation which enhances bearing life.

**Grease and seal applicable for 2RSA or ZZ bearings.

Features & Benefits



Special TF Heat Treatment

- **Increased Surface Hardness:** Enhances wear resistance and durability under high friction conditions.
- **Improved Fatigue Strength:** Extends the operational life by withstanding repeated stress and mechanical loads generated due to frequent re-entry.
- **Enhanced Corrosion Resistance:** This special heat treatment improves resistance to corrosion, beneficial in harsh environments of guide box applications.
- **Longer Lifespan in Compromised Lubrication:** TF heat treated bearings perform well in poorly lubricated and contaminated conditions, like guide box, extending their lifespan.

High Strength Polymer Cage



- **Lightweight:** Specially designed polymer cages are significantly lighter, which reduces the overall weight of the bearing assembly and improve performance in high-speed applications.
- **Wear resistance:** Specially designed cage material provides very good protection against wear in contaminated environment. This avoids the cage pocket wear and gives superior life.
- **Self-Lubricating Properties:** This cage has inherent self-lubricating capabilities, which is beneficial in environments with marginal lubrication.
- **High Elasticity:** The material's elasticity allows it to absorb shocks and vibrations, making it suitable for applications with high acceleration and deceleration like guide box bearings.

NBC Bearings Solutions for Tapered Roller Bearings

Part No.	ID (mm)	OD (mm)	Width (mm)	Cr (kN)	Cor (kN)
ASTB30202T3X	15	35	11.75	16.10	14.80
ASTB30302T3X	15	42	14.25	21.60	18.90
ASTB32303T3X	17	47	20.25	34.60	33.40
ASTB32304T3X	20	52	22.25	42.20	42.90
ASTB30203T3X	17	40	13.25	20.7	21.9
ASTB30204T3X	20	47	15.25	29.5	30.6
ASTB30303T3X	17	47	15.25	27.1	24.2
ASTB32008T3X	40	68	19	49.40	66.60
ASTB33112T3X	60	100	30	112	164
ASTB33212T3X	60	110	38	160	222
ASTB33206T3X	30	62	25	66,8	80
ASTB32208T3X	40	80	24.75	77.3	90.5
ASTB32209T3X	45	85	24.75	80	96.9
ASTB32308T3X	40	90	35.25	116.9	141.1
ASTB32309T3X	45	100	38.25	147	181
ASTB33205T3X	25	52	22	47	55.8
ASTB33208T3X	40	80	32	106	136
ASTB32005T3X	25	47	15	27.7	33.7
ASTB32305T2X	25	62	25.25	62.9	66.3

Other Products from NBC Bearings

Since the challenges faced by industry are many, NBC offers a diverse range of exceptional bearings.



Deep Groove Ball Bearing



Tapered Roller Bearing



Cylindrical Roller Bearing



Needle Roller Bearing



Spherical Roller Bearing Steel Cage



Double Row Tapered Roller Bearing



Double Row Angular Contact Bearing



Sealed Spherical Roller Bearing



Spherical Roller Bearing Brass Cage



Spherical Roller Thrust Bearing



Insulated Ball Bearing



Hybrid Ball Bearing



Oil Impregnated Bearing



4 Row Cylindrical Roller Bearing Steel Cage



4 Row Cylindrical Roller Bearing Brass Cage



4 Row Tapered Roller Bearing



4 Row Sealed Tapered Roller Bearing



Pillow Block UCF



Pillow Block UCP

NBC bearings are available in sizes from 06 mm bore to 2000 mm outer diameter.

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