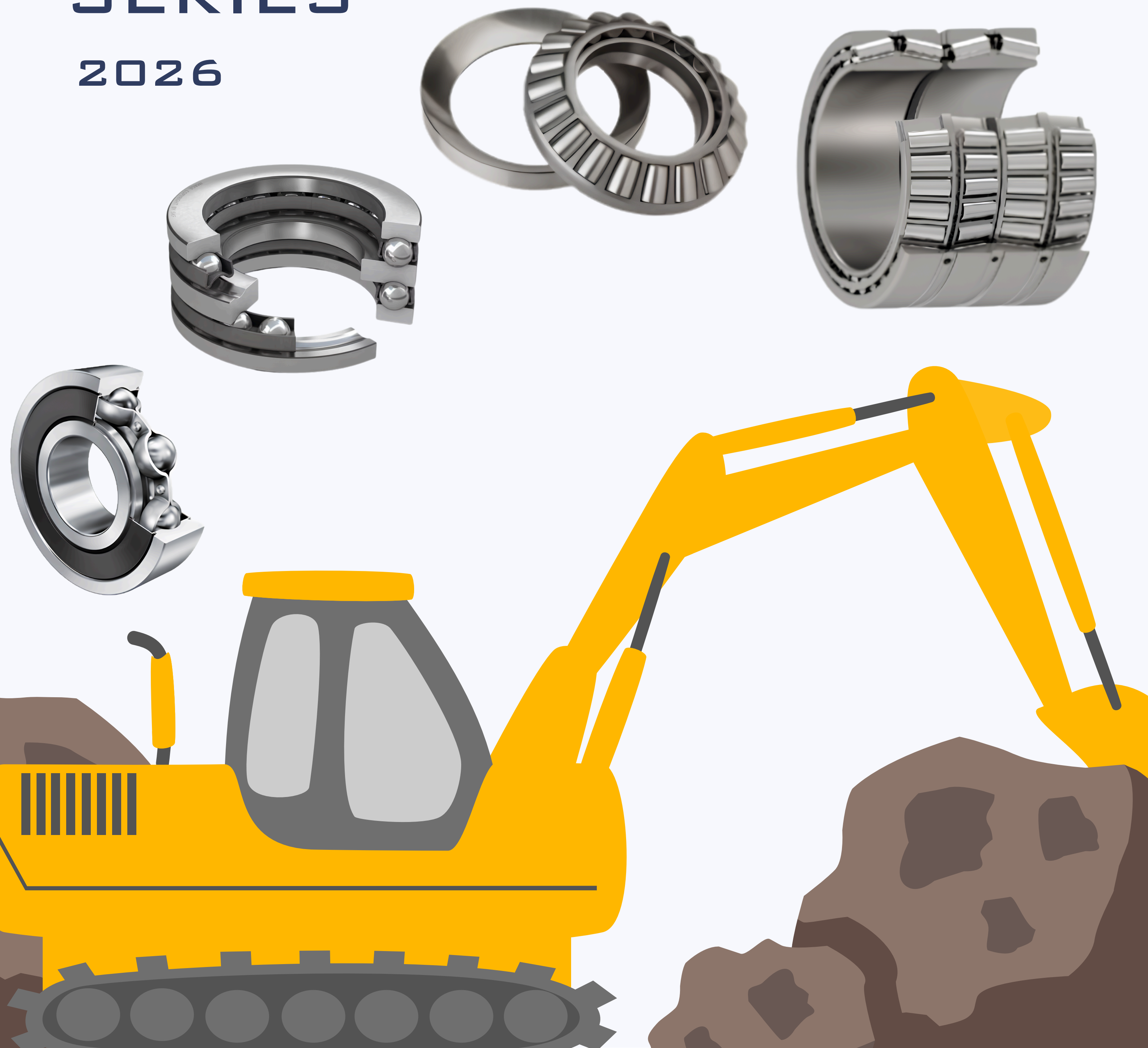


INDUSTRY CENTRIC SERIES

2026





→ ABPL ध्येय

TO BE THE TRUSTED ONE-STOP DESTINATION FOR EVERY BEARING NEED, DELIVERING RELIABLE SOLUTIONS THAT KEEP INDUSTRIES MOVING FORWARD WITH CONFIDENCE.

- QUALITY WITHOUT COMPROMISE
- PRECISION IN EVERY ROTATION
- ENGINEERING-DRIVEN INNOVATION
- CUSTOMER SUCCESS FIRST
- LONG-TERM PERFORMANCE
- RELIABILITY UNDER PRESSURE





BEARINGS FOR MINING & CONSTRUCTION INDUSTRY

WHEEL LOADER



FULL
COMPLEMENT
CRB

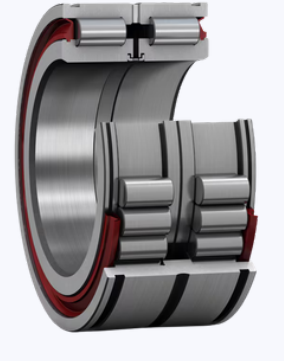
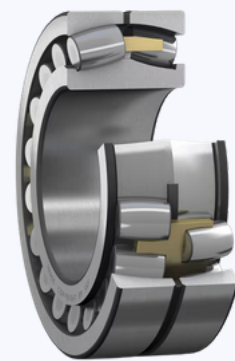
CRB

NRB

DGBB

TRB

DOZERS



SRB

CRB

TRB

FULL
COMPLEMENT
CRB

HYDRAULIC EXCAVATOR



FULL
COMPLEMENT
CRB

SRB

NRB

DGBB

TRB

TRB- TAPPER
ROLLER
BEARING

NRB- NEEDLE
ROLLER
BEARING

CRB-
CYLINDRICAL
ROLLER
BEARING

DGBB- DEEP
GROVE BALL
BEARING

SRB-
SPHERICAL
ROLLER
BEARING

BEARINGS FOR MINING & CONSTRUCTION INDUSTRY

FORK LIFT



TRB

PAVERS



TRB



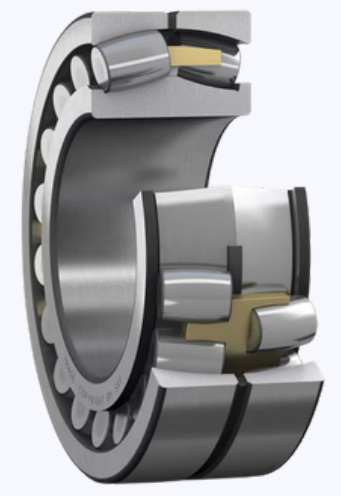
SRB



CONCRETE MIXERS



TRB

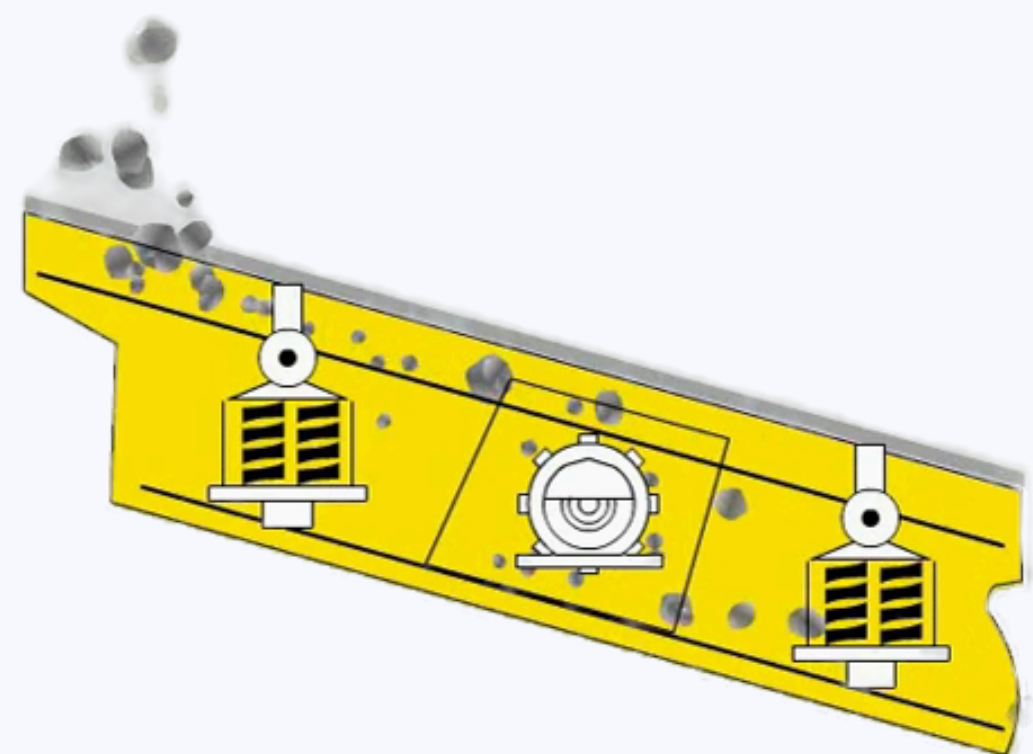


SRB

VIBRATORY SCREEN



SRB



TRB- TAPPER
ROLLER
BEARING

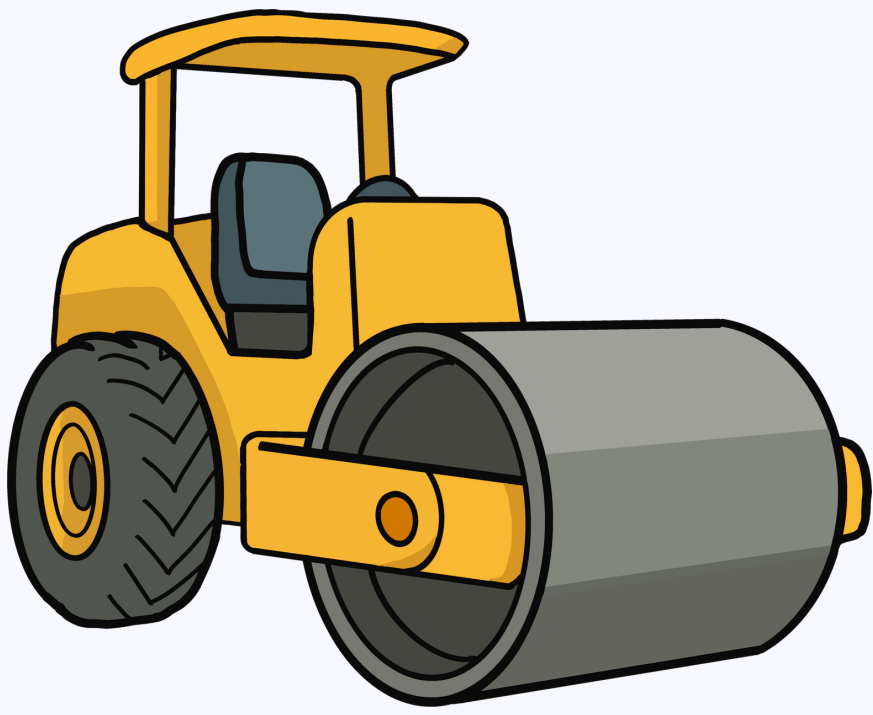
NRB- NEEDLE
ROLLER
BEARING

CRB-
CYLINDRICAL
ROLLER
BEARING

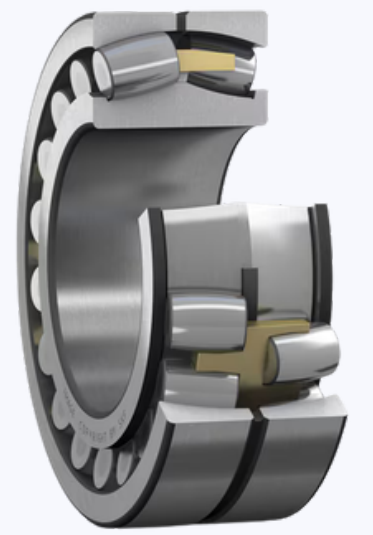
DGBB- DEEP
GROVE BALL
BEARING

SRB-
SPHERICAL
ROLLER
BEARING

COMPACTORS

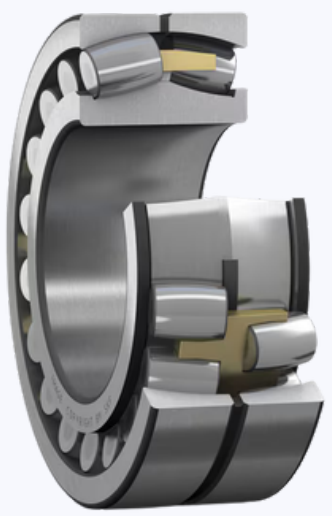


DGBB

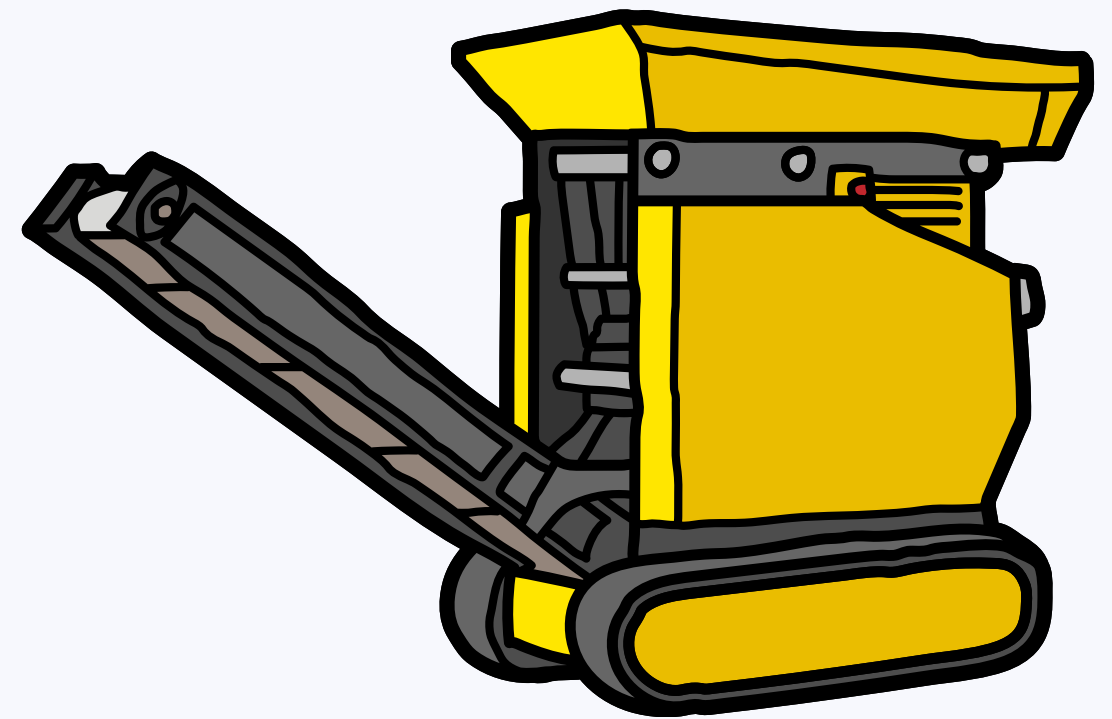


SRB

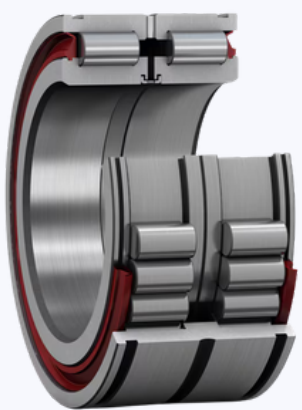
JAW CRUSHER



SRB



DUMPER TRUCKS



FULL
COMPLEMENT
CRB



CRB



NRB



DGBB



TRB



WHEEL LOADERS



Wheel loaders being heavy duty machineries requires various types of bearings to support different components and functions throughout their structure. Here are some key applications of bearings in wheel loaders:

- **WHEEL HUBS**

Tapered roller bearings are commonly used in wheel hubs to support the vertical and horizontal loads imposed by the weight. These bearings are essential for smooth rotation of the wheels and durability under heavy loads.

- **AXEL SHAFTS**

Tapered roller bearings are also employed in axle shafts to handle the radial and axial loads transmitted from the wheels to the drive train components.

- **ARTICULATION JOINTS**

Spherical roller bearings are often used in the articulation joints of wheel loaders. These bearings can accommodate misalignment and angular movement between the loader's front and rear sections while maintaining load-bearing capacity.

- **STEERING MECHANISM**

Bearings are critical in the steering system of wheel loaders to facilitate smooth and precise steering movements. Ball bearings or roller bearings are used depending on the specific design requirements.

- **TRANSMISSION & GEARBOX**

Cylindrical roller bearings and ball bearings are utilized in the transmission and gearbox assemblies of wheel loaders. These bearings support the shafts and gears, ensuring efficient power transmission and smooth operation.

- **HYDRAULIC SYSTEMS**

Bearings are also found in various hydraulic components of wheel loaders, such as pumps and cylinders. They help reduce friction and wear, thereby optimizing the performance and longevity of these critical systems.

- **LOADER ARMS & BUCKETS**

Bearings are used in pivot points and linkage systems of loader arms and buckets. Needle roller bearings or other specialized bearings may be employed to handle the specific loads and movement requirements in these components.

DOZERS



- **TRACK SYSTEM**

Bulldozers rely heavily on their track systems for mobility and traction. Bearings are used in track rollers, idlers, and sprockets to support the weight of the machine, transmit driving forces, and facilitate smooth track movement.

- **TRACK ROLLERS**

These rollers support the weight of the bulldozer and guide the track as it moves along the undercarriage. They typically use sealed or lubricated track roller bearings to withstand dirt, moisture, and heavy loads.

- **IDLERS**

Idler wheels maintain tension in the track and guide it around the sprocket and track rollers. Bearings in idler assemblies allow for smooth rotation and alignment of the track.

- **SPROCKETS**

Sprockets engage with the track's drive lugs or links, transferring power from the drive train to the tracks. Sprocket segments often incorporate bearings to support the sprocket's rotation and distribute driving forces evenly.

- **BLADE MECHANISM**

The blade assembly in bulldozers requires bearings to enable precise control and movement of the blade during grading, pushing, and leveling operations.

- **DRIVE TRAIN**

Bearings are critical in various components of the bulldozer's drive train, including the final drives and transmission.

- **FINAL DRIVES**

These contain bearings that support the shafts and gears transmitting power from the engine to the tracks.

- **TRANSMISSION**

Bearings in the transmission support shafts and gears, ensuring smooth power transmission and efficiency.

HYDRAULIC EXCAVATORS



- **TRACK SYSTEM, IDLERS AND SPROCKETS**

Bearings are used in track rollers to support the weight of the excavator and facilitate smooth movement of the tracks along the undercarriage.

Idlers guide the track and maintain tension, while sprockets engage with the track links to propel the excavator. Bearings in idlers and sprockets ensure smooth rotation and efficient power transmission.

- **SWING SYSTEM**

Also known as a slewing ring bearing, this large-diameter bearing supports the excavator's upper structure (house) on the undercarriage. It allows the excavator to rotate 360 degrees smoothly while bearing the weight of the superstructure and attachments.

- **BOOM, ARM, AND BUCKET**

Bearings are used in pivot points of the boom, arm, and bucket assemblies to facilitate smooth articulation and precise control during digging, lifting, and dumping operations.

- **HYDRAULIC COMPONENTS**

Bearings support the piston rods within hydraulic cylinders, allowing them to extend and retract smoothly under high pressure.

- **PUMPS & MOTORS**

Bearings in hydraulic pumps and motors will ensure less wear, ensuring efficient operation of the excavator's hydraulic system

- **CAB & CONTROLS**

Bearings in control levers, pedals, and steering mechanisms contribute to operator comfort and precise control over the excavator's movements.

- **TRANSMISSION**

Bearings in various attachments such as grapples, breakers, and thumbs support rotating and moving parts, ensuring they function smoothly and efficiently.

VIBRATORY SCREEN



- **SPHERICAL ROLLER BEARINGS**

These are the most common type of bearings used in vibratory screens due to their ability to accommodate misalignment and heavy radial and axial loads. Spherical roller bearings can withstand the dynamic, and static loads generated by the vibratory screen's movements. They are mounted in the screen's housing to support the rotating inner ring and the oscillating outer ring.

- **CYLINDRICAL ROLLER BEARINGS**

These bearings may be used in vibratory screens for specific applications where high radial load capacity is required. They are suitable for supporting heavy loads and ensuring smooth operation of the screen under varying conditions.

- **TAPERED ROLLER BEARINGS**

In some vibratory screens, especially those with larger bearings, tapered roller bearings may be used to support high radial and axial loads. They are capable of handling both thrust and radial loads efficiently.

- **SPECIALIZED BEARINGS**

Some manufacturers may use specialized bearings designed specifically for vibratory applications. These bearings may incorporate features such as enhanced lubrication, reduced internal clearance, or improved sealing to enhance performance and longevity in vibrating environments.

Key considerations when selecting bearings for vibratory screens include:

- **LOAD CAPACITY**

Bearings must be capable of supporting the dynamic and static loads generated by the vibrating screen during operation

- **VIBRATION RESISTANCE**

Bearings should be designed to withstand the oscillating and vibrating movements of the screen without premature wear or failure

- **SEALING & LUBRICATION**

Effective sealing and proper lubrication are critical to protect bearings from contamination and ensure smooth operations over extended periods.

- **MOUNTING ARRANGEMENT**

Bearings should be mounted securely within the screen's housing to minimize vibration-induced damage and maintain alignment.

CRUSHERS



In crushers, which are heavy-duty machines used for reducing the size of large rocks, ores, and other materials into smaller pieces, several types of bearings are critical to ensure smooth operation and reliability. The most critical bearing used in crushers is typically the Spherical Roller Bearing.

Here's why spherical roller bearings are crucial in crushers:

- **HEAVY LOAD CAPACITY**

Crushers operate under heavy loads and shock loads due to the crushing process. Spherical roller bearings are designed to handle high radial loads and moderate axial loads in both directions.

- **MISALIGNMENT CAPABILITY**

Crushers often experience misalignment between the shaft and housing due to operational forces. Spherical roller bearings can accommodate misalignment between the shaft and housing, ensuring smooth operation and reducing the risk of bearing damage.

- **VIBRATION & SHOCK RESISTANCE**

Crushers generate significant vibration and shock during the crushing process. Spherical roller bearings are robust and can withstand these dynamic conditions without premature failure.

- **SEALING & LUBRICATION**

Effective sealing and proper lubrication are critical in crushers to prevent contamination and maintain bearing performance. Spherical roller bearings can be equipped with advanced sealing arrangements and are designed for efficient lubrication distribution.

- **APPLICATION FLEXIBILITY**

Spherical roller bearings are versatile and suitable for various types of crushers, including jaw crushers, cone crushers, and impact crushers. They are used in both stationary and mobile crusher applications.

FORKLIFTS



Forklifts, being versatile industrial vehicles used for lifting and transporting heavy loads rely on various types of bearings throughout their structure to ensure smooth operation and reliability. Here are the key parts of forklifts where different types of bearings are commonly used:

- **LIFT MECHANISM**

- **MAST ROLLER BEARINGS**

- These bearings are used in the mast assembly to guide and support the vertical movement of the forks. They enable smooth lifting and lowering of loads.

- **TAPERED ROLLER BEARINGS**

- In some forklift designs, tapered roller bearings may be used in the mast and lift mechanism to handle both radial and axial loads efficiently.

- **WHEEL ASSEMBLIES**

- **WHEEL BEARINGS**

- Similar to automotive applications, forklifts use wheel bearings to support the wheels and allow them to rotate smoothly. These bearings are typically ball bearings or tapered roller bearings, depending on the load capacity and operating conditions.

- **STEERING MECHANISM**

- **STEERING BEARINGS**

- Bearings are used in the steering column and related components to facilitate smooth steering movements. Ball bearings or needle roller bearings may be used depending on the design requirements.

- **TRANSMISSION & AXLE**

- **AXLE BEARINGS**

- Bearings are used in the axles to support the shafts and gears transmitting power from the transmission to the wheels. Tapered roller bearings or cylindrical roller bearings are common in these applications.

ASPHALT PAVERS



Asphalt pavers are specialized machines Used in road construction to lay asphalt smoothly and evenly. They rely on various bearings throughout their structure to ensure precise operation and durability under demanding conditions. Here are the key parts of asphalt pavers where different types of bearings are commonly used:

- **CONVEYOR SYSTEM**

- **CONVEYOR BEARINGS**

- Asphalt pavers have conveyor systems that transport hot asphalt mix from the hopper to the screed. Bearings in the conveyor system support rollers and shafts, enabling smooth and continuous movement of the conveyor.

- **SCREED ASSEMBLY**

- **SCREED BEARINGS**

- The screed is the component that levels and compacts the asphalt mix to the desired thickness and smoothness. Bearings are used in various pivot points and linkage systems of the screed to facilitate precise adjustment and smooth operation.

- **AUGERS & SPREADERS**

- **AUGER BEARINGS**

- Bearings are used in the augers that distribute and spread the asphalt mix evenly across the width of the paving area.

- **SPREADER BEARINGS**

- These bearings support the mechanisms that control the width and thickness of the asphalt spread.

- **TRACK SYSTEM & WHEELS**

- **TRACK SYSTEM BEARINGS**

- Asphalt pavers may have tracks or wheels for mobility. Bearings in track rollers or wheel hubs support the weight of the machine and enable smooth movement along the ground.

- **HYDRAULIC SYSTEM**

- **HYDRAULIC CYLINDER BEARINGS**

- Bearings are used in hydraulic cylinders that control the height and angle adjustments of the screed and other movable components.

ASPHALT PAVERS

• AUGERS & SPREADERS

Bearings are used in various control mechanisms and linkages within the operator's compartment to ensure smooth operation of steering, speed control, and other functions.

The types of bearings used in asphalt pavers include:

- Spherical Roller Bearings
- Taper Roller Bearings
- Cylindrical Roller Bearings
- Ball Bearings



COMPACTORS



Compactors, which are used in construction for compacting soil, gravel, asphalt, or other materials to achieve a denser and more stable surface, utilize various types of bearings in different components to ensure smooth operation and durability. Here are the key parts of compactors where different types of bearings are commonly used:

- **VIBRATING DRUM OR PLATE**

- **SPHERICAL ROLLER BEARINGS**

- These bearings are commonly used in the areas that support the vibrating drum or plate. Spherical roller bearings can withstand the dynamic loads and vibrations generated during compaction operations.

- **AXEL & WHEEL ASSEMBLIES**

- **TAPERED BEARINGS**

- Used in wheel hubs and axle assemblies to support radial and axial loads from the weight of the compactor and the forces generated during operation.

- **BALL BEARINGS**

- Found in smaller wheel bearings and pivot points where lighter loads and smoother operation are required.

- **STEERING MECHANISM**

- **BALL BEARINGS**

- Used in steering linkages and pivot points to facilitate smooth and responsive steering movements.

- **ENGINE & TRANSMISSION**

- **CYLINDRICAL ROLLER BEARINGS**

- Found in engine and transmission components to support radial loads and ensure smooth power transmission.

- **NEEDLE ROLLER BEARINGS**

- Used in high-speed or high-load applications within the transmission system.

COMPACTORS

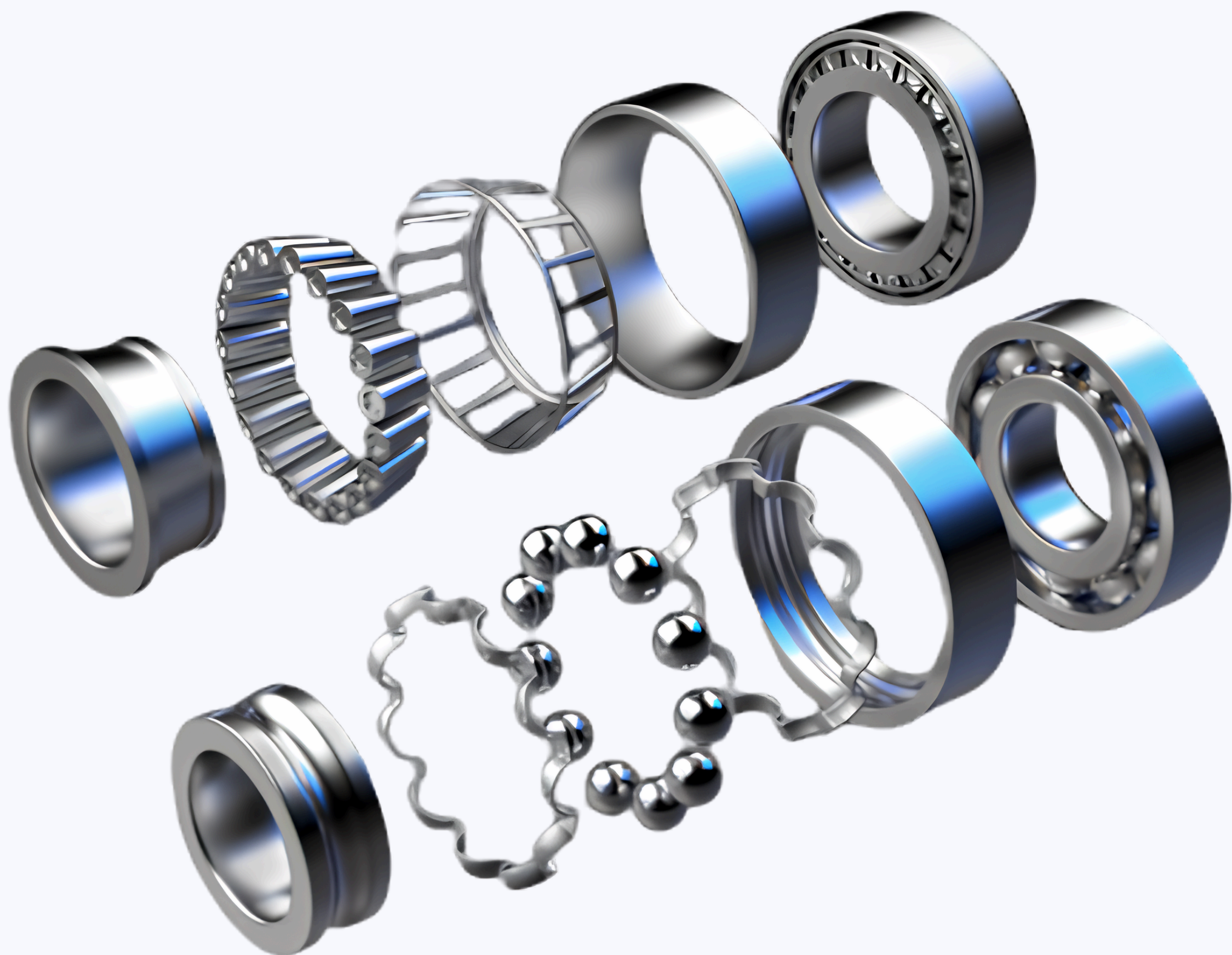
- **HYDRAULIC SYSTEM**

- **BEARINGS FOR HYDRAULIC CYLINDER**

Bearings are used in hydraulic cylinders to support the piston rods and ensure smooth operation of the compactor's lifting and tilting mechanisms.

- **OPERATOR CONTROLS & LINKAGES**

Bearings are used in various control mechanisms and linkages within the operator's compartment to ensure smooth operation of levers, pedals, and other controls.



CONCRETE MIXERS



Concrete mixers are essential equipment in construction, used to blend cement, aggregate (such as sand or gravel), and water to form concrete. Bearings in concrete mixers play a critical role in ensuring smooth operation and longevity of the equipments.

Here are the key parts of a concrete mixer where different types of bearings are commonly used:

- **DRUM ASSEMBLY**

- **SPHERICAL ROLLER BEARINGS**

- These bearings are commonly used in the drum assembly of concrete mixers. Spherical roller bearings can accommodate heavy radial loads and moderate axial loads. They are suitable for the dynamic conditions and occasional misalignment that may occur during operation.

- **SHAFT & GEAR BOX**

- **TAPERED ROLLER BEARINGS**

- Used in the gearbox and shaft assemblies to support radial and axial loads. Tapered roller bearings are capable of handling both thrust and radial forces, making them suitable for the high torque and variable load conditions in concrete mixers.

- **CYLINDRICAL ROLLER BEARINGS**

- Found in some gearbox applications where high radial load capacity and rigidity are required.

- **MIXING BLADES & ARMS**

- **NEEDLE ROLLER BEARINGS**

- Bearings are used in the pivot points and hinge assemblies of the mixing blades and arms. Needle roller bearings are chosen for their ability to handle high radial loads in confined spaces.

- **OPERATOR CONTROLS AND LINKAGES**

- Bearings are used in various control mechanisms and linkages within the operator's compartment to ensure smooth operation of levers, pedals, and other controls.

OFF HIGHWAY TRUCKS



Off-roading trucks, designed for rugged terrain and challenging environments, rely on robust bearings to withstand extreme conditions and ensure reliable performance. Here are the key parts of off-roading trucks where different types of bearings are commonly used:

- **WHEEL HUBS**

- **TAPERED ROLLER BEARINGS**

- These bearings are commonly used in the wheel hubs of off-roading trucks, tapered roller bearings can handle both radial and axial loads, making them suitable for supporting the weight of the vehicle and handling the forces encountered during off-road driving.

- **AXEL ASSEMBLIES**

- **TAPERED ROLLER BEARINGS**

- Similar to wheel hubs, axle assemblies in off-roading trucks often use tapered roller bearings to support the differential and axle shafts. These bearings provide robust performance under heavy loads and varying conditions.

- **SUSPENSION COMPONENTS**

- **SPHERICAL PLAIN BEARINGS**

- Used in suspension linkages and joints to accommodate misalignment and provide smooth articulation. Spherical plain bearings are designed to handle oscillating movements and varying loads typical in off-road driving.

- **TRANSMISSION & TRANSFER CASE**

- **CYLINDRICAL ROLLER BEARINGS**

- Found in the transmission and transfer case assemblies to support shafts and gears. Cylindrical roller bearings offer high radial load capacity and are suitable for applications where precise alignment is critical.

- **STEERING MECHANISM**

- **BALL BEARINGS**

- Bearings are used in the steering column and steering linkages to facilitate smooth and responsive steering movements. Ball bearings are chosen for their ability to handle both radial and axial loads in steering applications.

COMPACTORS

- **CHASIS AND FRAME**

- **SPHERICAL ROLLER BEARINGS**

Used in pivot points and articulation joints of the chassis and frame. Spherical roller bearings accommodate misalignment alia heavy loads, ensuring durability and smooth operation of the vehicle's structure.

- **DRIVE TRAIN COMPONENTS**

- **NEEDLE ROLLER BEARINGS**

Fond in components such as universal joints and drive shafts where high torque transmission and compact design are required. Needle roller bearings are suitable for applications with limited space and high-speed operation.



ABPL BEARING SOLUTIONS



TAPERED ROLLER BEARINGS

- High Radial Load Capacity
- Enhanced Rigidity and Axial Load Capacity
- Variety of Designs and Configurations
- High-Speed Capability
- 4 Various Cage Options
- Separable Design
- Various Internal Clearance Options
- 4 Lubrication Features
- Application-Specific Modifications

DOUBLE ROW CYLINDRICAL ROLLER BEARING

- High Radial Load Capacity:
- Enhanced Rigidity and Axial Load Capacity:
- Variety of Designs and Configurations:
- High-Speed Capability:
- Separable Design:
- Various Cage Options:
- Various Internal Clearance Options:
- Lubrication Features:
- Application-Specific Modifications:



DOUBLE ROW TAPER ROLLER BEARING

- Radial and Axial Load Capacity:
- High Rigidity and Precision:
- Versatile Designs:
- Adjustable Clearance and Preload:
- Separable Design:
- Different Cage Options:
- Lubrication Features:
- Temperature Stability:
- Sealing Options:
- Application-Specific Modifications:

ABPL BEARING SOLUTIONS



SPHERICAL ROLLER BEARING

- Self-Aligning Capability:
- High Load Capacity:
- Enhanced Radial Load Capacity:
- Moderate to High Speed:
- Capability:
- Robust Construction:
- Variety of Designs and Configurations:
- Cage Options:
- Sealing and Lubrication Features:
- Temperature Stability:
- Application-Specific Modifications:
- Mounting and Maintenance Ease:
- Vibration and Shock Resistance:

FOUR ROW CYLINDRICAL ROLLER BEARING

- High Radial Load Capacity:
- Moderate Axial Load Capacity:
- Rigidity and Stiffness:
- High Precision and Accuracy:
- Versatility in Design and Configurations:
- Separable Design:
- Heavy-Duty Cage Options:
- Sealing and Lubrication Features:
- Temperature Stability:
- Application-Specific Modifications:
- Vibration and Shock Resistance:



THRUST BEARING

- Axial Load Capacity:
- High Precision and Accuracy:
- Bi-directional Load Capacity:
- self-Aligning Capability (Spherical Roller Thrust Bearings):
- High-Speed Capability:
- Compact Design:
- Lubrication and Sealing Options:
- Temperature Resistance:
- Application-Specific Modifications:

ABPL BEARING SOLUTIONS



BALL BEARING

- Low Friction Operation:
- High Speed Capability:
- Radial Load Capacity:
- Axial Load Capacity (Thrust Load):
- Precision and Accuracy:
- Sealing and Lubrication Options:
- Quiet Operation:
- Corrosion Resistance:
- Temperature Stability:
- Compact and Lightweight:
- Application-Specific Modifications:

