PREMIUM BEARINGS FOR COAL MINING EQUIPMENT
Underground coal mining presents its own set of maintenance challenges. Of course it's a dirty, harsh environment where uptime is critical – we've all heard that before. But no one wants to descend hundreds of feet into the earth worrying about whether or not their equipment will make it through the day. Space is tight and light is low, making access to repairs difficult.

At the core of every mining operation is a complex array of mining machines from compact, yet powerful, continuous miners in underground mining to the larger than life draglines found in surface mining. Even with some of the most complex equipment in the industry today, mining is still, at its core, a fairly simple process. Specifically, underground coal mining can be broken down into three basic components: mining, transport and removal.

First, using a continuous miner, the coal must be removed or mined from the coal seam. Next, it's loaded onto shuttle cars for transport and finally, it's loaded onto conveyors for removal to the surface. These three basic processes are critical for the success of every underground coal mining operation. Preventative maintenance on these processes is crucial or failures can occur—especially bearing failures.

Fortunately, NTN has bearings for each of these processes. With experience in mining, construction, agriculture and heavy-duty truck markets, NTN has the products capable of performing in the dirty, harsh environments of mines as well as exceeding reliability and life requirements.
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### Domestically produced case-carburized tapered and cylindrical roller bearings
### E-type spherical roller bearings with the highest dynamic and static load ratings in the industry
### Ultra-Class™ and heavy-duty spherical roller bearing mounted units, with exclusive design features for the harshest of conditions
### As one of the world’s largest manufacturers of constant velocity joints (CVJs), NTN offers a line of both custom and off-the-shelf CVJs as well as extensive technical support
### Complete wheel bearing kits for the 10SC and 21SC shuttle cars

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**CONTINUOUS MINER**
- Cutter Head Drum
- Planetary Gearing
- Gathering Pots
- Crawler Unit

**FEEDER BREAKER**
- Breaker Head
- Conveyor Drive
- Tail Pulley
- Crawler Unit

**SHUTTLE CAR**
- Wheel & Drive Units
- Conveyor drive

**HIGHWALL MINER**
- Cable Reel
- Crawler Drives
- Auger System
- Cutter Head

**LONGWALL MINER**
- Cutter Head
- Ranging Arm
- Conveyor drive

**ROOF BOLTER**
- Crawler Unit
- Drill Heads
- Cylinders

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For more information on NTN’s comprehensive line of underground coal mining products, contact your local Applied service center at 1-877-279-2799 or visit Applied.com
Strategic Partnership

Applied Industrial Technologies has partnered with NTN to deliver comprehensive, unique bearing solutions for your mining equipment.

The Right Part at the Right Time

And, if you need other maintenance products, such as adhesives and sealants, lubricants, cleaners, hose and safety items. Applied carries a complete stock of these and other critical industrial items. We also provide bearings, power transmission components, industrial rubber products, fluid power components and systems, linear technology and much more. Our network of approximately 470 facilities, including seven distribution centers, ensures that the part you need is always close by.