



# BEARING SOLUTIONS FOR

## TWO AND THREE - WHEELERS

Amidst these various segments, NBC is a major supplier of bearings and solutions to all two and three-wheeler OEMs, the company is the primary choice of this market.

In addition to the high-quality standard bearings, the company also offers application-specific solutions for the said automotive industries.

### ENGINE

- In any vehicle, the engine is an integral part. Thus, the right bearing for the engine is of importance.

#### The critical application areas of bearings are:

- Cam Shaft
- Crank Shaft
- Connecting Rod
- Mass Balance Shaft (as applicable)

#### The crucial requirements of bearings are:

- Higher Operating Temperatures
- Cyclic Bearing Loads
- Contaminated Operating Conditions
- Higher Service Life and Reliability
- Lesser Noise requirement

These particular requirements need to be met with accuracy. Thus, NBC offers the requisite solutions with special surface and heat treatment, improved internal geometry, and enhanced sealing solutions that meet specific and critical application requirements to get higher service life and reliability in engine application.

### TRANSMISSION

The entire process of transferring the power from the engine to the wheel is done through the transmission.

This application area is expected to have minimum power loss, low noise and smooth running of the vehicle. The bearings are used for the smooth functioning of the gears and shafts in the transmission system.

#### The critical application areas of bearings are:

- Lower Friction
- Low Noise
- Higher Operating Temperatures
- Compactness

In a two-wheeler, the input shaft, countershaft/output shaft of manual transmission and CVT systems are the major areas of bearing applications. To meet those requirements, NBC offers an application-specific bearing solution with lower friction and NVH, special surfaces and heat treatment, improved internal geometry, and compact design for longevity and reliability.

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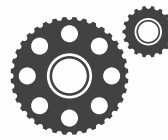
## ► Bearings Applications:



ENGINE



TRANSMISSION



WHEEL END



STEERING

### ► WHEEL END

An important application, for both two and three-wheelers, is the wheel end. The ease of mounting, longer service life and maintenance-free bearing solutions are some of the prime requirements of this application area.

In order to meet these specific requirements, NBC offers bearings with “Sealed and greased for life”. Along with that, holistically a next-generation integrated wheel end solutions in severe operating conditions like contamination due to dust and/or water.

### ► STEERING COLUMN

The two and three-wheeler application uses a conventional ball and bearing race solutions for the steering column. Current issues that the steering column bearings face are of re-greasing of bearings, noise and increased steering effort.

NBC offers an application-specific bearing solution for two and three-wheeler steering application, maintenance-free ball cage assembly called OIBC (Oil Impregnated Ball Cage Assembly).

### ► NBC FLEXIBLE SOLUTION OFFERINGS ARE:

- Maintenance-free Solutions - Oil Impregnated Bearing Solutions
- Power Dense Solutions
- Improved Design Features to Reduce Noise and Vibration
- Low Torque Solutions for Higher Efficiency
- Needle Roller Bearing