



Building reliability and profitability through innovation

SKF capabilities for the two and three wheeler industry



The Power of Knowledge Engineering

Competing in a crowded field?



Improve your performance with SKF

In any race, those who outperform the competition are more likely to earn a spot on the podium. Similarly, in today's increasingly crowded marketplace, companies with the best performing products stand a better chance of achieving greater market share.

But with more and more manufacturers joining the two wheeler industry, leaders cannot rely on market share alone to stay ahead. In order to maintain growth and profitability, manufacturers need to continuously improve not just their products, but their development, supply chain and assembly processes as well.

That is why manufacturers are choosing their technology partners more carefully than ever. Suppliers with the resources to help manufacturers produce better products at a lower cost play an increasingly critical role in their profitability.



Backed by many years of two wheeler industry experience both on and off the track, SKF has the engineering expertise and the global resources to support your challenging development projects.

SKF expertise in bearings and units, sealing technologies, lubrication, mechatronics and dynamic modelling software gives our engineers the ability to offer a range of practical and profitable application solutions. We call this the Power of Knowledge Engineering, and it is helping leading manufacturers and tier one suppliers worldwide to:

- **Reduce total cost of ownership**
- **Reduce carbon dioxide emissions**
- **Improve reliability and service life**
- **Boost fuel economy**
- **Improve safety and ergonomics**
- **Simplify assembly**
- **Reduce time to market**
- **Reduce component weight**



“Ducati Corse are extremely satisfied to be in technical partnership with an international company of SKF’s calibre and prestige. Our relationship with the Swedish firm in the field of bearings for our MotoGP and SBK racing bikes is long-lasting and very successful and we are sure it will continue for many years to come.”

[Luigi Dall’Igna, Ducati Corse General Manager](#)



Meet your challenges today and tomorrow with the Power of

Greater reliability and lower cost of ownership

By combining our materials expertise and design optimization capabilities, SKF solutions can help increase vehicle reliability and service life. The corresponding reductions in maintenance and operating costs help to decrease the total cost of ownership. For example, self-healing bearings from SKF can improve service life and reduce maintenance costs. They are equipped with rolling elements made of hard ceramic, which maintain the bearing raceway in a super-finish condition at all times.

Lubricated for the life of the bearing and virtually maintenance-free, SKF steering column bearings with a solid oil cage help to reduce total cost of ownership and increase service life for steering columns.

Reduced weight

Given the continuing emphasis on reducing emissions, vehicle weight is more critical than ever. SKF is helping manufacturers meet these goals with several weight-saving components. The SKF One Way Clutch features a lightweight construction that includes a unique, patent-pending design of a polyamide cage to support the rollers and guide springs, which in turn enhances durability and reliability of the one-way clutch. Compact SKF Rocker Arm Bearing Units enable low inertia and high speeds.

Replacing conventional designs consisting of multiple components, with a compact, unitized construction helps to reduce weight and simplify assembly. The integrated clutch lifter from SKF also provides longer service life while reducing the need for maintenance.

Reduced fuel consumption and carbon dioxide emissions

As a leading expert in the science of tribology, SKF is helping to cut fuel consumption by reducing friction in moving components. After all, increased friction translates into energy loss. In the engines of two wheelers, valve stem seals from SKF control the flow rate of oil to the valve stem, reducing emissions. For crankshaft applications, lightweight, high-speed self-healing bearings help to reduce friction.

Integrating knowledge of bearings and mechatronics, the SKF StopGo solution addresses the demand for energy conservation and reduced emissions. This ready-to-fit unit simultaneously performs bearing function, speed sensing and stop-start activation.

Sensor-bearings from SKF help save fuel and improve safety.

With industry-leading expertise in bearings, seals, lubrication and mechatronics (combining mechanics and electronics into intelligent systems), SKF can be a valued design partner to manufacturers of two and three wheel vehicles, providing integrated solutions for the engine, driveline and wheel ends.



The SKF One Way Clutch with unique patent-pending cage design provides higher reliability, longer service life and better performance.



The SKF Rocker Arm Bearing Unit combines compact design with robust performance to help increase service life.



Valve stem seals from SKF help reduce emissions by providing a defined metering rate of oil to an engine's valve stem interface.



Reduce weight, cut cost and boost service life with the integrated clutch lifter from SKF.



Knowledge Engineering



To help boost reliability for high-speed crankshafts, self-healing bearings from SKF help to reduce friction and resist damage caused over rolling solid contaminants.



Lubricated for the life of the bearing and virtually maintenance-free, SKF steering column bearings with a solid oil cage help reduce total cost of ownership and increase service life for steering columns.



SKF StopGo improves fuel economy and reduces greenhouse gas emissions.



Save fuel and improve safety with sensor-bearings from SKF.

A global strategic partner

Worldwide manufacturing and distribution

When they partner with SKF, manufacturers of two wheelers, together with their tier one suppliers enjoy worldwide availability and local support. With SKF's global manufacturing footprint providing the same quality standard in all factories and throughout the distribution network, our customers have the resources they need to go where the market is growing.

Along with enabling shorter lead times, local manufacturing helps keep your supply chain costs down, and can eliminate import duties, thus delivering additional bottom-line savings. And quick availability of components means your operation avoids shut-downs while waiting for parts.

Advanced engineering services and support

Furthermore, and most importantly, partnering with SKF gives you access to the SKF Two Wheeler Center of Excellence – a design, testing and development facility dedicated to the two wheeler market.

SKF engineers at this development centre draw on the expertise available globally in other SKF research, development and testing facilities to help design and optimize components and systems. They can help you explore the potential advantages of alternative designs and materials, with sophisticated modelling and simulation software that functions as a virtual test rig. And, of course, the dividends are greatest when SKF engineers are involved early on in the design process.

Design for Six Sigma

Design for Six Sigma is part of SKF's product development process. The concept helps to reduce product emergencies after launch, product recalls and warranty issues. It also helps to reduce engineering changes late in the process that can increase the risk of problems developing after the product launch.

Design for Six Sigma is part of the SKF Six Sigma programme that SKF uses to achieve sustained and controlled improvements in our business and our customer's business.

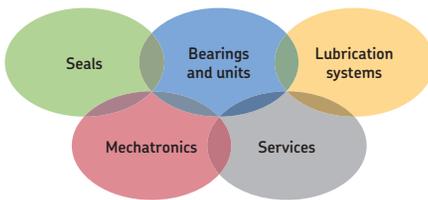
Looking for a strategic partner you can count on today and well into the future? Consider the benefits of teaming up with SKF:

- **Fast track development with SKF modelling and simulation software**
- **Testing capabilities including analysis and calculation support**
- **Consistent quality standards worldwide**
- **Sustainable solutions for long-term profitability**
- **Faster manufacturing and delivery**
- **Supply chain efficiencies and cost savings**
- **Dedicated global project managers**



*See inserts for more details
about SKF solutions for the two
and three wheeler industry.*





The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.



SKF BeyondZero is more than our climate strategy for a sustainable environment: it is our mantra; a way of thinking, innovating and acting.

For us, SKF BeyondZero means that we will reduce the negative environmental impact from our own operations and at the same time, increase the positive environmental contribution by offering

our customers the SKF BeyondZero portfolio of products and services with enhanced environmental performance characteristics.

For inclusion in the SKF BeyondZero portfolio, a product, service or solution must deliver significant environmental benefits without serious environmental trade-offs.

SKF StopGo is included in the SKF BeyondZero portfolio because it helps to increase fuel efficiency and reduce greenhouse gas emissions.

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™ BeyondZero is a trademark of the SKF Group.

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