Schaeffler Wheel Bearings and Seals Program

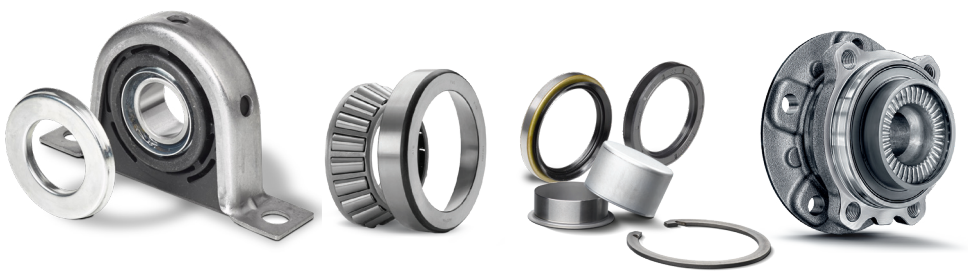
SCHAEFFLER

More than 30 million wheel bearings are manufactured by Schaeffler every year!

Schaeffler is a leading global provider of bearing solutions and linear/direct drive technology. Schaeffler has earned the reputation in the automotive industry as a respected supplier of precision products and systems for engines, transmissions, and chassis.

Schaeffler Automotive Aftermarket has an equally strong heritage as a systems innovator in the replacement market, developing unique products and solutions engineered to provide flawless performance, unbeatable durability and high customer satisfaction.

Operating 170 locations in 50 countries, Schaeffler has a worldwide network of manufacturing locations, research and development centers, sales companies, engineering offices, and training centers. With over 92,000 employees throughout the world, Schaeffler is proud to be one of the largest family-owned European technology companies.



As the cornerstone of the Schaeffler Bearings and Seals program, our hub and wheel bearings are built to the same exacting standards as our original-equipment products, and engineered to perform under all conditions

Research conducted with leading distributors and technicians showed that customers prefer:

- Comprehensive, full-range premium program
- Experienced OE-manufacturing company
- Comprehensive domestic and import coverage
- Availability and established distribution network

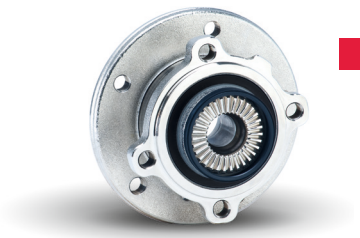
Orbital Forming

Schaeffler invented the orbital forming process to eliminate one of the major causes of bearing failure: loss of clamp load. With orbital forming, the bearing preload is permanently set during the manufacturing process.

Since its introduction in 1993, orbital forming has become a standard within the automotive industry. Unique to the Schaeffler manufacturing process, orbital forming is used to achieve desired bearing preload resulting in optimal service life, compared to other manufacturers who limit the use of orbital forming to a retention feature.

Generation 2.1 Bearing

The innovative 2.1 bearing, designed by Schaeffler, eliminates the need for a bearing outer ring flange and mounting bolts. This design features a factory-set preload and an innovative retaining ring. The ring, patented by Schaeffler, secures the bearing in the steering knuckle.



Wheel Bearing with Face Spline

The face spline bearing design was developed to reduce cost, reduce weight and reduce noise. The system weighs approximately 10% less than a system utilizing a conventional bearing and CV joint. The Schaeffler-patented bearing, featuring a self-centering axial spline, eases serviceability of the bearing and CV joint.

Generation 1

Wheel bearings of the 1st Generation are compact bearing units, manufactured by Schaeffler, with a defined and preset bearing clearance, for-life lubrication (no maintenance) and sealing. First generation wheel bearings are used on many applications due to their compact and rugged design. Schaeffler has developed angular contact ball and tapered bearings for both front and rear wheels, ensuring optimum performance in the most demanding situations.

Generation 2

This compact, lightweight, maintenance-free unit combines the cost-effectiveness and proven performance characteristics of a Generation 1 bearing, with the convenience of an integral mounting flange for mounting brake disc and wheel.

The Schaeffler Wheel Bearing 2nd Generation design features a factory-set preload. The orbitally formed shoulder precisely secures the roller paths in place to maximize bearing life. Select bearings also include an integrated sensor for the measurement of wheel's rotational speed.

Generation 3

Vehicle manufacturers constantly strive to improve performance and handling, while reducing weight and complexity. The Schaeffler 3rd Generation Wheel Bearing design is maintenance-free and combines all of these characteristics in a compact, easy-to-install, ABS-ready assembly. The unit features a factory-adjusted preload and optimally rigid double-flange design.

Tapered Roller Bearings

With an advanced load-carrying capacity and compact design, Schaeffler tapered roller bearings by Schaeffler are used in wheel bearings, transmissions, differentials, transfer cases, and other miscellaneous applications. Schaeffler manufactures over 100 million tapered roller bearings annually.

Hanger Bearings

Schaeffler hanger bearings are engineered and built to provide precise driveshaft alignment. They support shafts and axles with the least possible friction and wear under the harshest conditions. This vital component also increases driveline integrity by absorbing and isolating vibration to protect the driveline and provide a smooth, comfortable ride.

General Bearings

Schaeffler develops and produces high-quality roller bearings, spherical bearings, and plain bearings worldwide for a wide range of applications.

Seals

Seals are designed to protect components from contamination – such as dirt, dust, and moisture – and prevent the loss of lubricant over the life of the bearing. The specifications for seals are very demanding, and the type required depends on the specific application. Schaeffler provides a full range of seals for all makes, models and popular shaft sizes.

Our wheel seals are engineered using only the highest quality materials to meet vehicle manufacturer specifications. Schaeffler works with suppliers to design seals that meet our high quality standards.

Repair Sleeves

The Schaeffler repair sleeve is a precision element that provides additional sealing for damaged shafts. Made of heat-treated stainless steel, our repair sleeve significantly increases the life of the shaft and prevents premature wear. Since no shaft removal or machining is required during the repair, the repair sleeve is a cost-effective repair solution to protect damaged surfaces.

Wheel Bearing Kits

An ideal repair solution is only as effective as its individual parts, which is why these parts must be of the highest quality and be provided together with the relevant service. To ensure that every repair can be carried out in the simplest possible manner, Schaeffler kits include all accessories required to perform professional repair work, in addition to the wheel bearing itself. These additional parts make all the difference. The nuts and bolts are equipped with various locking systems and are perfectly tuned to the corresponding wheel bearing and vehicle.

Drivetrain Kits

Schaeffler drivetrain kits are the perfect solution when rebuilding or repairing a manual transmission, transfer case or differential for light duty applications. We carefully selected OE quality components for each individual application. In an effort to simplify your repair, our drivetrain kits contain all the wear parts – like gaskets, O-rings, shaft seals, and premium quality bearings. Every kit contains all of the necessary components for a professional, reliable and OE quality repair.

Tools & Accessories

As the chassis specialist, Schaeffler supplies its customers with all components including retaining clips, ABS cables, and bolts. This ensures professional repair.

Sprinter Tool

For the first time, it is now possible to replace the wheel bearings of the Mercedes, Dodge, and Freightliner Sprinter front axles, without replacing the entire steering knuckle assembly. Due to the design and the way it is mounted on the vehicle, this wheel bearing unit cannot be removed and reinstalled using standard tooling.

Schaeffler developed a special removal / reassembly tool designed to achieve fail-safe wheel bearing replacement. This unique repair solution ensures that pressure is applied evenly on the wheel bearing outer race during installation, and the snap ring securely latches into the groove.

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