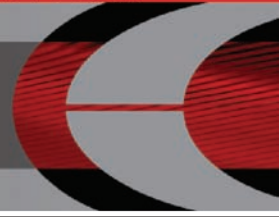


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KING ENGINE BEARINGS

50th
ANNIVERSARY



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TRACK TOUGH  STREET SMART



It's commonly known that better materials make better products. Expert craftsmanship can only go so far if the materials used cannot support the work.

The company traces its roots back to 1925, when Buke Saslavsky opened an automotive service in Argentina. Over the years, the business expanded into engine building and dealerships, until, in 1960, KING Engine Bearings was founded by Buke's sons Joseph and Samuel. Today, it has grown into a world-class developer and manufacturer of engine bearings for automobiles, light to heavy-duty trucks, marine, aviation, standby power and other types of internal combustion engines. In its 50 years of operation, KING Engine Bearings has demonstrated exceptional commitment to developing products that enhance the efficiency of the rebuilding operation as well as the build quality of today's engines.

Specialization creates an environment for producing only the best. Specialized shops know all the ins and outs of their products. A focused company knows what its product can do, what applications it can be used for, and can guide customers towards what is needed for particular projects.

When superior craftsmanship and a specialized background combine King Engine Bearings is the result. These features, together with its excellent customer service, set this bearing company above the competition.

ONLY THE BEST

Founded in 1960, King Engine Bearings is celebrating their 50th anniversary as a world-class developer and manufacturer of engine bearings for automobiles, light and heavy-duty trucks, marine, aviation, standby power and other types of internal combustion engines. King's only product is engine bearings.

King Engine Bearings was founded on the belief that any product can be made better and any design can be improved. This driving force has made King Engine Bearings a leading manufacturer for the aviation industry, superior OE

applications, and top quality aftermarket parts.

The company is recognized for producing the highest quality engine bearings available on the market today. Specialization and focus create the best. The King line includes OEM replacement rod, main, cam bearings, and thrust washers along with a special range of high performance bearings.

XP AND HP BEARINGS

King also produces high performance engine bearings for circle track, drag racing, monster trucks, tractor pulls, off-road and off-shore racing applications.

The company's second generation XP Bearings are ideal for high-load, long-duration racing for use with steel crankshafts. XP bearings are enhanced tri-metal, copper-lead and made with the company's proprietary SecureBond, a unique multi-layered adhesion process that provides superior stability between the top and intermediate layers. The 0.0005" metalurgically enhanced and hardened performance overlay withstands greater loads and better resists surface fatigue. XP bearings are ideal for high load, long duration racing such as circle track, off-road, and off-shore in engines using steel crankshafts.

King's HP Bearings, however, are designed for high-load, short duration racing and medium-load, long-duration racing. Made of bi-metal, aluminum silicon alloy,

HP bearings feature a 40 Vickers hardness that resists traditional overlay migration and extrusion. HP Bearings are also suitable for medium-load, long duration racing such as circle track engines using nodular cast iron crankshafts. Additionally, HP bearings have a 450 degrees Fahrenheit heat threshold that affords greater protection against friction and overheating.

GRAVE DIGGER

The monster truck team Grave Digger uses HP bearings from King Engine Bearings. Grave Digger's flagship





driver is creator Dennis Anderson. "I've used King Engine Bearings for over 10 years," explained Anderson. "I will never run another brand in my motors because King outlasts them all."

Grave Digger puts HP Bearings to the test with its alcohol injected, 540ci Merlin engine that produces 1,465 maximum horsepower. At 10,400 lbs., Grave Digger creates 1,200 lbs. of torque and reaches a maximum RPM of 8,400.

In addition to Grave Digger, King Engine Bearings has an extensive motorsports program to help the company keep up with the pulse of high-performance racing. The company believes racing is the ultimate laboratory for testing its bearings. Engine bearings experience enormous demands as they push a ground-shaking race car down a quarter mile in four seconds, or launch 10,000 lbs. of truck 15 feet in the air.

King Engine Bearings learns from these racing experiences, and uses its knowledge to continually improve its bearings – not just for racing engines but for all the engines that people rely on every day.

SPECIFICS OF KING'S BEARINGS

Common tolerances for wall thickness of typical bearings at the crown vary by up to 0.00025 inch. King Engine Bearings sets a higher standard of controlling the wall thickness. By using advanced quality control procedures, it maintains rod and main bearing wall thickness at an amazingly tight 0.001". The benefits of King's Bull's Eye Tolerance technology are improved consistency of bearing-to-journal clearance, better oil wedge, less journal wear, and superior wall stability.

King manufactures a large selection of bearings engineered for specific applications and offers the widest selection of sizes, including special clearance options. All King performance bearings feature greater rod bearing height that improves bearing to bore contact/heat transfer and reduces spin potential at high RPMs.

Main bearings feature enlarged, chamfered oil holes. In addition, most rod bearings are available with or without dowel holes. XP main bearing sets are ½ grooved for uncompromised lower shell load capacity. HP main bearing sets are ¾ grooved for improved oiling to the rod journals.

SELECTING THE RIGHT PRODUCT

Engine bearing material selection is an important part of determining the correct bearings for any specific application. First, the maximum specific load applied to the bearing needs to be calculated. "If you don't know it we can

calculate it," said Dr. Dmitri Kopeliovich, R&D Manager, King Engine Bearings. "You should take a 10-15 percent safety factor into account."

Crankshaft material is another factor in choosing the right bearing. Kopeliovich explains further, "King's Aluminum Silicon (SI) bearings are more compatible to nodular cast iron crankshafts. They are better than aluminum alloy."

Then, King factors in possible misalignments and distortions already present. Trimetal bearings with Babbitt overlay (thickness 0.0005" – 0.0008") are more sensitive to geometric defects.

Finally, minimum oil film thickness is important. "If it is 0.000060" or lower," Kopeliovich continues, "mixed lubrication regime occurs frequently and tri metal bearings with soft thin overlays are less suitable than aluminum-silicon bearings."

Dr. Kopeliovich explains the different metals and their uses in engine bearings in further detail.

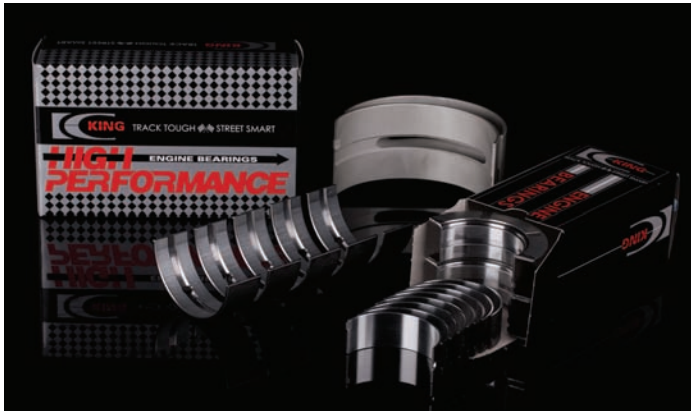
SUPERIOR CERTIFICATION WITH SUPERIOR SERVICE

Though the years, King has developed and maintained a philosophy of constant improvement, from bearing design and engineering to customer service.

The company is a certified TS 16949 (automotive) and AS9100 (aerospace) manufacturer, producing to the highest statistical quality control standards. TS and AS certifications demonstrate King's focus and commitment to producing consistent quality bearings with the tightest dimensional tolerances, bearing after bearing.

King's fully staffed R&D department is dedicated to developing the best materials. It improves product tolerances and extends the service life of engine bearings under all operating conditions.





The company's proprietary, high-speed, fully automated production lines enable it to quickly tool and produce new products in response to market demand. In-house engineering and application simulation technology enables King to optimize engine bearing performance.

With its superior craftsmanship, King Engine Bearings is the source for improving engine performance. The personalized assistance from customer service helps customers determine which product is perfect for their engine. King's extensive coverage of domestic and import engine bearings ships from its main distribution center in Cedar Grove, N.J. and 11 other factory branch warehouses.

NEW AND IMPROVED WEBSITE

King Engine Bearings recently introduced its newly redesigned, user friendly website at www.kingbearings.com. The website contains complete information about King's product line for the OE replacement, performance, and aerospace markets. Factory authorized warehouse locations and manufacturers' representatives' territories are mapped. The website also allows visitors to look up bearing part numbers by searching the e-catalog.

The e-catalog allows users to search by model data, engine data or part number. The e-catalog also features diagrams of bearing set components to help engine builders identify lug locations, oil grooves, and other unique characteristics.

Technical features of the new website include a frequently asked questions (FAQs) section and the ability to submit questions to the company's technical department which includes research and development manager and metallurgical engineer, Dr. Dmitri Kopeliovich. Technical articles from Dr. Dmitri are accessible and downloadable for engine builders. The website also contains a schedule of events King will be participating in and the opportunity to receive the company's e-newsletter.

King has an extensive marketing program that helps support its distributors, dealers and racers. This marketing information can be accessed at the website. For more information, call (800) 772-3670 or visit www.kingbearings.com.



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