

HIGH PERFORMANCE BEARINGS FOR HEAVY-DUTY APPLICATIONS

HEAVY-DUTY APPLICATIONS

Demand for raw materials increase steadily around the globe. Our modern world depends on the outputs that come from mining. To satisfy this demand, the mining industry has to dig even deeper and is challenged by:

- harsh climate, dirty conditions
- extreme loads
- vibration and shock load
- risk of lubrication contamination and corrosion

Resulting in unplanned maintenance:

- urgent/emergency repairs
- unexpected operation shutdowns
- substantial maintenance costs and delays
- higher energy costs for ventilation and air conditioning

By partnering with you early in the design process, we can review your system and make sure both the bearing and surrounding components are optimized for performance and cost-effectiveness. Environmentally friendly tribological bearing solutions from GGB can offer:

- corrosion-resistant materials have no need for hardening
- self-lubricating materials eliminate friction loss by grease
- excellent wear resistance and high shock load capacity improve system reliability
- excellent low friction properties reduce power losses for improved equipment performance

Applications in which they are used include:

- motor graders
- wheel tractor scrapers
- earth-moving compactor
- dozers
- ripper attachments
- tunnel drills
- pipelayers
- track-type skidder
- excavators
- wheel-type loader
- heavy-duty automatic transmissions
- conveyor belts

The GGB Advantage



LOWER SYSTEM COST

GGB bearings can help to reduce shaft costs by eliminating the need for hardening and machining grease paths. Their compact, one-piece construction provides space and weight savings and simplifies assembly.



LOW FRICTION, HIGH WEAR RESISTANCE

Low coefficients of friction eliminate the need for lubrication, while providing smooth operation, reducing wear and extending service life. Low friction also supports the elimination of the effects of stick-slip or "stiction" during startup.



MAINTENANCE-FREE

GGB bearings are self-lubricating, making them ideal for applications requiring long bearing life without continuous maintenance, as well as operating conditions with inadequate or no lubrication.



ENVIRONMENTAL

Greaseless, lead-free GGB bearings comply with increasingly stringent environmental regulations such as the EU RoHS directive, restricting the use of hazardous substances in electrical and electronic equipment.



CUSTOMER SUPPORT

GGB's flexible production platform and extensive supply network assure quick turnaround and timely deliveries. In addition, we offer local applications engineering and technical support.



GLOBAL FOOTPRINT

GGB has manufacturing, sales, service and support locations around the globe. This vast network of resources and expertise enables us to respond promptly to your bearing needs wherever you do business.

PUSHING BOUNDARIES TO CO-CREATE A HIGHER QUALITY OF LIFE

With our extensive global presence and deep expertise in various applications, our capabilities are pushing the boundaries. We strive to expand the horizons of what's achievable, encouraging customers from all industries to collaborate with us and foster innovation together.

Today, our products can be found everywhere – from scientific vessels at the bottom of the ocean to racecars speeding down the tarmac to the Curiosity rover exploring the surface of the Mars.

GGB PRODUCTS

The following products are particularly well suited for high demanding heavy-duty applications for underground as well as surface machinery*. Contact your local Timken sales representative for bearing product selection and design assistance.



GAR-MAX® self-lubricating bearings:

- offer exceptional performance under heavy load and slow speed
- provide excellent resistance to shock, misalignment, chemicals, and contamination
- very good dry wear performance



SBC with GAR-MAX® sealed bearings:

- offer excellent resistance to shock loading and misalignment
- sealed to exclude contaminations
- provide very good friction and wear properties



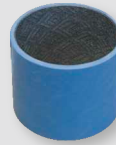
HSG high load bearings:

- offer high static load capacity
- provide excellent shock and misalignment resistance
- ensure excellent contamination resistance



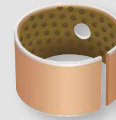
SBC with HSG sealed high-strength bearings:

- excellent resistance to shock loading and misalignment
- high static load capacity
- sealed to exclude contamination in order to extend service life



HPMB® high precision bearings:

- pre-machined for immediate installation
- offer low friction with negligible stick-slip
- ensure dimensional stability - very low water absorption, low swelling



DX¹⁰ heavy duty bearings:

- provide good fatigue strength
- offer excellent wear performance
- perfect for heavy duty and harsh environments



Hi-EX® hydrodynamic composite bearings:

- rated for high temperature use up to 250°C
- suitable for use with low viscosity fluids
- offer good wear resistance under thin film conditions



GGB-CSM® thick wall monometal bearings:

- machinable, available in special shaped dimensions
- resistant to abrasive environments
- corrosion resistant and temperature ranges up to 600 °C depending on alloy are available



*Performance depends on different operating conditions.



www.ggbearings.com



Order-No. 11563

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