



SKF slewing bearings

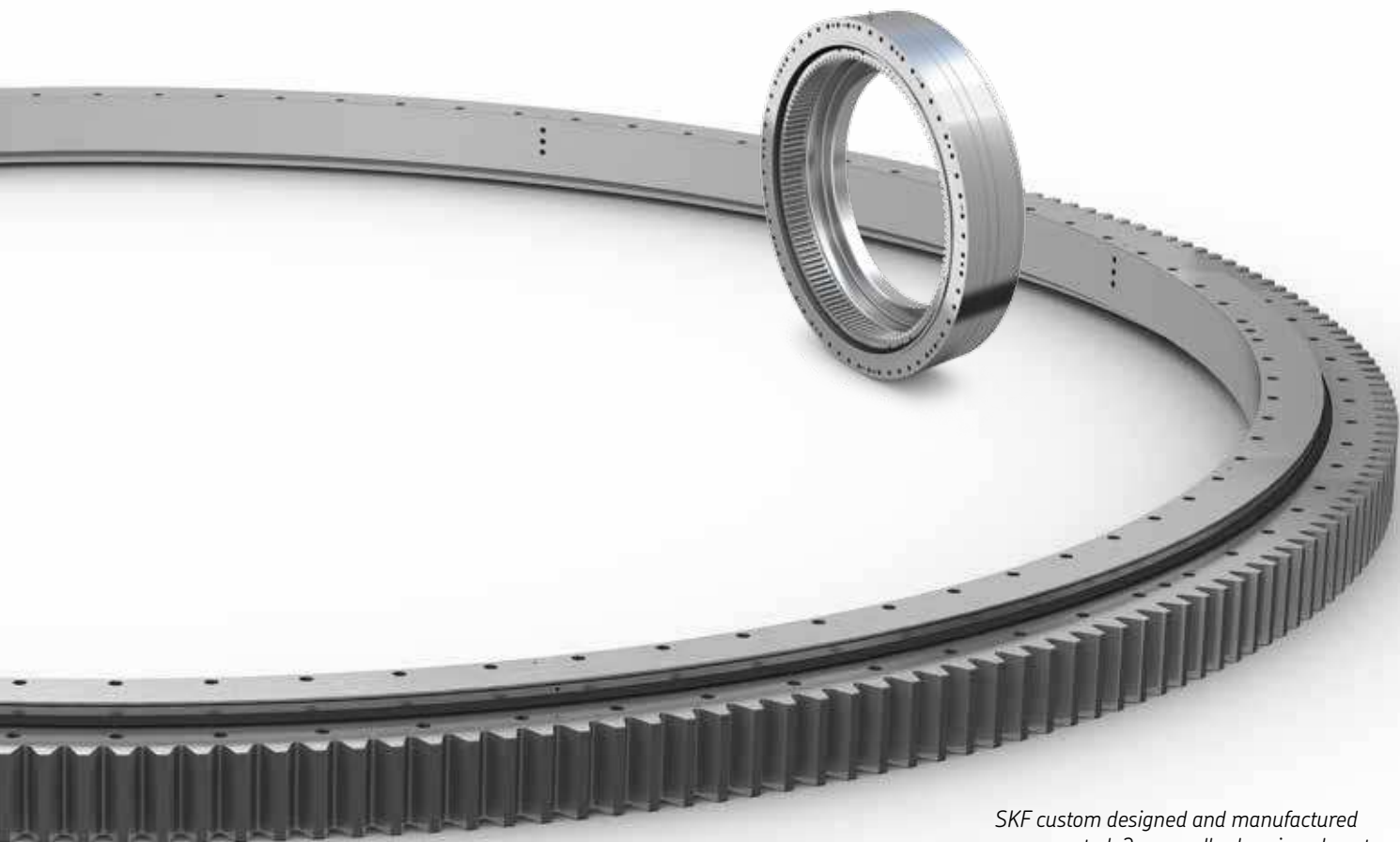
Unmatched innovation, customisation and selection



The Power of Knowledge Engineering



Excellence



SKF custom designed and manufactured a segmented, 3-row roller bearing almost 14 m in diameter. It weighed 70 tons.

SKF also produces a range of smaller slewing bearings for special machinery, high-tech applications and more.



comes in many sizes

For more than a half century, SKF has been designing and manufacturing many types and sizes of high-performance slewing bearings to meet the specific needs of customers worldwide. Combining decades of application knowledge and unmatched manufacturing expertise, SKF provides customised slewing bearings with outer diameters from 0,1 m to 14 m.

Unlike other providers of slewing bearings, SKF can offer fully tailored slewing bearing solutions with integrated advanced monitoring, lubrication and sealing systems for higher reliability and longer service life. Our breadth of engineering knowledge, global presence and design flexibility allow us to deliver the right solution for your project, no matter how large or complex.

High-performance slewing bearings for a wide range of applications:

- Wind turbines
- Tunnel boring machines
- Excavators
- Forestry vehicles
- Rail vehicles
- Dockside and deck cranes
- Mobile cranes
- Water treatment equipment
- Bottle filling systems
- Metals
- Material handling
- Marine pods
- Offshore buoys
- Stacker reclaimers

Slewing bearing design types:

- Double row ball bearings
- 4-point contact bearings
- Crossed roller bearings
- Wire race bearings
- 3-row and double row cylindrical roller bearings
- Cylindrical roller and ball bearings
- Special bearings

Slewing bearing applications

SKF has a 70-year history of partnering with leading OEMs across a broad spectrum of industries to deliver superior slewing bearing solutions.



Construction and off-highway *Excavators and road rollers*

SKF slewing bearings of the preloaded, cross-roller type are an ideal choice for excavators as they offer high reliability even when subject to heavy loads and tilting moments in severe operating environments.

SKF also works closely with road roller OEMs to provide customised slewing bearing solutions designed to handle the high vibration levels needed for high-speed, high-quality compacting. Due to an integrated, reinforced sealing system, the bearings remain unaffected by the hot asphalt environment and are protected against water intrusion.



Wind energy *Turbines*

Drawing on a wealth of wind turbine engineering knowledge, SKF has developed an innovative slewing bearing design with enhanced sealing capabilities and redesigned internal geometry to meet the challenges of the wind industry. The SKF High Endurance Slewing Bearing offers increased resistance to harsh environmental conditions to improve reliability and performance and extend bearing service life.

“SKF is a reliable development partner of slewing bearing solutions for my windmills thanks to their advanced technical knowledge.”

– Wind energy customer



Tunnel boring

Driving reliability to cut tunnel completion times, SKF slewing bearings for tunnel boring machines are built to withstand huge loads as cutter heads bore into solid rock or difficult soils. These heavy-duty, roller bearings are designed to carry all cutter head loads and transfer them to the rear. In addition, we use our sealing expertise to integrate proven designs for tunnel boring machine head applications that keep earth out of the main bearing and lubricants in it.

We offer solutions for a broad array of applications based on our wide variety of experience in major tunnel projects worldwide including, the Channel Tunnel, the Queens Tunnel, the Tokyo Bay Aqua-Line, the Shanghai Metro and the St. Gothard in Switzerland.

“SKF has the best bearing cages and was able to find logistics solutions to meet our expectations in a very short time.”

– Tunnel boring customer



4-point contact slewing bearing for off-highway vehicles, pavers and road rollers



Mining

Stacker reclaimers

SKF slewing bearings for stacker reclaimers increase reliability and bearing service life while reducing maintenance costs by integrating SKF's advanced condition monitoring technologies. Automatic drop height and displacement measurement trends give a clear picture of bearing wear rate, allowing time to safely plan slewing bearing change-outs with minimal impact on production.

"SKF sealing solutions are better and they help provide increased slewing bearing service life."

– Mining customer



Metals

Ladle turrets

By integrating SKF's high temperature seals, cages and components, SKF slewing bearings for ladle turrets increase reliability and bearing service life while reducing maintenance costs. In addition, SKF's advanced condition monitoring technologies provide valuable information on bearing wear rate. This helps reduce the impact that slewing bearing change-outs can have on production as it allows for time to safely plan and optimally schedule change-outs.

"SKF slewing bearings have better service life than competitor bearings."

– Metals customer



Material handling

Cranes

Dockside and deck cranes are moving heavier loads, faster than ever before. Drawing on deep application knowledge

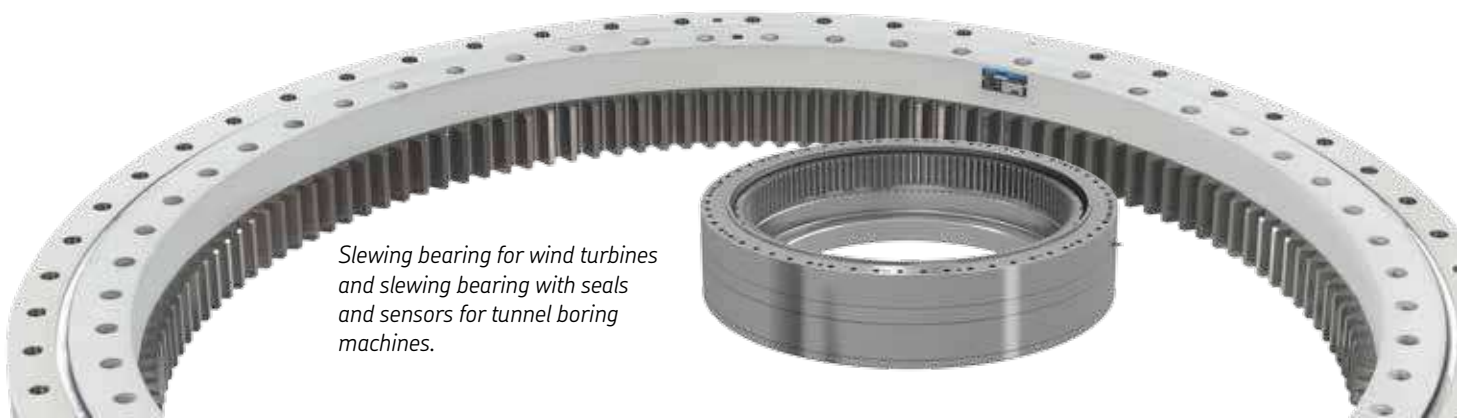


and using advanced FEM calculations to optimize designs, SKF slewing bearings for cranes

increase reliability and bearing service life, while reducing maintenance costs. Integrating SKF's advanced condition monitoring technologies also boost uptime and productivity.

"To solve my technical issue, SKF significantly increased the slewing bearing's service life thanks to advanced calculations and specially developed technical solutions."

– Material handling customer



Slewing bearing for wind turbines and slewing bearing with seals and sensors for tunnel boring machines.

Slewing bearing applications



Traditional energy

Turret mooring systems and cranes

SKF has decades of experience partnering with oil and gas customers to develop slewing bearings for the turret mooring systems and cranes used in offshore oil extraction fields. Designed with a wealth of application knowledge and specialised sealing systems, SKF slewing bearings for traditional energy provide high reliability and performance in harsh conditions. We even manufactured a slewing bearing for a traditional energy customer that set a record for being the world's largest slewing bearing with a diameter of 13,4 m.

Additionally, SKF has developed monitoring detection systems to help ensure the safety of large cranes used in offshore platforms and we are able to conduct bearing inspections on site.



Marine

Propeller orientation device (POD)

SKF has a long history of providing a full range of slewing bearings for the azimuth positions of marine applications. These highly tailored solutions cover outside diameters from 50 to 7 900 mm. Our wide range of engineering expertise in bearings, seals, mechatronics, services and lubrication systems all contribute to the high quality of our marine solutions. As proof, every bearing designed and produced for marine applications is subject to approval by certifying authorities such as, DNV, ABS, Lloyd's Register and Bureau Veritas.



Special applications

For extremely technical and demanding special applications, SKF offers a wide range of single row and multi-row ball or cylindrical roller wire race slewing. These high-performance slewing bearings enable weight-saving designs and provide high running accuracy.



Highly accurate, weight-saving wire race slewing bearing for especially demanding applications.

SKF delivers quality anywhere in the world



Certified manufacturing processes

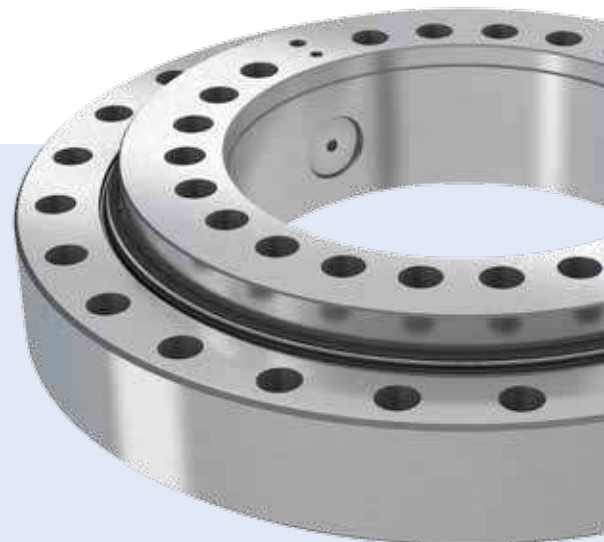
The SKF Group is globally certified to ISO 14001, the international standard for environmental management, as well as OHSAS 18001, the health and safety management standard. Individual divisions have been approved for quality certification in accordance with ISO 9001 and other customer specific requirements. In addition, we are regularly audited by the principal certifying bodies that entrust us with testing and approving products on their behalf.

High quality materials

SKF slewing bearings feature a combination of high-quality steel and advanced heat treatment processes. This provides a superior balance between hardness and toughness, enabling longer service life.

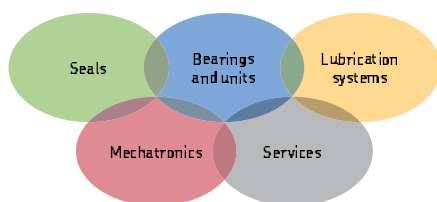
Logistics without limits

With over 100 manufacturing sites worldwide and sales companies in 70 countries, SKF is a truly international corporation. In addition, our distributors and dealers in some 15 000 locations around the world, an e-business marketplace and a global distribution system put SKF close to customers around the world for the supply of both products and services. In essence, SKF slewing bearing solutions of any size and dimension can be delivered wherever and whenever customers need them – as are sales and technical support from SKF slewing bearings specialists.



Talk to SKF about your application challenges.

SKF offers a broad range of slewing bearing solutions to improve machine reliability and availability. SKF engineers are ready to help you meet the unique challenges of your industry and application. For more information or to discuss your needs, contact your local SKF representative or visit www.skf.com.



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.

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PUB BU/S2 14732 EN · July 2014

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