

Solutions for your wind turbine

Components & Services



LIEBHERR



Our mission: your turbine availability

Benefit from our global logistics programs, storage concepts and commitment to inventory to minimize downtime.

Our components and services for on- and offshore turbines are utilized by the following OEMs

- Acconia Windpower
- Enercon
- Fuhrländer
- GE Renewables
- Kenersys
- Nordex
- Regen Powertech
- Repower / Servion
- Siemens Gamesa
- Suzlon
- Vensys
- Vestas
- WEG
- etc.

Your needs: our components

Choose from an extensive portfolio of innovative and technical state-of-the-art products and solutions from a made-in-Germany system provider with more than 30 years of experience in the wind industry.

Our product portfolio

- Pitch and yaw bearings
- Pitch and yaw drives
- Electrical and hydraulic pitch adjustment systems
- Main bearings
- Frequency converter systems



Refurbishment

Maintenance

Gearing damage

Cage failure

Corrosion

Innovative and sustainable solutions

When German engineering is combined with decades of experience, the result is a high-quality solution that enhances performance and reliability for the entire life of the component.



Refurbishment

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Refurbishment

Technical analysis and refurbishment

A professional engineering review of returned slewing bearings makes a decisive contribution to increasing bearing service life while reducing maintenance costs significantly. In this way, we ensure that resources and our environment are treated with care and respect.

Thanks to thorough inspection, nondestructive testing and refurbishment, we offer to restore your slewing bearing at a fraction of new replacement costs at one of our certified locations.



Refurbishment

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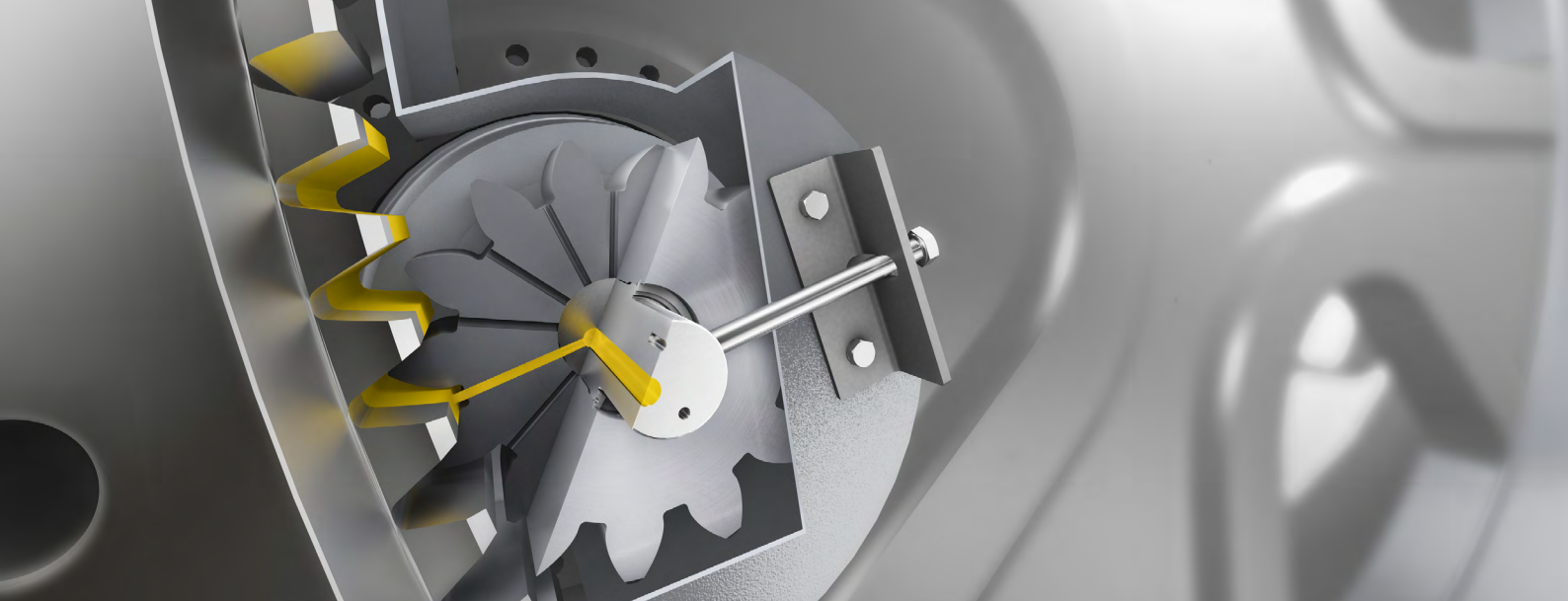
Maintenance

Preventive maintenance with Liebherr grease analysis

Monitor the condition of your bearings to prevent damage and ensure maximum turbine availability.

Your benefits at a glance

- Reliable conclusions on lubrication condition and recommendations for action
- Proactive wear measurement prevents accelerated bearing damage and potential production losses
- Efficient planning of repairs, oil changes and replacements
- Take advantage of over 60 years of Liebherr R&D in the production of slewing bearings



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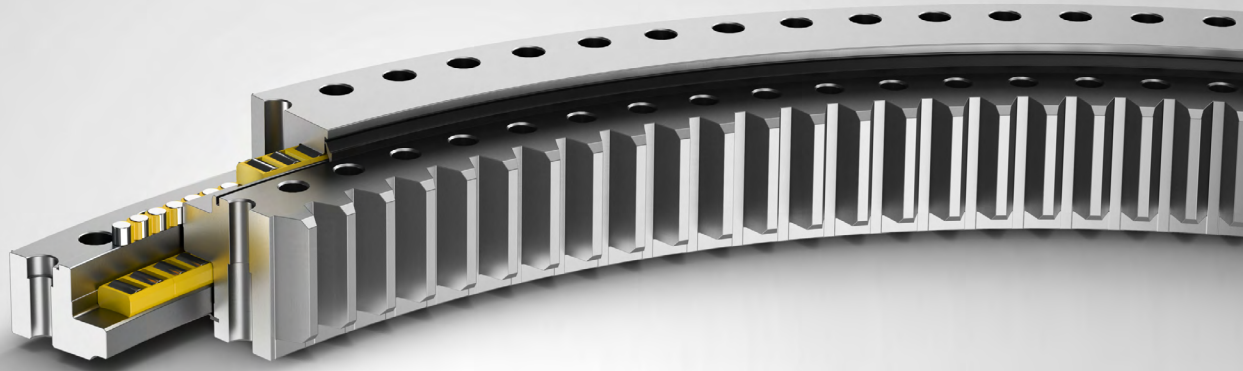
Gearing damage

Beat the 0° tooth challenge

Liebherr's innovative lubrication pinion reliably prevents wear and helps avoid bearing gear damage. Opt for direct grease lubrication at the tooth mesh and benefit from an optimum level of grease at the bearing gear and pinion interface.

Quick solutions in case of wear and tear

Thanks to the new Liebherr implant solution, worn pinion segments can be replaced quickly and economically uptower. The pinion affected by pitting is simply replaced by a new one.



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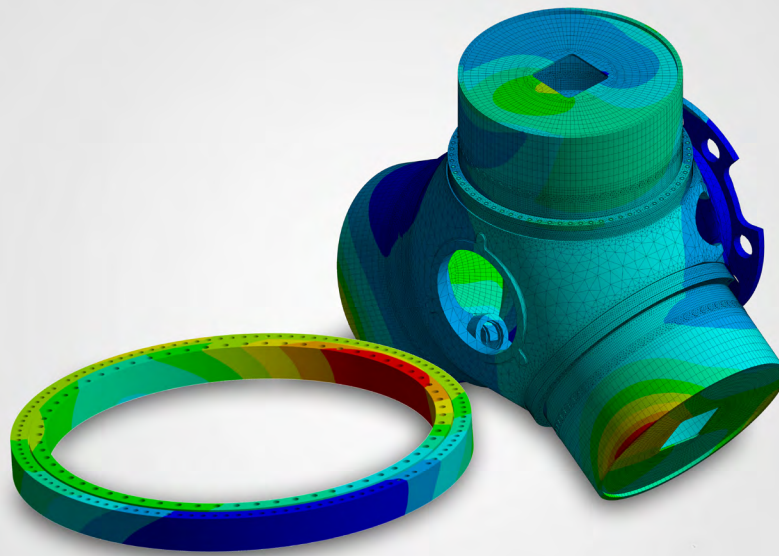
Cage failure and edge breaks

Prevent overload damage

Loads exceeding design limitations and inadequate mounting structures can lead to bearing damage or premature failure. The consequences are damage to the raceway, edge loading and cage or spacer failure.

Your benefits at a glance

- Liebherr optimizes the microgeometry of your bearing's raceway. This reduces compressive stresses and minimizes the risk of edge loading.
- Liebherr cages ensure optimum service life. Benefit from high-quality, hardened materials and state-of-the-art manufacturing methods.
- 30% more load capacity in the same installation space. Rely on the market leader in the field of three-row roller bearing slewing rings – the next generation of pitch bearing design.



Refurbishment

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Corrosion

Corrosion and crack formation

Application-optimized bearing designs

We are constantly improving our finite element analysis (FEA). In addition to the bearing, the blade and hub geometry are included in the calculations which is based on expertise gained from years of collaboration with globally leading OEMs. Liebherr also has a test bench to simulate loading for specific turbine designs to validate the FEA result.

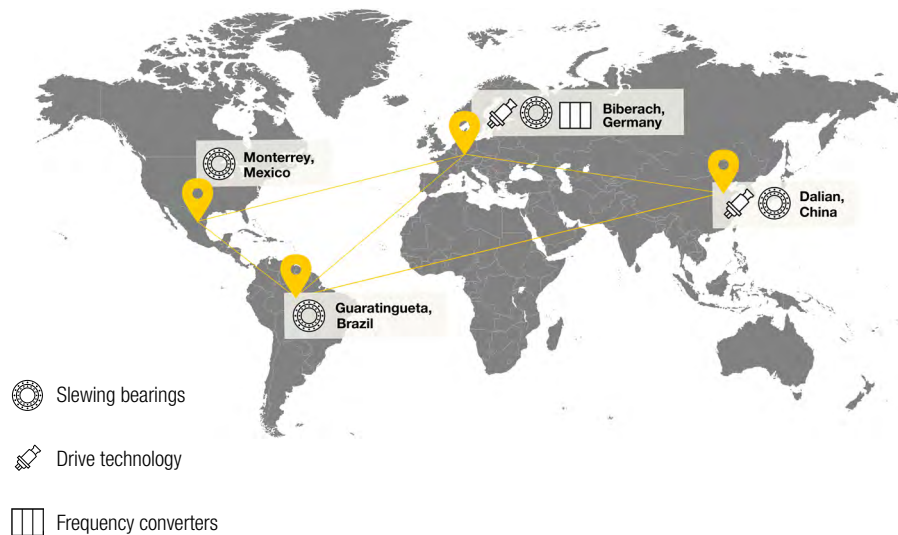
Extended service life thanks to improved corrosion protection

The high-quality zinc lamellar coating – Liebherr Corrosion Protection – reliably prevents corrosion of your bearings. Extend the service life of your bearings by preventing corrosion and crack formation, e.g. in bolt holes.



There for you, wherever you are located

Benefit from our global production network.



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