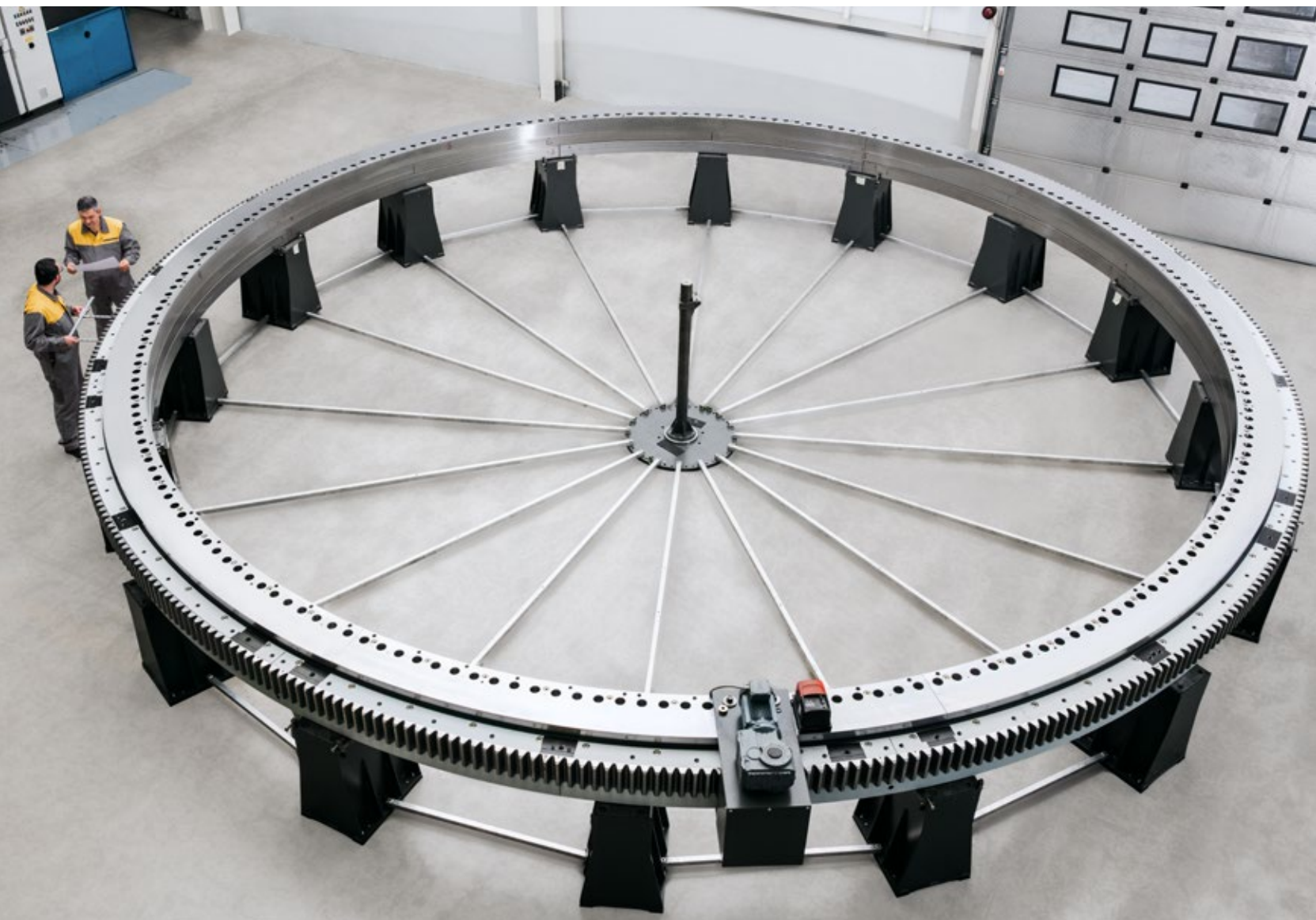


Slewing in large dimensions

Large Bearings by Liebherr



LIEBHERR



Large bearings by Liebherr

The Liebherr Group is one of the world's leading manufacturers of slewing bearings, with many decades of experience in development, design and manufacturing of ball and roller slewing bearings.

Large bearings in the diameter range above 6,000 mm are used in the offshore industry as well as in oil and gas applications in particular. To be able to handle the largest dimensions, the Liebherr portfolio includes both one-piece slewing bearings as well as slewing bearings in segmented design.

Individual design according to customer requirements

One-piece or segmented design as required

Collaboration with all current classification societies



Your project partner with long-standing experience in the large bearing segment



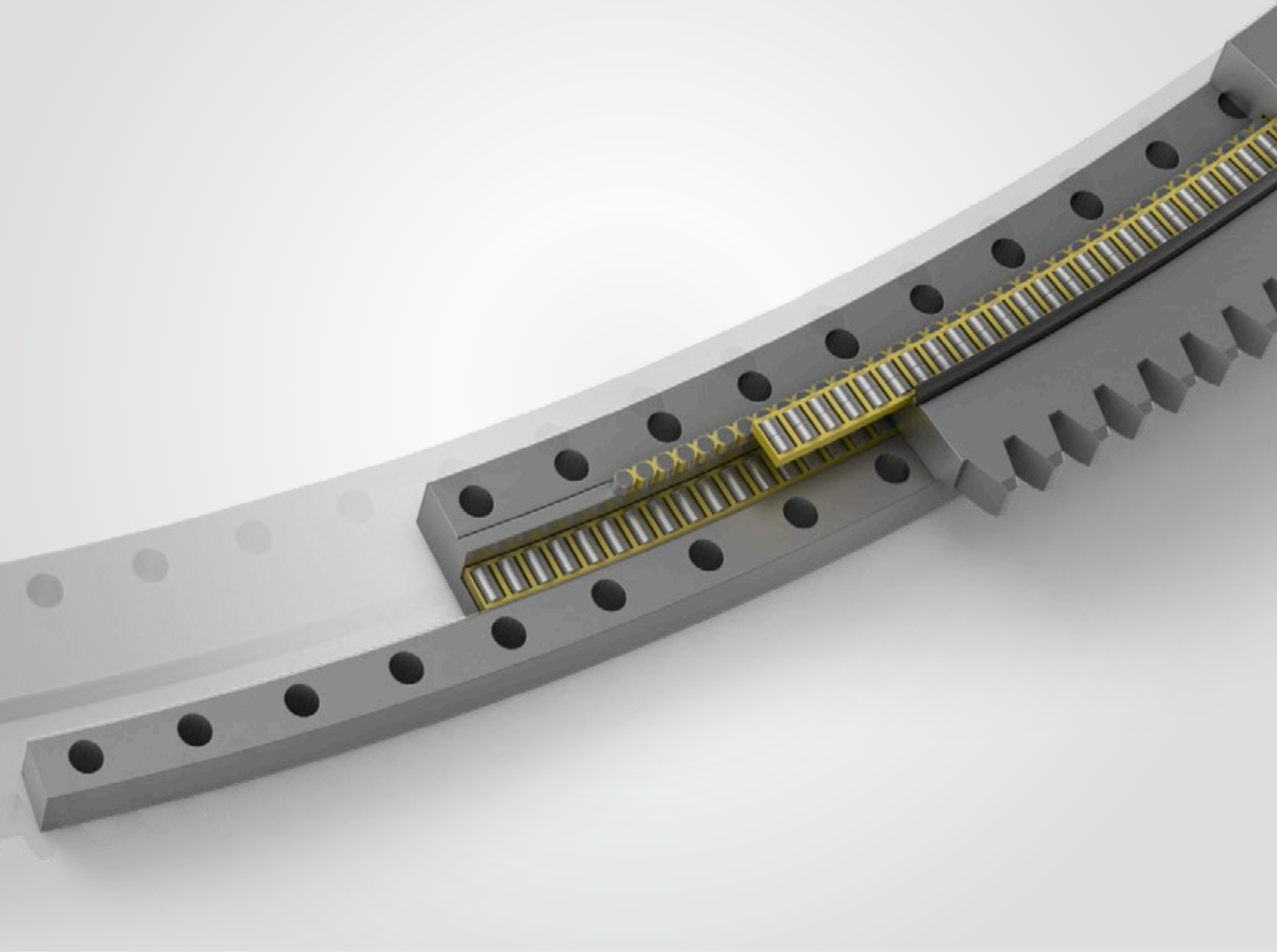


One-piece large bearings

The state-of-the-art machinery fleet allows Liebherr to manufacture one-piece bearings with a diameter up to 9,500 mm. Liebherr one-piece large bearings prove themselves day by day under toughest conditions, such as in mining or in the offshore area. Our engineers develop optimal technical solutions for any application in close collaboration with customers from different industry segments.

-  Internal and external gearing up to module 50
-  Production in Biberach an der Riss (Germany)
-  Diameter range up to 9,500 mm for one-piece large bearings



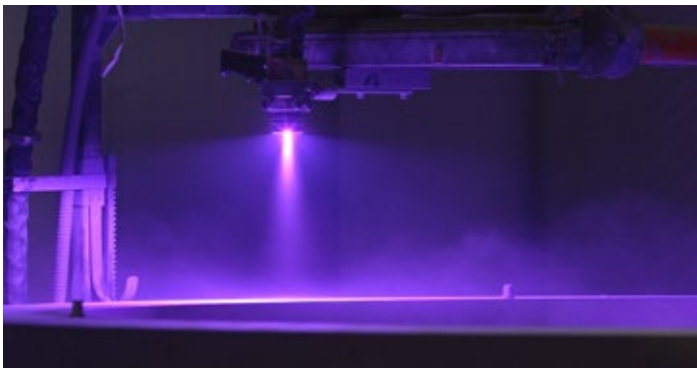


Segmented large bearings



Hardened raceway

- In-house manufacturing expertise
- Segment-based inductive hardening of the bearing raceways
- Hardening in state-of-the-art manufacturing plants



Surface protection

- Corrosion protection categories from C1 to C5M
- Surface coating adapted to customer requirements
- Technological application according to DIN EN ISO 12944 and DIN EN ISO 2063



Service-friendly assembly

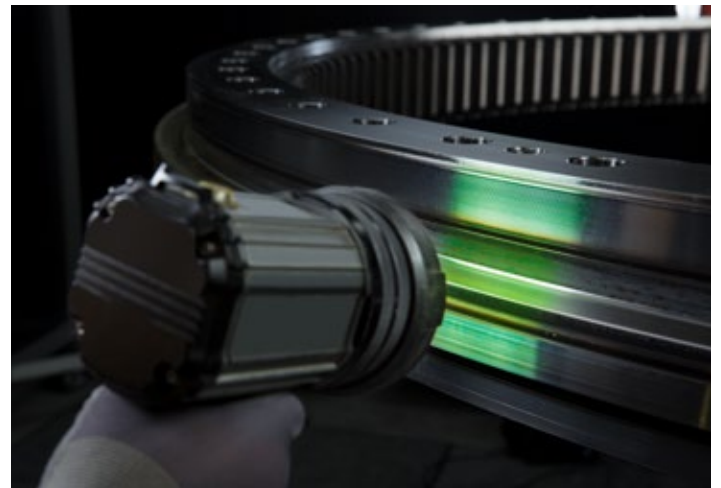
- Easy transport and simple handling thanks to segmented design
- Support during assembly on site by competent service team
- Mobile assembly equipment available



Quality inspection of large bearings

Especially in the area of maritime applications, classifications and certifications of the components by classification societies are necessary. Liebherr can look back on long-standing cooperation with the classification societies, which is particularly characterised by the certification of entire systems with Liebherr components. Liebherr bearings prove their merit in use on a daily basis.

- Det Norske Veritas – Germanischer Lloyd (DNV GL)
- American Bureau of Shipping (ABS)
- Bureau Veritas
- Lloyds Register of Shipping
- American Petroleum Institute (API)





Your engineering partner for large bearings

Development



- Innovative R&D methods
- Extensive application expertise

Production & Sales



- State-of-the-art manufacturing plants for large bearings
- Local presence of our sales departments (Europe, North-/South America, Asia)

Quality



- Bundling core expertise in-house
- Use of state-of-the-art laser measuring technology

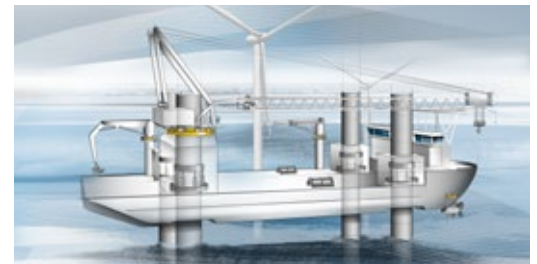
Service



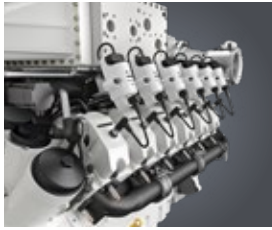
- Fast response by Service personnel
- Support during assembly on site

Application examples

- Offshore cranes
- Ship cranes
- Turrets
- Buoys
- FPSO units
- Bucket wheel excavators
- Stacker/Reclaimer
- Special machines



Liebherr Components



Gas engines



Diesel engines



Fuel injection systems



Axial piston hydraulics



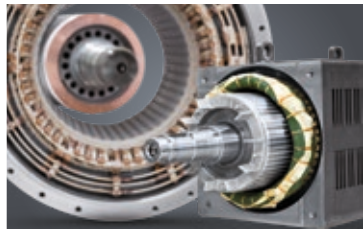
Hydraulic cylinders



Slewing bearings



Gearboxes and winches



Electric machines



Remanufacturing



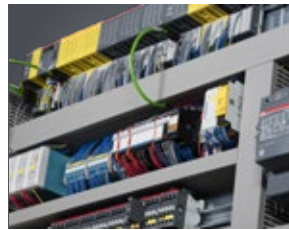
Human-machine interfaces and gateways



Control electronics and sensor technology



Power electronics



Control cabinets



Software

From A to Z – the components division of the Liebherr Group offers a broad range of solutions in the area of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at a total of ten production sites around the world to the highest standards of quality. Central contact persons for all product lines are available to our customers at Liebherr-Components AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to development, manufacture and commissioning right through to customer service solutions like remanufacturing.

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