

**LDB<sup>®</sup>** SLEWING BEARING

中国精密转盘轴承智 造商  
China Precision Slewing Bearing Manufacturer



# 洛阳隆达轴承有限公司

LUOYANG LONGDA BEARING CO., LTD

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# Company Profile

Luoyang Longda Bearing Co.,Ltd (LDB) was established on the year of 1999. We provide service of design, manufacture, export business of slewing bearings and slewing drives, and we keep on researching new products to achieve customers requirements. We have got several patents since the research department built on 2017.

LDB's products widely applied to Construction Engineer Machinery, Metallurgy Industry, Cement Industry, Mining Industry, Offshore Marine industry, Military Industry, Wind Power Energy, Solar Power energy etc...

LDB's products with high quality, top advanced heat-treatment technology and long lifetime which can perfectly replacement of famous brand such as Rothe Erde, PSL, Kaydon, INA, SKF, TG, Rollix, ISB, IMO etc...

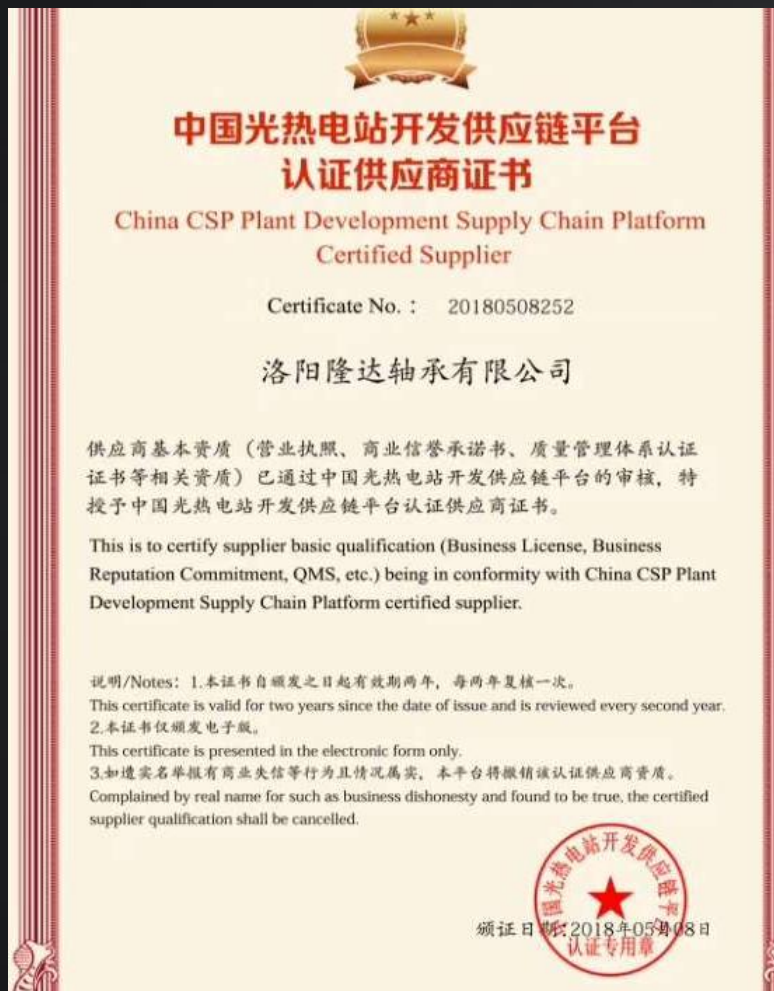
LDB's products exported to more than 70 Countries in the world, such as Australia,Brazil, Belgium, Canada, Czech, Chile, Germany,India, Italy, Japan, Korea, Latvia, Pakistan, Singapore,Spain, Thailand, Turkey, UK, USA, etc...





## Certificates





China CSP Certified Supplier



Luoyang Daily Report LDB Factory



Technology SME Certificate



MADE-IN-CHINA Audited Supplier



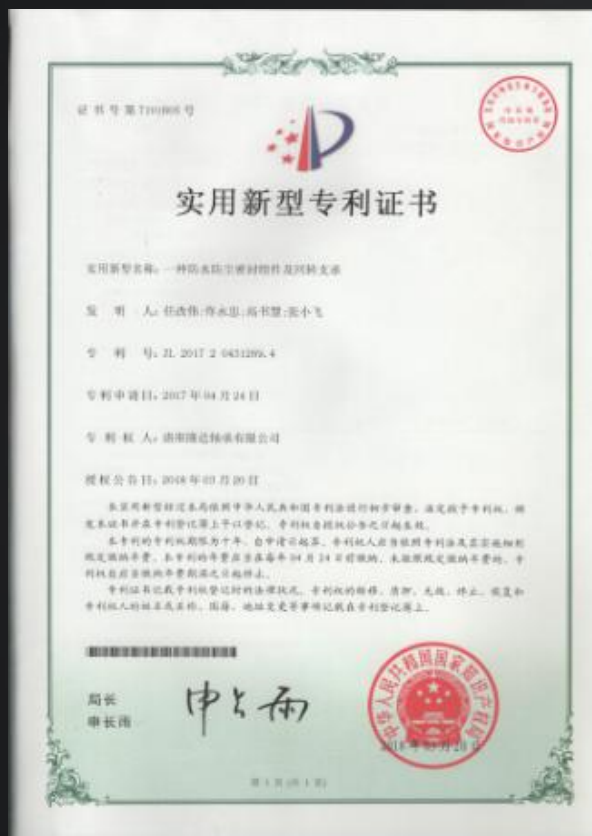


Securities Code



National High-Tech Enterprise

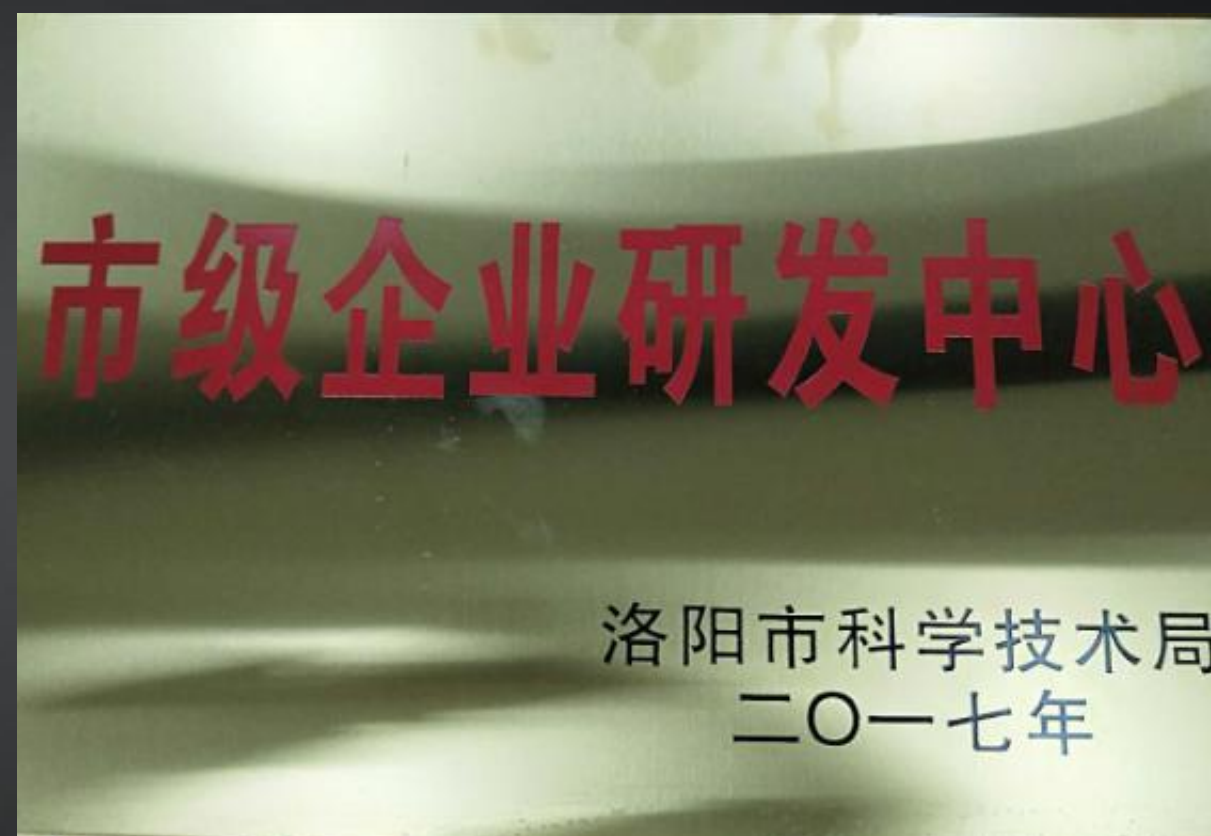
# Patent and R&D



Patent certificate: special seal units on slewing bearing



Patent Certificate: bearing height measuring ruler



Municipal Enterprise R&D Center



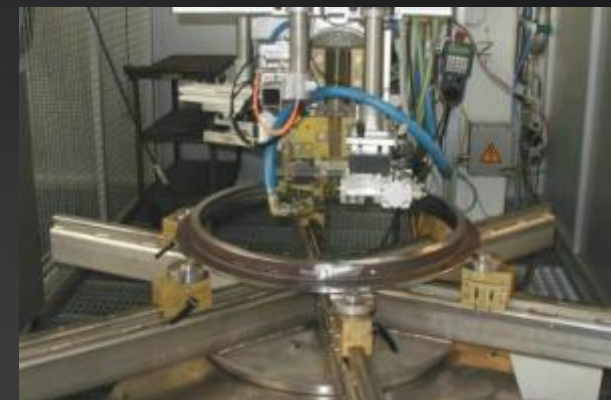
# Production and Processing



Finished Turning Processing



Machining Center Drilling



Heat Treatment (Outsource)



CNC Turning Machine



CNC Turning Machine



Assemble Area



**Good product derives from accumulation of details**



U.T. test of forging material



Raceway hardness test



Gear runout test



Teeth C.P.I. Test



Runout test



Hardened layer depth detector

# Test Report

<div style="display: flex; justify-content: space-between;"> <div>  </div> <div> <b>中原特钢股份有限公司连铸坯出厂质量证明书</b>  <b>Quality Certificate of ZYSCO Casting Bloom</b> </div> </div>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>合同号</b> Contract No.           </div> <div> <b>客户</b> Customer           </div> </div>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>标准号</b> Standard No.           </div> <div> <b>规格 (mm)</b> Size           </div> <div> <b>炉号</b> Blad No.           </div> <div> <b>中间包钢水</b> Refining Condition           </div> <div> <b>浇铸</b> Casting Method           </div> <div> <b>证书编号</b> Certificate No.           </div> </div>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>牌号</b> Steel No.           </div> <div> <b>数量</b> Quantity           </div> <div> <b>总重 (t)</b> Total Weight           </div> <div> <b>化学成分</b> Chemical Composition (wt%)           </div> <div> <b>发审日期</b> Date of Issue           </div> </div>																																																		
<table border="1" style="width: 100%; text-align: center;"> <tr> <td>C</td><td>S</td><td>Si</td><td>Mn</td><td>P</td><td>Ni</td><td>Cr</td><td>Mn</td><td>Cu</td><td>Al</td><td>W</td><td>V</td><td>Ti</td> </tr> <tr> <td>0.42</td><td>0.003</td><td>0.36</td><td>0.77</td><td>0.011</td><td>0.09</td><td>1.02</td><td>0.16</td><td>0.05</td><td></td><td>0.001</td><td>0.007</td><td>0.004</td> </tr> <tr> <td>As</td><td>Sn</td><td>Ph</td><td>Sb</td><td>Bi</td><td>Zr</td><td>Nb</td><td>Bi</td><td>Ca</td><td></td><td>H</td><td>O</td><td>N</td> </tr> </table>												C	S	Si	Mn	P	Ni	Cr	Mn	Cu	Al	W	V	Ti	0.42	0.003	0.36	0.77	0.011	0.09	1.02	0.16	0.05		0.001	0.007	0.004	As	Sn	Ph	Sb	Bi	Zr	Nb	Bi	Ca		H	O	N
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As	Sn	Ph	Sb	Bi	Zr	Nb	Bi	Ca		H	O	N																																						
<div style="display: flex; justify-content: space-between;"> <div> <b>试样号</b> Specimen No.           </div> <div> <b>中心疏松 (级)</b> Center Porosity           </div> <div> <b>中心裂纹 (级)</b> Center Crack           </div> <div> <b>喇叭 (级)</b> Slackhole           </div> <div> <b>中间裂纹 (级)</b> Intermediate Crack           </div> <div> <b>皮下裂纹 (级)</b> Subsurface Crack           </div> <div> <b>皮下气泡 (级)</b> Subsurface Bubbles           </div> <div> <b>铸面组织 (级)</b> Grain Structure           </div> </div>																																																		
<b>其他 Others</b>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>表面质量</b> Surface Quality           </div> <div> <b>放射性物质监测</b> Radioactive Level Monitoring           </div> <div> <b>外形尺寸</b> Overall Dimension           </div> </div>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>牌号</b> Bloom No.           </div> <div> <b>长度 (mm)</b> Length           </div> <div> <b>重量 (t)</b> Weight           </div> <div> <b>检验结论</b> Test Result           </div> </div>																																																		
<div style="display: flex; justify-content: space-between;"> <div> <b>备注</b> Remark           </div> <div> <b>质量管理部门章</b> Stamp of Quality Management Department           </div> <div> <b>质量管理部门长</b> Head Of Quality Department           </div> <div> <b>检验员</b> Checker           </div> </div>																																																		

# Material Report

[illegible]

# Quenching Report



NINGBO 甬志

杭州甬志环保科技有限公司

Ningbo Wuzhi Environmental Technology Co., Ltd

回头客 满意

Heat treatment quality report					
客户名称 Production unit	杭州 杭州华能热电有限公司	产品名称 Product name	炉型	材料 Material	420MA
材料批号 Material NO	MS000094	热处理炉号 Treatment type	箱式炉	热处理炉号 Heat treatment NO.	00180703
数量 quantity	5				
热处理炉 Heat treatment	34500-020470-020345-0-0				
序号 No.	检验项目 Examination project	要求值 Requirements	实测值 measured value		
1	炉内温度炉温 Temperature	450±5℃	440℃		
2	升温速度 Elevation of temperature speed	100±10℃/h	100-120℃/h		
3	保温温度 Preheating temperature	800±10℃	800℃		
4	空冷时间 cooling time	5h	3.5h		
5	冷却速度 cooling speed	—	—		
6	空冷炉内气氛 condition	空气炉 cooling	空气炉 cooling		

上述检验结果，符合要求  
The check result are qualified

工长签字: 

Model by: 李松

审核: 

Check by: 李洪

日期: 2016.07.27

Date:





# Tempering Report

[illegible]

# Raceway hardness report



**LDB® 洛阳隆达轴承有限公司**  
LUOYANG LONGDA BEARING CO., LTD.

无损检测实验记录  
Non-destructive testing test record

型号 Bearing No.	134.70.3296.03-G1	图号 Drawing No.	12345-1-000	序列号 Serial No.	1810001 1810002
零件名称 Part No.	01, 21, 02				
检测项目 Inspect item	开色渗透探伤 Color penetrant inspection				
<p>实验条件或技术要求: 检测方法: 溶剂去除型单组分显像剂着色渗透探伤 试剂型号: H-KT 透射型 试剂产地: 洛阳隆达轴承有限公司 零件状态: 热处理后 检测标准: Q/LZ L(C) 7002-2003</p> <p>Technical requirements: Inspection method: Coloring Penetrant inspection of Solvent-removed quick-drying developer Reagent type: H-KT General type Reagent Origin: Wuyang Hongde Testing Equipment Co., Ltd. Parts Condition: Raceway after final milled Inspection Standard: Q/LZ L(C) 7002-2003</p> <p>检查结果: 经对样品表面 134.70.3296.03-G1 编号为 1810001 和 1810002 的 01, 21, 02 零件表面进行着色渗透探伤, 未发现缺陷, 符合工艺要求, 判定合格。</p> <p>Test Results: Subject to color penetrant inspection of the raceway surface for slewing bearing 134.70.3296.03-G1, serial number 1810001 &amp; 1810002, parts number 01, 21, 02. No flaws were detected on the test surface, and the flaw detection was qualified.</p> <p>上述检测结果, 符合要求。 The check result are qualified.</p> <p>检测员: [Signature] 日期: 2018.10.09 Inspector: [Signature] Date: 2018.10.09</p>					

Raceway M.P.I. Report

**LDB® 洛阳隆达轴承有限公司**  
LUOYANG LONGDA BEARING CO., LTD.

无损检测实验记录  
Non-destructive testing test record

型号 Bearing No.	134.70.3296.03-G1	图号 Drawing No.	12345-1-000	序列号 Serial No.	1810001 1810002
零件名称 Part No.	02				
检测项目 Inspect item	齿面硬度 Tooth Surface Hardness				
<p>实验条件或技术要求: 仪器型号: TH140 洛氏硬度计 检测方法: 洛氏硬度计 零件状态: 热处理后 工艺要求: HRC 50-60 检测标准: Q/LYC 80067-2007</p> <p>Technical Requirement: Instrument model: TH140 Rock hardness tester Inspection method: Hardness test of Rock Hardness tester Parts Status: Teeth after heat treatment Technical requirement: HRC 50-60 Inspection Standard: Q/LYC 80067-2007</p> <p>检查结果: 经对样品表面 134.70.3296.03-G1 编号为 1810001 和 1810002 的 02 零件齿面进行硬度检测, 检测结果符合工艺要求, 判定合格。</p> <p>Test Results: Subject to hardness test of the Teeth surface for slewing bearing 134.70.3296.03-G1, serial number 1810001 and 1810002, parts number 02, the surface hardness is in accordance with the process requirements and the hardness is qualified.</p> <p>上述检测结果, 符合要求。 The check result are qualified.</p> <p>检测员: [Signature] 日期: 2018.10.09 Inspector: [Signature] Date: 2018.10.09</p>					

Teeth Hardness Report

**LDB® 洛阳隆达轴承有限公司**  
LUOYANG LONGDA BEARING CO., LTD.

无损检测实验记录  
Non-destructive testing test record

型号 Bearing No.	134.70.3296.03-G1	图号 Drawing No.	12345-1-000	序列号 Serial No.	1810001 1810002
零件名称 Part No.	02				
检测项目 Inspect item	荧光磁粉探伤 Fluorescent magnetic particle inspection				
<p>实验条件或技术要求: 检测方法: 荧光磁粉探伤 检测设备: MY-2 型 便携式荧光磁粉探伤仪 磁悬液: H-2-0.6 型 15% 荧光磁粉悬液 灵敏度: A1-15/15 型 标准试片 磁化方法: 复合磁化法 零件状态: 热处理后 执行标准: JB/T 8090.15</p> <p>Technical Requirement: Test Method: Fluorescent magnetic particle inspection Flaw Instrument model: MY-2 portable fluorescent magnetic particle flaw detector Magnetic suspension: MY-2-0.6 15% fluorescent magnetic powder suspension Sensitivity test piece: A1-15/15 type standard test piece Magnetization method: Composite magnetization method Parts Status: Teeth Surface after heat treatment Inspection Standard: JB/T 8090.15</p> <p>检查结果: 经对样品表面 134.70.3296.03-G1 编号为 1810001 和 1810002 的 02 零件齿面进行荧光磁粉探伤, 未发现缺陷, 符合工艺要求, 判定合格。</p> <p>Test Results: Fluorescent magnetic particle inspection was performed on the gear surface of the 02 parts of the slewing bearing 134.70.3296.03-G1 Serial No. 1810001 and 1810002. No open type defects were found on the tooth surface, and the flaw detection was qualified.</p> <p>上述检测结果, 符合要求。 The check result are qualified.</p> <p>检测员: [Signature] 日期: 2018.10.09 Inspector: [Signature] Date: 2018.10.09</p>					

Teeth C.P.I. Report

**LDB® SLEWING BEARING**  
中国精密转盘轴承制造商  
China Precision Slewing Bearing Manufacturer

INSPECTION REPORT

型号 Bearing No.	134.70.3296.03-G1	图号 Drawing No.	12345-1-000	序列号 Serial No.	1810001 1810002
零件名称 Part No.	02				
检测项目 Inspect item	荧光磁粉探伤 Fluorescent magnetic particle inspection				
<p>实验条件或技术要求: 检测方法: 荧光磁粉探伤 检测设备: MY-2 型 便携式荧光磁粉探伤仪 磁悬液: H-2-0.6 型 15% 荧光磁粉悬液 灵敏度: A1-15/15 型 标准试片 磁化方法: 复合磁化法 零件状态: 热处理后 执行标准: JB/T 8090.15</p> <p>Technical Requirement: Test Method: Fluorescent magnetic particle inspection Flaw Instrument model: MY-2 portable fluorescent magnetic particle flaw detector Magnetic suspension: MY-2-0.6 15% fluorescent magnetic powder suspension Sensitivity test piece: A1-15/15 type standard test piece Magnetization method: Composite magnetization method Parts Status: Teeth Surface after heat treatment Inspection Standard: JB/T 8090.15</p> <p>检查结果: 经对样品表面 134.70.3296.03-G1 编号为 1810001 和 1810002 的 02 零件齿面进行荧光磁粉探伤, 未发现缺陷, 符合工艺要求, 判定合格。</p> <p>Test Results: Fluorescent magnetic particle inspection was performed on the gear surface of the 02 parts of the slewing bearing 134.70.3296.03-G1 Serial No. 1810001 and 1810002. No open type defects were found on the tooth surface, and the flaw detection was qualified.</p> <p>上述检测结果, 符合要求。 The check result are qualified.</p> <p>检测员: [Signature] 日期: 2018.10.09 Inspector: [Signature] Date: 2018.10.09</p>					

Final Test Report

# Slewing Bearing Cases

## No.1

Export to: Netherlands

Customer: Terberg (vehicle manufacturer)

Type: 24132510

Cooperative relationship: 9 years

Application: Under the rotary seat of trailer

Feature: Galvanized and anticorrosion





## No.2

Export to: Latvia

Customer: Bearing distributor

Application: Forestry equipment

Type: 073.050.013.018 013.25.310.03K1

013.25.410.03K 010.25.346.K3

Cooperative relationship: 8 years



073.050.013.018



010.25.346.K3



## No.3

Export to: Italy

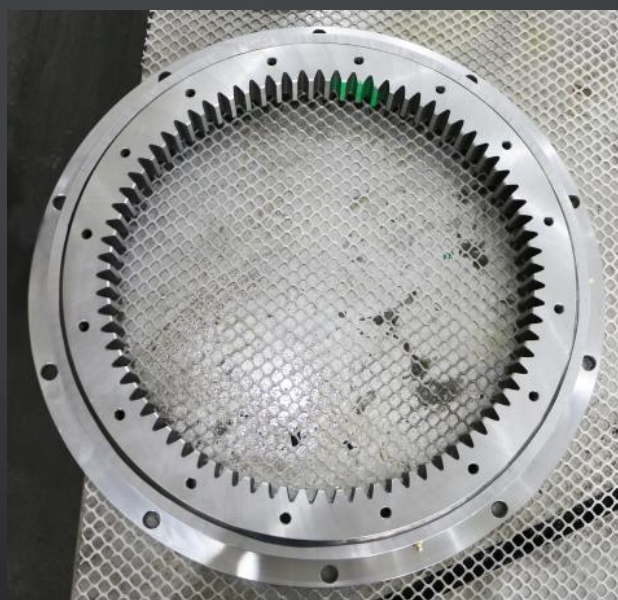
Customer: Slewing bearing distributor

Type: 011.20.0414, L12.20.0544, SK6-37PZ

Cooperative relationship: 10 years



011.20.0414



L12.20.0544



SK6-37PZ



## No.4

Application: Trailer slewing bearing

Type: KLK400L



## No.5

Application: AGV automatic guided vehicle  
Applicated to: Warehousing , Supermarket, Logistics.  
Advantage: Long lifetime. Rotation stable





## No.6

Type: 01-0235-00

Applicated to: Medical equipment (X-ray machine, CT machine)

Feature: Low noise, Turning flexible



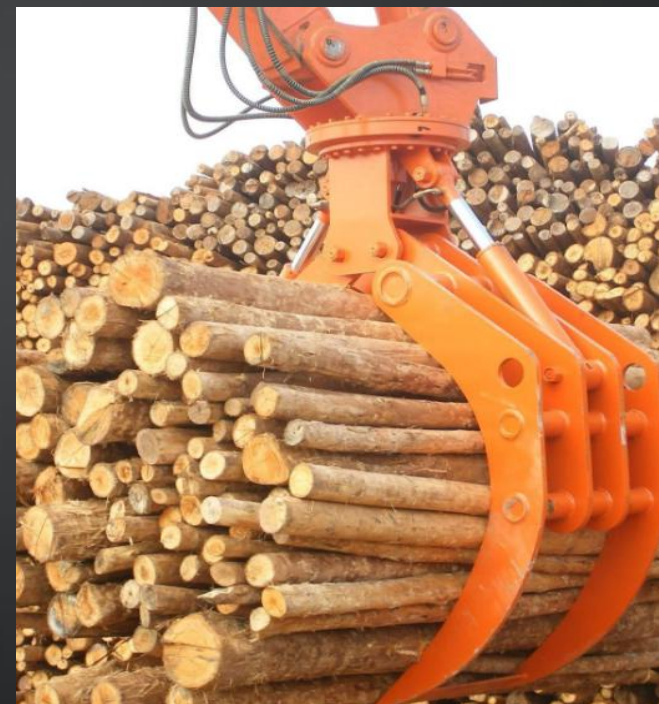
## No.7

Export to : Netherlands

Customer : Grab manufacturer

Cooperative relationship: 8 years

Application: Grab





# No.8

Export to: Russia

Type: Tadano TMZ300 Dongyang SS1926, SS1406, Soosan 746, 736, Kanglim 1256,  
Unic 330, UR500 etc...

Application: Truck crane

Cooperative relationship: 2 years



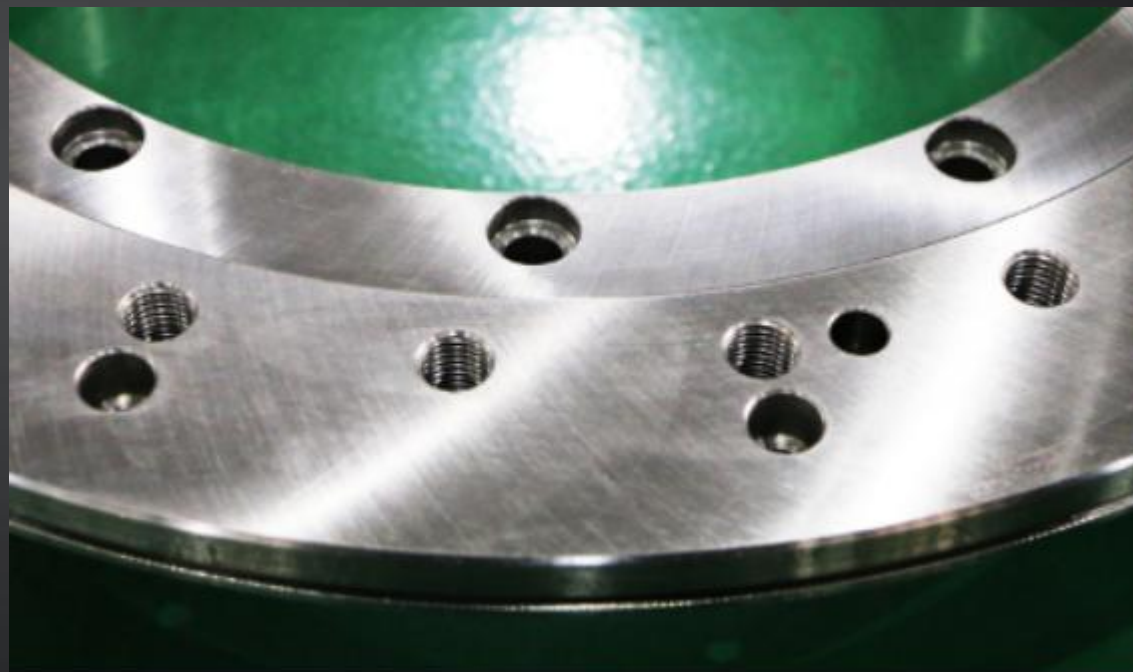
## No.9

Export to: Germany

Type: DG16-20, DG25-35, DG45-50, DG60-140 etc...

Feature: Double completely seals

Application: Forklift





# No.10

Export to: USA

Structure: Double row different ball slewing bearing

Install: Connection with 2 inch thickness flange and 4 inch thickness flange

Application: Steerable rock system, Underground pipe drilling equipment



# No.11

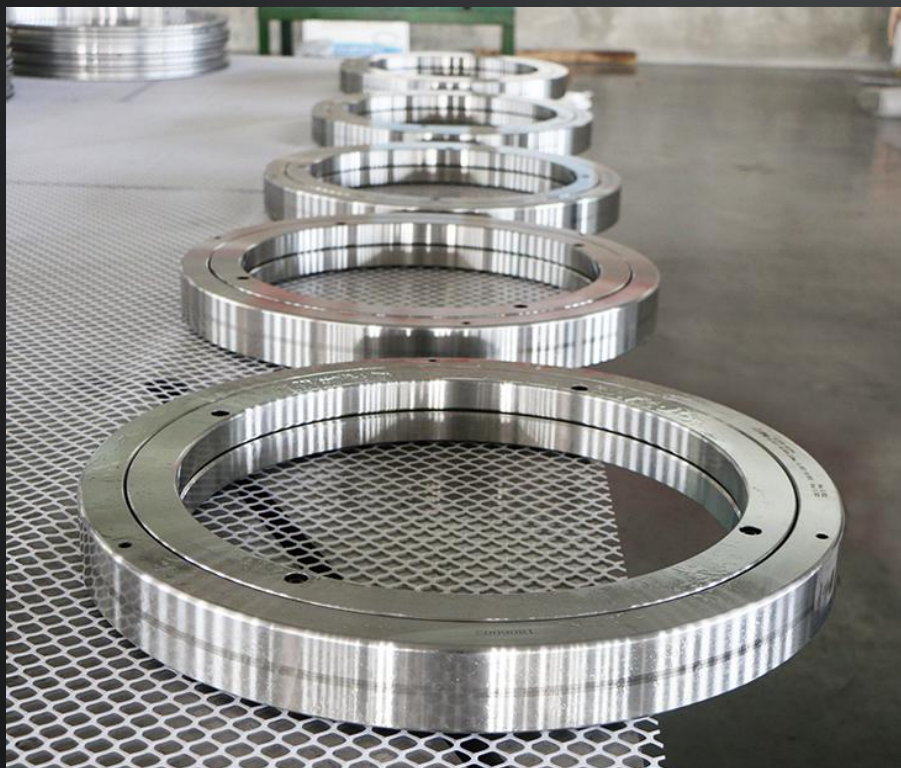
Export to: Italy

Type: XR766051

Structure: Crossed taper roller bearing

Application: CNC vertical turning machine

Feature: High precision P4/P2





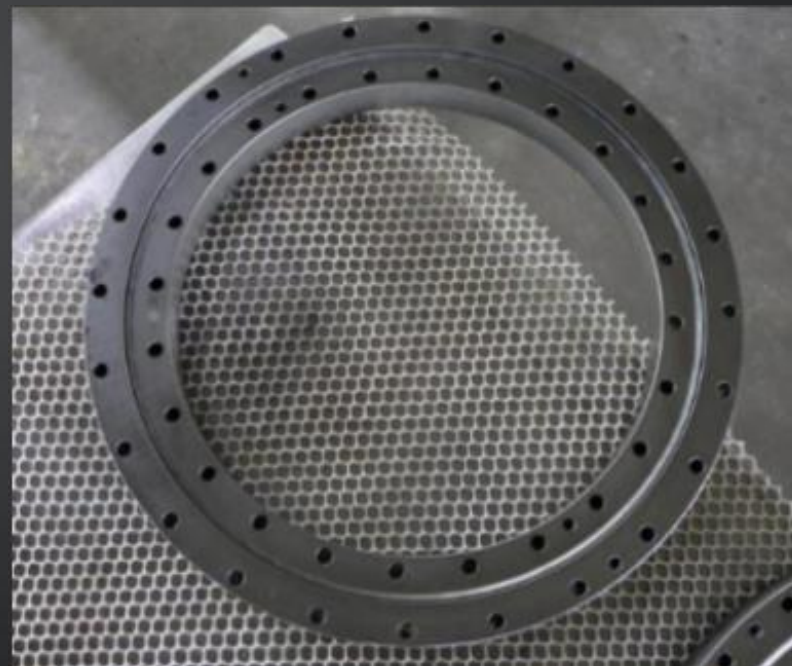
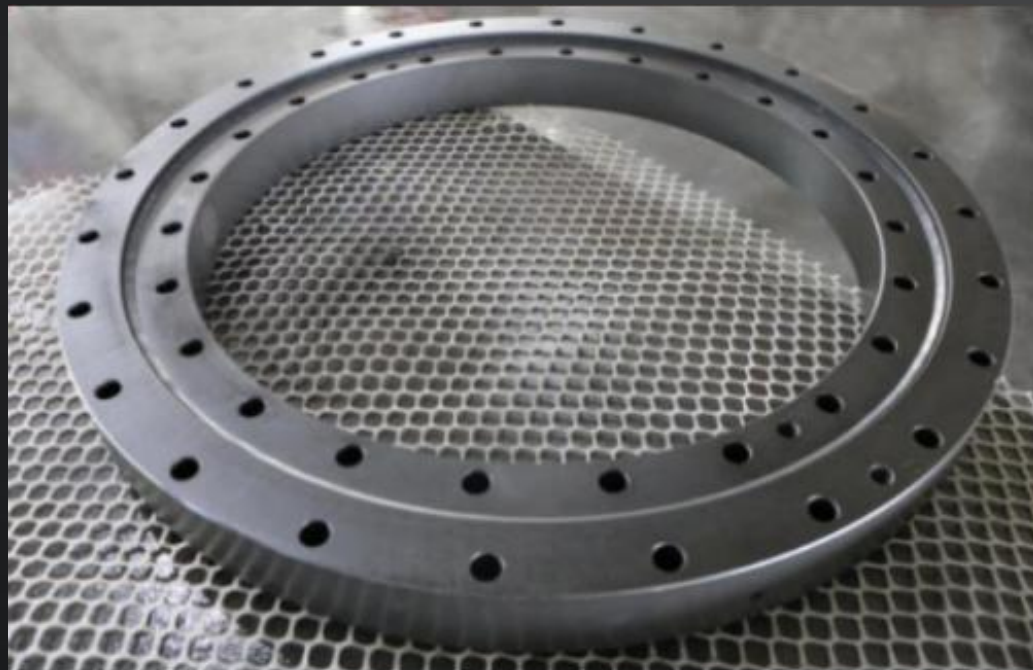
# No.12

Export to: USA

Customer: Ship repair industry

Type: 110.25.710

Feature: Surface with Phosphating treatment



# No.13

Export to: Belgium

Customer: Wind turbine manufacturer

Type:

Blade Bearing 060.40.0900.100.41.1423

Yaw Bearing 061.45.1070.000.41.1523

Cooperative relationship: 4 years

Application: 400 KW wind turbine

Feature: Blasting Sand+Spraying Zinc+Painting

Design service life 20years







**1.5MW Blade Bearing**



**500KW Blade Bearing**

# No.14

Export to: Europe

Type: ME1536-3300-A/F98-13-0354-CH-091-000019

Feature: 0 clearance , Sand blast+sparying zinc+Painting

Design service life 25years

Application: Solar tower project





# No.15

Export to: Israel, Korea, Lebanon, Portugal

Application: Tower Crane SIMMA S28-52, S18-56, S18-52 etc...



# No.16

Application: Military Industry

Type: 013.16.816

Feature: Teeth Modulus  $M=2$

Anti-rust treatment: Sand blast+sparying zinc+Painting





# No.17

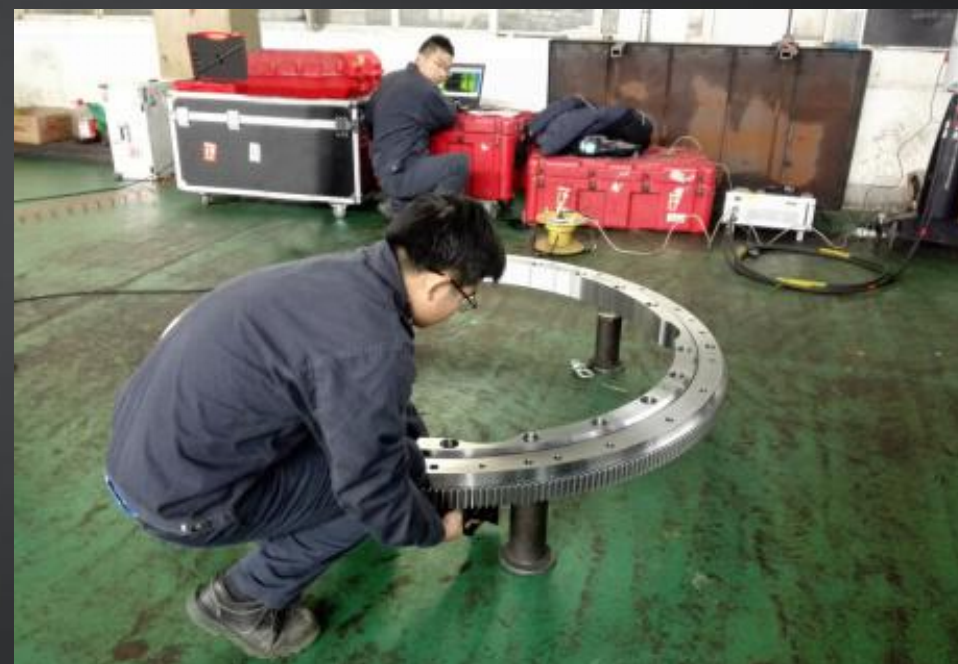
Application: Military Industry

Type: 20-2-6-08-03

Dimension: 1390\*1690\*90mm

Feature: High precision, teeth runout 0.18mm

Passed SGS's inspection



# No.18

Export to: All over the world

Type: Komatsu PC400-6, CAT 319C,  
Hitachi EX200.

Application: Excavator

Advantage: Complete Models, Ready stock,  
Warranty time 12months





# No.19

Export to : Russia

Customer: Tehnoros Group of Companies

Type: 191.25.2000.990.41.1502

Cooperative relationship: 2 years

Application: Port Crane

Structure: Three row cylindrical roller slewing bearing with external gear



# No.20

Export to: India

Customer: SARDA(steel plant)

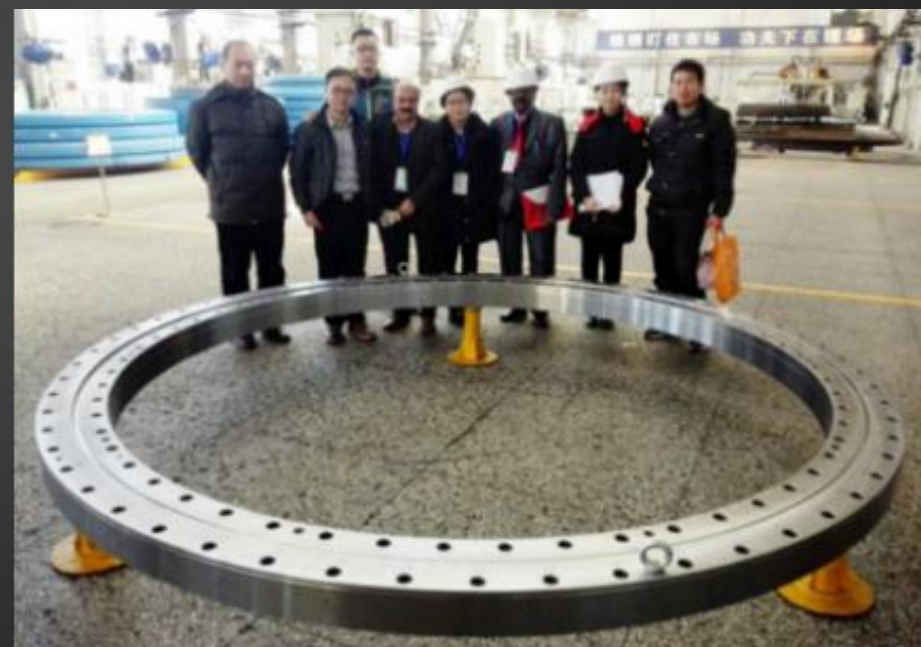
Type: 190.25.2794.000.41.1502

Dimension: 3026\*2614\*159mm

Unit weight: 1779KG

Feature: Three row cylindrical roller slewing bearing

Application:TRF stacker-reclaimer





# No.21

Export to: Australia

Type: 134.70.3296.03/G1

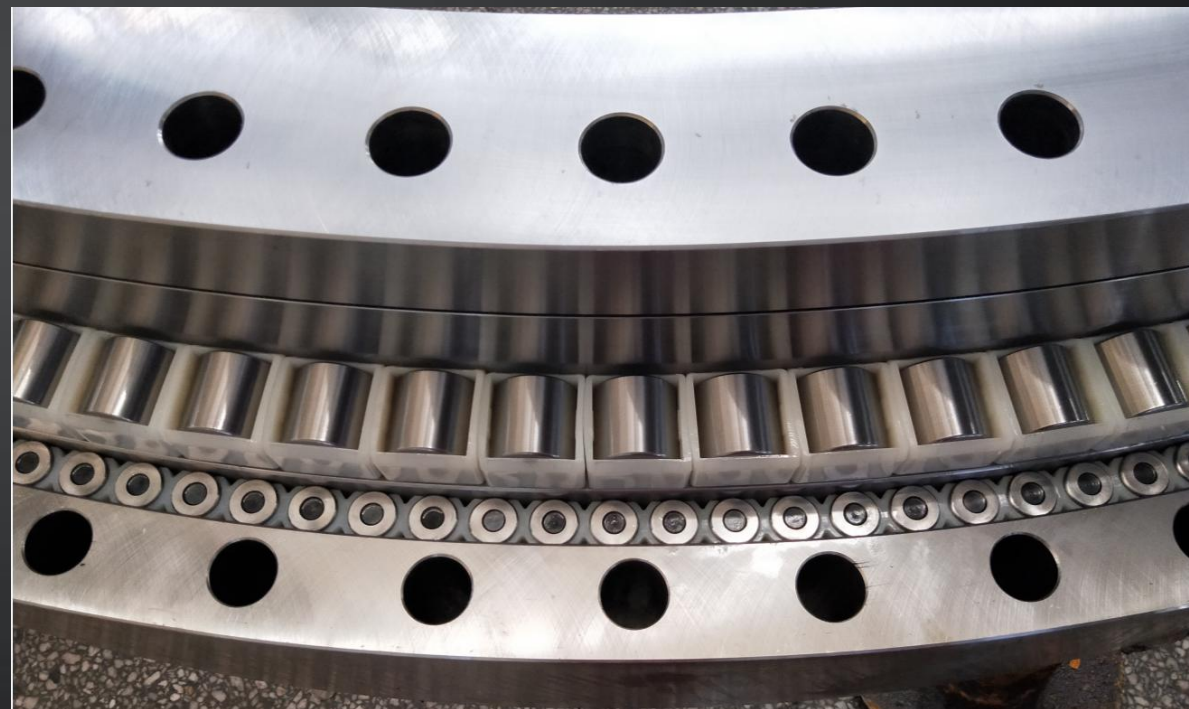
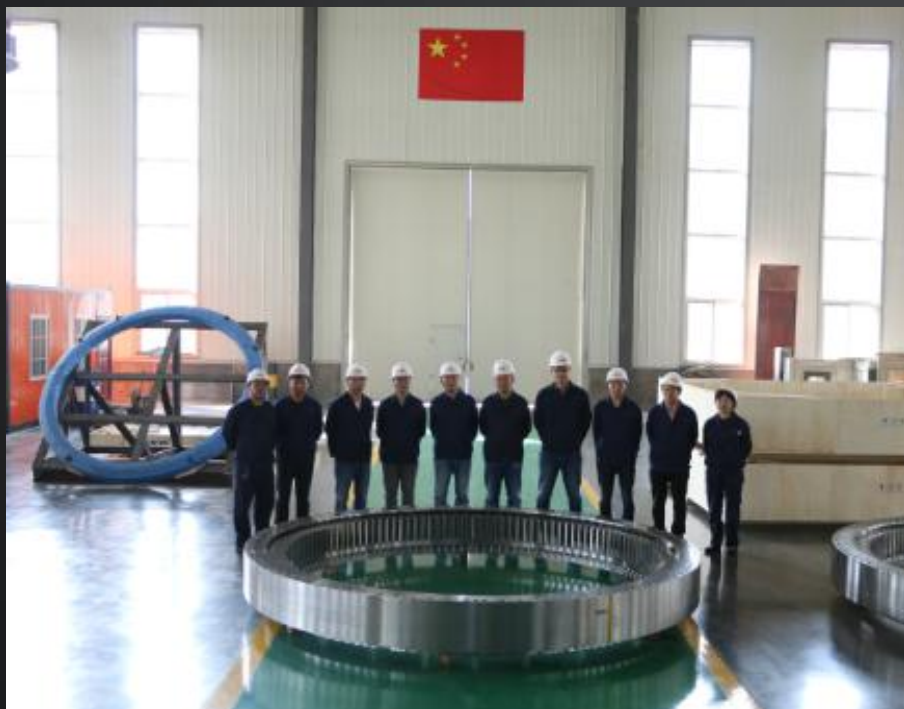
Dimension: 2948\*3547.5\*400mm

Unit weight: 7800KG

Application: Mining Industry Huge Excavator O&K RH170

Feature: Milled on all surface

Passed Intertek's Inspection



## No.22

Export to: All over the world

Type: SE7 and WDE3 with 24VDC Motor

Feature: Single axis and dual axis slew drive

Application: CPV/CPT/CSP Solar project

Project location: Philippines, Russia and Mexico





## No.23

Export to: France

Customer: Fassi Group

Slewing drive: open type S9+hydraulic motor and S14

Application: Aerial work platform

Cooperative relationship: 2 years



## No.24

Export to: All over the world

Type: HSE25-2

Application: Radar Vehicle

Structure: Double worm closed slewing drive, Copper worm gear,

Feature: 0 clearance, High precision





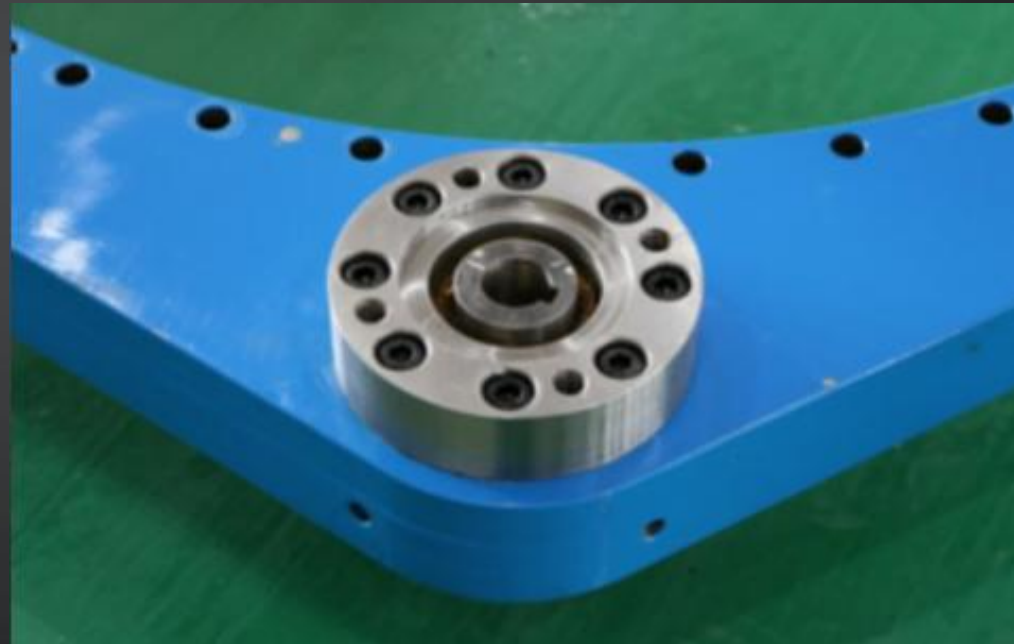
## No.25

Export to : Saudi Arabia

Customer : Heavy equipment Manufacturer

Item No.: Spur gear slewing drive

Cooperative relationship: 3 years



## No.26

Export to : Philippines

Customer : Solar Tracking Project EPC

Item No.: Vertical 9" Slewing drive with 24VDC Motor

Cooperative relationship: 3 years





# Package and Transportation

**LDB<sup>®</sup> SLEWING BEARING**  
中国精密转盘轴承智造商  
China Precision Slewing Bearing Manufacturer



**FedEx**

**TNT**

**DHL**  
WORLDWIDE EXPRESS



**EMS** GREITASIS PAŠTAS

# Customer

**LDB® SLEWING BEARING**  
中国精密转盘轴承智造商  
China Precision Slewing Bearing Manufacturer

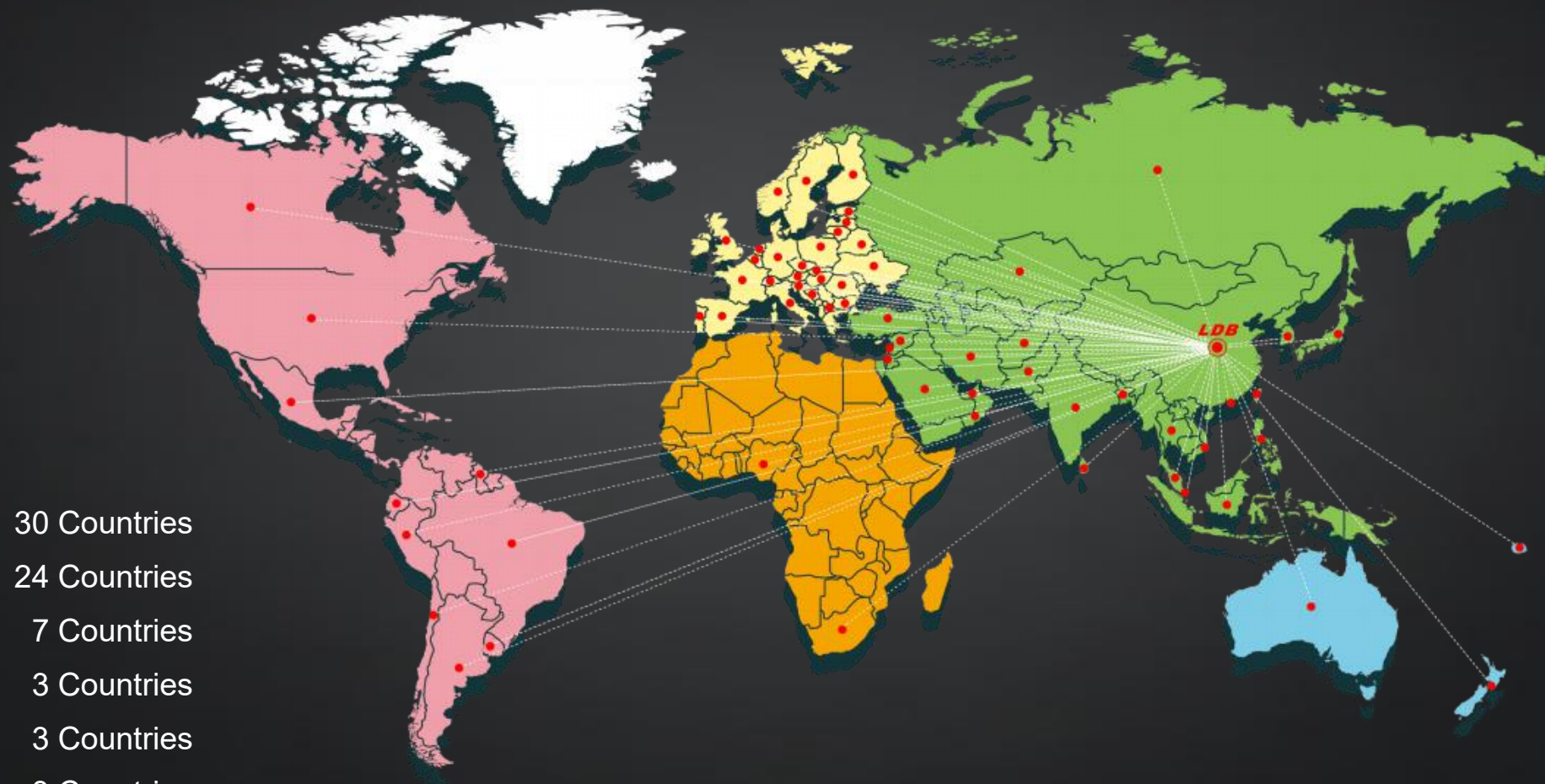
Trust the Choice of Global 500 , Trust the Products From **LDB®**





# Exporting Country

**Our products have been exported to 70 countries and regions**



Europe:	30 Countries
Asia:	24 Countries
South America:	7 Countries
North America:	3 Countries
Oceania:	3 Countries
Africa:	3 Countries

# Customer visit

**LDB<sup>®</sup> SLEWING BEARING**  
中国精密转盘轴承智造商  
China Precision Slewing Bearing Manufacturer



Russian customer visit in May 2018



Australian customer visit in May 2018



Germany customer visit in May 2018



Dutch customers visited in June 2018



Korean customer visit in July 2018



Canada customer visit in October 2018



# International Communication

**LDB<sup>®</sup> SLEWING BEARING**  
中国精密转盘轴承智造商  
China Precision Slewing Bearing Manufacturer



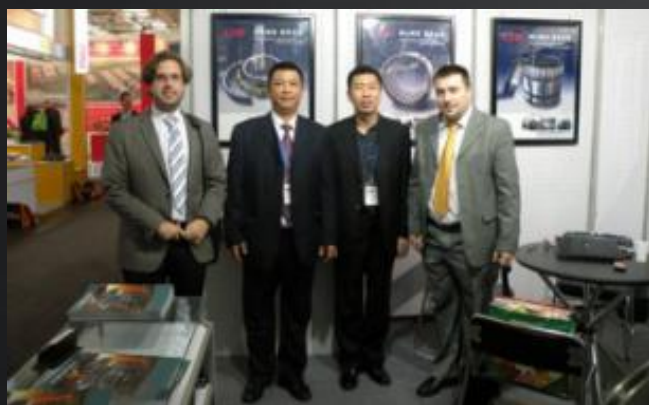
Hanover Exhibition 2009



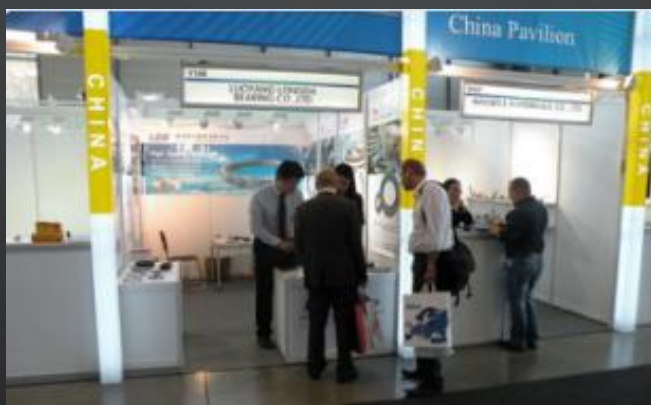
Bauma Munich 2010



Australia Aimex 2011



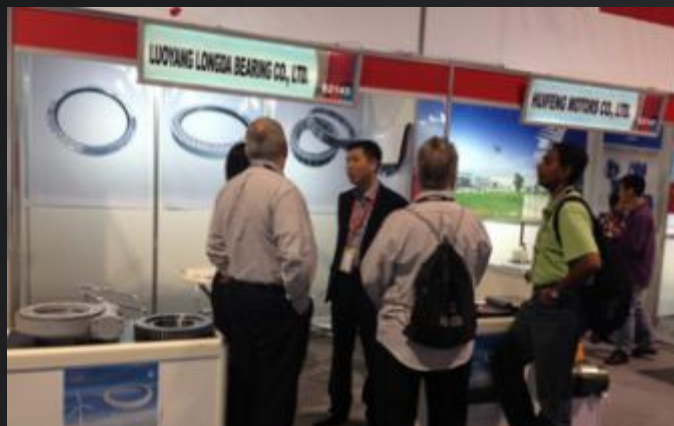
Hanover Exhibition 2011



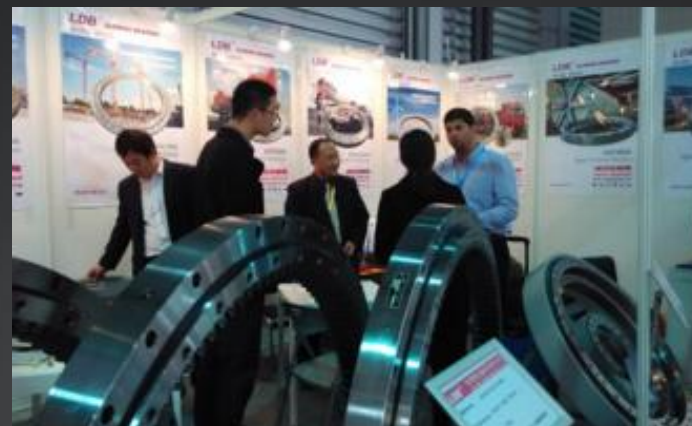
Czech 2012 MSV



KOREA KOMAF 2013



2014Las Vegas Exhibition.2



Bauma China 2014



India Excon 2015



France INTERMAT 2015



Russian 2016CTT



2017CTT



# LDB Family

**LDB<sup>®</sup> SLEWING BEARING**  
中国精密转盘轴承智造商  
China Precision Slewing Bearing Manufacturer



# MANUFACTURE ELABORATELY SERVE THE WORLD

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