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PGN Bearings 6304-2RS

PGN 6304-2RS Bearing Instruction Manual

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your PGN 6304-2RS deep-groove ball bearings. Designed for durability and high performance, these bearings are suitable for a wide range of industrial and mechanical applications. Adhering to these instructions will help ensure the longevity and optimal performance of your bearings.



A PGN 6304-2RS bearing with blue rubber seals, alongside its packaging featuring the PGN logo and 'PACKAGED IN THE USA' label.

2. SPECIFICATIONS

The PGN 6304-2RS bearing features robust construction and precise dimensions for reliable performance.

Specification	Value
Model Number	6304-2RS
Material	Chrome Steel
Inside Diameter (I.D.)	20 mm
Outside Diameter (O.D.)	52 mm
Width (W.)	15 mm
Maximum RPM	14,000
Dynamic Load Rating	3,575 lbs
Static Load Rating	1,775 lbs
Seal Type	Dual-sided Rubber Seal (2RS)
Lubrication	Pre-lubricated

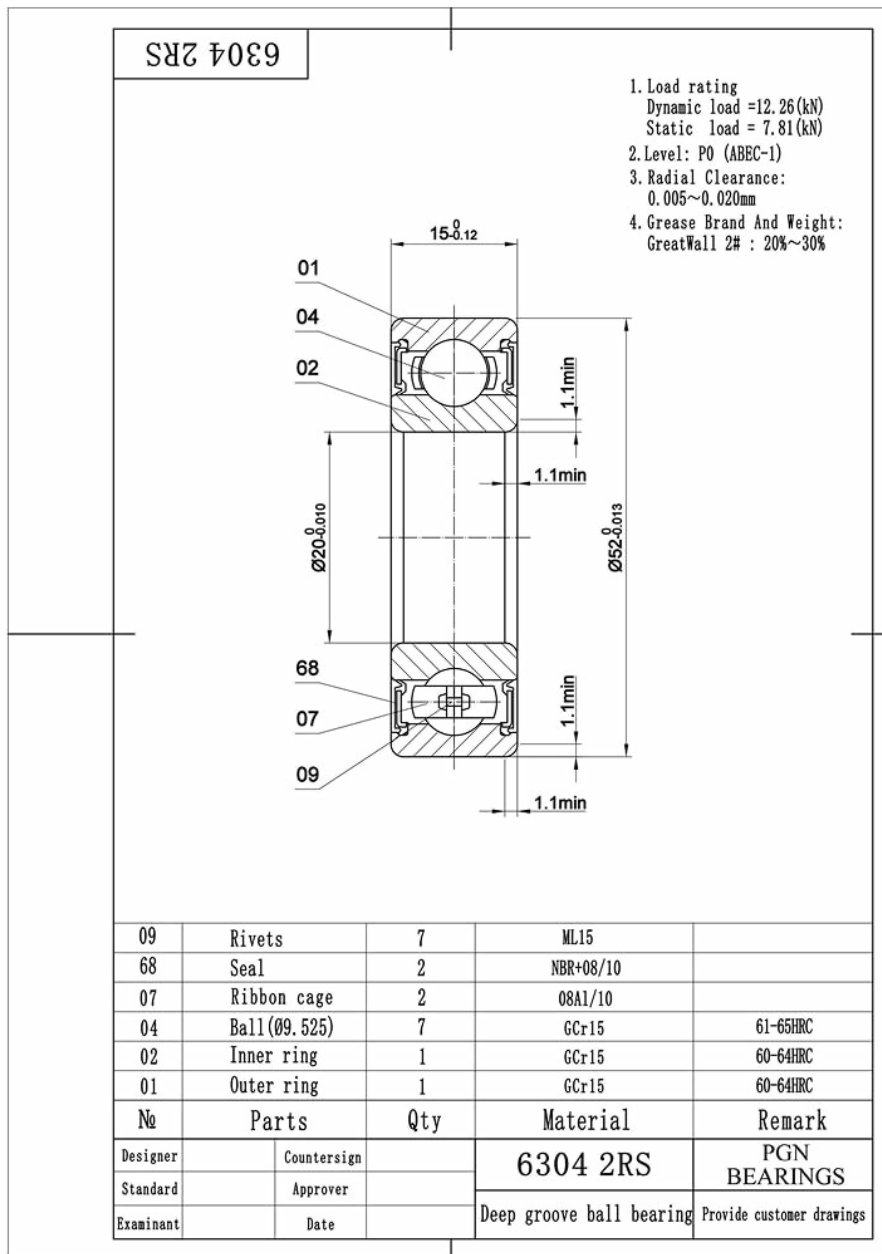
DIMENSIONS

6304 SERIES

- I.D. (Inside Diameter)** 20 mm
- O.D. (Outside Diameter)** 52 mm
- W. (Width)** 15 mm
- RPM** 14,000
- Dynamic Load** 3,575 lbs
- Static Load** 1,775 lbs

A graphic detailing the key dimensions and performance specifications for the 6304 series bearing, including Inside Diameter

(20 mm), Outside Diameter (52 mm), Width (15 mm), RPM (14,000), Dynamic Load (3,575 lbs), and Static Load (1,775 lbs).



A detailed technical drawing (blueprint) of a 6304 2RS deep groove ball bearing, showing internal components, dimensions, load ratings, and material specifications.

3. FEATURES

- **Durable Construction:** Crafted from chrome steel for high resistance to impact and reduced metal fatigue, ensuring long-term reliability.
- **Sealed Protection:** Features dual-sided rubber seals (2RS) to effectively protect internal components from dust, moisture, and contaminants, extending bearing life.
- **Pre-Lubricated:** Supplied pre-lubricated for immediate use, eliminating the need for initial greasing and simplifying installation.
- **High RPM Support:** Engineered to support high rotational speeds, minimizing wear and tear in demanding applications.
- **High Load Tolerance:** Optimized design for high load capacity and reduced friction, ensuring stable performance under stress.

4. INSTALLATION

Proper installation is crucial for the optimal performance and lifespan of your PGN 6304-2RS bearings.

1. **Preparation:** Ensure that the shaft and housing surfaces are clean, smooth, and free from burrs or debris.
2. **Alignment:** Carefully align the bearing with the shaft or housing.
3. **Pressure Application:** Apply even pressure to the bearing ring that is being fitted (inner ring for shaft, outer ring for housing). Use appropriate tools to press the bearing into place.
4. **Avoid Direct Impact: Do not strike the inner or outer rings directly with a hammer or other hard objects**, as this can cause damage to the bearing components.
5. **Lubrication:** The PGN 6304-2RS bearing is pre-lubricated and ready for immediate installation. No additional grease is required upon initial setup.

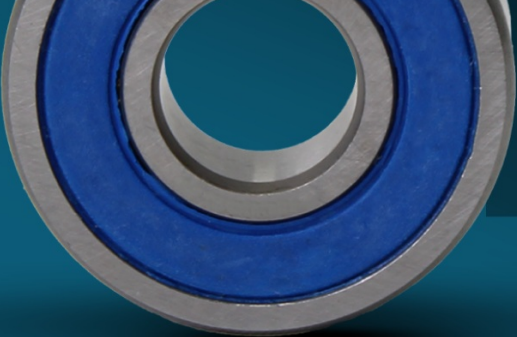


An image showing a person holding a PGN bearing, illustrating the ease of installation due to its pre-lubricated and ready-to-use design.

5. OPERATION

To ensure the best performance and extend the life of your PGN 6304-2RS bearings, observe the following operational guidelines:




- **Load and Speed Limits:** Always operate the bearing within its specified dynamic and static load ratings, and maximum RPM. Exceeding these limits can lead to premature wear and failure.
- **Monitoring:** Regularly monitor the operating environment for unusual noises, vibrations, or excessive heat. These can be indicators of improper installation, overloading, or impending failure.
- **Environmental Conditions:** While sealed, extreme environmental conditions (e.g., very high temperatures, corrosive chemicals) may affect bearing performance. Ensure the bearing is suitable for the specific operating environment.



ENGINEERED TO ENDURE

From workshop floors to professional-grade machinery PGN Bearings deliver relentless performance.

*Image for illustration purposes only. Product may also be supplied in black.

- **Heavy-Duty Build**
- **High RPM support**
- **Dual Rubber Seal**

A graphic highlighting the PGN bearing's capability to support extreme RPM loads, ensuring smooth, vibration-free rotation and prolonged life in tough conditions.

6. MAINTENANCE

The PGN 6304-2RS bearings are designed for low maintenance due to their sealed and pre-lubricated nature.

- **Inspection:** Periodically inspect the bearings for any visible signs of wear, corrosion, or damage to the rubber seals. Replace bearings if significant damage is observed.
- **Cleaning:** Keep the area around the bearings clean to prevent contaminants from compromising the seals.
- **Re-lubrication:** Due to the dual-sided rubber seals, these bearings are generally considered maintenance-free regarding lubrication for most applications. If operating in extremely harsh, high-temperature, or contaminated environments, and if the application design allows for re-lubrication, consult a bearing specialist for appropriate grease types and re-lubrication schedules.

7. APPLICATIONS

PGN 6304-2RS bearings are versatile and suitable for a broad range of applications requiring reliable rotational support.

- Industrial machinery
- Automotive components
- Power tools
- Electric motors
- Agricultural equipment
- Recreational vehicles (e.g., skateboards, scooters)

FROM WORKSHOPS TO WHEELS



A collage of images demonstrating diverse applications for PGN bearings, including industrial machinery, automotive engines, power tools, and skateboards, illustrating their versatility.

8. TROUBLESHOOTING

If you encounter issues with your PGN 6304-2RS bearings, consider the following common problems and solutions:

- **Excessive Noise or Vibration:**

- Check for proper alignment of the bearing and shaft/housing.
- Ensure all mounting components are securely fastened.
- Verify that the correct bearing size and type are being used for the application.
- Inspect the bearing for any signs of damage or contamination.

- **Overheating:**

- Confirm that the bearing fit is correct (not too tight).
- Ensure the bearing is not subjected to excessive load beyond its ratings.
- While pre-lubricated, extreme operating conditions might require specialized lubrication considerations; consult a professional if unsure.

- **Premature Failure:**

- Review installation procedures to ensure correct methods were followed.
- Assess operating conditions for overloading or exposure to contaminants.
- Inspect for signs of fatigue, corrosion, or impact damage.

9. WARRANTY AND SUPPORT

For product support, technical assistance, or warranty inquiries regarding your PGN 6304-2RS bearings, please contact PGN Bearings directly through their official customer service channels. Refer to your purchase documentation for specific warranty terms and conditions.

Manufacturer: PGN Bearings