

Webb 15911

Webb 15911 Unground Ball Bearing User Manual

Model: 15911 | Brand: Webb

PRODUCT OVERVIEW

The Webb 15911 Unground Ball Bearing is a robust component designed for various industrial applications. Unground bearings are typically used in applications where precision and high speeds are not the primary requirements, but rather durability and cost-effectiveness. This bearing is new in its factory box, ensuring quality and readiness for installation.



A close-up view of the Webb 15911 Unground Ball Bearing, featuring its distinctive red seal and the 'WEBB' brand name visible on the outer race. The model number '15911' is also visible.



ravennastuff12

This image displays two Webb 15911 Unground Ball Bearings side-by-side. One bearing is sealed with the red cover, while the other is shown with its internal ball bearings exposed, illustrating the internal components.

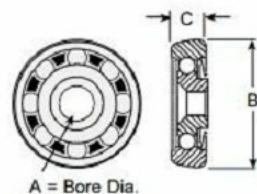
SPECIFICATIONS

Attribute	Value
Bearing Type	Ball Bearing
Bearing Number	15911
Material	Steel
Item Weight	0.01 Ounces
Manufacturer	Webb
Date First Available	August 16, 2015
ASIN	B013ZS3C12

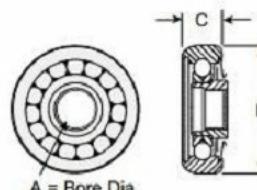
For detailed dimensional specifications, refer to the technical chart and measurement images below:

Convex Face Trolley Wheels

Wheel Size	Wheel Type	Part No.	A	B	C	Wt.	Labyrinth Seals	Plain Inner Cap				
3"	Retainer	6800	3/8	2-21/64"	53/64"	.60	Yes	5189				
3"	Full Comp.	16011	3/8			.56						
3"	Retainer	6802	5/8			.60						
3"	Full Comp.	16015	1/2"			1.41						
4"	Retainer	15908	1/2"			1.31						
4"	Retainer	15907	1"			1.28						
4"	Full Comp.	15911	1"	3-1/4"	1-5/32	1.22	No	15574				
4"	Full Comp.	15917	1"			0.64						
6"	Retainer	15954	1"			0.59						
6"	Full Comp.	15957	1"			0.58						
6"	Full Comp.	15964	1"	4-15/16"	1-27/64"	5.06	Yes	5195				
METRIC												
3"	Retainer	6800	9.5			0.27						
3"	Full Comp.	16011	9.5	59.13	21.1	0.26	Yes	5189				
3"	Retainer	6802	16.9			0.27						
3"	Full Comp.	16015	12.7			0.64						
4"	Retainer	15908	12.7			0.59						
4"	Retainer	15907	25.4	82.6	29.4	0.58	Yes	15574				
4"	Full Comp.	15911	25.4			0.55						
4"	Full Comp.	15917	25.4			0.55						
6"	Retainer	15954	25.4			0.55						
6"	Full Comp.	15957	25.4	125.4	36.1	2.30	No	5195				
6"	Full Comp.	15964	25.4			0.55						



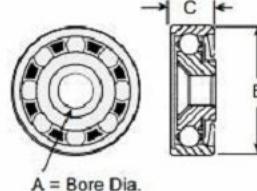
Retainer Type - Convex Face



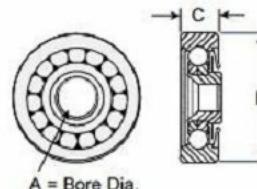
Full Complement - Convex Face

Flat Face Trolley Wheels

	Wheel Type	Part No.	A	B	C	Wt lb	Labyrinth Seals	Plain Inner Cap
3"	Full Comp.	16016	1/2	2 1/8	53/64	.60	Yes	5189
4"	Retainer	9572	1	2 15/16	1 5/32	1.06		
4"	Full Comp.	10214	1		1 11/64	1.44		
6"	Retainer	15967	1	4 9/16	1 27/64	4.19		
METRIC								
3"	Full Comp.	16016	12.7	53.98	21.1	0.27	Yes	5189
4"	Retainer	9572	25.4	74.6	29.4	0.48		
4"	Full Comp.	10214	25.4		29.4	0.65		
6"	Retainer	15967	25.4	115.9	36.2	1.90		



Retainer Type - Flat Face



Full Complement - Flat Face

Inverted or free trolley wheels require an inner cap with grease fitting.

Part numbers are: 3" wheel - #15930

4" wheel - #15929

6" wheel - #8249

Note:

The trolley wheels described on this page are stock items. Custom wheel configurations are available. Contact Webb Sales for further information.

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A detailed technical chart providing specifications for various trolley wheels, including the Webb 15911 bearing. The chart lists wheel size, part number, dimensions (A, B, C), weight, and labyrinth seal information. The 15911 model is highlighted within the 'Convex Face Trolley Wheels' section, showing its specific dimensions.



A digital caliper is shown measuring the outer diameter of the Webb 15911 Unground Ball Bearing. The display reads 82.53 mm, indicating the overall width of the bearing.



A digital caliper is used to measure the inner diameter (bore) of the Webb 15911 Unground Ball Bearing. The digital readout

shows 25.83 mm, which is the diameter of the central hole.



This image shows a digital caliper measuring the thickness or width of the Webb 15911 Unground Ball Bearing. The measurement displayed on the caliper is 25.55 mm.

INSTALLATION GUIDELINES

Proper installation is crucial for the longevity and performance of the Webb 15911 Unground Ball Bearing. Follow these general guidelines:

- 1. Preparation:** Ensure the shaft and housing bores are clean, free from burrs, and within specified tolerances.
- 2. Lubrication:** Apply a thin layer of appropriate lubricant to the shaft and housing bore before installation to facilitate smooth mounting and prevent damage.
- 3. Mounting:**
 - For press fit applications, use a bearing installation tool or a soft-faced hammer with a sleeve that contacts only the inner ring when mounting onto a shaft, or the outer ring when mounting into a housing.
 - Never strike the outer ring when pressing onto a shaft, or the inner ring when pressing into a housing, as this can damage the bearing.
 - Ensure the bearing is seated squarely and fully.
- 4. Alignment:** Verify proper alignment after installation to prevent premature wear and excessive loads.
- 5. Sealing:** If the application requires additional sealing beyond the bearing's integrated seals, ensure

external seals are properly installed without interfering with bearing rotation.

Note: For specific machinery or equipment, always refer to the manufacturer's installation manual for detailed instructions.

OPERATING PRINCIPLES

The Webb 15911 Unground Ball Bearing operates on the principle of rolling friction. It consists of an inner ring, an outer ring, a set of steel balls, and a retainer (cage) that spaces the balls. When a load is applied, the balls roll between the raceways of the inner and outer rings, allowing for smooth rotation with minimal friction.

- **Load Distribution:** The balls distribute the load evenly across the raceways, reducing stress concentration.
- **Reduced Friction:** Rolling elements significantly reduce friction compared to sliding contact, leading to higher efficiency and less heat generation.
- **Support:** Ball bearings are primarily designed to handle radial loads, but can also accommodate some axial (thrust) loads.

Unground bearings, like the 15911, are manufactured to less stringent precision tolerances than ground bearings. This makes them suitable for applications where high speeds, extreme precision, or very low noise levels are not critical, but where robust performance and cost-effectiveness are important.

MAINTENANCE

Regular maintenance can extend the lifespan of your Webb 15911 Unground Ball Bearing. While unground bearings are often used in less demanding applications, proper care is still beneficial.

- **Lubrication:**

If the bearing is sealed (like the red-sealed version shown), it is typically pre-lubricated for life and requires no further lubrication. If it is an open bearing or part of a system with external lubrication, ensure it receives appropriate grease or oil according to the equipment manufacturer's recommendations. Over-lubrication can be as detrimental as under-lubrication.

- **Cleaning:**

Keep the area around the bearing clean to prevent contaminants (dust, dirt, moisture) from entering the bearing, which can cause premature wear and failure. Use clean cloths and appropriate solvents if necessary, ensuring no residue is left behind.

- **Inspection:**

Periodically inspect the bearing for signs of wear, damage, or unusual noise/vibration. Look for:

- Excessive play or looseness.
- Discoloration or signs of overheating.
- Corrosion or rust.
- Damage to seals or shields.

Replace the bearing if any significant damage or wear is detected.

TROUBLESHOOTING

If you encounter issues with your Webb 15911 Unground Ball Bearing, consider the following common problems and potential solutions:

Problem	Possible Cause(s)	Solution(s)
Excessive Noise / Vibration	<ul style="list-style-type: none">• Lack of lubrication• Contamination (dirt, debris)• Improper installation (misalignment, overtightening)• Bearing wear or damage	<ul style="list-style-type: none">• Check lubrication; re-lubricate if necessary (for open bearings).• Inspect for contamination; clean if possible or replace.• Re-check installation; ensure proper alignment and torque.• Replace the bearing if worn or damaged.
Overheating	<ul style="list-style-type: none">• Insufficient or excessive lubrication• Overload• Misalignment• Contamination	<ul style="list-style-type: none">• Adjust lubrication levels.• Reduce load if possible or consider a higher capacity bearing.• Correct alignment.• Clean or replace bearing.
Premature Failure	<ul style="list-style-type: none">• Improper installation• Inadequate lubrication• Contamination• Excessive load or speed• Corrosion	<ul style="list-style-type: none">• Review and correct installation procedures.• Ensure proper lubrication schedule and type.• Improve sealing and cleanliness.• Verify operating conditions are within bearing limits.• Address moisture or chemical exposure.

If problems persist, consult with a qualified technician or the equipment manufacturer.

WARRANTY AND SUPPORT

Warranty information for the Webb 15911 Unground Ball Bearing is typically provided by the original seller or manufacturer at the time of purchase. Please retain your proof of purchase for any warranty claims.

For technical support, specific application advice, or to inquire about replacement parts, please contact the manufacturer, Webb, or the authorized distributor from whom you purchased the product. Contact details are usually available on their official websites or product packaging.

Disclaimer: This manual provides general guidelines. Always adhere to specific safety instructions and installation procedures provided by the equipment manufacturer where the bearing will be used.

