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› [Bosch](#) /

› [Bosch BL2203 1-3/16-Inch Black Oxide Drill Bit User Manual](#)

Bosch BL2203

Bosch BL2203 1-3/16-Inch Black Oxide Drill Bit User Manual

Model: BL2203 | Brand: Bosch

INTRODUCTION

The Bosch BL2203 1-3/16-inch Black Oxide Drill Bit is engineered for general-purpose drilling applications. It provides durability and efficiency when cutting holes into various materials, including metal, wood, and plastic. This manual provides essential information for the safe and effective use, maintenance, and storage of your drill bit.

SAFETY INFORMATION

Always prioritize safety when using power tools and accessories. Failure to follow these safety guidelines may result in serious injury or property damage.

- **Eye Protection:** Always wear ANSI-approved safety glasses or goggles to protect against flying debris.
- **Hand Protection:** Wear appropriate gloves to protect hands from sharp edges and heat.
- **Secure Workpiece:** Ensure the material being drilled is securely clamped or held to prevent movement during operation.
- **Proper Attire:** Avoid loose clothing, jewelry, or long hair that could become entangled in rotating parts.
- **Tool Compatibility:** Use the drill bit only with power drills that have a compatible chuck size and are in good working condition.
- **Ventilation:** Work in a well-ventilated area, especially when drilling materials that may produce dust or fumes.
- **Cooling:** For metal drilling, use cutting fluid to reduce heat, extend bit life, and improve cutting performance.

SETUP

Proper installation of the drill bit is crucial for safe and effective drilling.

1. **Select the Correct Bit:** Ensure the BL2203 drill bit is the appropriate size and type for your application and

material.

2. **Prepare the Drill:** Unplug the power drill or remove the battery pack before installing or removing any accessories.
3. **Insert the Bit:** Open the drill chuck jaws wider than the shank of the drill bit. Insert the 1/2-inch reduced shank of the BL2203 bit into the chuck, ensuring it is seated as deeply as possible without the flutes touching the chuck jaws.
4. **Tighten the Chuck:** Hand-tighten the chuck firmly. If your drill has a keyless chuck, tighten it until you hear a click or feel significant resistance. For keyed chucks, use the chuck key to tighten securely, ensuring all three jaws grip the bit evenly.
5. **Verify Security:** Give the bit a gentle tug to confirm it is securely held and will not slip during operation.



This image shows the Bosch BL2203 drill bit properly installed in a standard drill chuck, ready for operation. Ensure the bit is tightened securely to prevent slippage.

OPERATING INSTRUCTIONS

The Bosch BL2203 drill bit is designed for efficient and precise drilling across various materials.

Key Features for Operation:

- **Speed Helix Design:** This design allows for faster penetration, reducing heat buildup and extending both the drill bit's life and cordless tool battery life.
- **Black Oxide Coating:** The triple-tempered black oxide coating enhances durability by 50% compared to

regular high-speed steel bits and reduces friction between the bit and the workpiece.

- **135° Split Point:** The 135-degree split point tip starts on contact, preventing the bit from 'walking' or 'skating' on the material surface. This eliminates the need for a center punch.

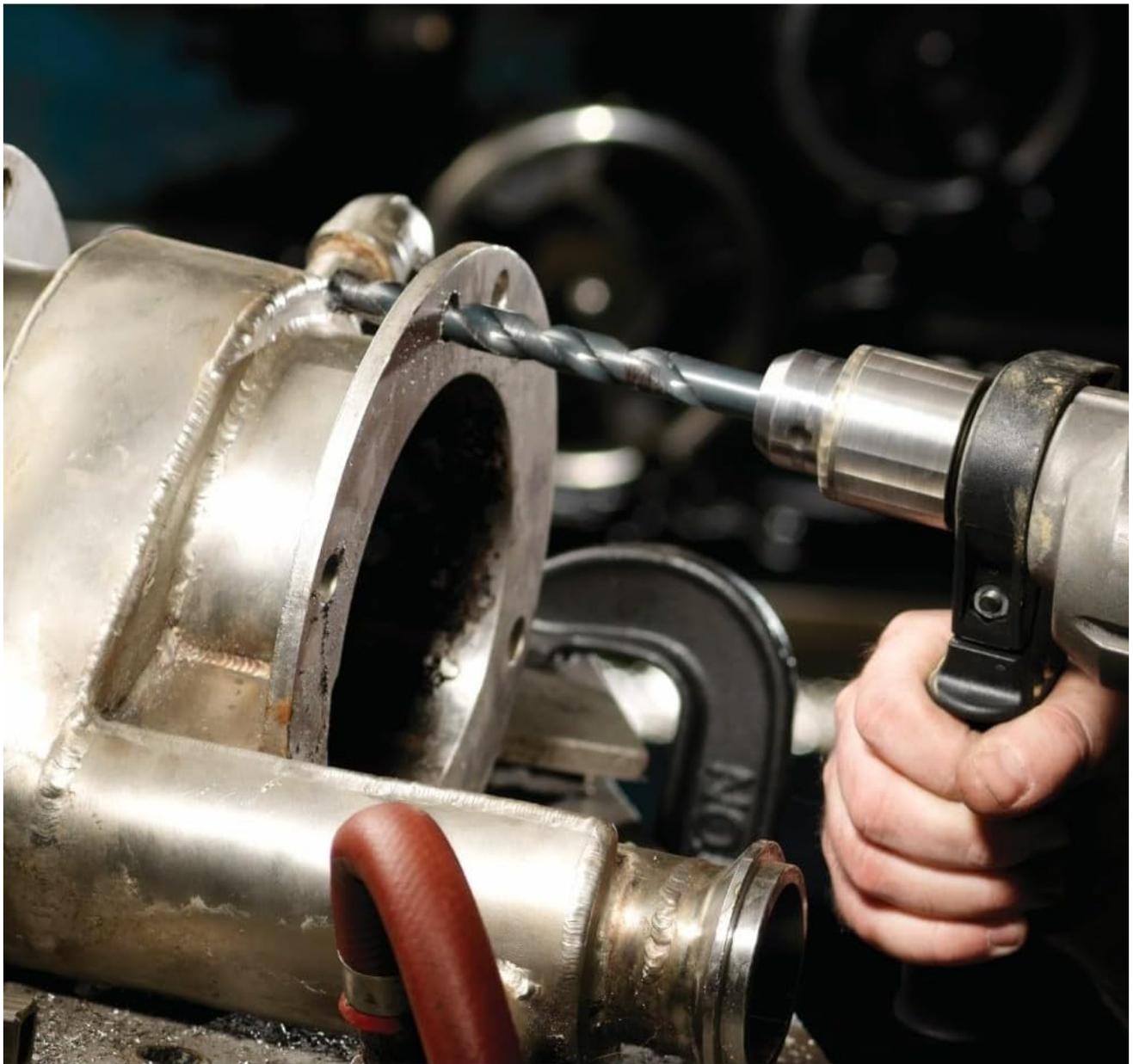


A detailed view of the drill bit's 135-degree split point tip, designed for immediate contact and reduced 'walking' or 'skating' on the workpiece surface, eliminating the need for a center punch.

Drilling Techniques:

1. **Mark the Spot:** Clearly mark the center of the hole you intend to drill.
2. **Start Slowly:** Begin drilling at a slow speed to allow the bit to engage the material without wandering.
3. **Apply Consistent Pressure:** Once the bit has started, apply steady, even pressure. Avoid excessive force, which can overheat the bit or cause breakage.

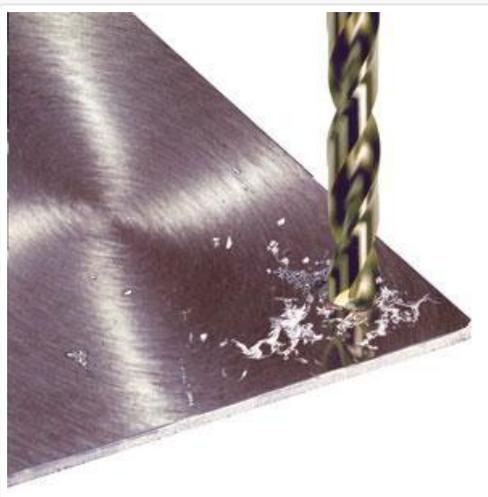
4. **Maintain Speed:** Adjust the drill speed according to the material. Generally, harder materials require slower speeds, while softer materials can tolerate higher speeds.
5. **Clear Chips:** Periodically withdraw the bit slightly to clear chips and allow for cooling, especially when drilling deep holes in metal.
6. **Use Coolant (for Metal):** For optimal performance and bit longevity when drilling metal, apply a suitable cutting fluid.



Here, the Bosch BL2203 drill bit is shown in action, effectively drilling into a metal workpiece. Always wear appropriate safety gear, such as eye protection, when operating power tools.



This image illustrates the versatility of the Bosch BL2203 drill bit, capable of cleanly penetrating various materials such as metal, wood, and plastic in a single operation.



The image captures the drill bit's effective cutting action on a metal surface, indicated by the metal shavings being produced. This demonstrates the bit's ability to remove material efficiently.

MAINTENANCE

Proper maintenance extends the life and performance of your drill bit.

- **Cleaning:** After each use, clean the drill bit to remove any debris, chips, or residue. A wire brush can be used for stubborn material.
- **Lubrication/Protection:** For black oxide bits, a light coat of oil can help prevent rust, especially if stored in humid conditions.
- **Inspection:** Regularly inspect the drill bit for signs of wear, dullness, or damage. A dull bit will require more force, generate more heat, and produce poor results.
- **Storage:** Store drill bits in a dry, organized container to protect them from damage and prevent loss.

TROUBLESHOOTING

Address common issues encountered during drilling operations.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Bit 'walks' or 'skates' on surface	Insufficient starting pressure; uneven surface.	Ensure firm, consistent pressure at start; use a center punch for very hard or slick surfaces if the split point is not sufficient.
Slow drilling or excessive force required	Dull bit; incorrect speed for material; insufficient pressure.	Replace or sharpen bit; adjust drill speed; apply consistent, firm pressure.
Excessive heat or smoke	Too high speed; insufficient pressure; no cutting fluid (for metal); dull bit.	Reduce drill speed; increase pressure; use cutting fluid for metal; replace or sharpen bit.
Bit breakage	Excessive side pressure; bit binding; incorrect speed; material movement.	Apply straight, even pressure; ensure workpiece is secure; use correct speed; clear chips regularly.

SPECIFICATIONS

Detailed specifications for the Bosch BL2203 Black Oxide Drill Bit.

Specification	Detail
Model Number	BL2203
Part Number	BL2203
Drill Bit Diameter	1-3/16 inches
Shank Type	Reduced Shank (1/2 inch)
Finish	Black Oxide
Material	High-Speed Steel (HSS) with Black Oxide Coating
Cutting Angle	135 Degrees (Split Point)
Item Weight	360 g
Number of Pieces	1
Measurement System	Inch

Material Compatibility Chart:

The following chart provides general recommendations for the BL2203 Black Oxide drill bit across various materials.



This chart provides guidance on material compatibility for different Bosch drill bit types. For the BL2203 Black Oxide bit, it is recommended for wood, plastic, light gauge metal, high carbon steel, aluminum, and alloy steel. It is acceptable for cast iron and not recommended for stainless steel.

WARRANTY AND SUPPORT

Bosch products are manufactured to high standards and undergo rigorous quality control. For specific warranty information, please refer to the documentation included with your purchase or visit the official Bosch website. For technical assistance, product inquiries, or to locate authorized service centers, please visit the [Bosch Store on Amazon](#) or the main Bosch Tools website.