

# THE BLUE RIPPER JR™

*Rail Saw*



(Blade shown might not ship with saw or be available.)

## *Operation, Safety, and Instruction Manual*

v20160405

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# **ΩMEGA DIAMOND, INC.**

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## Operating/Safety Instructions

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### **IMPORTANT: Read Before Operating Equipment**

To avoid accidents or injury, keep work area clean, well lit, and well ventilated.

Always wear eye, hand, and all other appropriate protective apparel when operating saw.

Keep all other people, children, and small farm animals away while operating saw.

Use only properly grounded, GFCI protected electrical outlet. GFCI must be tested every 2 months.

**Warning:** Do NOT turn machine on or off with the GFCI safety switch. Turn machine toggle switch off before resetting the GFCI.

Ensure that the electrical system in your work location meets all codes and regulations prior to operating saw.

Do not modify the plug on the saw or use any adapters between the saw and the electrical outlet.

Do not allow water to run directly on the motor or any other electrical component.

If power cord or any other part of the saw is damaged, discontinue use immediately until damaged parts can be replaced.

Keep saw blade clear of clothing, jewelry, hair, cords, hoses, or any other object while in operation.

Ensure that the saw is switched off (trigger released) before plugging or unplugging it.

Ensure that blade is clamped firmly between flanges and spinning freely prior to operating.

Do not stand directly in front of or behind the saw while in operation.

Keep hands on top of the saw and away from the blade while operating.

Never force the saw if it seems to be stuck or if it seems to be moving with difficulty.

Use only blades of correct size and shape. Do not modify blades.

Do not force bolts; most have been assembled with a threadlocking adhesive for safety.

## Operating Instructions

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### ***Installing/Replacing Blade:***

Note: *This saw is designed for stone and masonry applications exclusively. For optimal performance use only blades from Omega Diamond.*

Place the saw on the rail (with rail rubber side down) providing clearance for installing the blade. Loosen Vertical Adjustment lock and raise motor to full height.

Remove the left-hand threaded bolt holding the flanges to the shaft. If bolt is tight, use the included wrench to turn it. (To lock the shaft, press and hold the shaft lock pin behind the blade guard and rotate the flange until the pin locks.)



*Shaft lock pin located on front of motor.*

Remove the front flange (and old blade, if applicable) and slide the new blade against the rear flange top first. Ensure that the blade is flat against the rear flange with rotation direction arrow facing clockwise. Arrow and other blade labels might be facing the motor or facing out, depending on blade manufacturer (see Spin Direction, pg 6).

Replace the front flange so the blade is sandwiched between the two flanges. Replace the left-hand threaded bolt and tighten with included wrench. (To lock the shaft, press and hold the shaft lock pin behind the blade guard and rotate the flange until the pin locks.)

### ***Typical Operation:***

Note: For most cutting operations, it is recommended that you lay your slab on top of a foam sheet at least 1” (3cm) thick. (1.5” (4cm) is preferred for less crumbling).

- 1) Lay the rail on the slab along the line to be cut.
- 2) Allow the rails to overhang enough for the blade to clear the stone where you will begin your cut. It may be necessary to clamp the rails to the stone to prevent wandering. Clamp onto provided angle bolted to one side of rail.
- 3) Put the saw on the left side of the rail. (Blade outside stone with the handle pointed over the stone.)
- 4) Adjust the blade height to just enter the stone about ¼ inch (3mm) deep.
- 5) Turn the water valve on and adjust desired flow.
- 6) Turn saw on before blade touches the stone. Do not stand directly in front of or behind the blade while cutting.
- 7) Slowly begin your cut by pulling the saw into the stone. After entering the cut, draw the saw along the stone at good speed to finish the “strike” cut. You may need to apply pressure to the top of the saw to keep it from “climbing” out of the cut
- 8) After clearing the stone on the right side of the slab, re-position the motor ¼ inch deeper and cut again. The deeper the blade cuts through the stone, the easier and faster the blade will cut, but the more stress there will be on the motor.
- 9) Slowly enter the cut by pushing the saw into stone. If you enter the cut too fast or too deeply, the saw will bog down too far and may trip the electrical breaker, and can also cause the blade to wander, or even destroy the motor. Once you have initiated the cut you must not go to slow or the diamonds on the blade will glaze over, and the cutting speed will drop dramatically.
- 10) Repeat from step 8 until the slab is cut through.

**Example:** On a 2 cm thick slab of Absolute Black granite try to maintain a cutting speed of about 4 fpm (1 meter per minute) or faster.

## Troubleshooting

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### ***Blade seems to be cutting slowly or not cutting at all?***

**Suggestions:** Make sure the blade is mounted to spin in the proper direction (See Spin Direction, pg 6).

The material being cut may have “loaded” or “glazed” the diamond. Use a dressing stone or “green stone” to free the diamond.

### ***Blade binds or “freezes.”***

**Suggestions:** The blade may be cutting at a slight angle. Check alignment. Make sure that the saw is rolling freely on the rails and the rails are not damaged or bent. Make sure that the motor is securely fastened to the mounting plate.

### ***Saw shuts off after a few minutes of use and/or fails to turn on at all.***

**Suggestions:** Check circuit breaker. If that is on and it still fails to start, the motor may have overheated and may need to be replaced.

Also check the brushes in the motor. If these are worn out you can either order them from us, directly from the motor manufacturer, or pick them up from your local hardware store.

If you have any questions please call us toll free:

1 (888) 996-4777

## **Spin Direction**

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Some of the supported motors have an arrow on the guard indicating the spin direction of the blade. If the spin direction of the blade is not indicated, then it may be safe to assume that it spins in a clockwise direction.

## **Replacement Parts**

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Is your blade worn out? Want a spare? Need extra rail? Give us a call and we will be happy to take your order.

Toll Free: 1 (888) 996-4777

Fax: 1 (530) 885-3785

Web: [OmegaDiamond.com](http://OmegaDiamond.com)

Email: [sales@omegadiamond.com](mailto:sales@omegadiamond.com)

**Available Parts for the Blue Ripper Jr.™**

J08000

Illustration Number	Part Number	Description
<small>Items are not to scale</small>		
1	538-212 216-186	Makita 5477NB Motor without guard
2	401-619	Clear Vinyl Splash Shield
3	099-094	Guard Knob Assembly
4	973-360	Blue Ripper Jr.™ Water Manifold Assembly
5	638-825	Traverse Bearing Cap with Flat Assembly
6	538-017	Traverse Bearing Cap Assembly
7	508-356	Traverse Bearing Assembly
8	214-882	Alignment Bearing Assembly
9	755-516	25-foot Electrical Cord w/ GFCI
10	110-055	Hose Kit
11	046-326	8 inch Ancho Blade
12	541-316	Rear Hinge Bracket Assembly
13	585-817	Front Hinge Kit Assembly for Makita
14	511-020	Vertical Adjustment Arm for Makita
15	596-912	8mm Push Fitting/Connector
16	009-622	8mm Elbow Push Fitting/Connector

## Bill of Materials

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<b><i>Illustration Number</i></b>	<b><i>Part Number</i></b>	<b><i>DESCRIPTION</i></b>	<b><i>QTY</i></b>
1	538-212	Makita 5477NB Hypoid-drive Saw	1
	216-186	Makita 5477NB Motor Without Guard	
2	401-619	Clear Vinyl Splash Shield	1
3	099-094	Guard Knob Assembly	3
4	973-360	Blue Ripper Jr Water Manifold Assembly	1
5	638-825	Traverse Bearing Cap with Flat Assembly	1
6	538-017	Traverse Bearing Cap Assembly	3
7	508-356	Traverse Bearing Assembly	4
8	214-882	Alignment Bearing Assembly	4
9	755-516	25 foot Electrical Cord with GFCI	1
10	110-055	Hose Kit	1
11	046-326	8 inch Archon Blade	1
12	541-316	Rear Hinge Bracket Assembly	1
13	585-817	Front Hinge Kit Assembly for Makita 5477NB	1
14	511-020	Vertical Adjustment Arm for Makita 5477NB	1
15	596-912	8mm Push Fitting/Connector	1
16	009-622	8mm Elbow Push Fitting/Connector	1

See [omegadiamond.com/948-421](http://omegadiamond.com/948-421) under Attached Files for the up to date Replacement Parts List.

## **Limited Warranty**

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For warranty information please visit our web site at [omegadiamond.com/warranty](http://omegadiamond.com/warranty)

Please record the Date of Purchase and the Serial Number of your machine here for future reference:

Date of Purchase:

Serial Number:

## USER NOTES:

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**NOTICE:** *This product may have been field tested for quality control purposes.*

## **Blue Ripper Jr Rail Saw Manual**

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### **\*\*\*WARNING\*\*\***

Not following all of these instructions and warnings included in this manual may result in Injury or Death. Omega Diamond, Inc. and all related Companies and personnel cannot be held responsible for any damages incurred by the installation, use, and/or maintenance of this product.

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