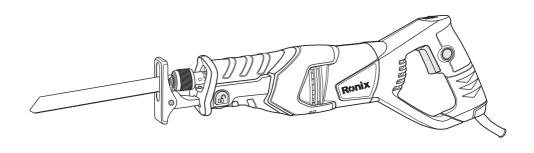


# RECIPROCATING SAW 4221

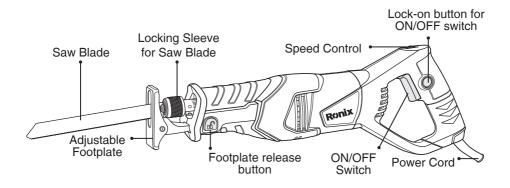




## **TECHNICAL SPECIFICATIONS**

Model	4221
Power	705W
Frequency	50-60Hz
Battery Voltage	220-240V
Cutting capacity in steel	10mm
Cutting capacity in aluminum	20mm
Cutting capacity in wood	115mm
No-Load Speed	800-3000RPM
Supplied In	Ronix color box
Weight	2.85kg
Includes	pair of carbon brushes, 2 saw

## **PART LIST**





#### **GENERAL SAFETY INSTRUCTIONS**



#### WARNING!

To avoid mistakes that could cause serious injury, do not plug the Drill Press in until you have read and understood the following:

- 1) READ and become familiar with the entire Operator's Manual. LEARN the tool's application, limitations and possible hazards.
- 2) KEEP GUARDS IN PLACE and in working order.
- 3) REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning ON.
- 4) KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- 5) DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
- 6) KEEP CHILDREN AWAY. All visitors should be kept at a safe distance from work area.
- 7) MAKE WORKSHOP CHILDPROOF with padlocks.
- 8) DON'T FORCE THE TOOL. It will do the job better and safer at the rate for which it was designed.
- 9) USE THE RIGHT TOOL. Do not force tool or attachment to do a job for which it was not designed.
- 10) USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will result in a drop in line voltage and in loss of power that will cause the tool to overheat.
- 11) WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.



- 12) ALWAYS WEAR EYE PROTECTION. Any Drill Press can throw foreign objects into the eyes that could cause permanent eye damage. ALWAYS wear Safety Goggles (not glasses). Everyday eyeglasses have only impact-resistance lenses. They ARE NOT safety glasses.
- 13) SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
- 14) DISCONNECT TOOLS before servicing; when changing accessories such as blades, bits, cutters, and the like.
- 15) REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in OFF position before plugging in.
- 16) USE RECOMMENDED ACCESSORIES. Consult the Operator's Manual for recommended accessories. The use of improper accessories may cause serious injury.
- 17) NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- 18) CHECK FOR DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 19) NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER "OFF". Don't leave tool until it comes to a complete stop.
- 20) DON'T OVERREACH. Keep proper footing and balance at all times.
- 21) MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 22) DO NOT use power tools in the presence of flammable liquids or gases.

## **SAFETY**

23) DO NOT OPERATE the tool if you are under the influence of any drugs, alcohol or medication that could affect your ability to use the tool properly.



24) ALWAYS operate the Drill Press in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible. Dust generated from certain materials can be hazardous to your health.

#### **CUT-OFF MACHINE SAFETY WARNINGS**

- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Keep hands away from the sawing range. Do not reach under the workpiece. Contact with the saw blade can lead to injuries.
- Apply the machine to the workpiece only when switched on. Otherwise there is danger of kickback when the cutting tool jams in the workpiece.
- When sawing, the adjustable footplate must always faces against the workpiece. The saw blade can become wedged and lead to loss of control over the machine.
- When the cut is completed, switch off the machine and then pull the saw blade out of the cut only after it has come to a standstill. In this manner you can avoid kickback and can place down the machine securely.
- Use only sharp, flawless saw blades. Bent or unsharp saw blades can break or cause kickback.
- Do not break the saw blade to a stop by applying side pressure after switching off. The saw blade can be damaged, break or cause kickback.
- Clamp material well. Do not support the workpiece with your hand or foot. Do not touch objects or the floor with the saw running. Danger of kickback.
- Use suitable detectors to determine if utility lines are hidden in the work area or call the local utility company for assistance. Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage or may cause an electric shock
- When working with the machine, always hold it firmly with both hands



and provide for a secure stance. The power tool is guided more secure with both hands.

- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control over the power tool.

#### REPLACING/INSERTING THE SAW BLADE



#### WARNING!

When mounting the saw blade, wear protective gloves. Danger of injury when touching the saw blade.



#### WARNING!

When changing the saw blade, take care that the saw blade holder is free of material residue, e. g. wood or metal shavings.

#### INSERTING THE SAW BLADE



- Turn the locking sleeve approx. 90° in the direction of the arrow and hold. Push the saw blade into the saw blade holder. Release the locking sleeve again.

#### CHECK THE TIGHT SEATING OF THE SAW

#### BLADE

- loose saw blade can fall out and lead to injuries. For certain work, the saw blade can also be turned through 180° (with the teeth pointed upwards) and re-inserted again.



#### REMOVING THE SAW BLADE

- Turn the locking sleeve approx. 90°in the direction of the arrow and hold. Remove the saw blade.

### **DUST/CHIP EXTRACTION**

- Dusts from materials such as lead-containing coatings, some wood types, minerals and metal can be harmful to one's health. Touching or breathing-in the dusts can cause allergic reactions and/or lead to respiratory infections of the user or bystanders.
- Certain dusts, such as oak or beech dust, are considered as carcinogenic, especially in connection with wood-treatment additives (chromate, wood preservative). Materials containing asbestos may only be worked by specialists.



#### WARNING!

Provide for good ventilation of the working place.



## A WARNING!

It is recommended to wear a P2 filter-class respirator.

Observe the relevant regulations in your country for the materials to be worked.

- Prevent dust accumulation at the workplace. Dusts can easily ignite.

#### USING INSTRUCTION



#### WARNING!

Always observe the safety instructions and applicable regulations.



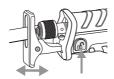
#### WARNING!

Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine.

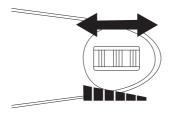


#### PIVOTING AND RETRACTABLE FOOTPLATE

- Due to its movability, the adjustable footplate adapts to the required angular position of the surface.
- Depending on the saw blade being used and the application, the footplate can be moved in length way direction in three steps. Press the release button for the footplate and slide the footplate to the required position. Release the footplate release button and check that the footplate is firmly latched. Slide the footplate as required until it is firmly latched.



#### SPEED ADJUSTING DIAL



- The strokes per minute can be adjusted just by turning the adjusting dial. This can be done even while the tool is running. The dial is marked lowest speed to full speed. Turn the adjusting dial without positive stops between lowest speed and full speed according to your work.
- Refer to the table to select the proper speed for the workpiece to be cut. However, the appropriate speed may differ with the type or thickness of the workpieces. In general, higher speed will allow you to cut workpieces faster but the service life of the blade will be reduced.

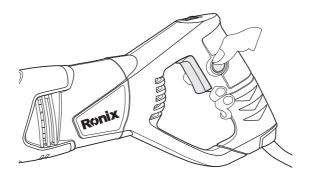


- Stainless Steel
- **Plastics**
- Aluminum
- Mild Steel
- Autoclaved Lightweight Concrete
- Wood

## A NOTE:

- If the tool is operated continuously at low speeds for a long period of time, the operation life of the motor will be reduced.
- The speed adjusting dial can be turned only as far as full speed and lowest speed. Do not force it past full speed or lowest speed, or the speed adjusting function may no longer work.

#### SWITCHING ON AND OFF



- To start the machine, press the ON/OFF switch and keep it pressed. To lock the pressed ON/OFF switch, press the lock-on button.
- To switch off the machine, release the ON/OFF switch or when it is locked with the lock-on button, briefly press the ON/OFF switch and then release it.



## **MAINTENANCE**

#### **LUBRICATION**

Your power tool requires no additional lubrication.

#### **■ CLEANING**

Keep the ventilation slots clear and regularly clean the housing with a soft cloth.



