# **Metal Cutting Circular Saws**

**ORIGINAL INSTRUCTIONS** 

For your personal safety, READ and

**UNDERSTAND** before using.

**SAVE THESE INSTRUCTIONS FOR** 

**FUTURE REFERENCE.** 



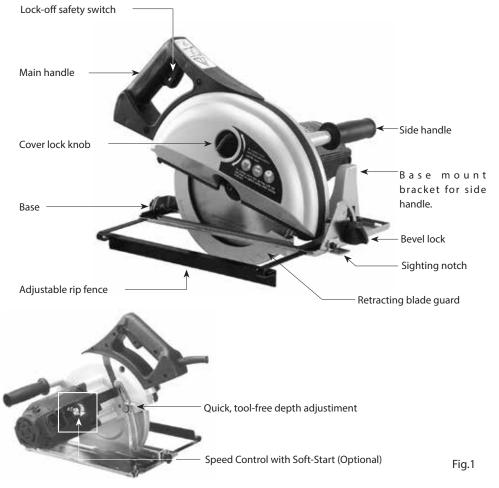
#### Warning:

Only tools equipped with over load protection, when motor has been cut off due to over load, always switch on machine with no load for at least 3 minutes to reduce temperature before switch on again to avoid burn out to the motor.

#### **SPECIFICATIONS**

Model	200mm	230mm N		
Voltage	110-120V~ 50-60Hz, 220-240V~ 50-60Hz	110-120V~ 50-60Hz, 220-240V~ 50-60Hz		
No load min <sup>-1</sup>	3700	2200		
Power input	1700W	1700W		
Blade	200mm (8 in.)	230mm (9 in.)		
Bevel	0~45 deg.	0~45 deg.		
Arbor	30mm, 25.4mm (1 in.),	30mm, 25.4mm (1 in.),		
Max cutting depth	Straight: 67mm (2-5/8 in.)	Straight: 80mm (3- 1/4 in)		
max catting depth	45 deg. bevel: 42mm (1-5/8 in.)	45 deg. bevel: 56mm (2-3/16 in.)		
Net weight	6.3kg (13.6 lbs.)	7.1 kg (15.6 lbs.)		

<sup>\*</sup>Blade washers (Flanges) supplied vary with different markets.



#### GENERAL SAFETY INSTRUCTIONS



**WARNING! Read all safety warnings and all instructions**. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.** The term "power tool" in the warnings refers to your mains operated (corded) power tool or battery-operated (cordless) power tool.

#### 1) WORK AREA SAFETY

- a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### 2) ELECTRICAL SAFETY

- a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f. If operating a power tool in a damp location is unavoidable, use an earth leakage circuit breaker. Use of an earth leakage circuit breaker reduces the risk of electric shock.

#### 3) PERSONAL SAFETY

- a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do
  not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
   A moment of inattention while operating power tools may result in serious personal injury.
- b. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

- d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

#### 4) POWER TOOL USE AND CARE

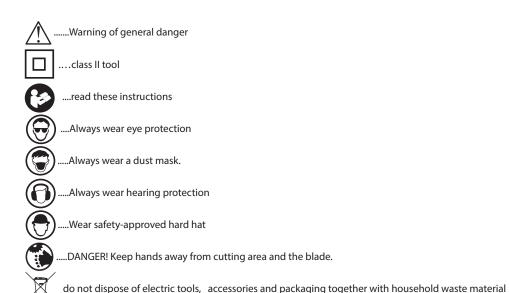
- a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

#### 5) SERVICE

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

#### Symbols used in this manual

Vvolts
Aamperes
Hzhertz
Wwatt
~alternating current
n <sub>o</sub> no load speed
min <sup>-1</sup> revolutions or reciprocation per minute



#### **SPECIFIC SAFETY RULES**

- DANGER: Keep hands away from cutting area and blade. Keep your second hand on auxiliary handle. If both hands are holding the saw, they cannot be cut by the blade.
- 2. **Do not reach underneath the work.** The guard cannot protect you from the blade below the work.
- 3. Adjust the cutting depth to the thickness of the workpiece. Less than a full tooth of the blade teeth should be visible below the workpiece.
- **4. NEVER hold piece being cut in your hands or across your leg.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- 5. Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- **6. When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- 7. Always use blades with correct size and shape (diamond versus round) of arbour holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- 8. Never use damaged or incorrect arbor flanges or bolts. The arbor flanges and bolt were specially designed for your saw, for best performance and safety of operation.
- Use extra caution when making a Pocket Cut into existing walls or other blind areas. The protruding blade may cut objects that can cause KICKBACK.
- 10. Dust mask should be equipped when cutting wood.

#### Kickback causes and related warnings

kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an

- uncontrolled saw to lift up and out of the workpiece toward the operator:
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can
  dig into the top surface of the wood causing the blade to climb out of the kerf and jump back
  toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a. Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces.
- b. Position your body to either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- c. When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or KICKBACK may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
- d. When restarting a saw in the workpiece, center the saw blade in the kerf and check that teeth are not engaged into the material. If saw blade is binding, it may walk up or KICKBACK from the workpiece as the saw is restarted.
- e. Support large panels to minimize the risk of blade pinching and KICKBACK. Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.Do not use dull or damaged blade. Dull blades produce a narrow kerf causing excessive friction, blade binding, and KICKBACK.
- f. Blade depth and bevel adjusting locking levers must be tight and secure before making cut. If blade adjustment shifts while cutting, it may cause binding and kickback.
- g. Use extra caution when sawing into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback
- **11. Use only recommended** blades, rated at the machine's maximum rated RPM or higher with correct arbor hole.

#### Lower guard function

- a) Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position. If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use. Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c) Lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- d) Always observe that the lower guard is covering the blade before placing saw down on bench or floor. An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.
- 12. Tighten blade retaining bolt and all clamps before operating.
- 13. Secure workpiece properly. Workpiece should be straight and firmly clamped to avoid possible

- movement and pinching as the cut nears completion.
- **14. Allow the blade to come to a complete stop** before removing or securing workpiece, or changing workpiece angle.
- **15.** Check the inside surfaces of the arbor flanges as well as the sides of the blade for freedom from any foreign matter.
- 16. Check the blade for cracks or other damage before operation. Replace cracked or damaged blade immediately.
- 17. Never start the tool with the workpiece against the blade.
- 18. Allow the motor to achieve full speed before cutting.
- **19. Important: After completing the cut,** release power switch and wait for coasting blade to stop completely before putting the saw down.
- **20. Never operate** the tool in an area with flammable solids, liquids, or gases. Sparks from the commutator/ carbon brushes could cause a fire or explosion.
- 21. There are certain applications for which this tool was designed. The manufacturer strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written the manufacturer and have been advised

WARNING: Always wear hearing protection with this tool.

#### 1. Intended use

This saw is designed exclusively for the sawing of metal and aluminum. This machine should not be used for cutting other materials. Do not use this saw to cut wood. The machine should not be converted or modified, e.g. for any other form of use, other than as specified in these operating instructions. The user shall be liable for damages and accidents due to incorrect use.

CAUTION: Do not overheat the blade tips. Use of undue force will not speed up the cutting operation. Allow the tool to determine the best feed rate.

#### 2. Electrical connection

The network voltage must conform to the voltage indicated on the tool name plate. Under no circumstances should the tool be used when the power supply cable is damaged. A damaged cable must be replaced immediately by an authorized Customer Service Center. Do not try to repair the damaged cable yourself. The use of damaged power cables can lead to an electric shock.

#### 3. Extension cable

If an extension cable is required, it must have a sufficient cross-section so as to prevent an excessive drop in voltage or overheating. An excessive drop in voltage reduces the output and can lead to failure of the motor. The following table shows you the correct cable diameter as a function of the cable length for this machine. Use only U.L. and CSA listed extension cables. Never use two extension cables together. Instead, use one long one.

Total Extension Cord Length	(feet) Cord Size (AWG)
25	16
50	12
100	10
150	8
200	6

#### 4. Saw Blades

Only use saw blades with a diameter in accordance with the markings on the tool name plate:

Only use saw blades with blade set (cutting width) of 1.8 mm to 3.6 mm and blade core thickness of minimum 1.5mm to maximum 3.0mm. Saw blades must be suitable for speeds of up to 1700 min -1 or faster. Do not use any abrasive wheel with this machine.

#### UNPACKING

Carefully remove the tool and all loose items from the shipping container. Retain all packing materials until after you have inspected and satisfactorily operated the machine.

#### **ASSEMBLY**

- 1. Before use, the following hardware, which is supplied in a poly bag must be added:
- Insert No.16 Thumb screw in the rear pivot end of No.15 base Place No.19 Washer on No.18 Bevel lock knob then pass through bevel slot and thread into the No. 17 Bevel locking block.

NOTE: An appropriate blade must be mounted to the machine before operating. Refer to the the section of this manual: "INSTALLING THE BLADE"

#### CARTON CONTENTS

- 1. Metal Cutting Saw
- 2. Rip Fence Cutting Guide
- 3. Hex Wrench
- Poly bag containing hardware: Thumb screw no.16, Bevel locking block no.17, Bevel lock knob no.18, Washer no. 19

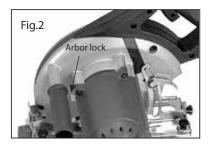
#### DO NOT OPERATE THIS TOOL UNTIL YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.

#### **REMOVING THE BLADE-**Disconnect Tool From Power Source.

 It is not necessary to remove the outer blade cover, just leave it in place. Push in the arbor lock(40) and using the supplied hex wrench, rotate the blade until the lock engages the blade arbor. See fig.2.

## Avoid contact with the blade teeth to prevent personal injury.

- While holding the blade lock lever, use the provided wrench (32) to loosen the blade retaining bolt (1). Then remove it and the outer arbor flange (2).
- **3.** The blade may now be carefully removed.



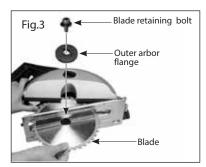
#### **INSTALLING THE BLADE-**Ensure That Tool Is Disconnected From Power Source

- 1. Remove any accumulated debris in the guards and around the arbor.
- 2. Check the lower retracting blade guard (6) to ensure that it is in working order.
- 3. Clean the inner arbor flange(3). Orient the flange so that the correct bore size faces the blade and place the new blade on the arbor, making sure that the teeth point forwards. (If in doubt of the orientation of the blade, refer to the legend cast into the lower retracting blade guard.)

#### NOTE: Use blades that have an arbor bore which can fit, and that are rated for 3700 rpm or higher.

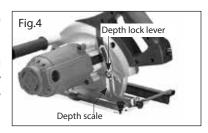
#### Avoid contact with blade teeth to prevent personal injury.

- Place the outer arbor flange on the arbor with the flat side toward the blade. See fig.3.
- 5. Replace and finger-tighten the blade retaining bolt (1) by turning it clockwise.
- Push in the blade lock lever and rotate the arbor by hand until the lock engages the arbor. Tighten the blade retaining bolt securely with theprovided wrench and release the arbor lock.



#### TO ADJUST DEPTH OF CUT - Disconnect Tool From Power Source.

Adjust the depth of cut so that the saw blade protrudes through the thickness of workpiece. To adjust the depth of cut: Lift the depth lock lever (22) at the rear of the saw. **See fig.4.** Raise or lower the saw base until the blade extends the desired depth below the base. (See the scale and pointer cast into the main body casting.) Press the depth lock lever down firmly, locking the saw in the selected position.

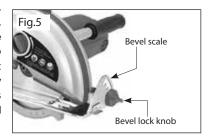


#### CAUTION: Do not cut material thicker than 6mm (1/4")

WARNING: Depth adjusting locking lever must be tight and secure before making cut. If blade adjustment shifts while cutting, it may cause binding and kickback.

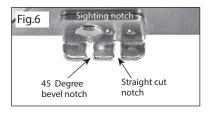
#### TO ADJUST BEVEL ANGLE - Disconnect Tool From Power Source.

To adjust the bevel angle, refer to the bevel guage on the base. There are markings for different angles from 0 to 45 degrees. To adjust the bevel angle:Loosen the bevel lock knob (18) (See fig.5) and the smaller knob at the rear. Lift the bevel lock knob out of the slot and rotate the base to the desired angle. The most commonly used angles each have an individual slot. Simply drop the bevel lock into the slot and tighten. If other angles are needed, tighten the bevel lock knob to hold at the desired position. Then tighten the smaller knob at the rear of the base.



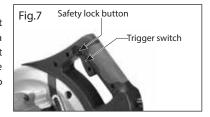
#### HOW TO USE THE SIGHTING NOTCH

To aid in free-hand cutting, a sighting notch is located at the front of the base (15). **See fig. 6** Align the cutting line on the workpiece with the sighting notch. Make the cut. Use the right-hand notch (between the two marking dots) for straight cuts and the lefthand notch (located below the rivet) for 45 degree bevel cuts.



#### STARTING AND STOPPING TOOL

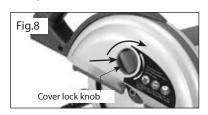
Make sure that the power circuit voltage is the same as that shown on the specification plate of the machine and that switch is "OFF" before connecting the tool to the power circuit. To start the machine, first press the safety lock button then squeeze the trigger switch to start the motor. Release the trigger switch to stop the motor. See fig.7



#### REMOVING CHIPS

This dry-cut metal saw has an internal chip collector. When the chip collector is full, the chips must be cleared. To do this, first shut down and DISCONNECT TOOL FROM POWER SOURCE.

The outer blade cover lock knob (25) has a bayonet lock thread. See fig.8 To remove cover(28), turn knob anticlockwise while pushing in against the spring tension. Then lift cover away. Recently-cut chips can be very hot. Take care when removing the cover to keep the chips or shavings away from your hands or other body parts. Do not throw hot debris where paper or other flammable materials are located. To replace the outer blade cover, line up tang with slot and push in against the spring while turning clockwise. Ensure that the cover is properly seated.



#### **HOW TO USE THE RIP FENCE**

Using the rip fence (24) will provide more accurate straight cuts than by cutting free-hand. For installation, DISCONNECT TOOL FROM POWER SOURCE then insert the rip fence in the mounting slots. In the base (15). See fig.9 Select the desired cut width on the cutting guide and tighten the 2 thumb screws(16) to lock.



#### LOWER RETRACTING BLADE GUARD

The lower retracting blade guard (6) is a safety device important for your protection. Every time you use the saw, make sure that the quard rotates freely and returns quickly and completely to its closed position. Before each use, remove any accumulated chips, or shavings from the area around the hub of the guard. DO NOT LUBRICATE THIS AREA. The hub has a dry film lubricated surface that does not need oiling. NEVER block or wedge the blade guard in the open position. **NEVER** use your saw if the blade guard is not in working order. If blade guard movement is sluggish or if binding exists, return the saw to your nearest AUTHORIZED SERVICE CENTER for repair.

#### THE VARIABLE SPEED CONTROL / SOFT START UNIT (Optional) See fig.10

Some types of material cut better and/or the blade will last longer at a slower speed. If your machine is equipped with the optional variable speed dial, use the speed control dial located on the back of the motor housing. Turn clockwise to increase the speed and counterclockwise to decrease the speed. This unit also includes a soft start feature. When the unit is first switched on, the start-up is gradual so to avoid a large start-up torque.



#### **HOW TO USE THE TOOL**

Effective control of this powerful saw requires **two-handed** operation for maximum protection.

Do not use this tool continuously over 30 minutes. Support the work properly and to hold the saw firmly **WITH BOTH HANDS** to prevent loss of control which could cause personal injury. Always hold the side handle with the left hand and the rear handle with the right hand for proper hand support of the saw. Protect your eyes from injury with safety glasses or goggles.

Do not use cutting fluids or lubricants on the blade.

#### THE SIDE HANDLE

There are 2 possible positions for the side handle: on the blade cover or on the base. When making bevel cuts, always use the base-mount position because it it more stable. **See fig.11** 



#### CLAMP THE WORKPIECE

Secure the workpiece properly. The workpiece should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion. Provide adequate support for long or wide workpieces. Confirm that the blade has come to a complete stop before removing or securing the workpiece, or changing the workpiece angle. Press the safety, then the trigger switch. Move the saw forward to contact the workpiece. Clamp the workpiece on a rigid support, such as a bench or saw horses. Mark the line of cut on the workpiece. Be sure that the cut-off line is far enough on the workpiece to allow proper operation of the telescoping guard. Place the front edge of the saw squarely on workpiece before starting the motor. Sight the cutting line with the sighting notch indicator or use the rip fence. Be certain that the blade is not contacting the workpiece. Press the safety, then the trigger switch, allow the motor to come up to full speed and move the saw forward to begin the cut.

CAUTION: Keep the cord away from cutting area to prevent it from becoming entangled in the workpiece.

Do not force the cut. Let the saw do the cutting at the rate of speed permitted by the type of cut and

workpiece. Increase feed pressure as the blade cuts through the thicker cross-sections (to maintain minimum "sparking"). Decrease the feed pressure as the blade cuts through the thinner cross sections

(to maintain motor speed and avoid everloading the machine). After completing the cut release the power

(to maintain motor speed and avoid overloading the machine). After completing the cut, release the power switch and **wait** for the coasting blade to stop **completely** before putting the saw down.

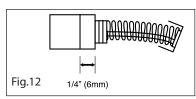
#### **KEEP TOOL CLEAN**

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material. Wear safety glasses while using compressed air.

#### **MAINTENANCE**

#### THE CARBON BRUSHES

The carbon brushes are a normal wearing part and must be replaced when they reach their wear limit. **See fig.12** 



#### To replace:

simply remove the brush caps and withdraw the old brushes. Replace with new brushes (always replace as a pair) ensuring that they align properly and slide freely. Then replace the brush caps. **See fig.13** 

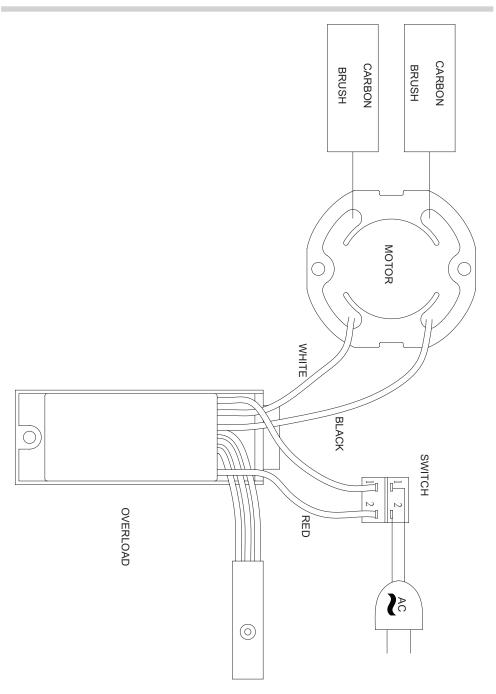


#### STANDARD ACCESSORIES

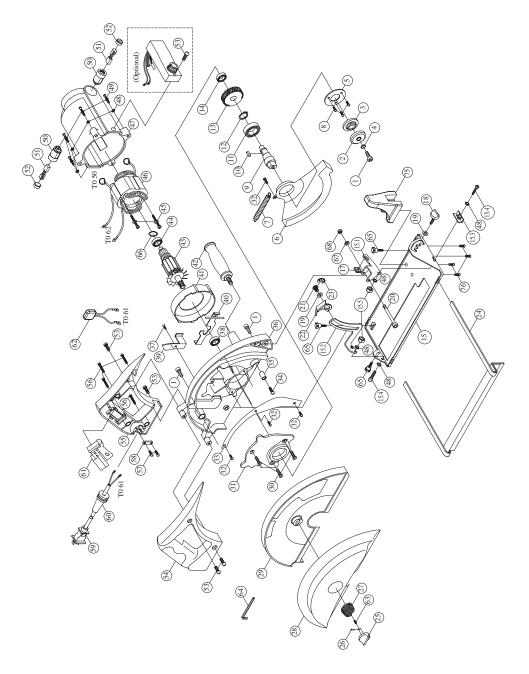
6mm Hex wrench Rip fence

If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.

**WARNING: All repairs must be entrusted to an authorized service center.** Incorrectly performed repairs could lead to injury or death.



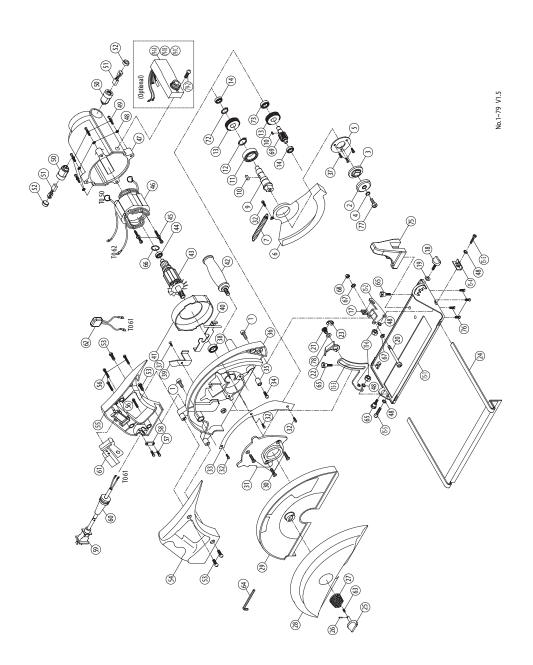
## **200mm EXPLODED VIEW**



## 200mm PARTS LIST

No.	Parts Name	Q'TY	No	Parts Name	Q'TY
1	ARBOR BOLT M8 x 16	3	35	BUMP STOP	1
2	OUTER ARBOR FLANGE	1	36	MAIN BODY CASTING	1
3	INNER FLANGE Ø20, Ø30, 25.4, 5/8	1	37	SCREW M4x8	1
4	FLAT WASHER M8 x 20 x 3	1	38	BALL BEARING 6201 2RS	1
5	BEARING COVER PLATE	1	39	MOTOR CABLE COVER PLATE	1
6	LOWER RETRACTING BLADE GUARD	1	40	BLADE LOCK COVER	1
7	SPRING 0.5mm x Ø4 x 65	1	41	FAN SHROUD	1
8	PAN HEAD SCREW M4 x 8	3	42	SIDE HANDLE	1
9	SPINDLE SCM440	1	43	ARMATURE 94 x 54 x 45R Ø16.5H23	1
10	WOODRUFF KEY M5 x 12	1	44	BALL BEARING 6200 2RS	1
11	BALL BEARING 6202 2RS	1	45	PAN HEAD SCREW W /SPRING WASHER M5 x 60	2
12	C-CLIP S-15	1	46	STATOR	1
13	OUTPUT GEAR 41T	1	47	MOTOR HOUSING	1
14	BALL BEARING 608 ZZ	1	48	FLAT WASHER Ø5 xØ12 x 1	8
15	BASE	1	49	PAN HEAD SCREW W / SPRING WASHER M5 x 30	4
15-1	PIVOT BRACKET	1	50	BRUSH HOLDER 7 x 17	2
15-2	DEPTH ADJUSTMENT TRACK	1	51	CARBON BRUSH 7 x 17	2
15-3	SIGHTING NOTCH	1	52	BRUSH CAP 7 x17	2
15-4	SCREW M5 x 16	2	53.	SCREW M5 x 16	5
15-5	NUT M5	2	54	MAIN HANDLE HALF (RH)	1
16	N/A	-	55	MAIN HANDLE HALF (LH)	1
17	BEVEL LOCKING BLOCK	1	56	PAN HEAD SCREW M4 x 25	4
18	BEVEL LOCK KNOB M8 x 12	1	57	PAN HEAD SCREW M4 x 14	2
19	FLAT WASHER M8 x 20 x 1	2	58	CORD CLIP	1
20	SCREW M6 x 40	1	59	POWER SUPPLY CORD	1
21	DEPTH LOCK PIN M8 x 12	1	60	CORD ARMOR	1
22	DEPTH LOCK LEVER	1	61	SWITCH	1
23	E-CLIP E-10	1	62	EMC CAPACITOR UNIT 0.47ØF/Ac275V	1
24	RIP FENCE	1	63	SET SCREW M4 x 4	1
25	COVER LOCK KNOB Ø8 x 26	1	64	HEX WRENCH M6	1
26	PIN Ø4 x 14	1	65	THUMB SCREW M5 X 12	3
27	SPRING Ø2.3 x 4	1	66	WASHERØ29.5	1
28	OUTER BLADE COVER	1	67	FLAT WASHER 6 x 13 x 1	1
29	INNER BLADE COVER	1	68	HEX. NUT M6	1
30	FLAT HEAD SCREW M5 x 15	3	69~74	N/A	-
31	GEAR PLATE	1	75	SIDE HANDLE BASE BRACKET	1
32	PAN HEAD SCREW M4 x 6	4	76	SCREW M5 X10	4
33	DUST COVER PLATE	1	SPEED COI	NTROL/SOFT START (Optional)	1

### 230mm N EXPLODED VIEW



## 230mm N PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	ARBOR BOLT M8 x 16	2	39	MOTOR CABLE COVER PLATE	1
2	OUTER ARBOR FLANGE	1	40	BLADE LOCK COVER	1
3	INNER FLANGE 20/30mm	1	41	FAN SHROUD	1
3	INNER FLANGE 20/25.4mm	1	42	SIDE HANDLE	1
3	INNER FLANGE 5/8"	1	43	ARMATURE	1
4	FLAT WASHER Ø8 x Ø20 x 3	1	44	BALL BEARING 6200-LLU	1
5	BEARING COVER PLATE	1	45	PAN HEAD SCREW W / SPRING WASHER M5 x 60	2
6	LOWER RETRACTING BLADE GUARD	1	46	STATOR	1
7	SPRING Ø0.5 x Ø4 x 65T	1	47	MOTOR HOUSING	1
8	N/A	-	48	FLAT WASHER Ø5 x Ø12 x 1	8
9	SPINDLE	1	49	PAN HEAD SCREW W / SPRING WASHER M5 x 30	4
10	WOODRUFF KEY 5 x 5 x 10	2	50	BRUSH HOLDER 7 x 17 x 17	2
11	BALL BEARING 6202-2NSE	1	51	CARBON BRUSH 7 x 17 x 17	2
12	C-CLIP S-15	1	52	BRUSH CAP 7 x 17 x 17	2
13	OUTPUT GEAR M1.25 x 31T	2	53	SCREW M5 x 16	4
14	BALL BEARING 608 zz	2	54	MAIN HANDLE HALF (RH)	1
15-1	BASE	1	55	MAIN HANDLE HALF (LH)	1
15-2	PIVOT BRACKET	1	56	PAN HEAD SCREW M4 x 25	4
15-3	DEPTH ADJUSTMENT TRACK	1	57	PAN HEAD SCREW M4 x 14	2
15-4	SIGHTING NOTCH	1	58	CORD CLIP	1
15-5	SCREW M5 x 16	2	59	POWER SUPPLY CORD	1
15-6	NUT M5	2	60	CORD ARMOR	1
16	N/A	-	61	SWITCH LOOK OFF	1
17	BEVEL LOCKING BLOCK	1	62	EMC CAPACITOR UNIT 0.47µF / Ac275V	1
18	BEVEL LOCK KNOB	1	63	SET SCREW M4 x 4	1
19	FLAT WASHER Ø11.5 x Ø24 x 2.5	1	64	HEX WRENCH M6	1
20	SCREW M6 x 40 x 9mm	1	65	THUMB SCREW M5 x 10	3
21	DEPTH LOCK PIN M8 x 12	1	66	WASHER Ø29.5	1
22	DEPTH LOCK LEVER	1	67	FLAT WASHER Ø6 x Ø13 x 1	2
23	E-CLIP E-10	1	68	HEX. NUT M6	1
24	RIP FENCE	1	69	INTERMEDIATE GEAR M1.25 x 12T	1
25	COVER LOCK KNOB Ø8 x 26	1	70	N/A	-
26	PIN Ø4x14	1	71	N/A	-
27	SPRING Ø2.3 x 4T	1	72	C-CLIP S-14	1
28	OUTER BLADE COVER	1	73	BALL BEARING 6200 zz	1
29	INNER BLADE COVER	1	74	N/A	-
30	FLAT HEAD SCREW M5 × 15	3	75	SIDE HANDLE BASE BRACKET	1
31	GEAR PLATE	1	76	SCREW M5 x 10	4
32	PAN HEAD SCREW M4 x 6	4	77	SCREW M8 x 20	1
33	DUST COVER PLATE	1	78	FLAT WASHER Ø8 x Ø20 x 1	1
34	PAN HEAD SCREW M6 x 16	1	79-1A	SPEED CONTROL / SOFT START (Optional) 110V	1
35	BUMP STOP	1	79-1B	OVERLOAD / SOFT START (Optional) 110V	1
36	MAIN BODY CASTING	1	79-1C	SPEED CONTROL / OVERLOAD / SOFT START (Optional) 110V	1
37	SCREW M4x8	4	79-2	SCREW (Optional) M5 x 20	1
38	BALL BEARING 6002-LLU	1			