14 INCH ABRASIVE CHOP SAW

OWNER'S MANUAL



⚠ WARNING:

Read carefully and understand all **MACHINE ADJUSTMENT AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 39109

Thank you very much for choosing an **Ironton** product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the distributor to determine if it can or should be performed on the product.

For technical questions please call **1-800-222-5381**.

INTENDED USE

This 14-inch chop saw has a 15 Amp, 3,800 RPM motor that's ideal for cutting steel, and concrete. It is not recommended for cutting wood or plastic. **Do not attempt to install a toothed blade on the tool.**

TECHNICAL SPECIFICATIONS

Item	Description
Voltage	120V AC power
Disc diameter:	14''
Power input	15A
Speed (no load)	3800 RPM
Max. Cutting Capacity - Round	4.7"
Max. Cutting Capacity - Square	4 5/8". X 4 5/8"
Arbor Size	1''



Hearing protection should be worn when using chop saw.

GENERAL SAFETY RULES

1) Work area

a) Keep work area clean and well lit. Cluttered and 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 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.

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 safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries

c) Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invite 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 available in your shop for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

4) Power tool use and care

a) Secure work. Use a clamp, vise or other practical means to hold your work securely, freeing both hands to control the tool.

b) 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

c) 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.

d) 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,

e) Store idle power tools out of 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.

f) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

g) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

h) Use the power tool, accessories and tool bits in accordance with these instructions and in the manner Intended for the particular type of power tool, 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

a) 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.

 **WARNING: RECOMMENDED FOR USE WITH A GFCI WITH A RATED RESIDUAL CURRENT OF 30 mA OR LESS.**

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by he work piece. the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may jump either toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

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

a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.

The operator can control torque reactions or kickback forces, if proper precautions are taken.

b) Never place your hand near the rotating accessory

Accessory may kickback over your hand.

c) Do not position your body in the area where power tool will move if kickback occurs.

Kickback will propel the tool in direction opposite to the wheel’s movement at the point of snagging.

d) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.

Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback

e) Do not attach a Saw chain woodcarving blade or toothed saw blade.

Such blades create frequent kickback and loss of control

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY CONSIDERATIONS

WARNING! Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

• lead from lead-based paint

• crystalline silica from bricks and cement and other masonry products, and

• arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Wheel Instructions

1. Use only the edge (not the sides) of the wheel for cutting. Do not allow the wheel to twist or bind.
2. Keep hands and body away from the rotating wheel. Do not wear loose clothing when using this tool.
3. Store cut-off wheels with care. Do not drop them or subject them to excessive heat, cold or humidity.
4. Make sure that all wheel flanges and other mounting hardware are in good condition and are always used properly. Defective or missing parts may cause damage to the wheel. Always use mounting flanges supplied with the tool.
5. Cutting with a damaged wheel is very hazardous. After installing a new wheel, leave the tool unplugged and rotate the wheel by hand to see if it is uneven, warped, or cracked. If so, discard the wheel and replace it with a new one. Do not use a wheel that has been dropped; impact may result in breakage.
6. Before starting a cut, step out of line of the wheel and make a trial run to confirm that the wheel is in good condition. Trial run periods are:

When replacing a cut-off wheel — over 3 minutes.

When starting routine work — over 1 minute.

7. Never try to remove or clamp the workpiece to the tool while the cutoff wheel is rotating.
8. Before installing a cut-off wheel, always inspect it for cracks. Replace cracked wheel immediately.
9. Always check maximum operating speed established for wheel against machine speed. Do not exceed the maximum operating speed that is marked on the wheel.
10. Do not force a wheel onto the machine or alter the size of the arbor hole. Do not use a wheel that fits the arbor too loosely. If the wheel doesn't fit the machine, get one that does.
11. Do not attempt to install toothed blades on this tool because it is not designed for this type of blade.

Machine Instructions

1. Start cutting only after the motor has reached full speed.
2. Release switch immediately if the wheel stops rotating or if the motor sounds like it is straining.
3. Keep flammable and fragile objects away from this tool. Do not allow cut-off sparks to contact the operator's hands, face or feet.
4. Place the tool securely on a flat, level surface.
5. Always use the tool with the proper voltage specified on the tool's nameplate.
6. Never touch a short cut-off piece until it cools.
7. Never attempt to cut material larger than the rated capacity.
8. Never stand in line with the wheel while cutting. Always stand to the side.

9. Always keep guards in place.
10. Always start the cut gently. Do not bump or bang a wheel to start a cut.
11. Never make any freehand cuts. Always place the workpiece between the vise and fence when making cuts.

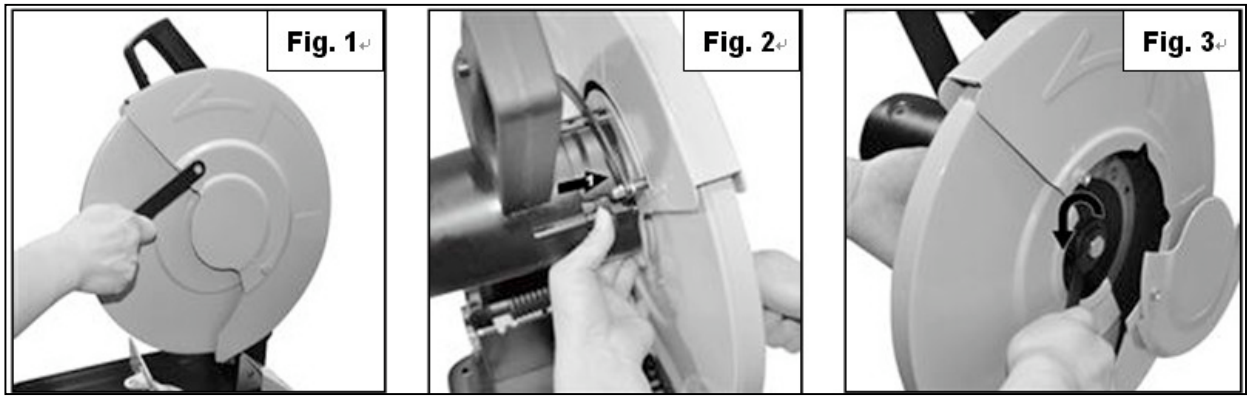
REPLACING BLADE

CAUTION. Always ensure that the saw is switch off and unplugged from the power supply before installing or removing a disc.

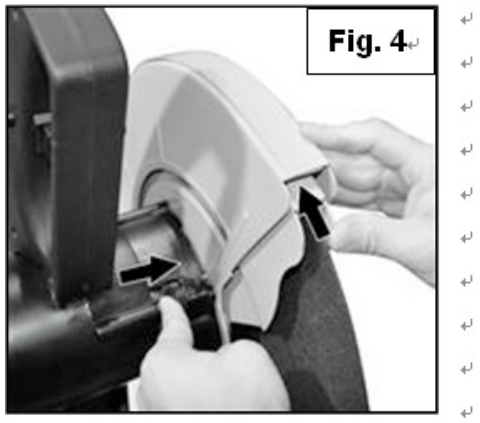
1. Loosen and remove the screws for shield flake with the wrench supplied (fig. 1).
2. Push in spindle lock lever (fig. 2), and at the same time use the wrench to *rotate the wheel* until the spindle lock lever engages **locking the wheel** in place (fig. 3).

Note: Once locked, the wheel will not rotate.

3. Hold the spindle lock lever in place and use the wrench to *rotate the Hexagonal bolt* in counterclockwise direction. Then, remove the Hexagonal bolt, cable clam (63), upper flange away. (fig. 3)



4. Raise the adjustable protecting cover at its highest position, then push in the spindle lock lever until the spindle lock lever engages locking the adjustable protecting cover *hole* . (fig. 4).





5. Replace the wheel, and turn it by hand, ensuring that it rotates fully and does not wobble unduly. (fig. 5).

Note: Before install the wheel, check the wheel flanges to be sure they are in good condition. 6. Release the adjustable protecting cover, then place the upper flange, cable clam, hexagonal bolt through the threaded arbor hole and finger tighten.

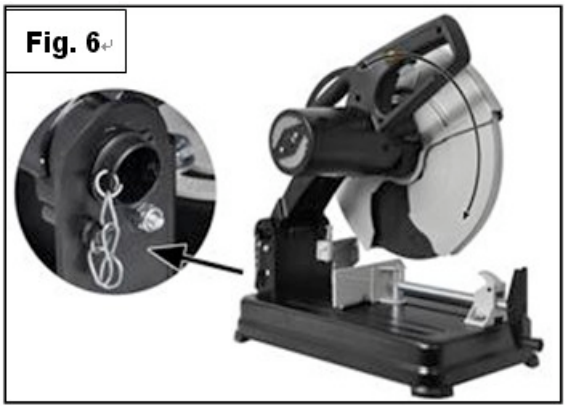
7. Push in the spindle lock lever while tightening the Hexagonal bolt in a clockwise direction.

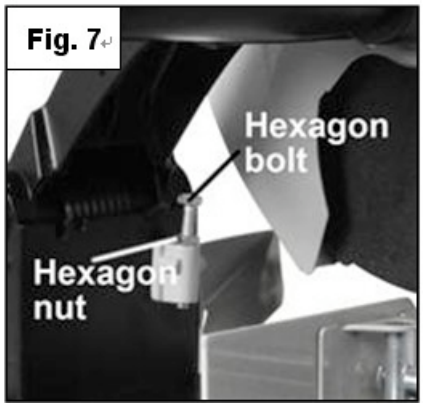
Note: Do not over-tighten the bolt, this may damage the blade, the flanges, and cable clam.

MACHINE HEAD ADJUSTMENT

To carry the cut-off saw: Fold down arm to base and insert the lock down knob into the hole to lock. (fig. 6)

To unlock the cut-off saw: To unlock tool and raise arm, depress arm slightly and pull out knob. The motor arm will then pivot upward. (fig.6)





Adjust the depth of cut: (fig .7)

Use the depth adjustment to change the depth of cut. When adjusted properly, the depth adjustment bolt prevents the cut-off wheel from contacting the surface under the base during cutting. Cut-off wheels wear down as they are used and the depth of cut may need to be increased.

1. To raise the depth of cut, loosen the hexagon bolt (counterclockwise), then rotate the hexagonal nut in clockwise direction.
2. To reduce the depth of cut, rotate the hexagonal nut in counterclockwise direction, then tighten the hexagon bolt (clockwise).

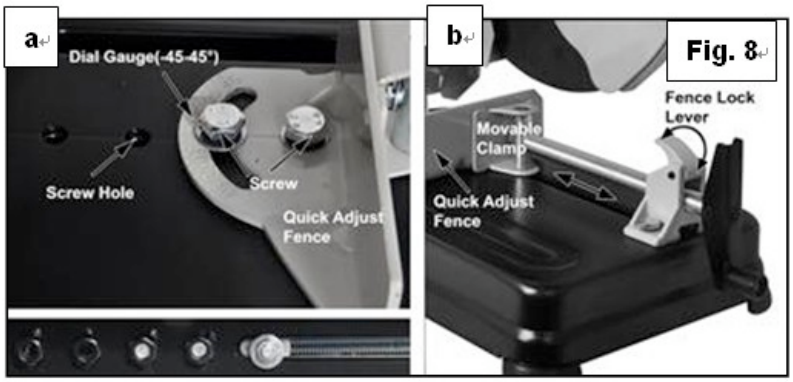
Support the workpiece and adjust the work vise:

The work vise is located on the base of the Cut-off Saw.

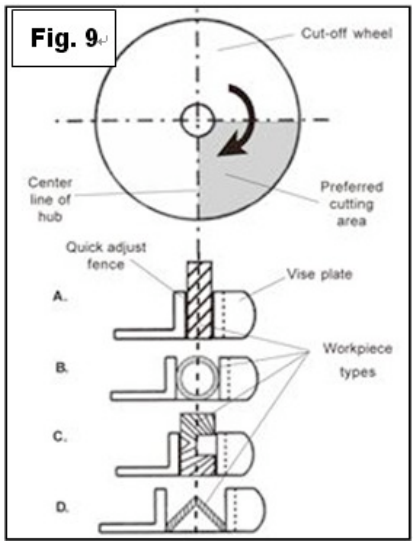
The vise is made up of two parts: (fig. 8)

(1) a quick adjust fence which can be loosened and rotated from -45° to 45°.

(2) a movable clamp with an adjustable pivoting handle and a quick lock/ release lever.



When adjusting, the clamp and fence should be positioned so the centerline of the wheel hub is in line with or behind the centerline of the workpiece, toward the rear of the tool (fig. 9). The workpiece should be resting flush with the base of the cut-off machine.



To adjust the work vise for a particular workpiece: (fig. 8,a,b)

1. Release the tension on the screw clamp by turning the handle counterclockwise for 1/2 to 1 full turn.
2. Lift the quick lock lever up and pull back the screw clamp handle sliding the vise open.
3. Pulling up the handle to disengages the screw, then adjust the handle to the desired position. Releasing the handle reengages the screw for loosening (counterclockwise).
4. Adjust the fence to the desired angle (from -45° to 45°) and tighten the fence lock lever.
5. Adjust the movable clamp by moving the pivoting handle in or out as needed to fit the workpiece.
6. Push the quick lock lever down into release mechanism.
7. Turn the screw clamp clockwise to securely tighten the workpiece in the vise.

To adjust the fence portion of work vise to allow wider workpiece to be cut:(fig. 8,a)

1. Using the wrench supplied, turn the two hex head screws counterclockwise and remove them.
2. Slide the fence portion of the work vise over the last screw hole in the Cut-off Saw base.
3. Install one of the hex head screws into the hole. DO NOT TIGHTEN AT THIS TIME.
4. Align the second hole of the work vise base with another screw hole in the Cut-off Saw base.
5. Install the second hex head screw into the hole. Securely tighten both screws.

OPERATION

1. Unplug in the tool.
2. Select a cutting angle and position the fence and clamp system as needed.
3. Place the workpiece flat on top of the machine base. Position the thinnest section of the workpiece facing up. Turn the pivoting handle clockwise until the clamp assembly holds the workpiece firmly in place.
4. Plug in the tool, stand out of the line of the blade and squeeze the trigger switch, single click the safety bottom. (fig. 10)



5. Allow the motor to reach full speed. Slowly lower the wheel into the workpiece.

NOTE: Always start the cut gently; do not bang or bump a wheel when starting the cut. For the safest and most efficient cutting, make sure that the centerline of the wheel hub is in line with or behind the centerline of the workpiece, toward the rear of the tool (fig. 9).

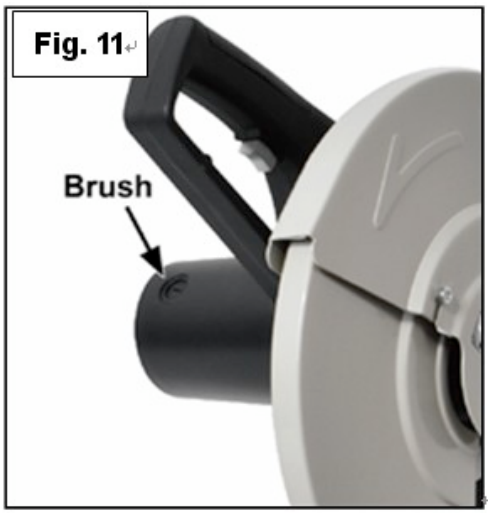
6. When the cut is complete, raise the wheel completely from the workpiece before releasing the trigger switch and allowing the motor to stop.
7. Unplug the cut-off saw. Ensure the abrasive wheel has stopped spinning before removing the workpiece.
8. Use a dry, soft bristle, brush or an air hose and clean any debris remaining from the cut.
9. Lock down the cut-off saw then store it in a dry safe location.

MAINTENANCE

WARNING! Always ensure that the tool is switched off and the plug is removed from the power point before making adjustments or maintenance procedures.

This cut-off saw is equipped with replaceable carbon brushes on the motor; there may become a time they need replacing. (fig.11)

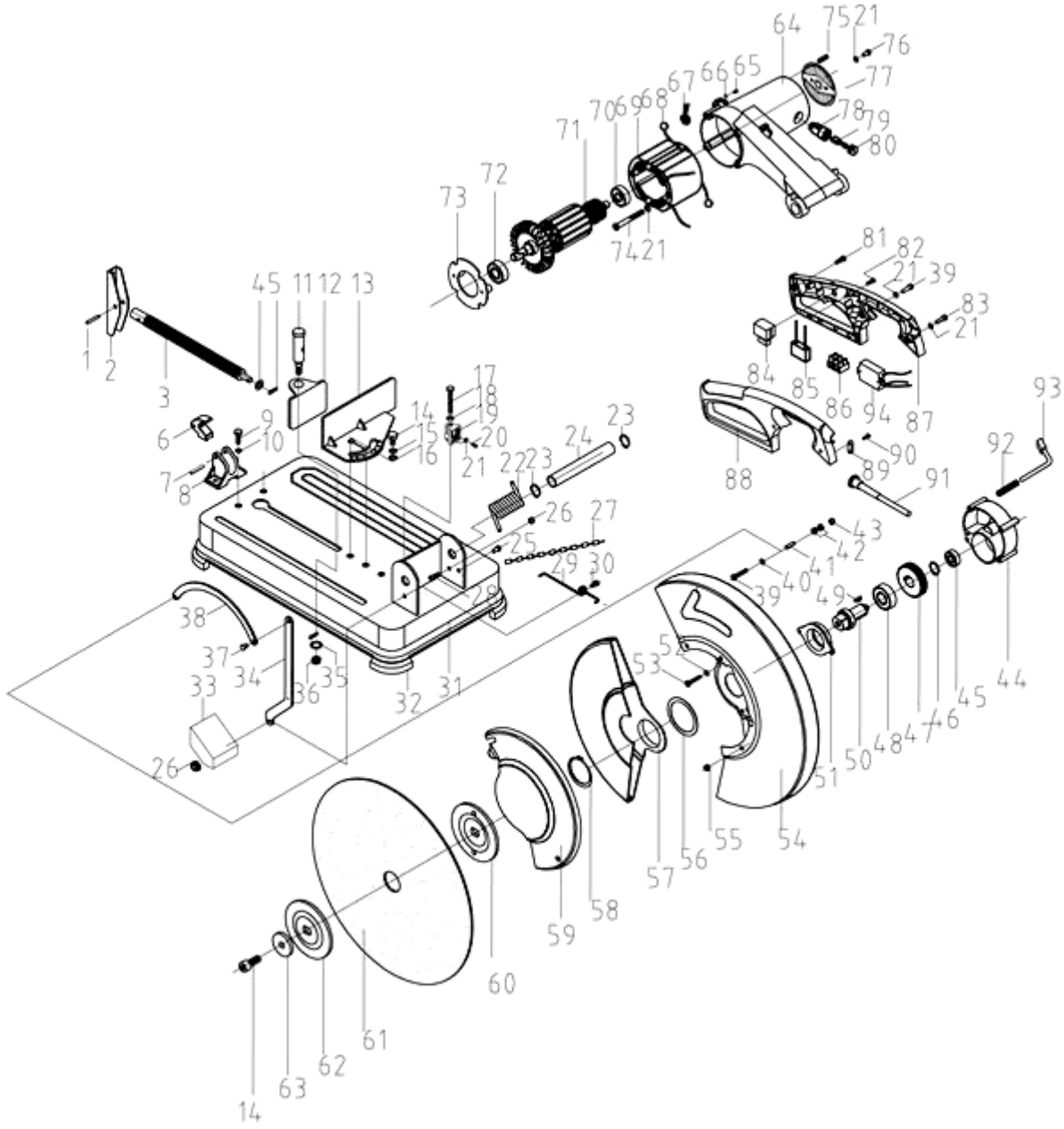
1. Use a slotted blade screwdriver and turn the brush caps counterclockwise.
2. Remove the caps, tension springs, and carbon brushes.
3. Place new carbon brushes into the openings.
4. Place the curved end of the brush into opening first, followed by a tension spring.
5. Insert the cap and, using a slotted blade screwdriver, tighten the caps by turning clockwise.



CLEANING & INSPECTION

1 .Keep the tool's air vents unclogged and clean at all times.
2. Remove dust and dirt regularly. Cleaning is best done with a soft brush or a rag.
3. Re-lubricate all moving parts at regular intervals.
4. Never use caustic agents to clean plastic parts.
5. Remove the metal that may have built up around the guard and spark deflector.
6. Do not use cleaning agents to clean the plastic parts of the grinder. A mild detergent on a damp cloth is recommended.
7. Regularly check that all the fixing screws are tight. They may vibrate and become loose over time.

DIAGRAM & PARTS LIST



Part#	Description	Part#	Description
1	rivet	48	ball bearing
2	adjusting handle	49	woodruff key
3	rod	50	spindle
4	flat washer	51	bearing cover
5	open pin	52	fixation washer
6	advancing nut	53	cross screw
7	spring	54	fixation cover
8	support	55	hexagon nut
9	hexagon	56	flat washer
10	spring washer	57	adjustable protecting cover
11	adjustable pilers board	58	spring washer
12	hexagon bolt	59	movable cover
13	fixde pliers board	60	lower flange
14	hexagon bolt	61	wheel
15	spring washer	62	upper flange
16	flat washer	63	cable clam
17	hexagon bolt	64	housing
18	hexagon nut	65	cross screw
19	fixation pin	66	fixation washer
20	cross screw	67	inductance
21	spring washer	68	drawn
22	spring	69	stator
23	spring washer	70	ball bearing
24	fixation pin	71	rotor
25	pin	72	ball bearing
26	anti-loose nut	73	anti-wind ring
27	chain	74	cross screw
28	hexagon holt	75	screw
29	spring	76	cross screw
30	hexagon bolt	77	rear cover
31	metal base	78	carbon brush holder
32	rubber foot	79	carbon brush
33	anti-dust board	80	carbon brush cover
34	connecting rod	81	cross screw
35	flat washer	82	cross screw
36	anti-loose nut	83	cross screw
37	rivet	84	switch
38	movable rod	85	capacitor
39	cross screw	86	plastic support
40	flat washer	87	left housing
41	steel hoop	88	right housing
42	hexagon nut	89	cord plug
43	anti-loose nut	90	cross screw
44	gear box	91	anti-bending protection guard
45	ball bearing	92	anti-lock spring
46	spring washer	93	anti-lock switch
47	big gear	94	soft starter

For replacement parts and technical questions, please call **1-800-222-5381**.

WARRANTY

One-year limited warranty

⚠ WARNING

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- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



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