14IN. DRY CUT METAL 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# 46461

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 Ironton 14'' Dry Cut Metal Saw is designed to cut various types of ferrous and non-ferrous metals, including mild steel, structural members and steel studs. Cutting hardened materials is not recommended, as this may reduce blade life and performance. The machine is not recommend for cutting wood or other soft materials. This may also reduce blade performance.

TECHNICAL SPECIFICATIONS

Item	Description
Required voltage	120V
Frequency	60 Hz
Power input	15 Amps
Speed (no load)	1450 RPM
Disc diameter:	14 in.
Flange diameter.	41 in.
Disc bore size	10 in.

WARNING: To protect against hearing loss, hearing protection should be worn when using this cut off 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 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 provided 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, and accessories 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: Electrocution Hazard. Improperty grounded tools can result in electric shock. Recommended for use with a rated 30 mA or less Ground Fault Circuit Interrupter.**

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY CONSIDERATIONS

BLADE SAFETY INSTRUCTIONS

1. Do not allow the blade to twist or bind.
2. Keep hands and body away from the rotating blade. Never reach around, under or across blade. Do not wear loose clothing when using this tool.
3. Store blades with care. Do not drop them.
4. Make sure that all blade flanges and other mounting hardware are in good condition and are always used properly. Defective or missing parts may cause damage to the blade. Always use mounting flanges supplied with the tool.
5. Do not use dull or damaged blades. Unsharpened or improperly set blades produce a narrow kerf causing excessive friction, blade binding and kickback.
6. Before starting a cut, make a trial run. The blade should rotate freely and not contact the table.

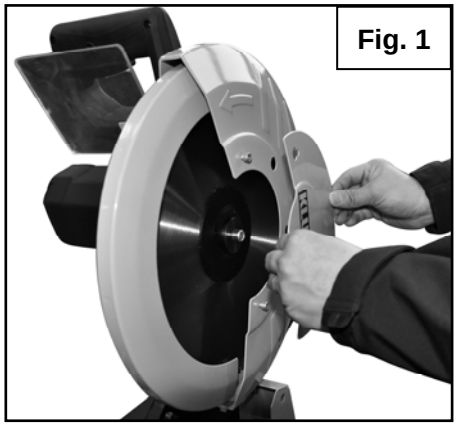
7. Never try to remove or clamp the work-piece to the tool while the blade is rotating.
8. Before installing a blade, always inspect it for damage. Replace damaged blades immediately.
9. Always check maximum operating speed established for blade against machine speed. Do not exceed the maximum operating speed that is marked on the blade.
10. Do not force a blade onto the machine or alter the size of the arbor hole. Don't use a blade that fits the arbor too loosely. If the blade doesn't fit the machine, get one that does.
11. Do not use abrasive wheels.

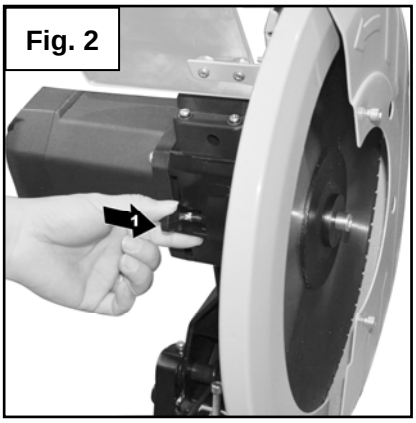
MACHINE SAFETY INSTRUCTIONS

1. Start cutting only after the motor has reached full speed.
2. Release switch immediately if the blade 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 blade while cutting. Always stand to the side.
9. Check guards before each use.
10. Always keep guards in place.
11. Do not defeat guards. The tool is shipped with both the upper and lower guard installed. The lower guard should cover the blade when the saw head is up and it should open automatically as the saw head is lowered into the work-piece. If the lower guard appears loose or if it does not move to cover the blade when the saw head is up, take the saw to an authorized service center for repairs.
12. Always start the cut gently. Do not bump or bang a blade to start a cut.
13. Never make any freehand cuts. Always place the work-piece between the vise and fence when making cuts.

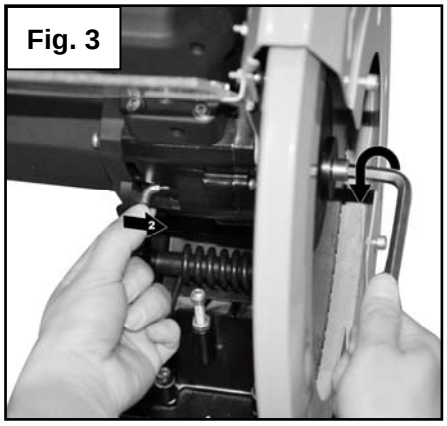
REPLACING BLADE

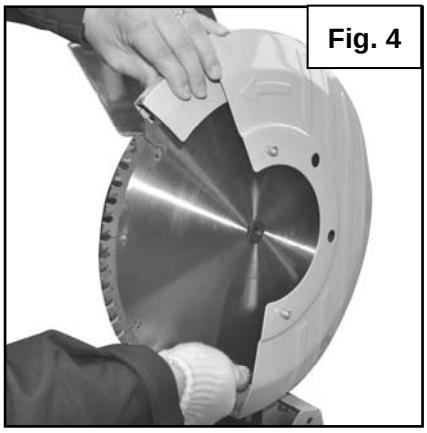
 **CAUTION:**. Always ensure that the saw is switch off and unplugged from the power supply before installing or removing a disc.
1. Loosen and remove the screws for shield flake (fig. 1).





2. Push in the spindle lock lever (fig 2) and at the same time use supplied hex key (fig. 3) to rotate the blade until the spindle lock lever engages locking the blade in place.
Note: Once locked, the wheel will not rotate.





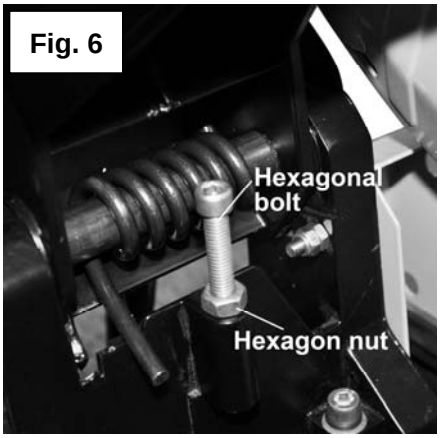
3. Hold the spindle lock lever in place and using the supplied hex key, remove the Hexagonal bolt by turning it counterclockwise. Then, remove the cable clam, upper flange.
4. Raise the moving cover at its highest position, then replace the blade, and turn it by hand, ensuring that it rotates fully and does not wobble. (fig. 4).
Note: Before install the blade, check the blade flange to be sure they are in good condition. Remove the nicks or burrs, which could cause uneven cutting pressure and result in blade damage.
5. Place the upper flange, cable clam, hexagonal bolt through the threaded arbor hole and finger tighten.
6. 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 and the flanges.

MACHINE ADJUSTMENT

Carry the cut-off saw: Fold down arm to base and push in the arm release to lock. (fig. 5).
Unlock the cut-off saw: To unlock tool and raise arm, depress arm slightly and pull out motor arm release. The motor arm will then pivot upward. (fig. 5)

Fig. 5

Fig. 6



Adjust the depth of cut: (fig .6)
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 firstly, 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 90° to 45° and a fence lock lever.
(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 work-piece, toward the rear of the tool (fig. 7). The workpiece should be resting flush with the base of the cut-off machine.

Fig. 7

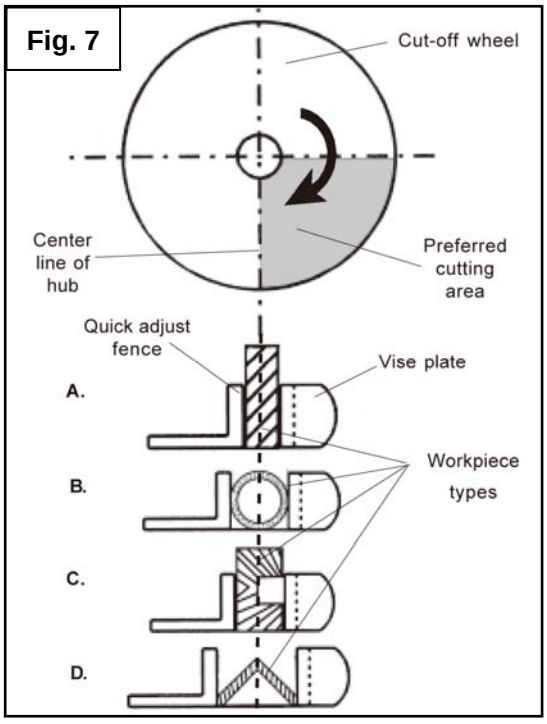
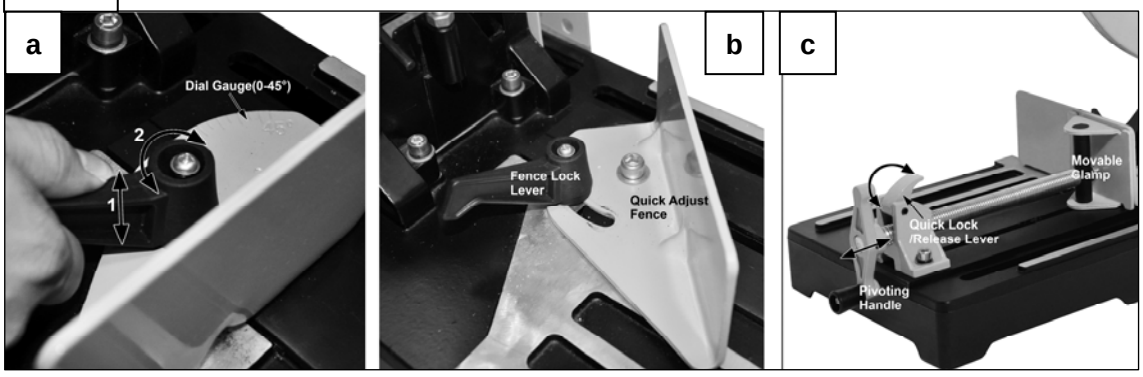


Fig. 8

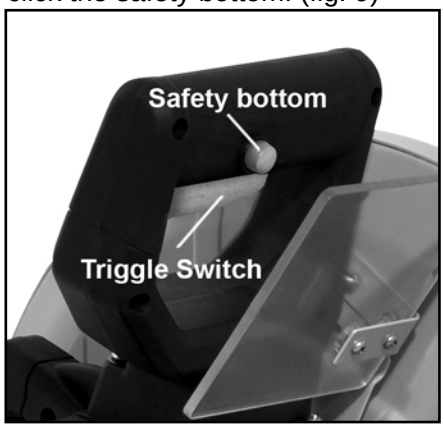


To adjust the work vise for a particular workpiece: (fig. 8,a,b,c)

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. Pull up the handle to disengage 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 90° 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 work-piece.
6. Push the quick lock lever down into release mechanism.
7. Turn the screw clamp clockwise to securely tighten the work-piece in the vise.

OPERATION

1. Unplug the tool before making any adjustments.
2. Select a cutting angle and position the fence and clamp system as needed.
3. Place the work-piece flat on top of the machine base. Position the thinnest section of the work-piece facing up. Turn the pivoting handle clockwise until the clamp assembly holds the work-piece 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. 9)



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 blade when starting the cut.

For the safest and most efficient cutting, make sure that the centerline of the blade hub is in line with or behind the centerline of the workpiece, toward the rear of the tool (fig.7).

To maximize wheel life, increase force on handle until sparks subside.

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. Restarting in mid-cut. If you stop the machine in mid-cut, allow the wheel to stop, then back the wheel out of the cut. Then restart the machine.
8. If the blade stalls, do not pull the trigger switch. A dull wheel or excess pressure may cause stalling. Release the trigger switch immediately if the wheel binds or the machine stalls and remove the blade from the cut.

MAINTENANCE

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

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.

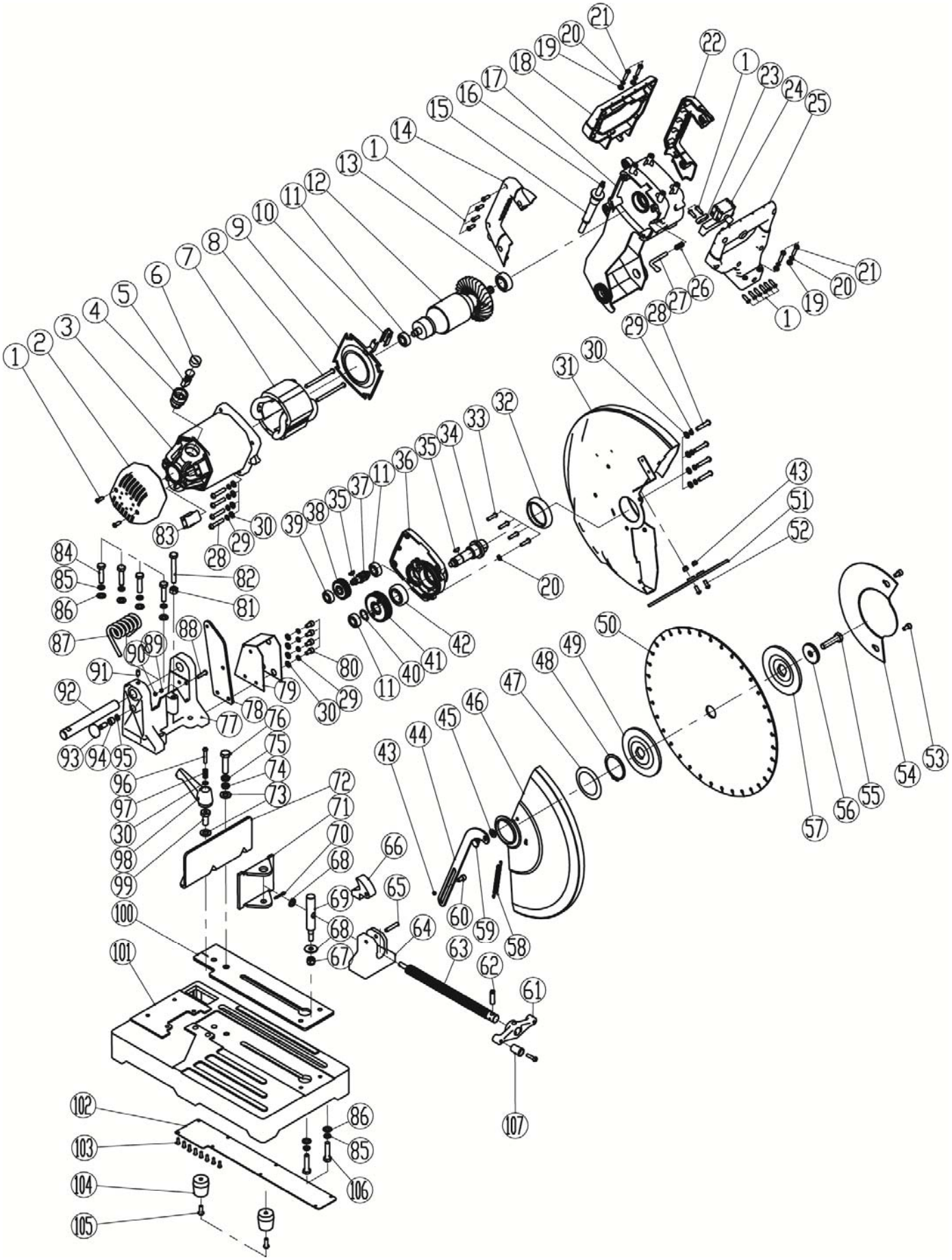
4. Never use caustic agents to clean plastic parts.

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 fasteners are tight. They may vibrate loose over time.

DIAGRAM & PARTS LIST



Part#	Description	Model	Qty.	Part#	Description	Model	Qty.
1	cross screw	ST4. 2 *16	14	**54**	Movable cover		1
2	back cove		1	**55**	Hexagonal bolt	M10*20	1
3	housing		1	**56**	cable clam		1
4	brush holder		2	**57**	upper flange		1
5	carbon brush		2	**58**	spring for movable guard		1
6	brush holder cover		2	**59**	rivet		1
7	stator		1	**60**	special-made screw		1
8	cross screw	ST4. 8 *75	2	**61**	pivoting handle		1
9	circle		1	**62**	springy pin	6*30	1
10	deflector can		1	**63**	pole		1
11	bearing	6000	2	**64**	nut base		1
12	rotor		1	**65**	springy pin	6*32	1
13	bearing	6002	1	**66**	half nut		1
14	left hand-holder		1	**67**	locking nut	M8	1
15	cable guard		1	**68**	bie washer	8	2
16	plug		1	**69**	movable pin		1
17	aluminum arm		1	**70**	Spilt pin	3*20	1
18	upper handle		1	**71**	movable clamp		1
19	flat washer	5	4	**72**	Quick Adjust Fence		1
20	elastic rings	5	4	**73**	Flat washer	10	2
21	cross screw	M5*15	4	**74**	10*14*5.1 steel bushing		1
22	right hand-holder		1	**75**	Springy washer	10	1
23	cable fixer		1	**76**	Hexagonal bolt	M10*25	1
24	switch		1	**77**	Aluminum support fence		1
25	lower handle		1	**78**	Link brackets		1
26	anti-lock spring		1	**79**	mud guard		1
27	anti-lock switch		1	**80**	hexagon screw	M6*20	1
28	cross screw	M6*30	4	**81**	hexagon nut	M8	1
29	elastic rings	6	4	**82**	hexagonal bolt	M8*60	1
30	flat washer	6	4	**83**	soft start		1
31	fasten cover		1	**84**	hexagonal bolt	M8*35	4
32	plastic rings		1	**85**	springy washer	8	6
33	cross screw	M5*18	4	**86**	flat washer	8	6
34	spindle		1	**87**	trestle spring		1
35	woodruff key	4*13	1	**88**	cross screw	M6*35	1
36	front cover		1	**89**	nut	M6	1
37	gear axe		1	**90**	locking nut	M6	1
38	middle gear		1	**91**	inner hexagonal lock	M6*10	1
39	bearing	609	1	**92**	trestle axe		1
40	spindle deflector	17	1	**93**	locking knob		1
41	big gear		1	**94**	steel bushing	8*12*8	1
42	bearing	6203	1	**95**	0 shaped rings	7. 5*1	1

43	locking bolt	M5	2	**96**	cross screw	M5*30	1
44	rod		1	**97**	Fence Lock Lever bolt		1
45	washer	8	1	**98**	Fence Lock Lever		1
46	moving cover		1	**99**	Fence Lock Lever screw		1
47	moving cover washer		1	**100**	base support		1
48	spindle deflector	48	1	**101**	aluminum base		1
49	lower flange		1	**102**	protection guard		1
50	wheel	355	1	**103**	cross screw		1
51	hand guard		1	**104**	footing		2
52	Cross screw	M5*10	1	**105**	Cross screw		4
53	Hexagon screw	M6*8	2	**106**	Hexagonal bolt		2
				107	Pivoting handle bead		1

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

WARRANTY

One-year limited warranty

⚠ WARNING

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

- 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.

IRONTON

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Northern Tool + Equipment Co., Inc.
Burnsville, Minnesota 55306
NorthernTool.com
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