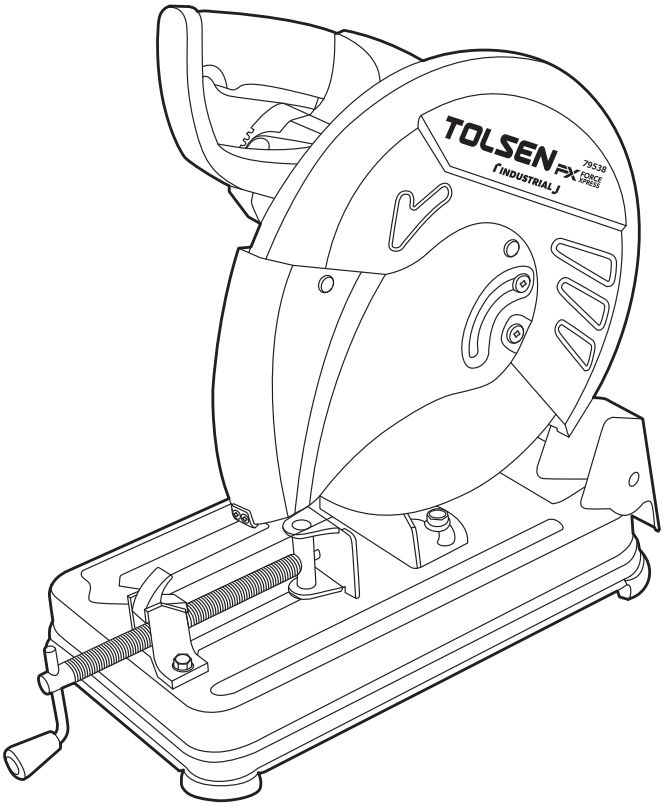
TOLSEN FX FORCE XPRESS

79538
CUT-OFF SAW

INSTRUCTION MANUAL 220-240V~ 2500W



SAVE THIS MANUAL !
You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

⚠ WARNING:

Read all safety warnings and 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. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
4. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
5. 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.
6. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
7. 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.
8. 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.
9. If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock
10. Grounded tools require a three wire extension cord. Double Insulated tools can use either a two or three wire extension cord.
11. 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.
12. 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.
13. 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 energizing power tools that have the switch on invites accidents.

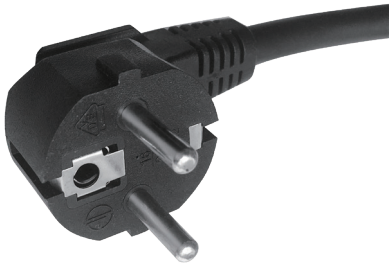
14. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
15. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
16. 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.
17. 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.
18. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
25. 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
26. SERVICE AND REPAIRS should be made by qualified repair technicians at an authorized repair center. Improperly repaired tools could cause serious shock or injury.

Grounding Instruction

WARING

TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION READ AND FOLLOW THESE INSTRUCTIONS:

220-240VAC Grounded Tools: Tools with Three Prong Plugs



1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipmentgrounding conductor to a live terminal.
4. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
6. Repair or replace damaged or worn cord immediately.
7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated above in 125 VAC 3-Prong Plug and Outlet. The tool has a grounding plug that looks like the plug illustrated above in 125 VAC 3-Prong Plug and Outlet.
8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
9. Do not use an adapter to connect this tool to a different outlet.

Safety Warnings Specific for Sanding Operations

For Your Own Safety Read Instruction Manual Before Operating Cut-Off Saw

1. Wear eye protection.
2. Use grinding wheel suitable for speed of Cut-Off Saw.
3. Always use guards and eye shields.
4. Replace cracked wheel immediately.
5. Do not overtighten Arbor Bolt.
6. Use only flanges furnished with the Cut-Off Saw.
7. Frequently clean grinding dust from beneath Cut-Off Saw.
8. Wear a full face shield over ANSI-approved safety goggles during use.
9. Do not grind with side of wheel unless wheel is specifically designed for that type of grinding.
10. **DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED.** Moving guards must move freely and close instantly.
11. The Swing Guard should be retracted manually only for special cuts such as "Pocket Cuts" and "Compound Cuts." Raise the Swing Guard only enough to begin the cut. As soon as the cut-off wheel enters the material, the Swing Guard must be released. For all other sawing, the Swing Guard should be allowed to operate automatically.
12. The Saw is not to be used for any cutting in the locked down position. The Saw should be locked down only for carrying and storage.
13. Only use cut off wheels with a 14" (355mm) diameter, 1" arbor hole, and rated at a minimum of 3,700 RPM. Cut-off wheels that do not match the mounting hardware of the Saw or that are rated at less than the Saw's maximum RPM may fly off the Saw or may run eccentrically, causing loss of control.
14. Do not use the cut-off wheel (sold separately) to cut aluminum, copper, brass, or other non-ferrous metals. The cut-off wheel is designed to cut only ferrous (iron containing) metals such as steel alloys and cast iron. If using other cut-off wheels, only use them on materials that the manufacturer recommends.
15. The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
16. When servicing use only identical replacement parts.
17. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
18. Do not depress the Spindle Lock when starting or during operation.
19. Industrial applications must follow OSHA guidelines.
20. 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.
21. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
22. Avoid unintentional starting. Prepare to begin work before turning on the tool.

23. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
24. 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 and birth defects or other reproductive harm. Some examples of these chemicals are: • Lead from lead-based paints • Crystalline silica from bricks and cement or other masonry products • 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.
25. WARNING: The cord of this product contains lead and/or di (2-ethylhexyl) phthalate (DEHP), chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.
26. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical checkups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Use tools with the lowest vibration when there is a choice between different processes.
4. Include vibration-free periods each day of work.
5. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
6. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

SAVE THESE INSTRUCTIONS

SPECIFICATIONS

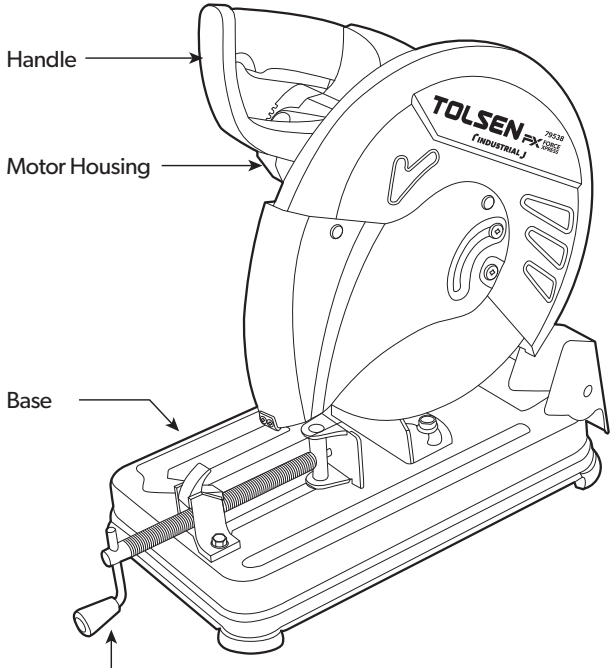
Electrical Rating	220-240V, 50/60Hz
Input Power	2500W
Motor No Load Speed	n_0: 3700 /min
Cutting capacity	900@Ø110mm, 450@Ø90mm
Arbor Size	Ø25.4mm

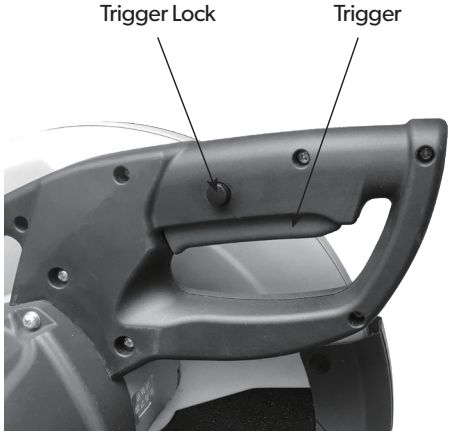
Note: Symbology

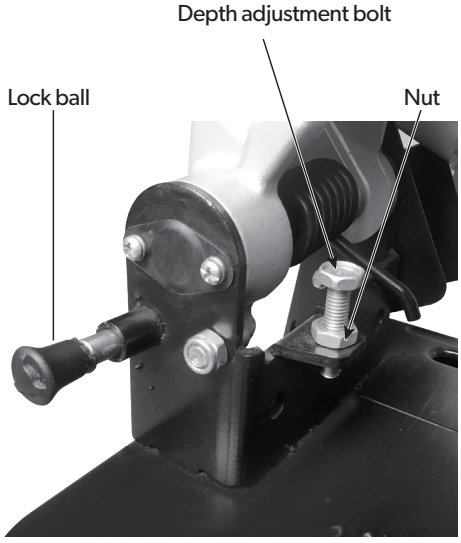
	WARNING mark concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields
	Read the manual before set-up and/or use.
	Grounding general symbol
	Faulty and/or discarded electrical or electronic have to be collected all the appropriate recycling locations.

SETUP

Functions







OPERATING INSTRUCTIONS

Tool Set Up

WARNING:

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Release the Trigger, unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY: DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED. Moving guards must move freely and close instantly.

Installing a Cut-Off Wheel

1. The cut-off wheel MUST be: • rated to at least 3700 RPM. • no larger than 14" (355mm) in diameter. • fitted with a 1" round arbor hole. • suitable for edge grinding, not surface grinding. • dry and clean. • proven undamaged by inspection and by the ring-test explained below.
2. Raise the Saw if it is locked down by pushing down on the Handle and pulling out the Lock Ball (25).
3. Open the Swing Guard (53) and tighten the Swing Guard Screw (1) to secure it while working on the cut-off wheel.
4. Push the Spindle Lock (63) towards the Fixed Guard (60) as shown in Figure A. Rotate the cut-off wheel until the Spindle Lock slides into place.

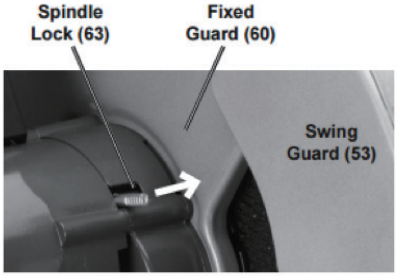


Figure A: Spindle Lock

5. While continuing to hold down the Spindle Lock, loosen the Arbor Bolt (54).
6. Remove the Arbor Bolt, the Flange Washer (96), the Outer Flange (55), and the cut-off wheel. See Figure B.

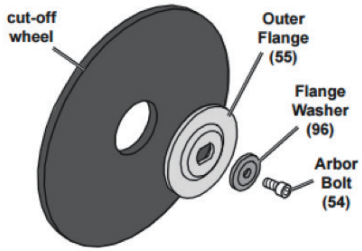


Figure B: Removing Cut-Off Wheel

7. Closely inspect the new wheel before mounting. Perform a ring-test on the wheel as follows:

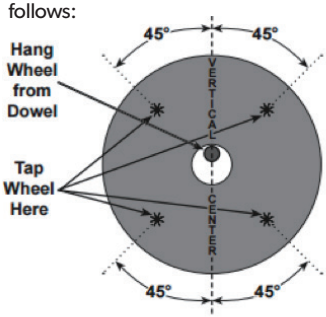


Figure C: Cut-Off Wheel Ring-Test

a. Suspend wheel using a dowel or finger through the arbor hole.

b. Tap the flat side of the wheel with a light non-metallic object, such as a screwdriver handle, at a point 45° from the vertical center line on each side of the wheel and 1 - 2 inches from the edge of the wheel (see Figure C).

8. Replace with the new cut-off wheel, and reassemble the parts shown in Figure B. The concave side of the Outer Flange must face the Wheel. See Figure D.

⚠ WARNING: To prevent serious injury, do not overtighten the Arbor Bolt. Overtightening can damage the wheel, causing wheel failure.

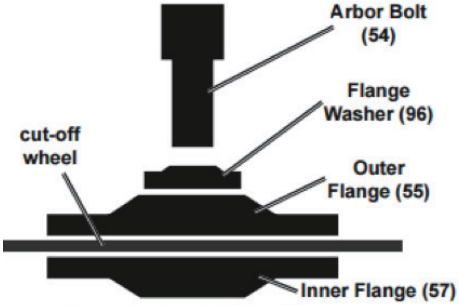
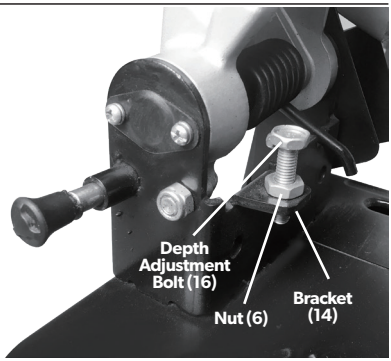


Figure D: Cut-Off Wheel Hardware

Depth Adjustment

1. Loosen the Nut (6) on the Depth Adjustment Bolt (16) shown in Figure E.
2. Turn the Depth Adjustment Bolt (16) to change the depth so that the cut-off wheel will not contact the base at any time during cutting.
3. After adjustment, tighten the Nut (6) down against the Bracket (14) to lock the adjustment in place.



Figue E: Depth Adjustment

Work Piece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.
2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.
3. There must not be objects, such as utility lines, nearby that will present a hazard while working.

Setting Up an Angle Cut

1. To cut at various angles (up to 45^0), adjust the Angle Scale (35) by loosening the two Bolts (41) as shown in Figure F.
2. Adjust the Angle Scale to the desired setting and then tighten both Bolts.
3. To reposition the Angle Scale for a wider workpiece, remove both of the Bolts, and reattach the Angle Scale at the upper two screw holes. See Figure F.

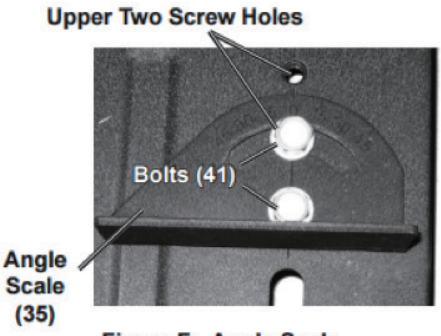


Figure F: Angle Scale

Setting Up an Angle Cut

WANING

TO PREVENT SERIOUS INJURY: DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED. Moving guards must move freely and close instantly.

1. Using the vise, secure your workpiece and, if necessary, adjust the angle of the cut.
2. Raise the Saw by pushing down on the Handle and pulling out the Lock Ball.
3. Plug the Power Cord into the nearest 230 VAC, grounded, electrical outlet.
4. Slide the Trigger Lock and squeeze the Trigger to start the Saw. Allow the cut-off wheel to attain full speed.
5. With one hand on the Handle and the other hand clear, slowly bring the cut-off wheel down onto the workpiece, letting the Saw do the work. Do not apply excessive force.
6. If the cut-off wheel does not cut all the way through the workpiece:
   a. Raise the Saw and release the Trigger.
   b. Unplug the unit.
   c. Wait until the cut-off wheel comes to a full stop.
   d. Remove the workpiece.
   e. Set the depth adjustment to a deeper setting (see Depth Adjustment on page 8).
   f. After adjusting the depth, bring the Saw all the way down to make sure the cut-off wheel doesn't contact the Base.
   g. If it does contact any part of the Base, re-adjust the depth so it doesn't.
   h. Repeat the cutting process starting with step 1 above.
7. Once the cut is completed, turn off the Saw by releasing the Trigger and unplug the unit. Do not attempt to remove the workpiece until the cut-off wheel has stopped moving.
8. To prevent accidents, after use turn off the tool, disconnect its power supply, and lock it down by pushing it down as far as it will go and then pushing in the Lock Ball.
9. Clean, then store the tool indoors out of children's reach.

MAINTENANCE AND SERVICING

⚠ **Procedures not specifically explained in this manual must be performed only by a qualified technician.**

⚠ **WARNING:**

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE: Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

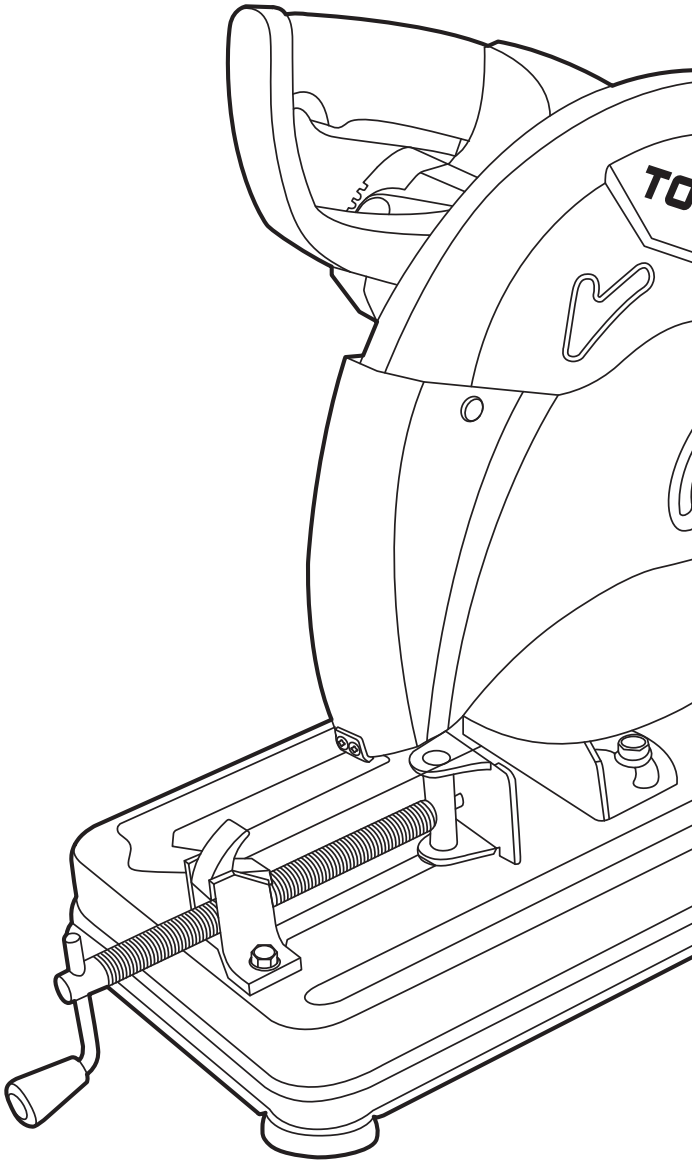
1. BEFORE EACH USE, inspect the general condition of the tool. Check for:
   - loose hardware
   - misalignment or binding of moving parts
   - cracked or broken parts
   - damaged electrical wiring
   - any other condition that may affect its safe operation.
2. AFTER USE, wipe external surfaces of the tool with clean cloth.
3. ⚠ **WARNING:**
   If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	1. Cord not connected. 2. No power at outlet. 3. Tool's thermal reset breaker tripped (if equipped). 4. Internal damage or wear. (Carbon brushes or switch, for example.)	1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit is right capacity for tool and circuit has no other loads. 3. Turn off tool and allow to cool. Press reset button on tool. 4. Have technician service tool.
Tool operates slowly.	1. Excess pressure applied to workpiece. 2. Power being reduced by long or small diameter extension cord.	1. Decrease pressure, allow tool to do the work. 2. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load.
Performance decreases over time.	1. Carbon brushes worn or damaged. 2. Blade dull or damaged.	1. Have qualified technician replace brushes. 2. Keep Blade sharp. Replace as needed.
Excessive noise or rattling.	Internal damage or wear. (Carbon brushes or bearings, for example.)	Have technician service tool.
Overheating.	1. Forcing tool to work too fast. 2. Blocked motor housing vents. 3. Motor being strained by long or small diameter extension cord.	1. Allow tool to work at its own rate. 2. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air. 3. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See General Power Tool Safety Warnings section.

WARNING:

Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.



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