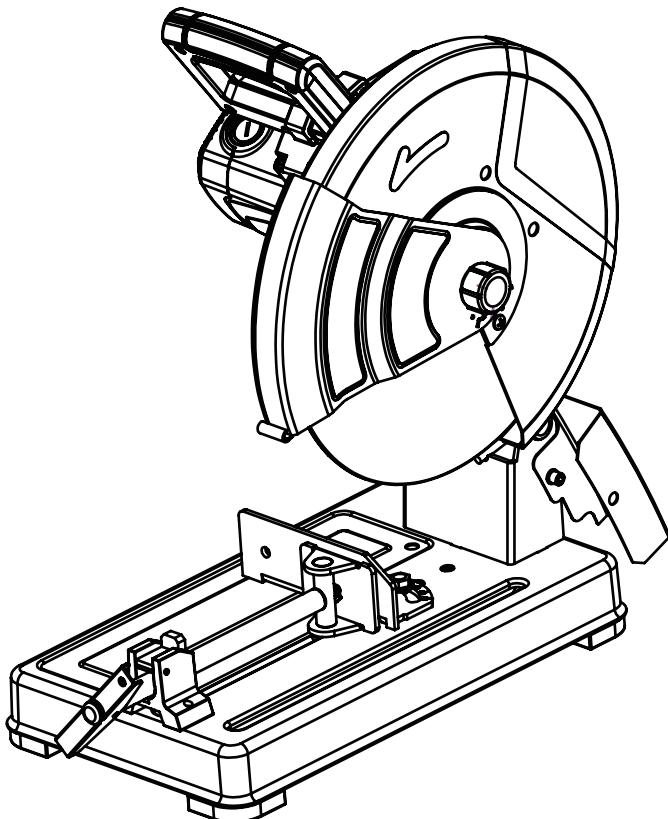


model no. 055-4500-6

**Mastercraft®**

## CHOP SAW



### **IMPORTANT:**

Please read this manual carefully before using this chop saw and save it for reference.

**INSTRUCTION  
MANUAL**

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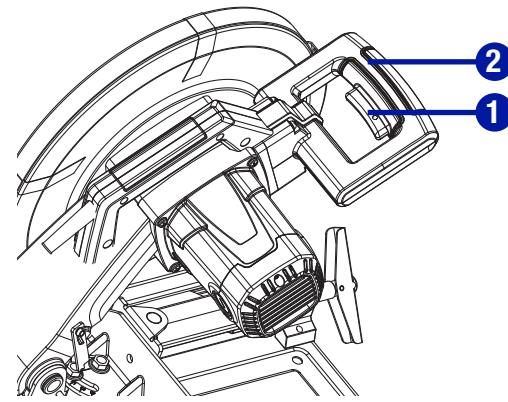
**NOTE:**

If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.

**SAVE THESE INSTRUCTIONS**

This manual contains important safety and operating instructions. Read all instructions and follow them when using this product.

**1** • To turn the chop saw on, depress the ON/OFF switch (1) located in the "D" handle (2) portion of the machine arm.  
• To turn it off, release the ON/OFF switch.  
→ see page 23

**SPECIFICATIONS**

Motor	120 V, 60 Hz, 15 A
Speed	3300 RPM (no load)
Disc size	14 x 1 x 1/8" (35.5 x 2.5 x 0.3 cm)
Max. cutting capacity	4" (10 cm) @ 90°; 3 1/2" (9 cm) @ 45° for round pipe 4 x 4" (10 x 10 cm) @ 90°; 3 1/2 x 3 1/2" (9 x 9 cm) @ 45° for square 4 x 4 3/4" (10 x 12 cm) and 2 3/4 x 8 11/16" (7 x 22 cm) @ 90°; 2 15/16 x 4" (7.5 x 10 cm) @ 45° for rectangle
Pivoting fence	0–45°, right & left
Weight	37 lb 8 oz (17 kg)

## SAFETY GUIDELINES

This manual contains information that relates to PROTECTING PERSONAL SAFETY and PREVENTING EQUIPMENT PROBLEMS. It is very important to read this manual carefully and understand it thoroughly before using the product. The symbols listed below are used to indicate this information.



### DANGER!

Potential hazard that will result in serious injury or loss of life.



### WARNING!

Potential hazard that could result in serious injury or loss of life.



### CAUTION!

Potential hazard that may result in moderate injury or damage to equipment.

**Note:** The word “**Note**” is used to inform the reader of something the operator needs to know about the tool.

## SAFETY RECOMMENDATIONS

These precautions are intended for the personal safety of the operator and others working with the operator. Failure to follow these instructions may result in a permanent loss of vision, serious personal or even fatal injury, property damage and/or tool damage. Please take time to read and understand them. Safety is a combination of common sense, staying alert, and knowing how your chop saw works.

## GENERAL SAFETY RULES



### WARNING!

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

## WORK AREA

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in potentially explosive environments, such as in the presence of flammable liquids, gas or dust. Power tools create sparks that may ignite dust or fumes.
- Keep bystanders, children and visitors away while operating the tool. Distractions can cause the operator to lose control.

## ELECTRICAL SAFETY

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adaptor plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.



### WARNING!

To avoid mistakes that could cause serious injury, do not plug in the chop saw until you have read and understood the rules.

- Avoid contact between the operator's body and grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if the operator's body is grounded.
- Do not expose power tools to rain or wet conditions. Water entering the power tool will increase the risk of electric shock.
- Do not abuse the cord. Do not use the power cord to carry the tool or to pull the plug out of the outlet. Keep the power cord away from heat, oil, sharp edges, and moving parts. Replace a damaged power cord immediately. A damaged power cord increases the risk of electric shock.
- When operating a power tool outdoors, use an outdoor-rated extension cord type “W-A” or “W”. These cords are rated for outdoor use and they reduce the risk of electric shock.

## PERSONAL SAFETY

- Stay alert, be aware of the surroundings, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating a power tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing or jewellery.
- Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothing, jewellery, or long hair can get caught in moving parts.
- Avoid accidental start-ups. Verify that the switch is in the OFF position before plugging in the tool. Carrying a power tool with a finger on the switch or plugging in a tool that has the switch in the ON position invites accidents.
- Remove adjusting keys and wrenches before turning the tool on. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- Do not overreach. Keep proper footing and balance allows the operator to maintain better control of the tool in unexpected situations.
- Use safety equipment. Always wear eye protection.
- Use a dust mask, non-skid safety shoes, a hardhat, or hearing protection when appropriate.

## USE AND CARE OF POWER TOOLS

- Use clamps or another practical means to secure and support the workpiece to a stable platform. Holding the work in a hand or against the body is not stable, and may lead to loss of control.
- Do not force the tool. Use the correct tool for the application. The correct tool will do the job better and safer when used at the rate that it was designed to work at.
- Do not use a power tool if it cannot be turned on or off using the power switch. A tool that cannot be controlled using the switch is dangerous, and must be repaired.
- Disconnect the plug from the outlet before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of accidental start-ups.
- When power tools are not in use, store them out of the reach of children or untrained persons. Tools are dangerous in the hands of untrained users.
- Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- Inspect the tool for misalignment or binding of moving parts, broken parts, and any other condition that may affect the operation of the tool. If it is damaged, have the tool serviced before using it. Many accidents are caused by poorly maintained tools.
- Use only accessories that are recommended by the manufacturer for this model. Accessories that are suitable for one tool may become hazardous when used with another tool.

**SERVICE**

- Tool servicing must be performed by qualified personnel. Service or maintenance performed by non-qualified personnel could result in a risk of injury.
- When servicing a tool, use only identical replacement parts. Follow the instructions in the Maintenance section of this manual. The use of unauthorized parts or failure to follow the instructions in the Maintenance section of this manual may create a risk of electric shock or injury.

**SPECIFIC SAFETY RULES****WARNING!**

**Know your chop saw. Read the Owner's Manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire or serious injury.

**DANGER!**

**Always unplug the tool from the power source before changing the cutting disc or when cleaning the tool.**

**DANGER!**

**Never place your hands or fingers near the cutting disc while the tool is running. Severe injury will result.**

**DANGER!**

**Never install a saw blade on this tool. It is designed ONLY for use with abrasive cut off discs.**

- Use this chop saw for cutting steel only. Cutting ceramic materials will create excessive dust and cause damage to the motor.
- Always use a dust mask along with safety goggles when operating the chop saw.
- Always use hearing protection when operating the chop saw.
- Do not wear gloves, neckties or loose clothing.
- Do not cut material too small to be securely held in the vice.
- Always keep your hands out of the path of the abrasive wheel. Avoid awkward hand positions where a sudden slip could cause your hand to move into the path of the abrasive wheel.
- Secure the workpiece. Use the clamping system provided with the chop saw. It is safer than using your hand.
- Never hand hold a piece of material. Material will become very hot while being cut.
- Make sure there are no foreign objects in the part of the workpiece to be cut.

- Make sure the guard is installed and in proper working order before operating the chop saw.
- The abrasive wheel must be attached as described in this Owner's Manual before connecting the tool to the power source. Failure to do so will increase the risk of serious injury if the abrasive wheel shatters or comes loose.
- Abrasive wheels must be stored in a dry location to prevent deterioration.
- Before attaching the abrasive wheel, inspect it for visible defects. If cracked, chipped or warped, do not install it.
- Do not over tighten the clamp nut on the abrasive wheel. Excessive tightening may cause the disc to crack and possibly shatter during operation.
- Before cutting, press the trigger switch and allow the abrasive wheel to reach full speed.
- Never turn the chop saw on with the abrasive wheel touching the work surface.
- Use only abrasive wheel that is rated for a speed 3300 RPM or greater.
- Do not use the chop saw if the clamping flanges or cap screw are missing or improperly installed.
- Dust and abrasive materials should not be allowed to build up in the workshop. Hot metal sparks could start a fire.
- Do not remove the soft paper in the centre of the abrasive wheel.
- Do not alter or enlarge the centre hole of the abrasive wheel as this could result in the disc shattering.

**USE SAFETY GOGGLES AND EAR PROTECTION**

ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CUL REQUIREMENTS. Flying debris can cause permanent eye damage.



The tool is loud and the sound can cause hearing damage. Always wear ear protection to help prevent hearing damage and loss. Failure to comply may result in moderate injury.

**USE DUST MASK**

Some dust created by sawing contains chemicals that are known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: lead from lead-based paints; crystalline silica from bricks, cement and other masonry products; or arsenic and chromium from chemically-treated lumber. To reduce exposure to these chemicals, work in a well-ventilated area with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

**ELECTRICAL SAFETY****GUIDELINES FOR USING EXTENSION CORDS:**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current

**CAUTION!**

In all cases, verify that the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.

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.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with a green outer surface, 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 equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service technician if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Use only three-wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug, as shown in Fig. 1. Repair or replace a damaged or worn cord immediately.

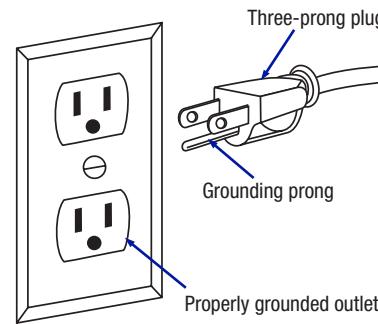


Fig. 1

#### GROUNDING INSTRUCTIONS:

- Make sure the extension cord is in good condition. When using an extension cord, be sure to use one that is heavy enough to carry the current that your product will draw. An undersized cord will cause a drop in line voltage, which will result in loss of power and overheating. The table on the next page shows the correct size to be used according to cord length and nameplate ampere rating. When in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord, or have it repaired by a qualified person before using it. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.
- Use a separate electrical circuit for your tools. This circuit must consist of not less than #12 wire with a 20 A time-delayed fuse or a #14 wire with a 15 A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.



#### WARNING!

- Use the proper extension cord. Make sure to use an extension cord that is heavy enough to carry the current required by the tool. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating of the tool.
- Use the extension cord only for intended purpose. Do not pull the extension cord to remove it from the power socket.

#### Recommended size for extension cords

AMPERAGE RATING OF THE TOOL (120 V CIRCUIT ONLY)		TOTAL LENGTH OF THE EXTENSION CORD			
MORE THAN	NOT MORE THAN	MINIMUM GAUGE FOR THE EXTENSION CORD (AWG)			
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not recommended	



No Hands Symbol.

Failure to keep your hands away from the blade will result in serious personal injury.



184892

This symbol designates that this tool is listed with Canadian requirements by CSA.

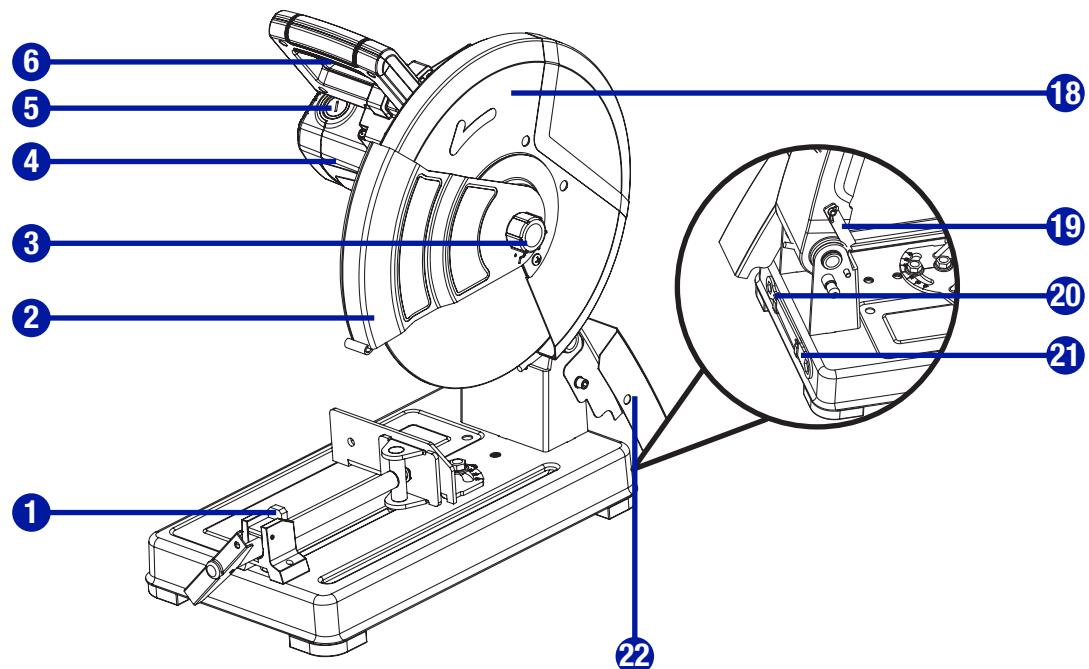
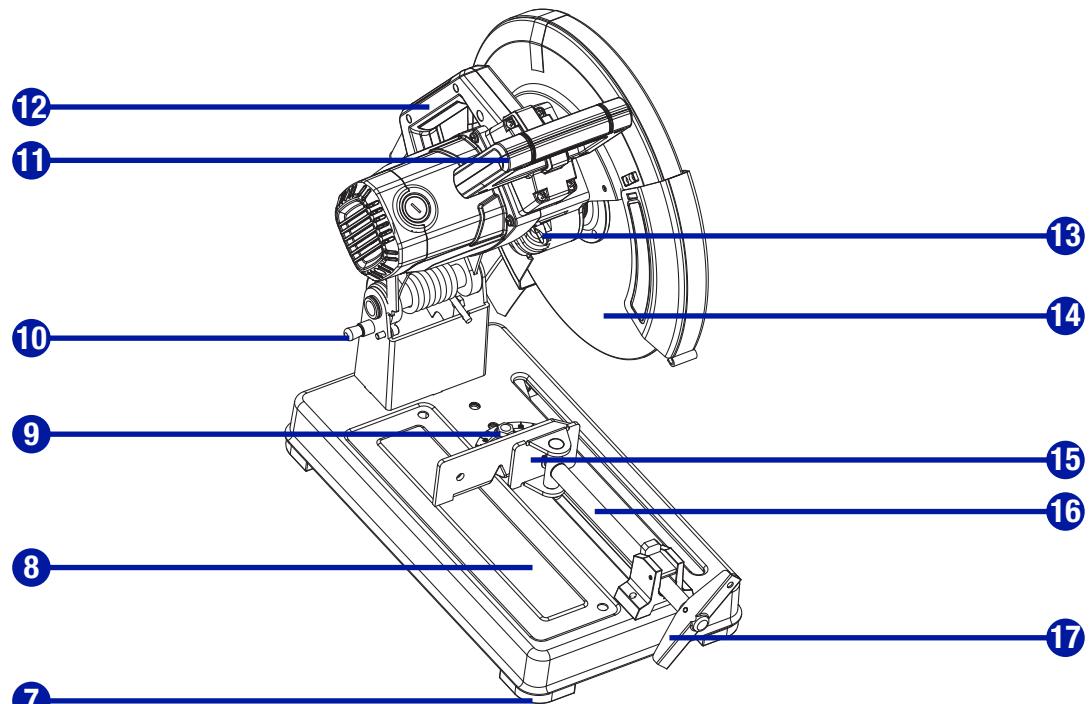


#### WARNING!

This tool must be grounded while in use in order to protect the operator from electric shock.

#### NOTE:

Recycle unwanted materials rather than disposing of them as waste. Sort the tool and its components in specific categories and take to the local recycling centre or dispose of them in an environmentally safe way.



No.	Description
1	Quick-release lever
2	Lower wheel guard
3	Locking knob
4	Motor
5	Carbon brush cap
6	ON/OFF trigger switch
7	Rubber foot
8	Machine base
9	Mitre gauge
10	Head lock button
11	"D" Handle

No.	Description
12	Carry handle
13	Spindle lock button
14	Abrasive wheel
15	Vice clamp
16	Vice screw
17	Vice handle
18	Upper wheel guard
19	Depth stop
20	Arbour wrench storage
21	Arbour wrench
22	Spark deflector

#### 14" (35.5 cm) Abrasive Wheel

A 14" (35.5 cm) abrasive wheel is included with your chop saw. It will cut materials up to 4" (10 cm) thick or 8 1/2" (22 cm) wide, depending upon the thickness or width of the material and the setting at which the cut is being made.

#### Mitre Gauge

The mitre gauge on your chop saw has been provided to support the material and provide clamping support to the vice for holding your material securely when making all cuts. The mitre guard provided is meant to make your chop saw more versatile. It adjusts from 0 to 45° to the right or left for making angled cuts. The hole pattern allows it to be moved forward when making cuts in tall or thick stock, such as square stock or tube stock. The hole pattern allows it to be moved back when making cuts in stock that is thin or wide, such as angle stock.

#### Arbour Wrench

The arbour wrench can be stored on the back side of the base. Use wrench when replacing abrasive wheel or when making fence angular adjustments.

#### Carry Handle

This handle is built into the unit to move it from one location to another. Before attempting to pick up the unit by the carrying handle, always lock the power head in the down position using the head lock button.

#### "D" Handle

The handle contains the trigger switch. The wheel is lowered into the material by pushing down on the handle. The wheel will return to its upright position when the handle is released.

#### ON/OFF Switch

To start the tool, squeeze the trigger. Release the trigger to stop the tool.

**Lower Wheel Guard**

The lower wheel guard provides protection from each side of the wheel. Contact with the material causes the lower wheel guard to raise over the upper wheel guard as the abrasive wheel is lowered into the material.

**Motor**

This chop saw has a strong motor with sufficient power to handle tough cutting jobs. It also has externally accessible brushes for ease of servicing.

**Depth Stop**

The depth stop limits the wheel's downward travel. It allows the wheel to go below the machine base enough to maintain full cutting capacities.

**Quick-release Lever**

A quick-release lever has been provided on your chop saw. This feature allows you to open and close the vice clamp quickly without repetitive turning of the vice handle.

**Spindle Lock Button**

A spindle lock button has been provided for locking the spindle which keeps the wheel in chop saw from rotating. Depress and hold the spindle lock button while installing, changing, or removing abrasive wheel only.

**Upper Wheel Guard**

Protects user from abrasive wheel contact on upper portion of wheel.

**Vice Clamp**

A vice clamp has been provided with your chop saw. It is located on the end of the vice screw and provides greater control by clamping the material to the fence. It also prevents the material from creeping toward the wheel during a cutting operation.

**PACKAGE CONTENTS**

NO.	Description	Qty.	Illustration
1	Chop saw	1	

2 Arbour wrench

1

**TOOLS NEEDED FOR ASSEMBLY****UNPACKING**

This product has been shipped completely assembled.

- Carefully lift machine from the carton by the carry handle and machine base, and place it on a level work surface.

**NOTE!**

**This tool is heavy. To avoid back injury, lift with your legs, not your back, and get help when needed.**

- This machine has been shipped with the machine arm secured in the down position. To release the machine arm, push down on the "D" handle (1) and unlock the head lock button (2) as shown in Fig. 2.

**WARNING!**

If any parts are damaged or missing do not operate this tool until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.

- Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.
- Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.
- Risk of injury! Always pull out the mains plug (disconnect the product from its power supply) before commencing work on the product.

- Lift the machine arm by the handle. Hand pressure should remain on the "D" handle to prevent sudden rise upon release of the head lock button. Remove the foam (3) on the machine base.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- The machine is factory set for accurate cutting. After assembling it, check for accuracy. If shipping has influenced the settings, refer to specific procedures explained in this manual.
- If any parts are damaged or missing, please call 1-800-689-9928 for assistance.

**WARNING!**

**A 14" (35.5 cm) wheel is the maximum wheel capacity of the chop saw. Never use a wheel that is too thick to allow outer flange to engage with the flats on the spindle. Larger wheels will come in contact with the wheel guards, while thicker wheels will prevent the bolt from securing the wheel on the spindle. Either of these situations could result in a serious accident and can cause serious personal injury.**

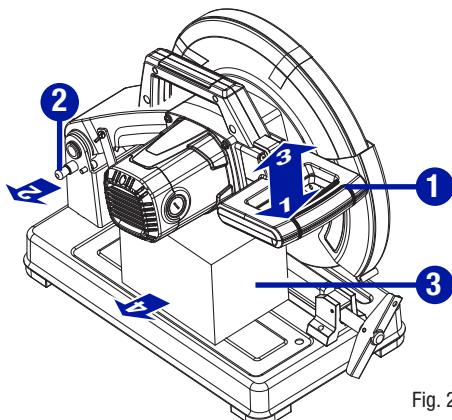


Fig. 2

**SELECTING THE WORK SURFACE**

- It is important to place the chop saw on a solid work surface that will not shift during operation of the chop saw. Locating the chop saw near an electrical outlet will eliminate the need for an extension cord.

**WARNING!**

**Never place the chop saw near any flammable liquids or items that can be damaged by the sparks thrown by the chop saw during cutting. The hot sparks can ignite flammable liquids.**

- Hot metal sparks and sharp metal pieces will damage the work surface to some degree. Make sure you consider this fact when selecting the work surface. A non-flammable surface such as a metal bench will be less likely to be damaged during the cutting operation.

**WARNING!**

Always disconnect your chop saw from the power source when replacing the abrasive wheel, clamping material in the vice, adjusting the guard, cleaning or when not in use. Disconnecting the chop saw will prevent accidental starting that could cause serious personal injury.

**SETTING THE DEPTH STOP (Fig. 3)**

The maximum cut depth is controlled by adjusting the depth stop (1). The depth stop (1) limits the wheel's downward travel. It allows the wheel to go below the machine base enough to maintain full cutting capacities.

The depth stop is located near the rear of the tool, on the left side of the machine arm. To use the depth stop (1), loosen the win screw (2) and position the depth stop by aligning the slot (3) with the pivot bracket (4). When not using the depth stop, turn it clockwise or counter-clockwise until the slot (3) is not aligned with the pivot bracket (4).

The depth stop is factory set to provide maximum cutting capacity for the 14" (35.5 cm) abrasive wheel provided with the chop saw.

When the diameter of the wheel has been reduced due to wear, it may be necessary to adjust the depth stop to provide maximum cutting capacity. When a new abrasive wheel is installed, it is necessary to check the clearance of the wheel to the machine base support.

- Unplug the chop saw.
- Loosen the win screw (2).
- Press down on the D-handle to lower the machine head. Position the depth stop by aligning the slot (3) with the pivot bracket (4). When not using the depth stop, turn it clockwise or counter-clockwise until the slot (3) is not aligned with the pivot bracket (4).
- Lower the wheel and check the clearance.
- Adjust if necessary.
- Tighten the win screw (2).

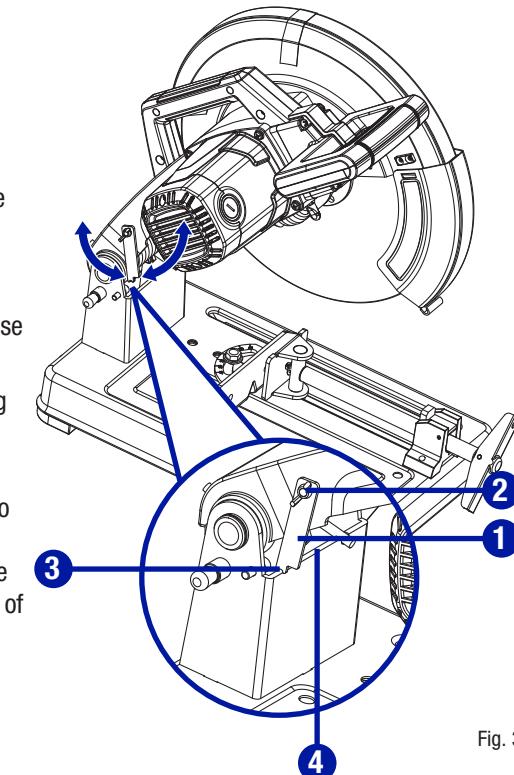


Fig. 3

**CAUTION!**

Do not start the chop saw without checking for interference between the wheel and machine base support. Damage may result to the wheel if it strikes the machine base support during operation of the machine.

**CHECKING THE LOWER WHEEL GUARD (Fig. 4-5)**

The lower wheel guard must be checked to ensure it is working properly.

- Lift the lower wheel guard (1) upward approximately 3" (7.6 cm) and then release it. If the lower wheel guard is functioning correctly, it will freely drop down to its original position.
- Lower the machine arm and abrasive wheel assembly until the lower edge (2) of the lower wheel guard touches the machine base. Continue to lower the machine arm and abrasive wheel assembly. The lower wheel guard should freely rise as the abrasive wheel is lowered.

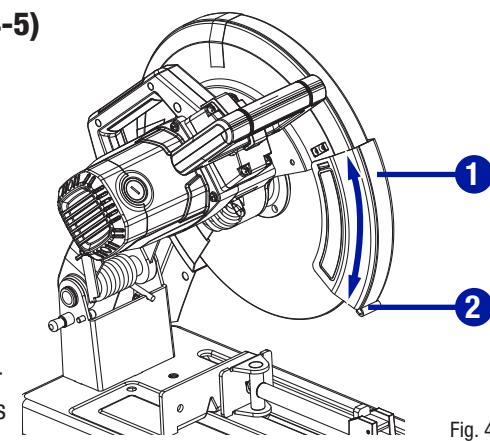


Fig. 4

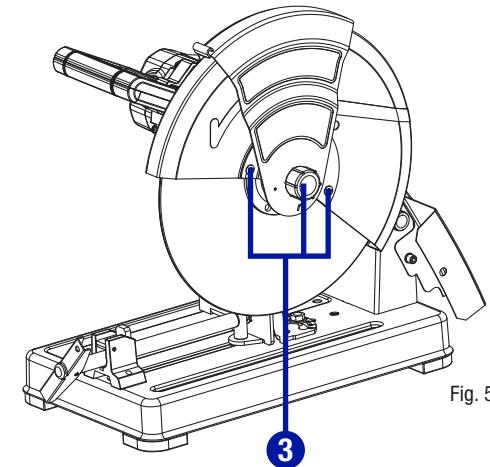


Fig. 5

**WARNING!**

Always disconnect your chop saw from the power source before checking the lower wheel guard.

**NOTE:**

The lower wheel guard should always rise and fall freely when the machine arm is lowered and raised as outlined above. If not, clean any cuttings out from around the guard mechanism (3). (Fig. 5)

**CHECKING THE ARBOUR BOLT (Fig. 6-8)**

It is important to check the arbour bolt to make sure the abrasive wheel is fully tightened.

- Lift the machine arm fully upward as far as it will go.
- Rotate the lower wheel guard (1) upward until you expose the cross-screw (2). (Fig. 6)
- Loosen the cross-screw (2) but do not remove it. Continue to rotate the lower wheel guard (1) until it will stay in the back position.
- Press and hold the spindle lock button (3) to the right while rotating the abrasive wheel by hand. (Fig. 7)
- When the spindle lock button engages the arbour, tighten the arbour bolt (4) by turning it clockwise using the arbour wrench (5) supplied. (Fig. 8)
- When the arbour bolt is fully tightened, remove the arbour wrench and release the spindle lock button.
- Check the lower wheel guard. Refer to the previous section "checking the lower wheel guard".

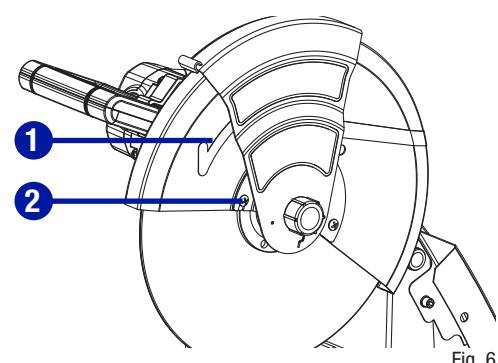


Fig. 6

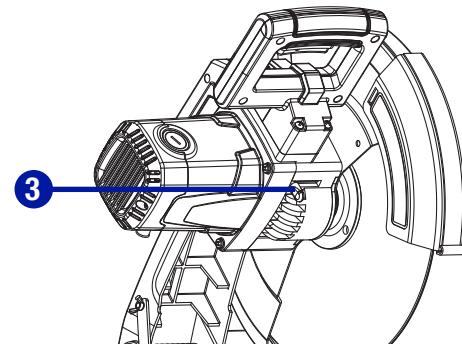


Fig. 7

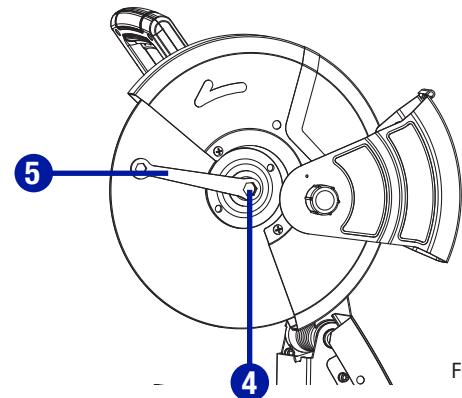


Fig. 8

**WARNING!**

Disconnect your chop saw from the power source before checking the arbour cap bolt.

**NOTE:**

Only use the arbour wrench supplied to tighten the arbour cap bolt. DO NOT over tighten the arbour cap bolt as you could crack the hub of the abrasive wheel.

**USING THE MITRE GAUGE (Fig. 9)**

The mitre gauge (1) is located at the rear of the chop saw. It is used along with the vice clamp to provide a clamp for holding the workpiece securely when making cuts. It also makes the chop saw more versatile.

The fence can be rotated to obtain cutting angles from 0 to 45°. It also can be moved back to allow greater cutting widths in thin stock, or forward to allow greater cutting depths in tall or thick stock.

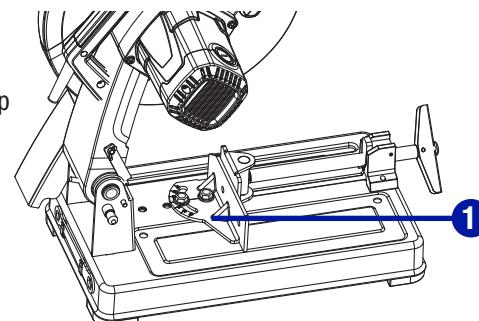


Fig. 9

**ADJUSTING THE CUTTING ANGLE (Fig. 10-11)**

- Unplug the chop saw.
- Open the vice clamp by turning the vice handle (1) 5 or 6 turns counter-clockwise. (Fig. 10)
- Loosen two mitre gauge cap bolts (2) by turning them counter-clockwise using the arbour wrench (3) supplied. (Fig. 11)
- Rotate the mitre gauge (4) to the left or right until the desired cutting angle lines up with the alignment mark (5). (Fig. 11)
- Tighten both mitre gauge cap bolts to lock the mitre gauge in place.

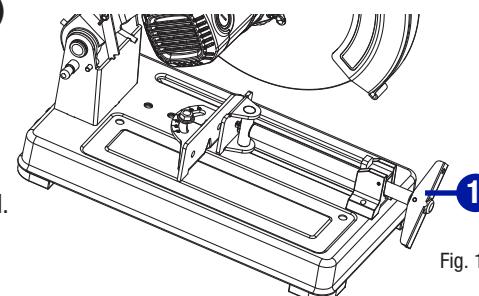


Fig. 10

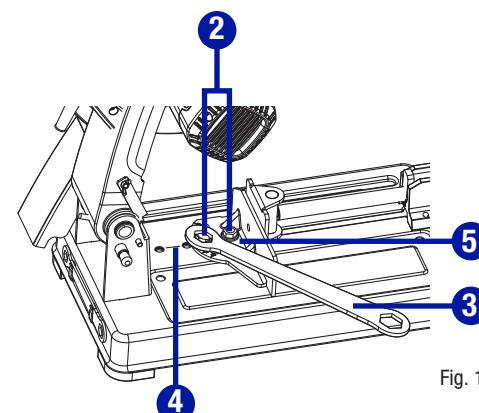


Fig. 11

**NOTE:**

Always make a test cut on a scrap workpiece to verify the mitre angle setting.

**ADJUSTING THE WIDTH OF CUT (Fig. 12)**

The mitre gauge can be repositioned by positioned the mitre gauge into back two holes on the machine base.

- Unplug the chop saw.
- To increase the width of cut of the chop saw, use arbour wrench supplied to loosen and remove the front and rear mitre gauge cap bolts (1).
- Move the mitre gauge (2) back approximate 2 5/32" (55 mm) until two holes and slot in the mitre gauge line up with back two holes (3) in the machine base.
- Reinstall and tighten the mitre gauge cap bolts in the two new holes.

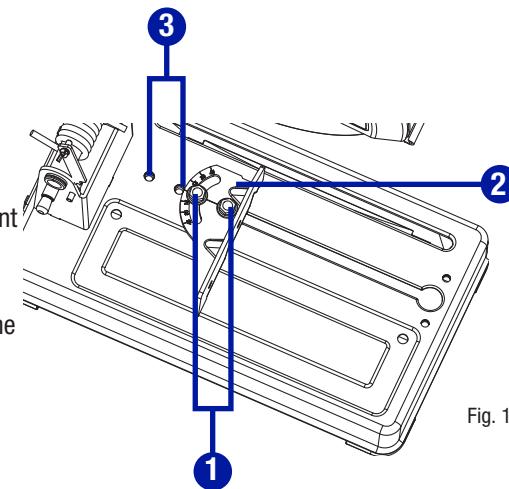


Fig. 12

**USING THE QUICK-RELEASE LEVER AND VICE CLAMP (Fig. 13)**

The quick-release lever engages the vice clamp to be used along with the mitre gauge to provide a vice for securing the workpiece to be cut. It also allows you to open and close the vice quickly without repetitive turning of the vice handle.

**To loosen:**

- Unplug the chop saw.
- Release tension on the vice clamp by rotating the vice handle (1) 1 to 2 turns counter-clockwise.
- Lift up on the back of quick-release lever (2) to release the vice screw (3).
- While holding the quick-release lever upward in the released position, pull the vice handle toward you to quickly open the vice.

**To tighten:**

- Unplug the chop saw.
- Push the vice handle (1) away from you to slide the vice clamp against the workpiece.
- Rotate the quick-release lever (2) back and push down to engage its threads with the vice screw (3).
- Rotate the vice handle (1) clockwise to tighten the vice clamp against the workpiece.

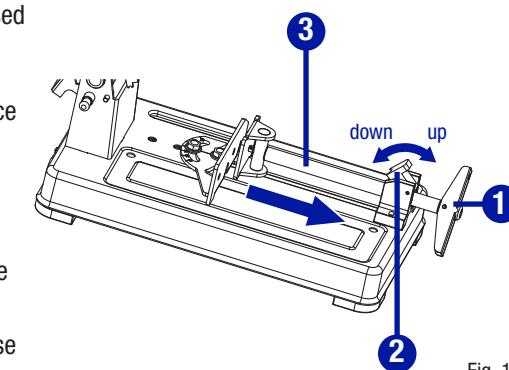


Fig. 13

**WARNING!**

Always make sure the workpiece is flat against the machine base and securely held in the vice before turning the saw on.

**WARNING!**

For safety reasons, the operator must read the sections of this Owner's Manual entitled "SAFETY GUIDELINES" and "ELECTRICAL SAFETY" before using this chop saw. Verify the following every time the chop saw is used:

- Cord is not damaged.
- Abrasive wheel is correct for the type of material being cut.
- Abrasive wheel is in good condition and securely tightened onto the arbour.
- Safety glasses, dust mask and hearing protection are being worn.
- Guard is in good working order.
- No flammable liquids are in the vicinity.

Failure to adhere to these safety rules can greatly increase the chances of serious injury.

**WARNING!**

Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict severe injury.

**WARNING!**

Always wear safety goggles or safety glasses when operating tools. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

**WARNING!**

Do not use any attachments or accessories not recommended by the manufacturer of this tool. The use of attachments or accessories not recommended can result in serious personal injury.

**WARNING!**

Do not attempt to cut wood or masonry with this chop saw. Never cut magnesium or magnesium alloy with this machine. Failure to comply could result in serious personal injury.

**WARNING!**

Never install any wood cutting blade on this machine. The chop saw is properly guarded only for cutting metal with an abrasive wheel. Failure to comply could result in serious personal injury.

**WARNING!**

Always use the vice clamp on the chop saw to prevent accidents that could result in possible serious personal injury.

**WARNING!**

Large, circular, or irregularly-shaped material may require additional means of clamping to be secured in place adequately for cutting (for example, use blocks to hold material securely). Failure to comply could result in serious personal injury.

**APPLICATIONS**

You may use this tool for the purposes listed below:

- Cutting all types of metals such as steel framing studs.
- Cutting hard metal iron stock such as square bar stock and angle iron.
- Cutting metal tube and pipe stock.

**POWER SUPPLY**

Before operating the chop saw, check the power supply and make sure it meets the requirements listed on the tool's data plate. A substantial voltage drop will cause a loss of power and machine overheating.

Common causes of power loss and machine overheating are insufficient extension cord size and multiple tools operating from the same power source.

**ON/OFF SWITCH (Fig. 14)**

- To turn the chop saw on, depress the ON/OFF switch (1) located in the "D" handle (2) portion of the machine arm.
- To turn it off, release the ON/OFF switch.

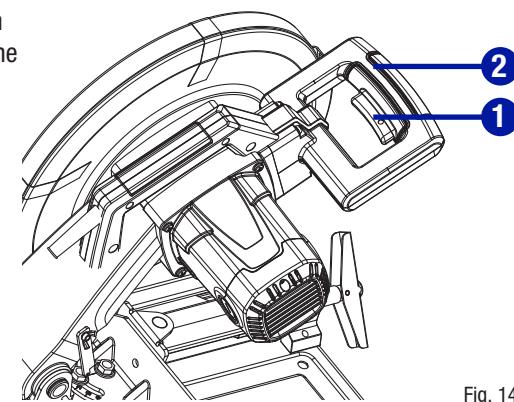


Fig. 14

**WARNING!**

Always make sure the abrasive wheel is NOT touching the workpiece when the switch is being turned on. Let the motor come to full speed before beginning to cut.

**CUTTING WITH THE CHOP SAW**

A cut-off is made by cutting across the width of the material. A straight cross cut is made with the mitre gauge set at the zero degree position. Angled cut-offs are made with the mitre gauge set at some angle other than zero.

- Lift the "D" handle fully upward as far as it will go.
- Loosen two mitre gauge cap bolts securing the mitre gauge.
- Rotate the mitre gauge to the desired angle.
- Retighten two mitre gauge cap bolts securing the mitre gauge.

**WARNING!**

**To avoid serious personal injury, always tighten two mitre gauge cap bolts securely before making a cut. Failure to do so could result in movement of the material while making a cut.**

- Place the material flat on the machine base with one surface securely against the mitre gauge.
- Align cutting line on the material with the edge of the abrasive wheel.
- Push in the vice handle to set the vice clamp against the material. Turn the vice handle 1 to 2 turns clockwise to securely clamp the material to the mitre gauge.
- Firmly secure the material to be cut using the machine's vice (mitre gauge and vice clamp).
- When cutting long pieces, support the opposite end of the material with a roller stand or with a work surface level with the machine base.

**WARNING!**

**Never perform any cutting operation freehand (without placing material in the vice). Material will get hot during cutting operation. Keep hands off of metal being cut to avoid serious personal injury.**

- Make sure you are wearing your safety goggles, dust mask and hearing protection.
- Before turning on machine, perform a dry run of the cutting operation just to make sure that no problems will occur when the cut is made.
- Start the machine by grasping the handle and fully squeezing the ON/OFF switch. Allow several seconds for the wheel to build up to full speed before letting it come into contact with material to be cut.

**WARNING!**

**The abrasive wheel MUST NOT be touching the material when the motor switch is turned on.**

- Once it reaches full speed slowly lower the "D" handle until the abrasive wheel comes in contact with the material being cut. Continue to use steady and even pressure to obtain a uniform cut through the material. Never force the wheel into the material being cut.

**WARNING!**

**Many sparks will be generated as soon as the abrasive wheel touches the material.**

- When the cut is complete, release the ON/OFF switch and allow the wheel to stop rotating before raising the wheel out of material.

**WARNING!**

**Do not touch the cut material until it cools or you can be burned. Failure to heed this warning could result in serious personal injury.**

**WARNING!**

When servicing, use only indentical replacement parts. The use of any other part may create a hazard or cause product damage.

**WARNING!**

Always wear safety goggles during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

**GENERAL**

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, carbon dust, etc.

**CAUTION!**

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

**LUBRICATION**

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

**ABRASIVE WHEEL REPLACEMENT (Fig. 15-18)**

Abrasive wheel must be replaced when it has become damaged in any way or has worn down to a diameter of less than 10" (25 cm).

- Unplug the chop saw.
- Lift the machine arm fully upward as far as it will go.
- Rotate the lower wheel guard (1) upward until you expose the cross-screw (2). (Fig. 15)
- Loosen the cross-screw (2) but do not remove it. Continue to rotate the lower wheel guard (1) until it will stay in the back position.
- Press and hold the spindle lock button (3) to the right while rotating the abrasive wheel by hand. (Fig. 16)
- When the spindle lock button engages the arbour, loosen the arbour bolt (4) by turning it counter-clockwise using the arbour wrench (5) supplied. (Fig. 17)
- Remove the arbour bolt (4), small flange (6), outer flange (7), abrasive wheel (8), inner washer (9) and

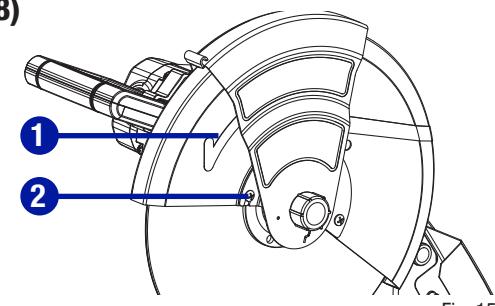


Fig. 15

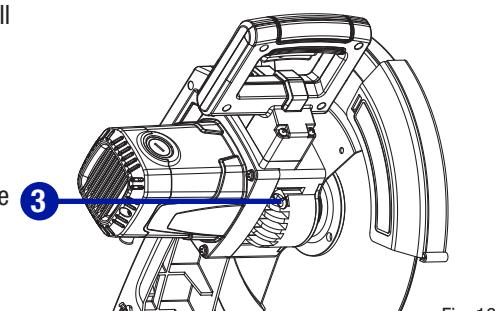


Fig. 16

inner flange (10) from the arbour (11). (Fig. 18)

- Use a clean dry brush or cloth to carefully remove all cuttings from the arbour and motor housing.
- Rotate the lower wheel guard (1) upward until you expose the cross-screw (2). (Fig. 6)
- Clean the inner flange then slide it and inner washer onto arbour.
- Place a new abrasive wheel against the inner flange over arbour and make sure recessed side of the inner flange is against the abrasive wheel.
- Clean the outer flange and small flange then slide the outer flange and small flange onto arbour until it is flush.
- Place recessed side of outer flange against abrasive wheel and recessed side of small flange against outer flange, then insert the washer and arbour bolt into threaded end of the arbour.

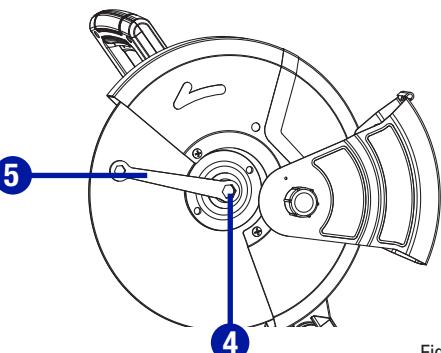


Fig. 17

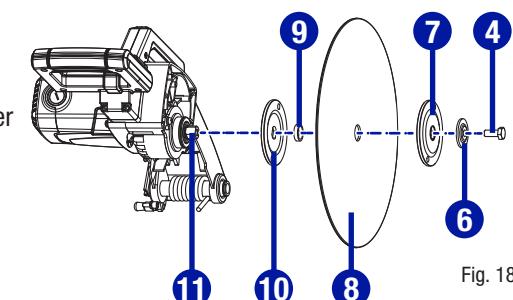


Fig. 18

**CAUTION!**

Reinstall the inner flange, inner washer, new abrasive wheel, outer flange, small flange and arbour bolt in the same order in which they were removed.

**NOTE:**

Make sure the recessed side (large surfaces) of the outer flange and small flange are facing the abrasive wheel.

**NOTE:**

Make sure the flats of the inner flange, outer flange and small flange holes slide over the matching flats of the arbour.

**WARNING!**

If the inner flange and inner washer have been removed, you MUST replace them before placing the abrasive wheel. Failure to do so could cause an accident since abrasive wheel will not tighten properly.

- Start threads and turn arbour bolt clockwise to tighten snugly.
- Press and hold the spindle lock button to the right. When the spindle lock button engages the arbour, tighten the arbour bolt by turning it clockwise using the arbour wrench supplied.
- When the arbour bolt is fully tightened, remove the arbour wrench, and release the spindle lock button.



**NOTE:**  
Arbour bolt has right-hand threads. Turn arbour bolt clockwise to tighten.



**WARNING!**  
Do not overtighten arbour bolt. Overtightening can cause the new abrasive wheel to crack, resulting in premature failure and possible serious personal injury.

- Carefully rotate the abrasive by hand to make sure it is firmly tightened, that it is not damaged and that it does not wobble.
- Reattach the lower wheel guard by tightening the cross-screw (2) and lowering the lower wheel guard.



**WARNING!**  
Reset the depth stop by referring to the section "SETTING THE DEPTH STOP". The new blade will be larger and will damage the work surface if the depth stop is not readjusted.

- With depth stop properly set, turn the switch on.



**NOTE:**  
If the abrasive wheel wobbles or vibrates, turn the switch off immediately. Recheck to make sure the abrasive wheel is installed correctly and that the abrasive wheel is not damaged.

### CARBON BRUSH REPLACEMENT (Fig. 19)

The chop saw has externally accessible carbon brush assemblies that should be periodically checked for wear.

#### Proceed as follows when replacement is required:

- Unplug the chop saw.
- Remove the carbon brush cap (1) with a screwdriver (not supplied). Carbon brush assembly (2) is spring-loaded and will pop out when you remove the carbon brush cap.
- Remove the carbon brush assembly (2).
- Check for wear. Replace both carbon brushes when either has less than 1/4" (6 mm) length of carbon brush remaining. **Do not** replace one side without replacing the other.
- Reassemble using new carbon brush assemblies. Make sure curvature of carbon brush matches curvature of motor and carbon brush moves freely in brush tube.
- Make sure carbon brush cap is oriented correctly (straight) and replace.
- Tighten carbon brush cap securely. **Do not** overtighten.

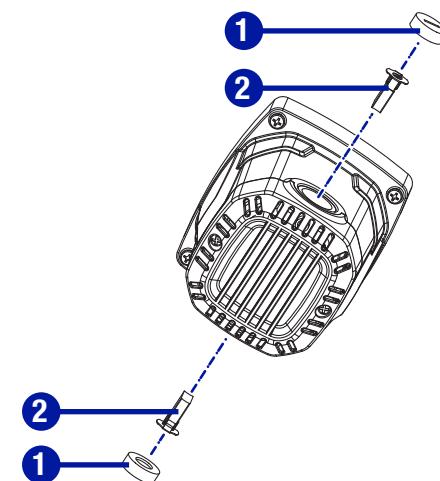


Fig. 19

### STORAGE OF THE ARBOUR WRENCH (Fig. 20)

Store the arbour wrench (1) on the rear of the chop saw when not in use, as shown in Fig. 20.

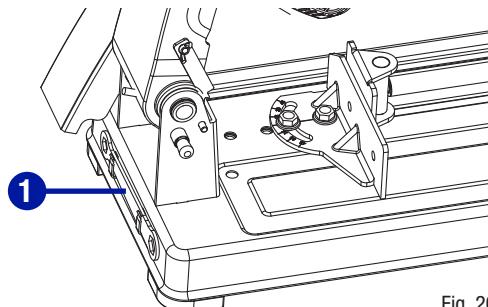


Fig. 20

### LOCKING THE MACHINE ARM FOR CARRYING (Fig. 21)

To safely carry the chop saw, it is important to lock the machine arm and carry the tool with the appropriate carry handle.

- Lower the machine arm (1) as far as it will go.
- Push inward on the head lock button (2) until it engages the hole in the machine arm.
- Release the machine arm. It will be locked in the DOWN position if the head lock button is properly engaged.
- Lift the chop saw using the carry handle (3).

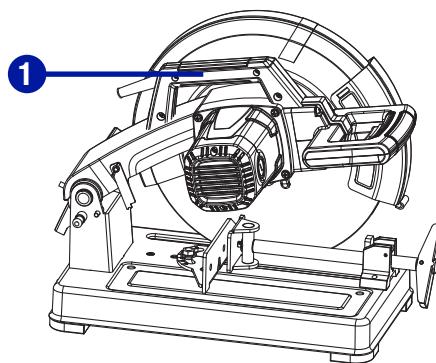
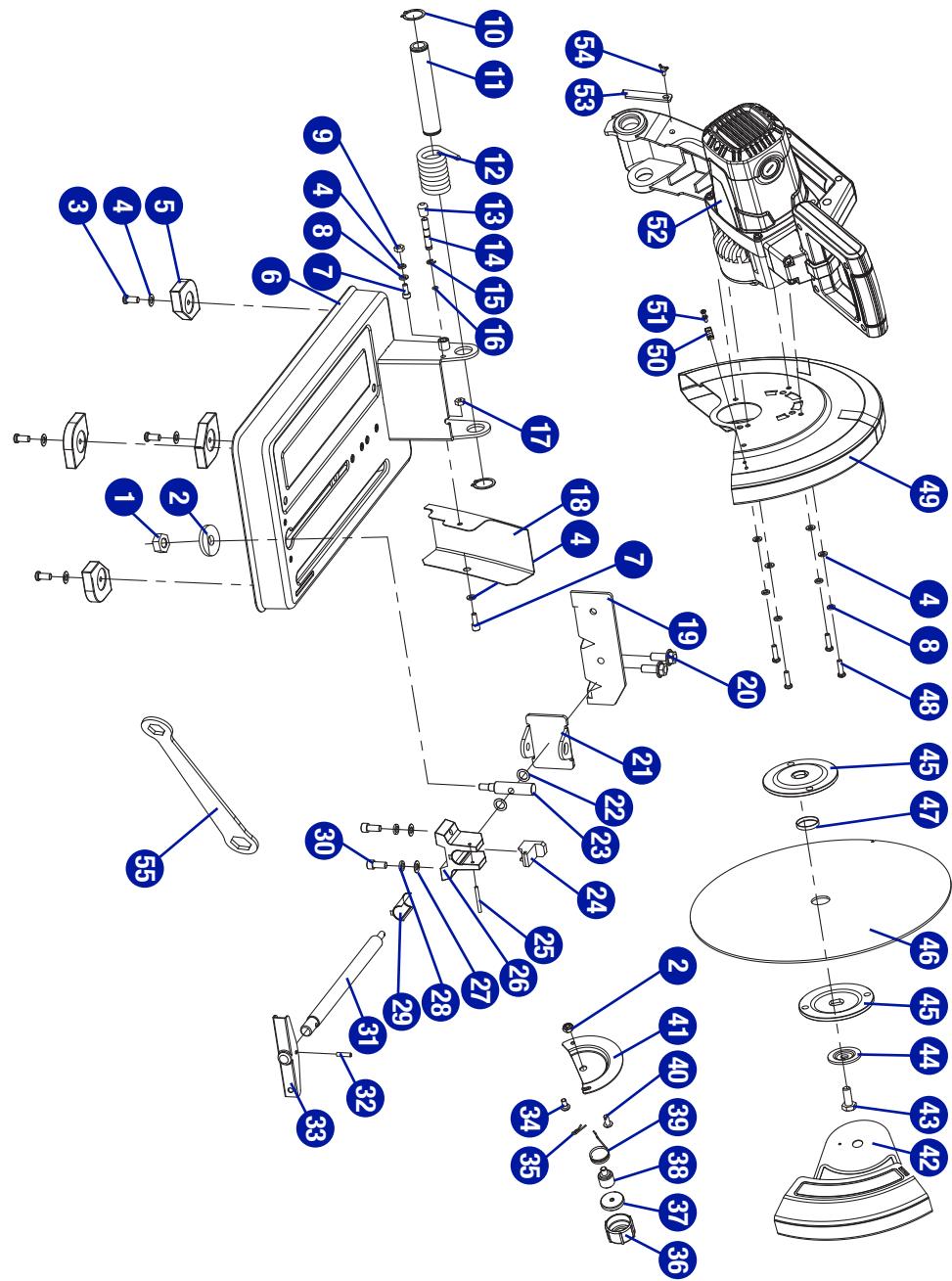


Fig. 21

## TROUBLESHOOTING

PROBLEM	Possible Causes	Solution
Machine does not start.	<ul style="list-style-type: none"> <li>Power cord not plugged in.</li> <li>Power cord is damaged.</li> <li>Circuit breaker is tripped.</li> <li>Circuit fuse is blown.</li> <li>Switch is damaged or burned out.</li> </ul>	<ul style="list-style-type: none"> <li>Plug in cord.</li> <li>Have the cord replaced at your nearest authorized service centre.</li> <li>Reset circuit breaker.</li> <li>Replace circuit fuse.</li> <li>Have the switch replaced at your nearest authorized service centre and request a voltage check from the power company.</li> </ul>
Motor does not reach full speed or power.	<ul style="list-style-type: none"> <li>Voltage from power source is low.</li> <li>Circuit is overloaded.</li> <li>Motor burned out.</li> <li>Fuses or circuit breakers are wrong size.</li> <li>Extension cord is too long.</li> <li>Switch is defective.</li> </ul>	<ul style="list-style-type: none"> <li>Request a voltage check from the power company.</li> <li>Test on a different circuit or without anything else on circuit.</li> <li>Have tool serviced and request a voltage check from the power company.</li> <li>Have an electrician replace with a 15 A fuse or circuit breaker.</li> <li>Use a shorter extension cord.</li> <li>Have the switch replaced at your nearest authorized service centre.</li> </ul>
Motor stalls, blows fuses, or trips circuit breakers.	<ul style="list-style-type: none"> <li>Switch is defective.</li> <li>Voltage from source is low.</li> <li>Fuses or circuit breakers are wrong size or defective.</li> </ul>	<ul style="list-style-type: none"> <li>Have the switch replaced at your nearest authorized service centre.</li> <li>Request a voltage check from the power company.</li> <li>Have an electrician replace with a 15 A fuse or circuit breaker.</li> </ul>
Motor overheats.	<ul style="list-style-type: none"> <li>Motor is overloaded.</li> <li>Wheel is being fed into work too fast.</li> </ul>	<ul style="list-style-type: none"> <li>Request a voltage check from the power company.</li> <li>Feed wheel into work slower.</li> </ul>

PROBLEM	Possible Causes	Solution
Machine is noisy when running.	<ul style="list-style-type: none"> <li>Motor needs attention.</li> </ul>	<ul style="list-style-type: none"> <li>Have the motor checked at your nearest authorized service centre.</li> </ul>
Wheel hits table.	<ul style="list-style-type: none"> <li>Wheel not properly installed.</li> <li>Depth stop setting incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>See Abrasive Wheel Replacement section.</li> <li>Adjust the depth stop. See Setting the Depth Stop section.</li> </ul>
Wheel does not cut through material.	<ul style="list-style-type: none"> <li>Depth stop setting incorrect.</li> <li>Wheel worn too much.</li> <li>Incorrect cutting operation.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust the depth stop. See Setting the Depth Stop section.</li> <li>Replace with a new 14" (35.5 cm) abrasive wheel.</li> <li>See Cutting with the Chop Saw section.</li> </ul>
Machine vibrates or shakes excessively.	<ul style="list-style-type: none"> <li>Wheel is out-of-round.</li> <li>Wheel is chipped.</li> <li>Wheel is loose.</li> <li>Machine is not secure.</li> <li>Work surface is uneven.</li> </ul>	<ul style="list-style-type: none"> <li>Replace wheel.</li> <li>Replace wheel.</li> <li>Tighten wheel bolt on arbour.</li> <li>Check and tighten all hardware.</li> <li>Relocate and secure on a flat surface.</li> </ul>



## PARTS LIST

No.	Description	Qty
1	Locking nut M8	2
2	Washer B	1
3	Cross screw M6 x 16	4
4	Flat washer 6	5
5	Rubber foot	4
6	Base assembly	1
7	Hexagon screw M6 x 16	4
8	Spring washer 6	1
9	Hex nut M6	1
10	Shaft collar	2
11	Support shaft	1
12	Torsion	1
13	Pin cap	1
14	Stopper pin	1
15	Open ring 6	1
16	O-ring	1
17	Hex locking nut M6	1
18	Spark deflector	1
19	Mitre gauge	1
20	Cap bolt M10 x 25	2
21	Plywood	1
22	Washer A	2
23	Connecting shaft	1
24	Release lever	1
25	Spring pin 4 x 35	1
26	Support	1
27	Flat washer 8	2
28	Spring washer 8	2
29	Liner	1
30	Hexagon screw 8 x 18	2
31	Vice screw	1
32	Spring pin 5 x 20	1
33	Vice handle	1
34	Screw A	1
35	Spring pin B	1
36	Torsion spring sleeve	1
37	Torsion spring base	1
38	Locking knob	1
39	Torsion spring	1
40	Screw B	1
41	Lower wheel guard fixing plate	1
42	Lower wheel guard	1
43	Hex bolt M10 x 25	1
44	Small flange	1
45	Wheel flange	2
46	Abrasive wheel	1
47	Inner washer	1
48	Cross screw M6 x 20	4
49	Upper wheel guard	1
50	Apron	1
51	Cross screw M5 x 8	2
52	Motor	1
53	Depth stop	1
54	Win screw	1
55	Arbour wrench	1

### 3-Year Limited Warranty

This Mastercraft product is guaranteed for a period of **3 years** from the date of original retail purchase against defects in workmanship and materials, except for the following component:

Component A: Accessories, which are guaranteed for a period of 1-year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

#### **These warranties are subject to the following conditions and limitations:**

- a. a bill of sale verifying the purchase and purchase date must be provided;
- b. this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c. this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product that are expected to become inoperative or unusable after a reasonable period of use;
- d. this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e. this warranty will not apply where damage is caused by repairs made or attempted by others (i.e. persons not authorized by the manufacturer);
- f. this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g. this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- h. this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and
- i. this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

#### **Additional Limitations**

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

#### **Notice to Consumer**

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

**This product is not meant for industrial or commercial purposes. This product is for household projects. Read manual carefully.**

Made in China

Imported by Mastercraft Canada Toronto, Canada M4S 2B8