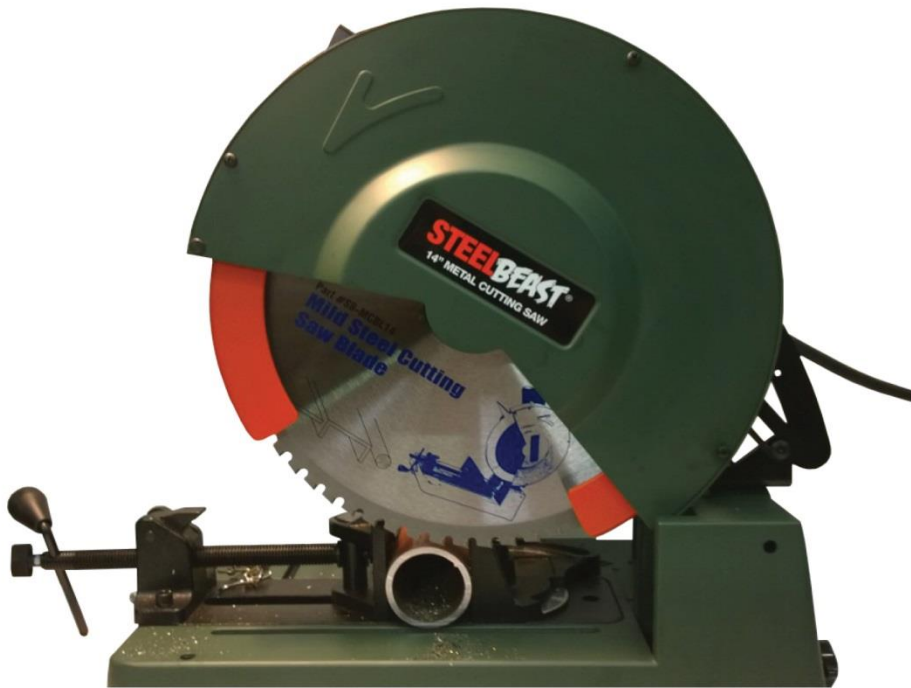


STEELBEAST 14" METAL CUTTING SAW INSTRUCTION MANUAL



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Safety Rules

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. It is strongly recommended that this machine NOT be modified and/or used for any application other than for which it was designed.

Warning

Failure to follow these rules may result in serious personal injury.

1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.

Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. KEEP GUARDS IN PLACE and in working order.

3. ALWAYS WEAR EYE PROTECTION.

4. GROUND ALL TOOLS. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle; the adaptor lug must be attached to a known ground. Never remove the third prong.

5. REMOVE ADJUSTING KEYS & WRENCHES. Have it a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "ON."

6. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

7. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

8. KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept a safe distance from work area.

9. MAKE WORKSHOP CHILDPROOF – with padlocks, master switches, or by removing starter keys.

10. DON'T FORCE TOOL. It will do the job better and be safer at the rate for which it was designed.

- 11. USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
- 12. WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewellery to get caught in moving parts. Nonsolid foot wear is recommended. Wear protective hair covering to contain long hair.
- 13. ALWAYS USE SAFETY GLASSES.** Wear safety glasses, everyday eye glasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.
- 14. SECURE WORK.** Use clamps or a vice to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- 15. DON'T OVERREACH.** Keep proper footing and balance at all times.
- 16. MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 17. DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
- 18. USE RECOMMENDED ACCESSORIES.** The use of improper accessories may cause hazards.
- 19. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in the "OFF" position before plugging in power cord.
- 20. NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
- 21. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other part that is damaged should be properly repaired or replaced.
- 22. DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 23. NEVER LEAVE TOOL RUNNING UNATTENDED.** POWER OFF. Don't leave tool until it comes to a complete stop.
- 24. DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drugs, alcohol or any medication.
- 25. MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.
- 26. WARNING.** The dust generated by certain products can be hazardous to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use dust collection systems whenever possible.

Additional Safety Rules for Metal Cutting Saw

1. **WARNING:** Do not operate your metal cutting saw until it is completely assembled and installed according to the instructions.
2. **IF YOU ARE NOT** thoroughly familiar with the operation of the metal cutting saw, obtain advice from your supervisor, instructor or other qualified person.
3. **WEAR** safety goggles, face shield, face mask, body apron, head covering, safety shoes, long tight-fitting sleeves and gloves.
4. **BE SURE** blade is sharp, runs freely and is free of vibration.
5. **TIGHTEN** arbor screw and all clamps before operating.
6. **MAKE SURE** not to reach behind or over the cutting tool with either hand for any reason.
7. **ALWAYS** keep guards in place and working properly.
8. **KEEP** hands out of the path of the saw blade.
9. **SECURE** work piece properly. Work should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion.
10. **NEVER** cut anything freehand.
11. **NEVER** reach behind or underneath the blade.
12. **MAKE SURE** the blade has come to a complete stop before removing or securing work piece or changing work piece angle.
13. **BE SURE** blade and flanges are clean and that arbor screw is tightened securely.
14. **NEVER** use blades larger or smaller in outside diameter and arbor than recommended.
15. **USE ONLY** blades rated at 1500 R.P.M or higher and conform to EN 847-1. Never use blade from high speed steel.
16. **ALWAYS** check the blade for cracks or other damage before operation. Do not use blades which are damaged or deformed.
17. **USE ONLY** blade flanges specified for your machine.
18. **MAKE SURE** blade is not contacting work piece before switch is turned on.
19. **ALLOW** the motor to come up to full speed before starting cut.
20. **AFTER TURNING MACHINE ON,** lower blade lightly until it comes with the work piece and then draw blade firmly through the cut. **DO NOT** allow the blade to chatter and jump as this may cause the blade to wear cut of round, resulting in poor cutting and possible broken blades.
21. **ALWAYS** keep the lower blade guard in place.
22. **IMPORTANT:** After completing cut, release power switch and wait for coasting blade to stop before returning saw to raised position.
23. **USE** the blade guard at all times.
24. **NEVER** operate the machine in an area with flammable liquid or gasses.
25. **TO AVOID** electric shock, do not use under damp conditions or expose to rain.
26. **PROVIDE** adequate support to the sides of the saw table for long work piece.
27. **SHUT OFF** power before servicing or adjusting tool.

- 28. SHOULD** any part of your machine be missing, damaged or fail in any way, or any electrical component fail to perform properly, shut-off switch and remove plug from power supply outlet. Replace missing, damaged or failed parts before resuming operation.
- 29. SAVE THESE INSTRUCTIONS.** Refer to them.

Glossary of Terms

ARBOR – The shaft a blade is mounted on.

FREEHAND – Performing a cut without the use of work piece vice, hold down or other proper device to prevent the work piece from twisting during the cutting operation. Twisting of the work piece can cause it to be thrown or cause the blade to break.

REVOLUTIONS PER MINUTE (R.P.M) – The number of turns completed by a spinning object in one minute.

SAW BLADE PATH – The area of the work piece or table top directly in line with either the travel of the blade or the part of the work piece which will be, or has been, cut by the blade.

WORK PIECE – The item the cutting operation is being performed to.

Motor Specifications and Electrical Requirements

Power Supply and Motor Specifications

The AC motor used in this saw is a universal non reversible type having the following specifications:

	51305			
Maximum	3			
Developed H.P				
Voltage	110-120	220-240	100-120	220-240
Amperes	15	7.5	15	7.5
Hertz (Cycles)	50-60			
Phase	Single			
RPM	1300			
Rotation of Shaft	Counter-clockwise			

Power Connections

A separate electrical circuit should be used for your tools. This circuit should not be less #12 wire and should be protected with a 20 amp fuse. Have a certified electrician replace or repair a worn cord immediately. Before connecting the motor nameplate. Running low voltage will damage the motor.

WARNING: DO NOT EXPOSE THE TOOL TO RAIN OR OPERATE THE TOOL IN DAMP CONDITIONS

Ground Instructions

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

In the event of malfunction or breakdown, grounding provides a path or less 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 is 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 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 equipment-grounding conductor to a live terminal.

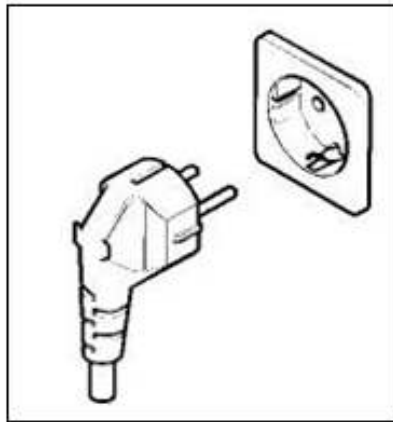


Fig 6.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood if in doubt as to whether the tool is properly grounded. Repair or replace damaged or worn cord immediately.

Use extension cords with suitable receptacles that accept the tool's plug as shown in fig 6.

CAUTION: IN ALL CAUSES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUND. IF YOU ARE NOT USE, HAVE A CERTIFIED ELECTRICIAN CHECK THE RECEPTACLE.

Motor Specifications and Electrical Requirements (Continued)

Motor Safety Protection

Important: To avoid motor damage, this motor should be blown out or vacuumed frequently to keep dust from interfering with normal motor ventilation.

1. Connect this tool to a power source with the appropriate voltage for your model and a 20-amp branch circuit with wrong size fuse can damage the motor.
2. If the motor won't start, release the trigger switch immediately. **Unplug the tool.** Check the saw blade to make sure it turns freely. If the blade is free, try to start the "Motor Trouble Shooting Chart".
3. If the motor suddenly stalls while cutting, release the trigger switch, unplug the tool and free the blade from the work piece. The motor may now be restarted and the cut finished.
4. Fuses may "blow" or circuit breakers may trip frequently if:
 - a: **Motor is Overloaded** – Overloading can occur if you feed too rapidly or make too many start/stops in a short time.

b: Line voltages should not be more than 10% above or below the nameplate voltage. For heavy loads, however, the voltage at motor terminals must equal the voltage specified for your model.

c: Improper or dull saw blade are used.

5. Most motor troubles may be traced to loose or incorrect connections, overload, low voltage (such as small size wire in the supply circuit) or an overly long supply circuit wire. Always check the connections, the load and the supply circuit whenever motor doesn't work well. Check wire sizes and length with the Wire Size Chart Below.

Extension Cord Length	Wire Sizes Required	
	120V	220V-240V
0-25 (0~0.75m)	16AWG	1.5mm ²
()	14AWG	2.0mm ²

Wire Sizes

Note: Make sure the proper extension cord is used and is in good condition.

The use of any extension cord will cause loss of power. To keep this to a minimum and prevent overheating and motor burnout, use the table below to determine the minimum wire size A.W.G. extension cord.

Unpacking and Checking Contents

Unpacking

WARNING: To avoid injury from unexpected starting or electrical shock do not plug the power cord into a power source outlet during unpacking and assembly. This cord must remain unplugged whenever you are working on the saw.

Your saw is shipped complete in one box.

WARNING: Although compact, this saw is heavy. To avoid back injury, get help whenever you have to lift.

1. Remove the saw from the carton by lifting the saw with the carry handle.
2. Place the saw on a secure, stationary work surface and look the saw over carefully.

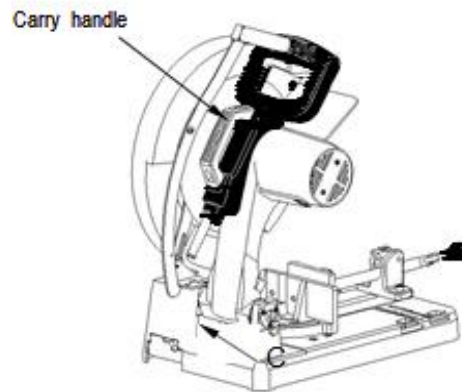
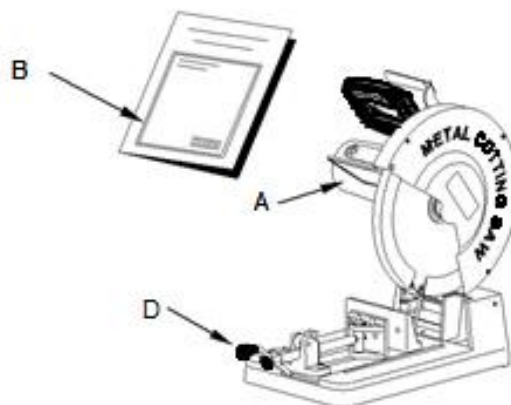


Table of Loose Parts

The following parts are included:

Note: Before beginning assembly, check that all parts are included. If you are missing any part, do not assemble the saw.



Part or Assembly	Qty.
A. Basic Saw Assembly	1
B. Owner's Manual	1
C. Arbor Wrench (stored on base)	2
D. Vice Handle	1

Getting to Know your Saw

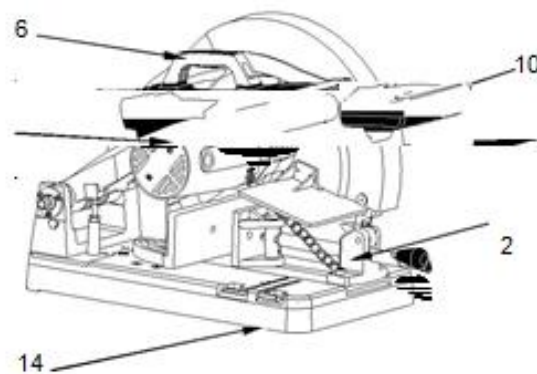
1. Warning label.

2. Chain – For easy carrying and storage, the cut off saw can be clamped in the down position by means of the hold down chain. To move the cutting head to the up position, simply unhook the chain from the handle housing.

3. Quick Vice – to hold the work piece in position.

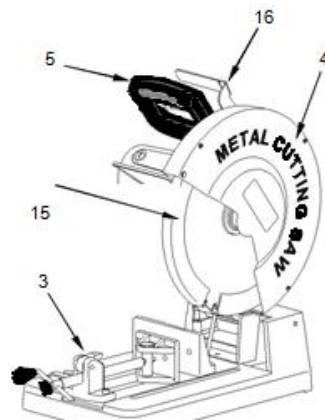
4. Upper Guard – This guard helps protect your hands from the blade in the raised position. To avoid binding on the work piece, it retracts as the power head is lowered.

5. D Handle – The D handle contains the trigger switch with a lock button (see #8 and #9 for illustration). The blade can be lowered into the work piece by pushing down on the handle. The saw will return to its upright position when the handle is released unless the hold down (#2) is hooked.



6. Carrying 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 clamp the cut off saw power head in the down position using chain (#2)

7. Protection Plate – To protect eyes from being injured from the spar and iron filings occurred while cutting materials.

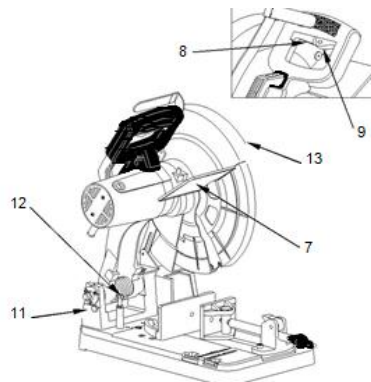


8. Trigger – To turn the saw “on” first depress trigger and then depress switch trigger (9)

9. Switch – To turn the saw “on” depress switch trigger, to turn the saw “off”, release the switch trigger

10. Arbor Lock – Allows the user to keep the blade from rotating while tightening or loosening arbor screw during blade replacement or removal.

11. Up stop Screws – In the full up position of the power head. These screws prevent over rotation of the power head.



12. Down stop – In the down (full cut) position, the pivot arm hits an adjustable stop on the pivot.

13. Upper Guard – Protects users from cutter contact on upper portion of blade.

14. Arbor Wrench – Used for blade changing and fence angular adjustments.

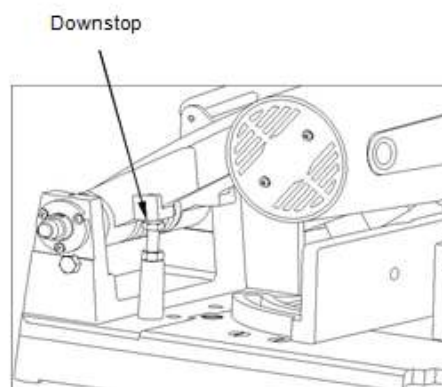
15. Big Blade Guard and Small Blade Guard – Easy to use with excellent safety.

16. Lever – For safety, user should press the lever before the lever before the lever before the machine head can be pressed down and guard open.

Alignment (Adjustments)

WARNING: Cut material can be thrown. Eyes can be permanently damaged. Wear your safety goggles.

Down stop Adjustment: The down stop should be adjusted so that maximum cutting capacity is maintained and so that the cut off blade does not hit the saw base or the surface, which the tool is mounted to.



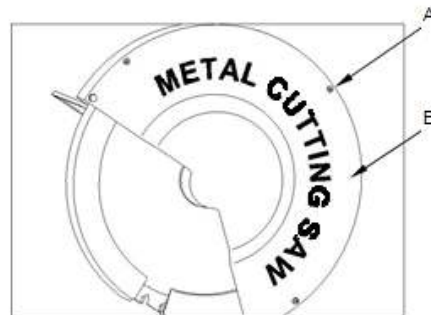
1. Lower cutter head until the arm hits the down stop.
2. Verify maximum cutting capacity and that there is no contact between cut off blade and base or mounting surface.
3. If contact occurs, adjust down stop screw and jam nut until problem is corrected.

NOTE: All other adjustments are described in the "Basic Saw Operations" section.

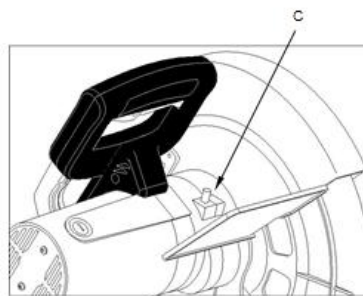
Assembly

Changing the Blade

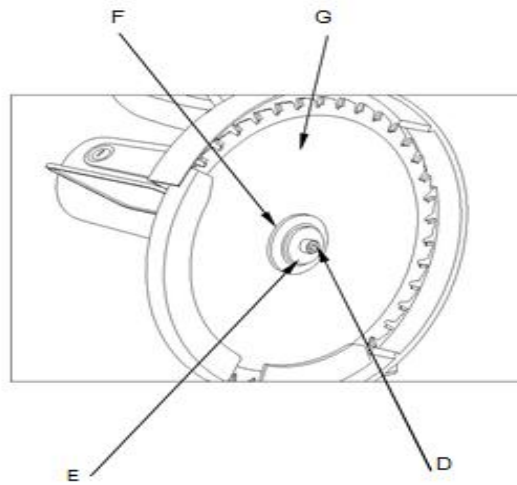
1. **Disconnect the machine from the power source.**
2. Loosen the 3 screws (A), and remove the saw blade cover (B).



3. Press in on arbor lock (C) and at the same time rotate blade (G) by hand until the arbor lock engaged.



4. Using the 8mm hex wrench provided, loosen arbor screw (D) by turning it counter clockwise, and remove arbor screw (D), washer (E), outside blade flange (F) and blade (G). **Do not remove inside blade flange.**



5. Make sure the inside surfaces of both the inside and outside blade flanges are clean and free from any foreign substance.
6. Install new blade (G) **Making certain teeth of saw blade are pointing down at the front** and reassemble outside blade flange (F), washer (E) and arbor screw (D). Turn arbor (D) clockwise to tighten.
7. Replace saw blade cover that was removed in step 2.
8. **WARNING: Make sure arbor lock (C) is disengaged and 8mm hex wrench is removed before turning on the power.**

Safety Instructions for Basic Saw Operation Before Using Metal Cutting Saw

WARNING – To avoid mistakes that could cause serious, permanent injury, do not plug in until the following steps have been satisfactorily completed.

- Completely assemble and align the saw. (see “Assembly and Alignment” sections within.)
- Learn the use and function of the ON-OFF switch, upper and lower blade guards, lock pin and work piece clamp. (See “Getting to know your Metal Cutting Saw” section within.)
- Review and understand all safety instructions and operating procedures in this manual.
- Review the maintenance methods for this Metal cutting saw. (See “Maintenance” section within).

To avoid injury or death from electrical shock:

- Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the metal cutting saw.

Before each use:**Inspect your saw.**

Disconnect the metal cutting saw. To avoid injury from accidental starting, unplug the saw, before changing the setup, changing the blade or adjusting anything.

Tighten the arbor screw.

Tighten the cover plate stop screw.

Check Damaged Parts.

Check for:

- Alignment of moving parts,
- Damaged electric cords,
- Binding of moving parts,
- Broken parts,
- Stable mounting,
- Function of arm return spring and lower guard: Push the arm all the way down, then let it rise up until it stops by itself. Check the lower guard to see if it closed fully. If it did not, follow the instructions in the troubleshooting section.
- Other conditions that may affect the way the saw works if any part of this saw is missing, bent or broken in any way, or any electrical parts don't work, turn the saw off and unplug it. **Report** damaged, missing or failed parts before using the saw again.

Keep Guards in Place in working order and in proper adjustment.

Maintain Tools with Care. Keep the saw clean for best and safest performance. Follow instructions for lubricating.

Remove Adjusting Keys and Wrenches from tool before turning it on.

To avoid injury from jams, slips or thrown pieces

- Use only the recommended accessories. (See "Accessory" section within.) Consult this owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to persons.
- Choose the right 350mm diameter metal cutting blade for the material and the type of cutting you plan to do.
- Make sure the blade is undamaged and properly sharpened. Observe the maximum speed marked on the saw blade.

- With the saw unplugged, push the power-head all the way down. Hand spin the blade and check for clearance. If the blade hits anything, make the adjustments shown in the Maintaining Maximum Cutting Capacity section.
- Ensure the blade and arbor collars are clean.
- Ensure the collars' recessed sides are facing the blade.
- Using the arbor wrench supplied, make sure the arbor screw is firmly hand tightened.
- Make sure all clamps are tight and there is no excessive play in any parts.
- **Keep work area clean.** Cluttered areas and benches invite accidents. Floor must not be slippery.

Know your saw. Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as the specific potential hazards peculiar to this tool. To avoid injury from accidental contact with moving parts, don't do layout, assembly or setup work on the saw while any parts are moving.

Avoid Accidental Starting. Make sure switch is "OFF" before plugging metal cutting saw into a power outlet.

Plan your work.

Use the Right Tool. Don't force tool or attachment to do a job it was not designed to do. Use a different tool for any work piece that can't be held in a solidly braced, fixed position.

CAUTION: when cutting any metals, sparks or hot fragments could cause a fire.