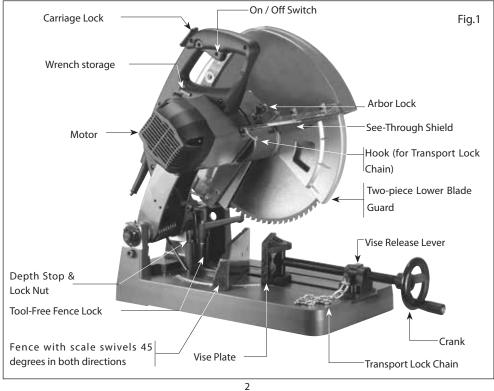
# Dry-Cut Metal Saw

Original Instructions
For Your Personal Safety, Read And Understand Before Using.
Save These Instructions For Future Reference.



### **SPECIFICATIONS**

2200W	2200W					
See machi	See machine nameplate					
1500	1500					
	Round Pipe	132mm				
90 deg.	Square Stock	120mm (W) X 120mm(H)				
	Rectangular Stock	180mm (W) X 100mm(H)				
RIGHT HAI	RIGHT HAND MITER					
	Round Pipe	105mm				
45 deg.	Square Stock	90mm(W) X 90mm(H)				
	Rectangular Stock	90mm(W) X 120mm(H)				
LEFT HAN	LEFT HAND MITER					
25 deg.	80mm(W) x 120mm(H)					
30 deg.	90mm(W) x 120mm(H) Requires the help of a C-clamp					
35 deg.	80mm(W) x 120mm(H) Requires the help of a C-clamp					
40 deg.	70mm(W) x 120mm(H) Requires the help of a C-clamp					
355mm (1	355mm (14")					
25.4mm (	25.4mm ( 1")					
WITH	WITH					
680mmx 3	680mmx 360mm x 580mm					
23.5kg (51	23.5kg (51.7Lbs)					
	See machi 1500  90 deg.  RIGHT HAI  45 deg.  LEFT HANI 25 deg. 30 deg. 35 deg. 40 deg. 355mm (1 25.4mm ( WITH 680mmx 3	See machine nameplate   1500   Round Pipe   Square Stock   Rectangular Stock   RIGHT HAND MITER   Square Stock   Rectangular Stock   Rectangular Stock   Rectangular Stock   Rectangular Stock   Rectangular Stock   Rectangular Stock   LEFT HAND MITER   25 deg.   80mm(W) x 120mm(H)   30 deg.   90mm(W) x 120mm(H)   40 deg.   70mm(W) x 120mm(H)   40 deg.   70mm(W) x 120mm(H)   355mm (14")   25.4mm (1")   WITH   680mmx 360mm x 580mm				



### GENERAL SAFETY INSTRUCTIONS



**WARNING!** Read all safety warnings and all 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 mainsoperated (corded) power tool or battery-operated (cordless) power tool.

### 1) WORK AREA SAFETY

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### 2) ELECTRICAL SAFETY

- a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.
  - Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock
- 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.
- f. If operating a power tool in a damp location is unavoidable, use an earth leakage circuit breaker. Use of an earth leakage circuit breaker reduces the risk of electric shock.

### 3) PERSONAL SAFETY

- a. a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b. b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. 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 energising power tools that have the switch on invites accidents.
- d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g. If devices are provided for the connection of dust extraction and collection facilities,

**ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

### 4) POWER TOOL USE AND CARE

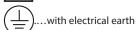
- a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. 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.
- d. 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.
- e. 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.
- f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. 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.

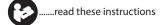
### 5) SERVICE

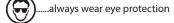
Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

### Symbols used in this manual

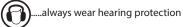
V......volts
A.....amperes
Hz.....hertz
W.....watt
~....alternating current
n<sub>o</sub>.....no load speed
min<sup>-1</sup>....revolutions or reciprocation
per minute
.....warning of general danger
.....class II tool



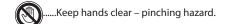


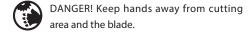


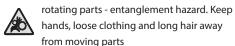


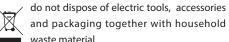














### SPECIFIC SAFETY RULES

- Always Secure the workpiece properly with the vise. Never hold the workpiece by hand or attempt freehand cuts.
- When clamping with the fence in a lefthand miter (clockwise) The clamp must be augmented with a C-clamp. Otherwise the workpiece will not be securely held.
- Never Attempt to adjust, open or close the vise while the blade is in motion.
- Keep hands and body away from cutting area and rotating blade. Never reach around, under or across the blade.
- Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly.
- Never clamp or tie the lower guard into the open position.
- Check the operation and condition of the lower guard. If the guard is not operating properly, it must be serviced before use. Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a buildup of debris.
- Do not use abrasive wheels with this machine. This machine was specifically designed to use carbide tipped metal cutting blades.
- Always use blades with correct size and shape arbor holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- Never use damaged or incorrect arbor flanges or bolts. The arbor flanges and bolt were specially designed for your saw, for best performance and safety of operation
- 11. Always check the maximum rated speed of the blade and ensure that it exceeds the speed of the machine ( 1300/min).
- **12. Do not use damaged or dull blades.** Kickback may result.
- 13. Take care to avoid twisting or binding the

- **blade.** The blade will be damaged.
- 14. Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool " live " and shock the operator.

### KICKBACK:

If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the workpiece, causing the blade to climb out of the kerf and jump back toward the operator and/or eject the workpiece from the machine at high speed. Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- A. Maintain a firm grip on the saw and position your body and arm in a way that allows you to resist KICKBACK forces. KICKBACK forces can be controlled by the operator, if proper precautions are taken.
- B. When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work while the blade is in motion or KICKBACK may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
- C. When restarting in half-finished cuts, center the saw blade in the kerf and check that teeth are not engaged into the material. If saw blade is binding, it may walk up or KICKBACK from the workpiece as the saw is restarted.
- D. Support large workpieces to minimize the risk of blade pinching and KICKBACK. Large workpieces tend to sag

under their own weight. Supports must be placed under them on both sides, near the line of cut and near the edge of the workpiece.

- E. Do not use dull or damaged blade. Dull blades produce a narrow kerf causing excessive friction, blade binding, and KICKBACK.
- F. The fence lock lever must be tight and secure before making a cut. If the adjustment shifts while cutting, it will cause binding and KICKBACK or high speed ejection of the workpiece.
- 15. Use only recommended carbide-tipped metal cutting blades, rated at the machine's maximum rated RPM or higher with correct arbor hole.
- **16. Tighten blade retaining bolt** and all clamps before operating.
- 17. Secure workpiece properly. Workpiece should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion.
- **18.** Allow the blade to come to a complete stop before removing or securing workpiece, or changing workpiece angle.
- 19. Check the inside surfaces of the arbor flanges as well as the sides of the blade for freedom from any foreign matter.
- Check the blade for cracks or other damage before operation. Replace cracked or damaged blade immediately.
- **21. Never start the tool** with the workpiece against the blade.
- 22. Allow the motor to achieve full speed before cutting.
- 23. Do not cut material thicker than the maximum capacity of the machine.
- **24. After turning tool "ON"**, gently push the tool forward to engage workpiece, then slowly increase pressure as required to produce the least amount of "sparking".
- 25. Do not use this tool continuously more than 30 minutes.
- 26. Important: After completing the cut, raise

- the motor head, release power switch, and wait for coasting blade to stop completely before leaving the saw.
- **27. Never operate** the tool in an area with flammable solids, liquids, or gases. Sparks or hot fragments could cause a fire or explosion.
- 28. This tool is designed for ferrous metals or aluminum only. Do not attempt to cut wood, masonry, magnesium, or any other pyrophoric materials with this tool.
- Do not use cutting fluids or lubricants on the blade.
- 30. Some metals have coatings which can be toxic. Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier.
- 31. There are certain applications for which this tool was designed. The manufacturer strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written the manufacturer and have been advised.

**Metal chips are often very sharp and hot.** Never touch them with bare hands. Clean up with a magnetic chip collector or other appropriate tool.

This machine is a Dry-Cut Metal Saw designed to cut various ferrous and non-ferrous metals. This saw uses blades that are rated for 1500 /min or higher. It is not recommended to cut hardened steel as this will drastically shorten the life of the blade. Soft materials such as wood are also not recommended.

Table A Required Gauges for Extension Cords							
Ampere Rating		Volts	Total length of cord in feet				
		120	25	50	100	150	
	240	50	100	150	300		
More Than	Not More Than		Minimum gauge for cord				
0	6		18	16	16	14	
6	10		18	16	14	12	
10	12		16	16	14	12	
12	16		14	12	Not Recommended		

### UNPACKING

Carefully remove the tool and all loose items from the shipping container.

Retain all packing materials until after you have inspected and satisfactorily operated the machine.

NOTE: An appropriate blade must be mounted to the machine before operating. Refer to the section of this manual: "INSTALLING THE BLADE"

### CARTON CONTENTS

1. Metal Cutting Saw

DO NOT OPERATE THIS TOOL UNTIL YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL

**INSTALLING THE BLADE** -DISCONNECT TOOL FROM POWER SOURCE.

NOTE: Use blades that have an arbor bore which can fit, and that are rated for 1400/min or

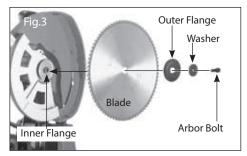
### higher.

# WARNING: Avoid contact with blade teeth to prevent personal injury.

- Ensure that the motor head is in its fully raised and locked position and unplugged. Remove the four screws which hold on the outer blade cover and remove the cover.
- Orient the inner flange so that the correct side faces outwards.
- 3. Wearing thick work gloves to protect the hands, carefully hold the blade from the top and lower it downwards into position on the inner flange. It must first slip into place in the lower guards and then onto the arbor. Make sure that the teeth point forwards. (If in doubt of the orientation of the blade, refer to the legend stamped into the outer blade cover).
- 4. Position the outer blade flange with the convex side outwards, then the flat washer and finally the arbor bolt.
- **5.** Use the supplied 8mm hex wrench on the arbor bolt. Push in the arbor lock (See Fig.2.) and rotate the arbor with the wrench until the lock engages the blade arbor.
- **6.** Once the arbor lock is engaged, tighten the

- arbor bolt by turning clockwise.
- **7.** Finally replace the outer blade cover and tighten the 4 screws. See Fig. 3.





# **REMOVING THE BLADE** -DISCONNECT TOOL FROM POWER SOURCE.

- Ensure that the motor head is in its fully raised and locked position and unplugged. Remove the four screws which hold on the outer blade cover and remove the cover.
- Once the cover is removed, use the supplied 8mm hex wrench on the arbor bolt. Push in the arbor lock and rotate the blade with the wrench until the lock engages the blade arbor.
- Once the arbor lock is engaged, turn the arbor bolt anticlockwise to loosen.
- Remove the arbor bolt, flat washer and outer blade flange (note its orientation).
- **5.** Wearing thick work gloves to protect the hands, carefully hold the blade from the top and lift it upwards and away to remove.

### USING THE VISE & FENCE SYSTEM

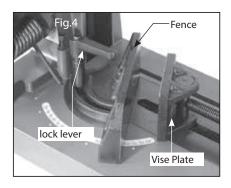
WARNING: The vise must always be used without exception. If the vise cannot adequately clamp the workpiece in question, then do not use this machine to cut it. Cutting without the vise can easily lead to kickback and other hazardous situations.

Always clamp the workpiece in the most stable position possible. Ensure that the blade engages the workpiece in the quadrant behind the center line of the arbor.

The fence swivels to create miter cuts up to 45 degrees and the vise plate swivels freely to match the angle of the fence.

# To adjust the fence to create miter cuts:

- Loosen the miter lock lever by turning counterclockwise. Press with the thumb while pulling up against the spring tension to ratchet the lever.
- 2. Rotate the fence to the desired angle and retighten firmly. There are preset detents for popular angles, but any angle between 0 and 45 degrees can be used. See Fig.4.



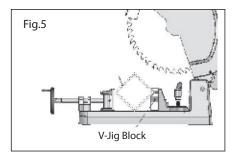
Note: Cutting 45 degree miters may shift the workpiece forward so far that the blade will not be able to cut fully through the material. In this case, use a spacer of at least 30mm thickness

against the fence to bring the workpiece fully into the range of the blade arc. (The optional V-Jig Block may also be used for this purpose).

### USING THE OPTIONAL V-JIG BLOCK

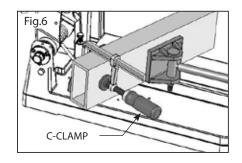
The V-Jig Block has several purposes:

- Holding square-section tubing in a tilted position so that the blade can more easily begin and finish the cut. Otherwise the blade has difficulty "biting" into the broad, flat face of the workpiece. See Fig.5.
- 2. Cutting 45 degree miters may shift the workpiece forward so far that the blade will not be able to cut fully through the material. In this case, the optional V-Jig Block may be used as a spacer to bring the workpiece fully into the range of the blade arc.
- **3.** To install the V-Jig, simply bolt it to the fence with the V-channel in the upper position.

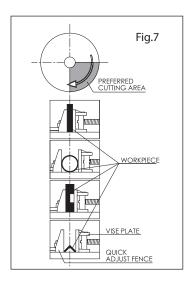


Note: Whenever possible, always make righthand miters. That is: rotate the fence counterclockwise by pulling its left edge towards you. If a left-hand miter of 20 degrees or more is necessary, then a suitable C-clamp must be used to clamp the workpiece to the fence on the left-hand side. See Fig. 6.

WARNING: FAILURE TO EMPLOY A C-CLAMP ON LEFT-HAND MITERS MAY ALLOW THE WORKPIECE TO COME LOOSE, CAUSING A HAZARDOUS SITUATION.



Once the fence is set to the desired angle, place the workpiece against the fence and tighten the vise. The position of the workpiece is very important for the safety of the operator. Please see the Fig.7 below for the best positions for various workpiece types. Always keep in mind that the blade spins counterclockwise which pushes the workpiece against the fence.

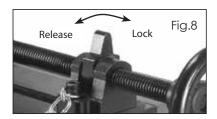


### TO OPERATE THE VISE

The vise is a quick-release type.

 Position the workpiece against the fence in the safest possible orientation.

- 2. Flip the release lever to the left to release the vise shaft from the threads. See Fig. 8.
- Slide the vise forward to engage the workpiece.
- Flip the release lever to the right to lock the threads.
- 5. Fully tighten the vice using the crank.



# TO ADJUST DEPTH OF CUT-DISCONNECT TOOL FROM POWER SOURCE.

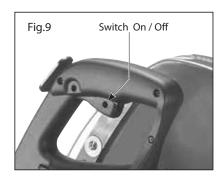
The depth of cut is preset at the factory and it should not require further adjustment. If the saw is disassembled or for other reason the depth of cut needs adjustment, adjust as below:

- 1. Raise the motor head to the top.
- Loosen the lock nut then adjust the depth of cut to the desired level using the supplied 6mm hex wrench. See Fig.1.
- 3. Retighten the lock nut.

### STARTING AND STOPPING TOOL

Make sure that the power circuit voltage is the same as that shown on the specification plate of the machine and that switch is "OFF" before connecting the tool to the power circuit. See Fig. 9.

To start the machine, first squeeze the trigger to start the motor and allow the motor to reach full speed, then press the carriage lock lever to allow the motor head to engage the workpiece. Release the trigger switch to stop the motor.



### REMOVING CHIPS

This dry-cut saw has an internal chip collector tray. See Fig.10.

When the chip tray is full, the chips must be cleared. To do this, first shut down and **DISCONNECT TOOL FROM POWER SOURCE**.

Unscrew the securing knob by turning counterclockwise then withdraw the tray. Replacement is the opposite of removal.

Recently-cut chips are sharp and may be very hot. Take care when removing the tray to keep the chips or shavings away from your hands or other body parts. Do not throw hot debris where paper or other flammable materials are located.



### THE TRANSPORT LOCK CHAIN

For ease of transport, the Transport Lock-down chain may be used. Simply lower the motor head and hook the chain on the corresponding hook on the motor head.

### LOWER RETRACTING BLADE GUARDS

The lower retracting blade guards are a safety device important for your protection. Every time you use the saw, make sure that the guards rotate freely and return quickly and completely to their closed position. Before each use, remove any accumulated chips, or shavings from the area around the hub of the guard. **DO NOT LUBRICATE THIS AREA.** The hub has a dry film lubricated surface that does not need oiling. **NEVER** block or wedge the blade guard in the open position. **NEVER** use your saw if the blade guard is not in working order. If blade guard movement is sluggish or if binding exists, return the saw to your nearest AUTHORIZED SERVICE CENTER for repair.

### **HOW TO USE THE TOOL**

NOTE: Keep in mind that, although this machine appears similar to a Cut-Off Saw (or Chop-Saw) with abrasive wheels, This machine requires much less feed pressure.

- Secure the workpiece properly as described above in: "USING THE VISE & FENCE SYSTEM" The workpiece should be straight and firmly clamped to avoid possible movement and pinching as the cut nears completion. Provide adequate support for long or wide workpieces.
- Check the lower guards for normal functioning.
- **3.** Squeeze the trigger switch and allow the motor to reach full speed.
- 4. Press the carriage lock with the thumb, then smoothly lower the motor head to contact the workpiece and begin the cut. Remember to never stand in line with the blade, rather, stand slightly to the side. Always proceed gently at the beginning and finish of the cut.
- **5.** While cutting, control the downforce. Adjust your feed pressure so there is just enough

downforce to keep the sparks to a minimum. It is not necessary to force the cut. Let the blade do the cutting at the rate of speed permitted by the type of cut and workpiece. Increase feed pressure as the blade cuts through the thicker cross-sections (to maintain minimum "sparking"). Decrease the feed pressure as the blade cuts through the thinner cross sections.

CAUTION: If the blade binds or stalls in the cut, release the trigger switch immediately.

After completing the cut, raise the motor head fully clear of the workpiece before releasing the power switch. Confirm that the blade has come to a complete stop before removing or securing the workpiece, or changing the workpiece angle.

### MAINTENANCE

Every 50 hours of operation blow compressed air through the motor while running at no load to clean out accumulated dust. (If operating in especially dusty conditions, perform this operation more often.)

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material. Wear safety glasses while using compressed air.

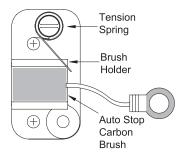
It is recommended that, at least once a year, you take the tool to an Authorized Service Center for a thorough cleaning, checking and lubrication.

### THE CARBON BRUSHES

The carbon brushes are a normal wearing part and

must be replaced when they reach their wear limit. This machine is equipped with full-stop type brushes. When they have reached their wear limit, the motor will no longer run. Therefore if the machine comes to a stop without any apparent reason the brushes need to be checked or replaced.

NOTE: Always replace the brushes as a pair.



### To replace:

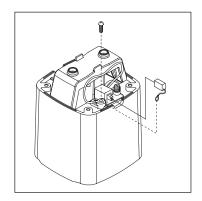
Remove the four screws and remove tail cover Using pliers, rotate the brush spring out of the way and slide the old carbon brush out of the brush holder.

Remove the screw to remove the brush lead. The old carbon brush many now be lifted away.

To Install a new brush, Installation is the reverse of removal.

NOTE: If you are merely checking the brushes, always make sure that they go back in the same way that they came out. Otherwise a break-in period will occur that will reduce motor performance and increase commutator and brush wear.

Replace the motor tail cover.



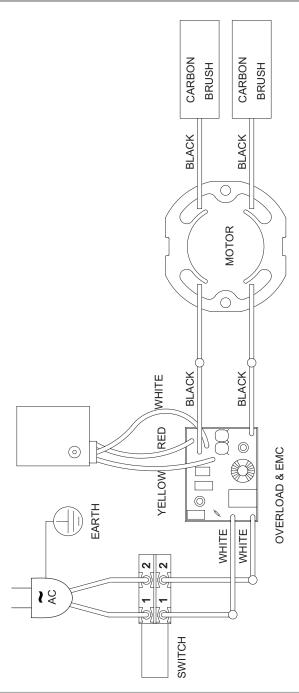
### STANDARD ACCESSORIES

8mm hex wrench 6mm hex wrench 4mm hex wrench

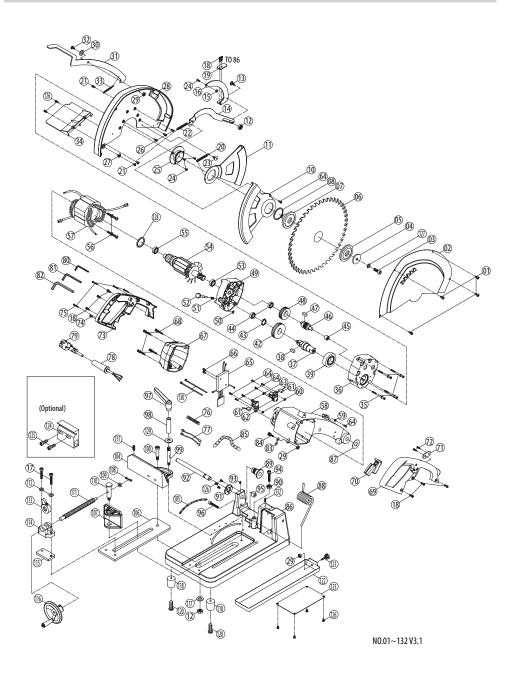
If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.

WARNING: All repairs must be entrusted to an authorized service center. Incorrectly performed repairs could lead to injury or death.

# **WIRING**



## **EXPLODED VIEW**



# **PARTS LIST**

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	SOCKET CAP SCREW M5 x 10	4	66	PAN HEAD SCREW M4x12	2
2	OUTER BLADE COVER	1	67	MOTORTAIL COVER	1
3	ARBOR BOLT M10x25xP1.5	1	68	PAN HEAD SCREW M5 x 45	4
4	FLATWASHER Ø10xØ38x4	1	69	RIGHT HANDLE HALF	1
5	OUTER FLANGE	1	70	TRIGGER SWITCH	1
6	SAW BLADE	1	71	CORD CLIP	1
7	INNER FLANGE	1	72	PAN HEAD SCREW M4x14	2
8	EXTERNAL CIRCLIPS-50	1	73	LEFT HANDLE HALF	1
9	N/A	-	74	PAN HEAD SCREW M4x10	1
10	LOWER BLADE GUARD-REAR	1	75	PAN HEAD SCREW M4x16	4
11	LOWER BLADE GUARD-FRONT	1	76	WIRESHEATH M6 x 130mm	1
12	NUT M8	2	77	LEADWIRE 1015-16#45L+4R+141	2
13	SCREW M8x12	1	78	CORD ARMOR	1
14	GUARD LINKAGE ARM	1	79	POWER SUPPLY CABLE	1
15	PIVOTTIP M5xØ10.7x7.5	1	80	4mm HEX KEY M4	1
16	GUARD ARM BRACKET	1	81	6mm HEX KEY M6	1
17	DEPTH STOP BLOT M8x45	2	82	8mm HEX KEY M8	1
18	SCREW M5x15	8	83	HOOK	1
19	LATCH PLATE	1	84	PAN HEAD SCREW M5 x 20	1
20	FRONT GUARD SPRING Ø0.7 x Ø4.6 x Ø6 x 72T	1	85	CHAIN 13	1
21	SCREW M5x6	3	86	BASE	1
22	LINKAGE ARM SPRING Ø0.8xØ4.6xØ6.2x76T	1	87	THRUSTWASHER Ø17xØ40x1	1
23		1	88		1
	TRUSS HEAD SCREW M6x8	_		MOTOR HEAD TORSION SPRING Ø7 x Ø25.3 x Ø39.3 x 8T	
24	FLAT HEAD SCREW M5 x 8	4	89	AXLEBUSHING M22	1
25	GUARD PIVOT GUIDE	1	90	LOCK NUT M8x13	1
26	SCREW M5x8	3	91	AXLE FIXING PLATE M22	1
27	GUARD STOP	1	92	AXLESHAFT	1
28	INNER COVER	1	93	SET SCREW M5 x 6	2
29	NUT M5	3	94	DEPTH STOP BOLT M8 x 30	1
30	FLATWASHER Ø5xØ12x1	1	95	RANGE LIMITER BLOCK M10	1
31	CARRIAGE LOCK LEVER	1	96	SOCKET HEAD BOLT M10x35 P1.5	1
32	SCREW M5 x 20	1	97	FENCE LOCK LEVER M12 x P1.75	1
33	CARRIAGE LOCK SPRING Ø0.5 x Ø5 x Ø6 x 68T	1	98	SPACER SLEEVE Ø12.5 x Ø18 x 41	1
34	CLEAR CHIP SHIELD	1	99	FENCE LOCK STUD M12xP1.75 M8xP1.25	1
35	PAN HEAD SCREW M5 x 70	4	100	FENCE PIVOT BOLT M10	1
36	GEAR CASE COVER	1	101 ~103	N/A	1
37	ARBOR SHAFT	1	104	FENCE	1
38	WOODRUFFKEY 5x5x12	1	105	MITERSCALE	1
39	BALL BEARING 6206 zz	1	106	VISETRACK	1
40	N/A	-	107	VISEPLATE	1
41	N/A	-	108	COTTER PIN	1
42	OUTPUT GEAR 41T	1	109	FLATWASHER Ø8xØ18x1	1
43	EXTERNAL CIRCLIPS-23	1	110	VISE PIVOT PIN	1
44	BALL BEARING 6000 zz	2	111	VISE SHAFT	1
45	NEEDLE BEARING TLA 1212	1	112	SPRINGWASHER M8	2
46	INTERMEDIATE PINION 15T	1	113	VISE RELEASE LEVER	1
47	WOODRUFFKEY 5x5x10	1	114	VISE BRACKET	1
48	INPUT GEAR 40T	1	115	FIXING PLATE	1
49	GEAR PLATE	1	116	VISE CRANK	1
50	EXTERNAL CIRCLIP S-7	1	117	FLATWASHER Ø8xØ23x2	1
51	ARBOR LOCK SPRING Ø1.2 x Ø8.2 x Ø10.6 x 5T x 20L	1	118	FOOT	2
52	ARBOR LOCK	1	119	N/A	<del>  -</del>
53	BALL BEARING 6202-2NSE	1	120	PAN HEAD SCREW M6x25	2
54.	ARMATURE M1,25x7T	1	121	THUMB SCREW M5 x 15	1
54	ARMATURE ARMATURE	<u> </u>	122	CHIPTRAY	1
55	BALL BEARING 6200-LLU	1	123	PLATE	1
56	STATOR SCREW M5 x 80	2	124	V-JIG BLOCK (Optional)	1
57	STATOR	1	125	SOCKET HEAD BOLT (Optional) M8x25	2
58	MOTOR HEAD CASTING	1	126	PAN HEAD SCREW M5 x 10	9
59	STARWASHER M5	1	120	SPRING WASHER M10	1
60	NUT M4x8	2	127	O-RING Ø30x2	1
	CARBON BRUSH 7x17x17		129	FLAT WASHER Ø13 x Ø24 x 2.5	_
61	BRUSH HOLDER 7x17x17	2		ZIP TIE 8cm	1
62			130		2
63	BRUSH SPRING	2	131	DETENT UNIT M8 SET SCREW M5 x 16	1
64	PAN HEAD SCREW M4x10	8	132	DEI JUNEW IVID X IO	1
65	EMC & ELECTRONICS UNIT	1	1		