MORSE™
THE M.K. MORSE COMPANY

Metal Devil®

Instructions and Safety Manual
Model: CSM9MB

Serial # _____

(for your future reference please write in Serial # located on machine label)

9" (230mm)
Steel Cutting Circular Saw

C 185162 US

IMPORTANT!

The Metal Devil saw you have purchased is a well–made tool. Used according to the directions it will give you excellent service for a number of metal-cutting applications. Misuse of this tool, however, could result in serious or fatal injury. Please read these operating and safety instructions carefully and completely. Heed all safety information. If you are uncertain about any aspect of using this equipment, contact your distributor.

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Model CSM9MB Specifications

Machine:

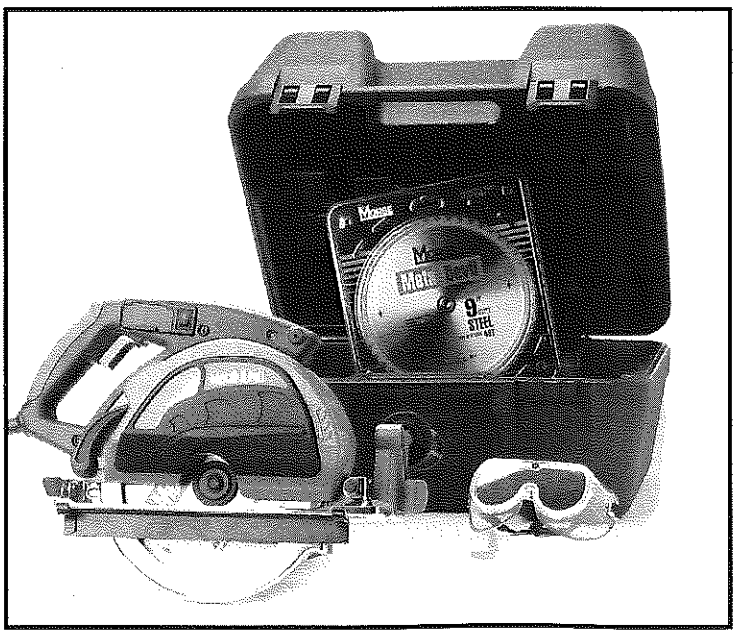
Motor	120V 60Hz 15 Amp Watts 1800
Cutting Capabilities: *(Square Tubing)*	90 degree cut :1/4" (6mm) wall thickness
	45 degree cut: 14" (6mm) wall thickness
Max Cutting thickness	3/8" (9.5mm) – mild steel plate
Max Cutting depth	3.25" (82.6mm)
Bevel Cut	0 to 45 Degrees
RPM *No Load Speed*	2500 RPM
Recommended Maximum Duty Cycle	30 minutes
Sound Pressure Level *Under Load* DB(A)	97
Weight	19.75 lbs / 9 kg's

Blade Dimensions

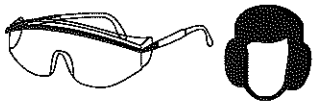
Maximum Diameter	9" (229mm)
Arbor / Bore Diameter	1 inch
Average Blade Kerf	.083 (2.1mm)

Standard Equipment Supplied With Saw

1- side handle
1- pair safety goggles
1- carry case
1- operating instructions
1 – pair of batteries for laser sight.
1- fence guide
1- ear plug set
1-blade wrench
1- Metal cutting blade.



⚠ WARNING



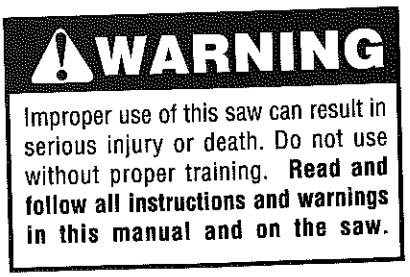
Ear and eye protection must be worn while operating this equipment.

Warranty Repairs:
Contact your local Metal Devil Distributor for assistance with obtaining warranty repairs.
Notice: *Normal wear and tear and damage caused by misuse is not covered under the 1 year guarantee.*

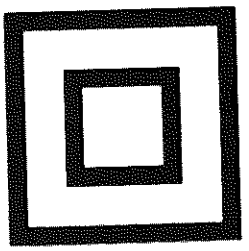
IMPORTANT SAFETY INFORMATION

Before beginning work:

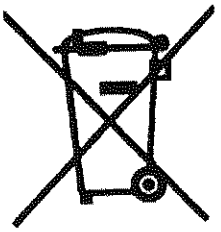
- Check that the voltage is correct and that all handles and parts are firmly secured.
- This machine is designed for cutting steel. Operate it using only the recommended M.K. Morse "Metal Devil" brand TCT (tungsten carbide tipped) blades and accessories. Do not use blades made of HSS or that do not comply with the characteristics in these instructions.
- Ensure that the blade is the correct design for the material being cut.
- Before using any accessories for the Metal Devil Metal Cutting Machines, always ensure that the RPM of the accessory matches the RPM of the tool.
- Inspect the machine and blades before each use. Do not use deformed, cracked or damaged blades.
- Ensure that the blade is properly installed. The direction arrow on the blade should match rotation of the arbor.
- Do not modify this saw.
- Do not use it for any job for which it was not intended. Do not use it to power other equipment.
- This tool is equipped with an approved cord and plug for its intended country of use. Do not try to use it in a country where it will not be compatible. Never modify the plug.
- The green and yellow conductor in the cord is the grounding wire: never connect this to a live terminal.
- Ensure that total work area can be viewed from the operating position. Make sure the work area is clutter-free.
- Use barriers to keep people away from the work area.
- Do not operate the tool in explosive environments. Power tools create sparks that may ignite flammable materials, dusts or gases.
- Do not operate in damp or wet conditions or areas – electric sparks may occur.
- Do not wear loose clothing or jewelry when operating the saw. Tie back long hair that might get into the blade.
- Always securely clamp the material to be cut.
- Never attempt to use this or any power tool while under the influence of alcohol or any drug that might affect your perceptions or judgment.
- Be sure there are no children in the area where you will operate this saw. Never allow children near a power saw.



Do Not Operate in Wet or Damp Conditions

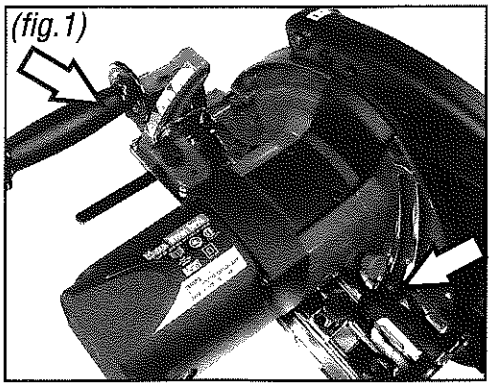


Machine is DoubleInsulated



Recycle Machine Properly

While operating the saw:

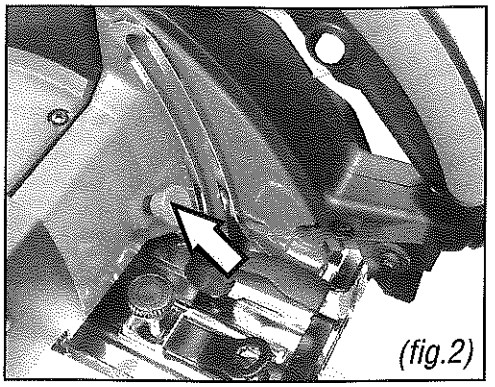


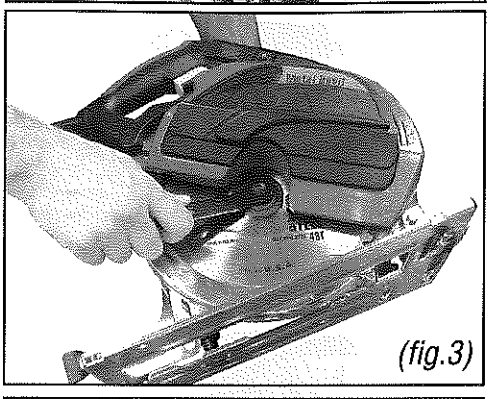
- Always use the safety glasses and hearing protection provided, or their equivalent, when using this saw. A flying chip could cause blindness. Cutting noise could seriously impair hearing.
- Never use the tool without the original protection guard system. Ensure that moveable guards operate freely without restrictions.
- Do not try to defeat any safety device. Do not lock the moving guard in the open position.
- Ensure that the cutting depth adjustment handle/angle adjustment handle and side handle are firmly fixed while using the tool. *(fig.1)*
- Support the work piece properly. Never hold the work piece in your hand or put it across your legs.
- Always use both hands to operate the saw. Keep hands out of path of blade.
- Never reach around, under or behind the saw blade when operating the machine. The guard cannot protect your hand if you do so.
- Do not touch the blade while it is in motion. Do not try to stop the blade by lateral pressure on the blade.
- Never reach for a saw blade until the blade has completely stopped rotation and the machine has been disconnected from the power source.
- When cutting wood, use suitable dust extraction and breathing apparatus.
- Remove the plug from main power supply before replacing the blade, making adjustments or performing other maintenance work.
- Always keep the power cord away from the moving parts of the tool.
- In case of saw jamming, immediately switch off the saw and disconnect the plug. Remove the saw from the material and inspect the blade for damage.
- Use only the flanges and washers that are supplied with the tool. Replace them with original (OEM) replacement parts if they become damaged or scored.
- When storing the tool, switch off the motor, unplug the cord from the power source and ensure that all moving parts have come to a complete stop.

MACHINE PREPARATION and OPERATION

Blade Removal and Installation

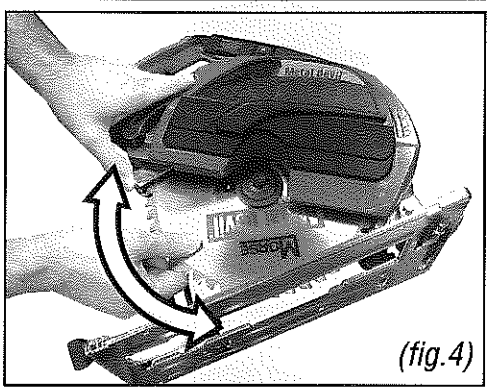
1 Unplug machine from Power Source before doing any servicing or blade replacement.
2 Depress spindle lock to stop blade/spindle rotation. (fig.2)
3 Use the supplied blade wrench to remove the bolt and flange holding the blade. (fig. 3)
4 Rotate the blade guard away from the blade. Remove used blade.
5 Replace with new Morse Metal Devil Blade.
6 Replace flange and bolt.
7 Depress spindle lock and securely tighten the bolt. MAKE SURE THAT THE ARROW ON THE BLADE AND THE TEETH ARE ROTATING COUNTERCLOCKWISE.
8 Release spindle lock. Check to be sure that it has fully released by manually rotating the blade. (fig.4)


(fig.2)


(fig.3)

Line of Cut Guide and Slots

The red cut guide and the included slots are provided at the front of the saw base. The left slot is used to follow a line when making a 90 degree cut. The right slot is used to follow a line when making a 45 degree cut.

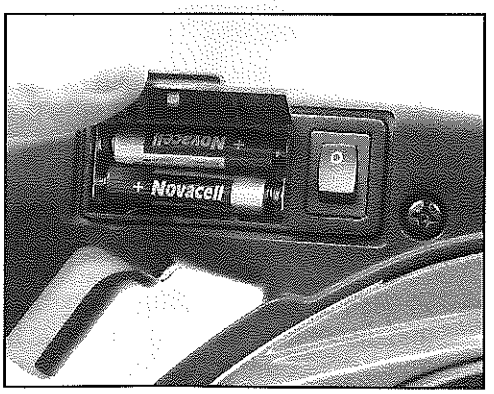

(fig.4)

Laser Sight Guide System

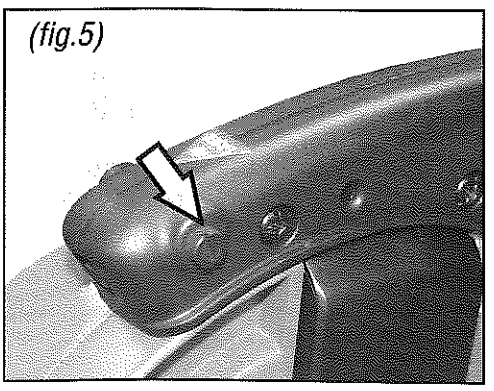
The laser sight system is intended as a guide only and should not be used for accuracy of the cut.

To activate the sight system:

1. Open the battery compartment cover and install the supplied batteries. Be sure to insert batteries in the correct polarity and then close cover.
2. Before using the sight, it must be aligned by using the adjustment screw. (fig.5)
3. Press the switch to the ON position to activate.
4. When you have finished the cut, turn off the laser. ***Note: The laser does not turn off automatically.***



(fig.5)



⚠ WARNING

Lasers can cause serious eye damage.
Do not point the laser at anyone.
Never look into the laser light.

MACHINE PREPARATION and OPERATION *(Cont.)*

Alignment Tip for Laser Sight Guide:

1 Find a square, flat work piece of either steel or plywood and place the work piece on a table. (fig.6)

2 Push the blade guard up and away from the blade. Place the saw on the top of the work piece. The blade should touch the edge of the work piece. (fig.7)

3 Turn on the laser. If the laser line does not line up exactly with the edge of the work piece then proceed with the following step.

Adjusting for Parallel.

If the laser line does not line up with the edge of the work piece (fig.8), adjust the screw (fig.5) with a screwdriver until the beam lines up correctly on the edge. (fig.9)

Caution: Do not overturn the adjustment screw.

Making a Cut

Where possible, always clamp the work piece on a rigid support.

1 Before starting the saw motor:
- Place front edge squarely on the work piece.
- Ensure that the blade is not touching the material to be cut.
- Sight the cutting line with the line of the cut guide.

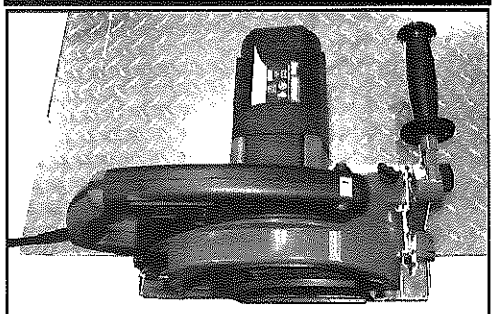
2 Allow the machine to come to full start.

3 Introduce the blade slowly so as not to damage the teeth of the blade. DO NOT FORCE THE TOOL. ALLOW THE SPEED OF THE SAW BLADE TO DO THE WORK.

4 Using both hands, move the saw forward through the work piece. Applying more pressure on the tool will not improve cutting performance, but will reduce blade life.

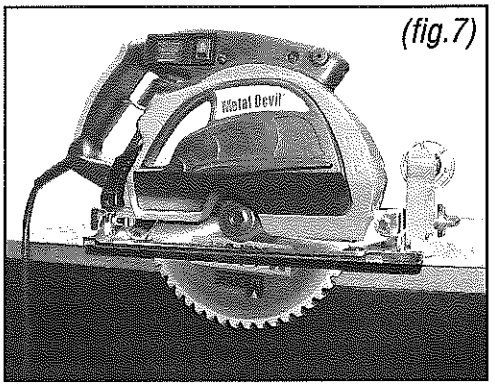
⚠ WARNING

Adjusting a saw with the power connected could lead to an injury if the saw started suddenly.
Never connect the saw to a power source until all adjustment steps are completed.

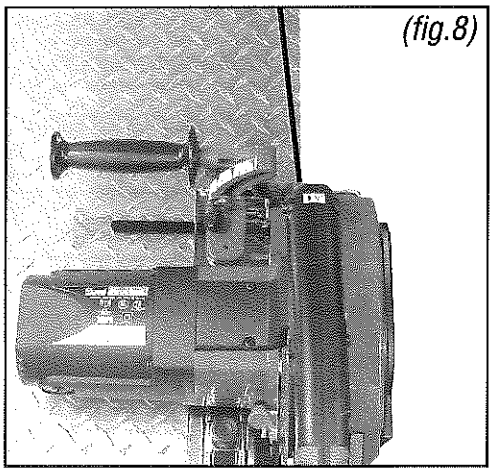


(fig.6)

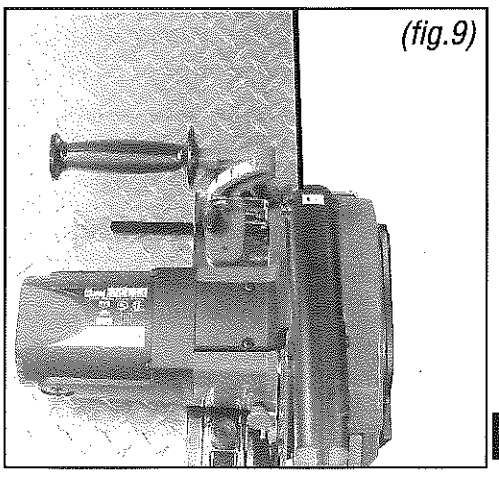
(fig.7)



(fig.8)



(fig.9)

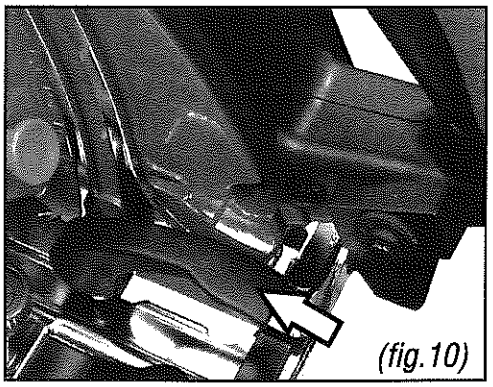


MACHINE PREPARATION and OPERATION *(Cont.)*

Adjustment of the Cutting Depth

With power to the saw turned OFF:

1 Release the lock to adjust to the required cutting depth. (fig.10)
2 Make sure that the blade protrudes at the maximum cutting depth that the saw is capable of in the material being cut. The depth guard (fig.11) is marked in increments from 0-84mm to assist in setting the depth of cut.
3 Tighten to lock into position. Check to ensure that the lock will not loosen while being used.


(fig.10)

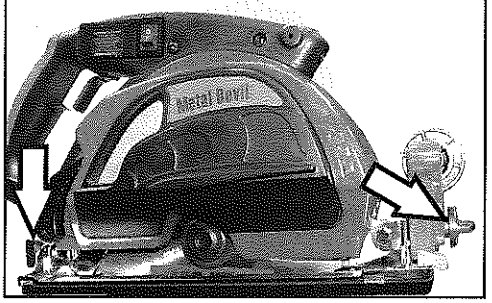

(fig.11)

NOTE: *Metal cutting blades work best while having the maximum amount of blade engaged in the cutting action. This distributes the cutting load among the teeth on the blade. This is the opposite of how a wood cutting blade is used, where minimal blade protrusion allows the operator to make a cut while minimizing the potential for the blade to become bound in the cut and produce material tearout.*

EXCEPTION: *Metal grating is best cut by having the blade protrude very minimally beyond the depth of the grating. The interrupted cuts that occur when cutting grating are very hard on the blade and carbide tips.*

Bevel Cutting Adjustments

(fig.12)



1 Release both locking handles. (fig.12)
2 Adjust to the required cutting angle by lining up the mark with the printed scale in the bevel support.
3 Tighten both handles to lock into position.

⚠ WARNING

For certain compound cuts it may be necessary to manually retract the guard to allow the blade to enter into and/or through the cut. Be extremely careful in making these cuts, as the guard will not protect you from injury.

Parallel Blade Guide

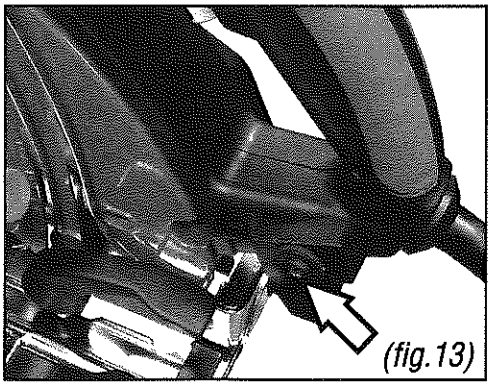
To set the guide:

1 Loosen the two retaining screws.
2 Slide the guide up snugly against the side of the work piece.
3 Using a measuring tape, check that the distances from the front and the back of the blade to the edge of the blade guide are equal. This will ensure that the guide is parallel to the blade. The guide should be parallel to the blade, and not to the base of the tool, to avoid damage to both blade and motor.
4 Retighten the screws.

MACHINE PREPARATION and OPERATION *(Cont.)*

Tool Overload / Reset

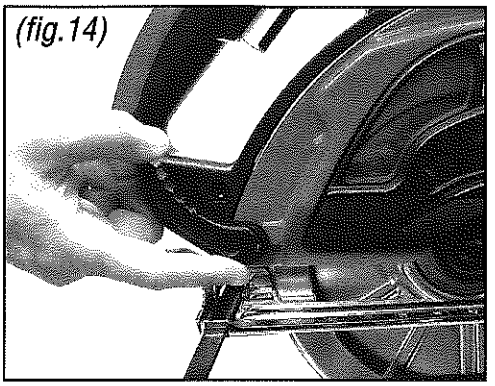
If the tool overload protection device activates, allow the motor to cool. Then press the reset button to continue operation. (fig.13)


(fig.13)

Chip Collection and Removal Chamber

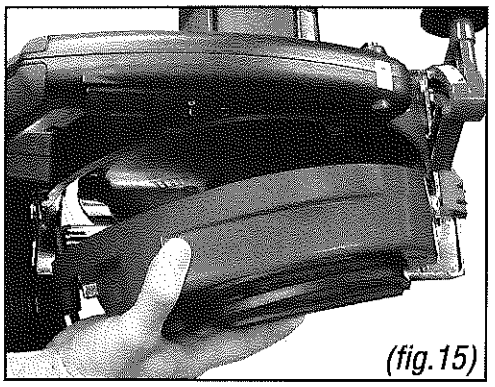
⚠ WARNING

Metal chips may be very hot and sharp.
Wear eye protection whenever you open the collection chamber.
Never touch metal refuse with bare hands.


(fig.14)

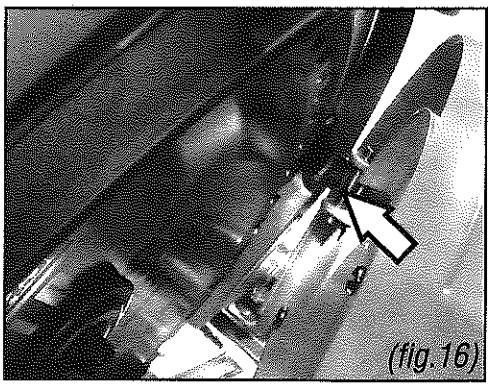
Removal

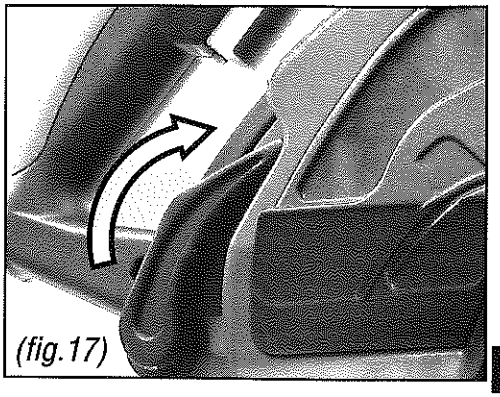
1. Open latch. (fig.14)
2. Tilt the saw so that the collection unit faces down. (fig.15)
3. Hold the collection unit and pull away from the machine. A small hook holds the collection unit to the body of the machine, allowing it to rotate forward.
4. Slide the collection unit off the hook and gently shake the metal chips out of the chamber into a proper disposal bin. It should not be necessary to remove the back of the collection chamber to dispose of the chips within the chamber.


(fig.15)

Re-Attaching

1. Place the collection unit back onto the body of the saw.
2. Check for alignment of the collection unit with the front hook and the saw body. (fig.16)
3. Rotate latch to the closed position. (fig.17) The latch will pull the collection unit tightly against the internal hook that holds the back of the unit.

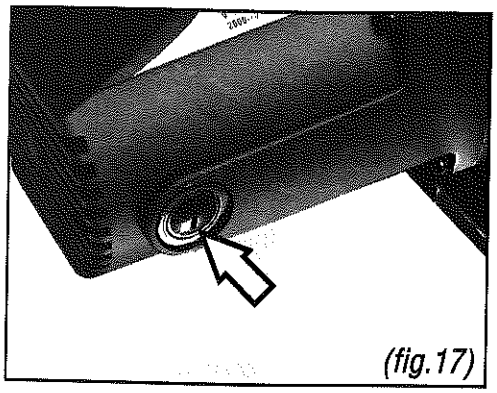

(fig.16)


(fig.17)

MACHINE PREPARATION and OPERATION *(Cont.)*

Machine Lubrication

This machine is lubricated during its manufacturing with sufficient lubricant to last approximately 72 hours of operation. To add lubricant, it is necessary to dismantle the tool. This procedure is best accomplished by an authorized service center.



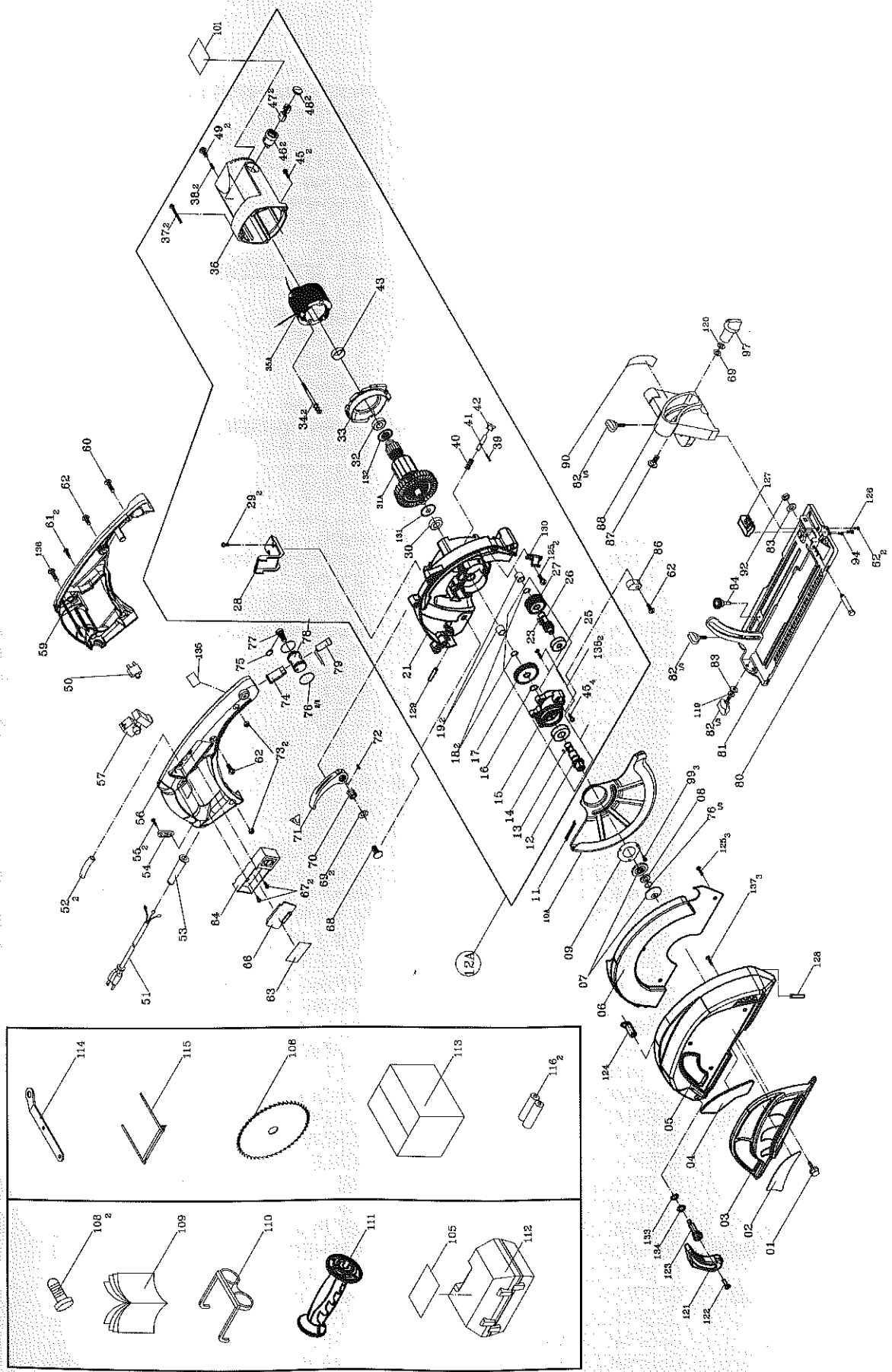
(fig.17)

Maintenance and Troubleshooting

- In case of electrical or mechanical malfunction, immediately turn off the machine and disconnect the plug. Ensure that the saw is unplugged and the blade has stopped rotating before doing any maintenance.
- Keep your Metal Devil Circular Saw and cord clean. Use only a damp cloth and very mild soap to clean the saw.
- Excessive sparking can indicate the presence of dirt in the motor or worn carbon brushes. Check for wear. (fig.17) Replace brushes when they reach 1/4" (6mm).
- For all other service and maintenance take machine to an authorized service center.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE!

CSM9MB SERVICE PARTS LIST



CSM9MB SERVICE PARTS LIST

		Morse Part Number
1	HEX HEAD BOLT	CSSPMC23001
2	Trade Mark Label	CSP9002
3	DUST COVER	CSP9003
4	WINDOW	CSP9004
5	SIDE DUST COVER	CSP9005
6	RIGHT COVER	CSP9006
7	FLANGE	CSSPMC23007
8	BLADE SLEEVE	CSSPMC23008
9	BEARING COVER	CSSPMC23009
10A	LOWER BLADE GUARD	CSSPMC23010
11	TENSION SPRING	CSSPMC23011
12	ARBOR SHAFT	CSSPMC23012
13	KEY	CSSPMC23013
14	BALL BEARING	CSSPMC23014
15	BEARING RETAINER	CSSPMC23015
16	C-RING	CSSPMC23016
17	FINAL GEAR	CSSPMC23017
18	C-RING	CSSPMC23018
19	NEEDLE BEARING	CSSPMC23019
21	MAIN BODY HOUSING	CSP9021
23	KEY	CSSPMC230X23
25	BALL BEARING	CSSPMC23029
26	DRIVEN SHAFT	CSSPMC23053
27	HELIX GEAR	CSSPMC23052
28	WIRE COVER	CSSPMC23027
29	SCREW	CSSPMC23028
30	BALL BEARING	CSSPMC23029
31A	ARMATURE - 110V	CSSPMC23030AV4
32	BALL BEARING	CSSPMC23031
33	FAN CASING	CSSPMC23032
34	TAPPING SCREW	CSSPMC230X34
35A	FIELD ASS'Y-110V	CSSPMC23035A
36	MOTOR HOUSING	CSSPMC23037
37	SCREW	CSSPMC23038
38	HEX.HEAD SCREW	CSSPMC23039
39	PIN	CSSPMC23048
40	SPRING	CSSPMC23045
41	STOP PIN	CSSPMC23046
42	CAP	CSSPMC23047
43	WAVE WASHER	CSSPMC23033
45	SCREW	CSSPMC230X45
46	BRUSH HOLDER	CSSPMC23041
47	CARBON BRUSH	CSSPMC23042X
48	BRUSH CAP	CSSPMC230X48
49	PLASTIC SCREW	CSSPMC23071
50	OVERLOAD SWITCH 110v	CSSPMC230X50
51	POWER SUPPLY CORD	CSSPMC23062
52	HEAT SHRINK SLEEVE	CSSPMC230X52
53	WIRE PROTECTION	CSSPMC23063
54	CORD CLAMP	CSSPMC23064
54	CORD CLAMP	CSSPMC23064
55	TAPPING SCREW	CSSPMC230X55
56	HANDLE COVER - RIGHT	CSP9056
57	SWITCH	CSSPMC230X57
59	HANDLE COVER - LEFT	CSP9059
60	SCREW	CSSPMC23072
61	TAPPING SCREW	CSSPMC230X61
62	SCREW	CSSPMC23057

		Morse Part Number
63	LASER WARNING LABEL	CSSPMC230X63
64	BATTERY BOX	CSP9064
66	BATTERY COVER	CSP9066
67	TAPPER SCREW	CSSPMC230X67
68	SCREW	CSSPMC230X68
69	WASHER	CSSPMC23022
70	HEX NUT	CSSPMC23023
71	LEVER	CSP9071
72	HEX SET SCREW	CSSPMC230X72
73	HEX NUT	CSSPMC23061
74	LASER SET	CSSPMC230X74
75	C – RING	CSSPMC230X75
76	O - RING	CSSPMC230X76
77	SCREW	CSSPMC230X77
78	ROTATOR	CSSPMC230X78
79	LASER HOUSING	CSSPMC230X79
80	CENTER PIN	CSSPMC23081
81	BASE ASS'Y	CSSPMC23080A
82	SCREW	CSP9082
83	WASHER	CSP9083
84	KNOB	CSP9084
86	RUBBER STOPPER	CSSPMC23056
87	SCREW	CSSPMC230X87
88	PIVOT BRACKET	CSSPMC230X88
90	INCLINATION LABEL	CSSPMC23076
92	HEX NUT	CSSPMC23118
94	SCREW	CSSPMC23083
97	KNOB	CSP9097
99	SCREW	CSSPMC23059
101	LABEL 110v	CSSPMC230X101
105	LABEL	CSSPMC230X105
108	SCREW	CSP9108
109	MANUAL	CSP9109
110	GOGGLE	CSP9110
111	SIDE HANDLE	CSP9111
112	Carrying Case	CSSPMC230CASE
113	Retail box	CSP9113
114	HEX WRENCH	CSSPMC230104
115	FENCE GUIDE	CSSPMC230102
116	BATTERY	CSP9116
119	SPRING WASHER	CSP9119
120	SPRING WASHER	CSP9120
121	PULL LEVER	CSP9121
122	SCREW	CSP9122
123	BOLT	CSP9123
124	HANDLE SHAFT	CSP9124
125	SCREW	CSP9125
126	SCREW	CSP9126
127	SCALE	CSP9127
128	PIN	CSP9128
129	PIN	CSP9129
130	SET PLATE	CSP9130
133	WASHER	CSP9133
134	WASHER	CSP9134
135	CAUTION LABEL	CSP9135
136	SCREW	CSP9136
137	SCREW	CSP9137
NA	GEAR BOX COMPLETE	CSP9GBC

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