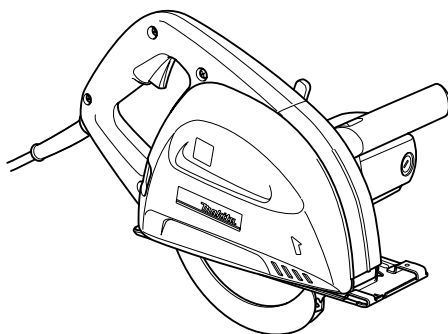



INSTRUCTION MANUAL

Metal cutter 4131



005343

 DOUBLE INSULATION

IMPORTANT: Read Before Using.

ENGLISH (Original instructions)

SPECIFICATIONS

Model	4131
Balde diameter	185 mm (7-1/4")
Max. cutting capacity	63 mm (2-1/2")
No load speed (RPM)	3,500 /min
Overall length	358 mm (14-1/8")
Net weight	5.1 kg (11.2 lbs)

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- Weight according to EPTA-Procedure 01/2003

GEA008-2

General Power Tool Safety

Warnings

⚠ 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 mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

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

Electrical Safety

4. **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.
5. **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.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

8. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
9. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.

Personal Safety

10. **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.
11. **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.
12. **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.
13. **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.
14. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
15. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
16. **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.

Power tool use and care

17. **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.
18. **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.
19. **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.
20. **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.
21. **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.

22. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
23. **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.

Service

24. **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.
25. **Follow instruction for lubricating and changing accessories.**
26. **Keep handles dry, clean and free from oil and grease.**

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Table 1: Minimum gage for cord

Ampere Rating		Volts	Total length of cord in feet			
		120V	25 ft.	50 ft.	100 ft.	150 ft.
		220V - 240V	50 ft.	100 ft.	200 ft.	300 ft.
More Than	Not More Than	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	

000300

GEB127-1

METAL CUTTER SAFETY WARNINGS

Cutting procedures

1. **⚠ DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
2. **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.

3. **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
4. **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
5. **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also

make exposed metal parts of the power tool "live" and could give the operator an electric shock.

6. **When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
7. **Always use blades with correct size and shape (diamond versus round) of arbour holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
8. **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

Kickback causes and related warnings

- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- 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.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

9. **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
10. **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 or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
11. **When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw 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.
12. **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

13. **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
14. **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.
15. **Use extra caution when sawing into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

Lower guard function

16. **Intended use**
This tool is intended to cut mild steel only.
17. **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.** If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
18. **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
19. **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.** For all other sawing, the lower guard should operate automatically.
20. **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.
21. **To check lower guard, open lower guard by hand, then release and watch guard closure. Also check to see that retracting handle does not touch tool housing.** Leaving blade exposed is VERY DANGEROUS and can lead to serious personal injury.

Additional safety warnings

22. **Do not stop the blades by lateral pressure on the blade.**
23. **DANGER: Do not attempt to remove cut material when blade is moving.**
CAUTION: Blades coast after turn off.

24. Place the wider portion of the tool base on that part of the workpiece which is solidly supported, not on the section that will fall off when the cut is made.
25. Never attempt to make a cut with the tool held upside down in a vise. This is extremely dangerous and can lead to serious accidents.
26. Wear safety goggles and hearing protection during operation.
27. Do not use any abrasive wheels.
28. Only use the blade with the diameter that is marked on the tool or specified in the manual. Use of an incorrectly sized blade may affect the proper guarding of the blade or guard operation which could result in serious personal injury.

SAVE THESE INSTRUCTIONS.

⚠WARNING:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

USD201-2

Symbols

The followings show the symbols used for tool.

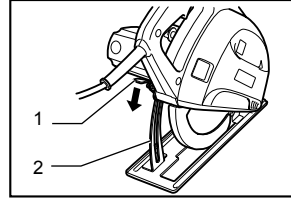
- | | |
|----------------|---|
| v | · volts |
| A | · amperes |
| Hz | · hertz |
| ~ | · alternating current |
| n _o | · no load speed |
| □ | · Class II Construction |
| ... /min | · revolutions or reciprocation per minute |
| r /min | |

FUNCTIONAL DESCRIPTION

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Adjusting the depth of cut



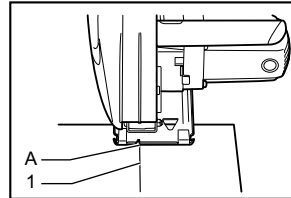
005344

Loosen the lever on the depth guide and move the base up or down. At the desired depth of cut, secure the base by tightening the lever.

⚠CAUTION:

- After adjusting the depth of cut, always tighten the lever securely.

Sighting



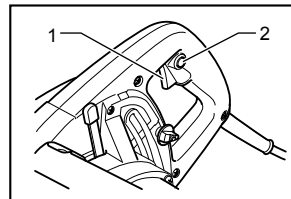
005345

When cutting, align the A position on the front of the base with your cutting line on the workpiece.

Switch action

⚠CAUTION:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.



005346

To prevent the switch trigger from being accidentally pulled, a lock-off button is provided.

To start the tool, push in the lock-off button and pull the switch trigger. Release the switch trigger to stop.

ASSEMBLY

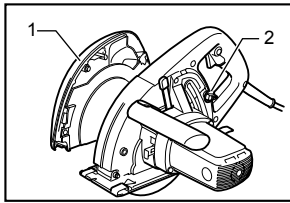
⚠ CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Installing or removing saw blade


⚠ CAUTION:

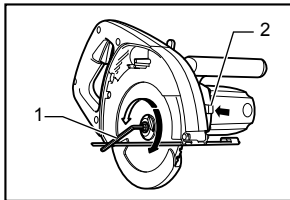
- Use only the Makita wrench provided to install or remove the blade. Failure to do so may result in overtightening or insufficient tightening of the hex bolt. This could cause serious injury to the operator.
- Do not touch the blade with your bare hand immediately after cutting, it may be extremely hot and could burn your skin. Put on pair of gloves when removing a hot blade.



- Dust cover
- Knob

005347

To remove the blade, first push and turn the knob which secures the dust cover clockwise to the  symbol and remove the dust cover. Press the shaft lock so that the blade cannot revolve and use the hex wrench to loosen the hex bolt counterclockwise. Then remove the outer flange and blade.

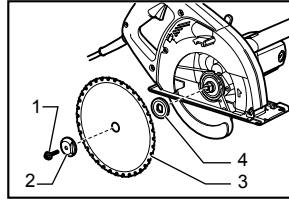


- Hex wrench
- Shaft lock

005348


To install the blade, follow the removal procedure in reverse. Always install the blade so that the arrow on the blade points in the same direction as the arrow on the blade case.

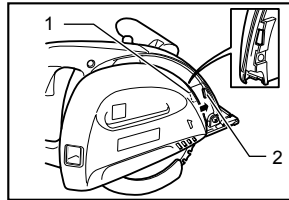
BE SURE TO TIGHTEN THE HEX BOLT SECURELY.



- Hex socket head bolt
- Outer flange
- Carbide-tipped saw blade
- Inner flange

005349

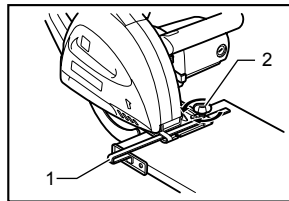
After installing the blade, replace the dust cover. Slide the dust cover carefully so that the slot of its front fits the rib of the blade case. Make sure the dust cover fits properly then push and turn the knob counterclockwise to the  symbol.



- Slot
- Rib

005350

Rip fence (guide rule) (Accessory)



- Rip fence (Guide rule)
- Screw

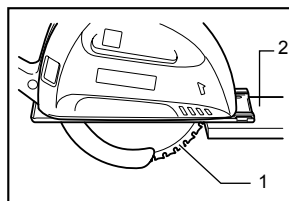
005351

The handy rip fence (guide rule) allows you to do extra-accurate straight cuts. Simply slide the rip fence up snugly against the side of the workpiece and secure it in position with the clamp screw on the front of the base. It also makes repeated cuts of uniform width possible.

OPERATION

⚠ CAUTION:

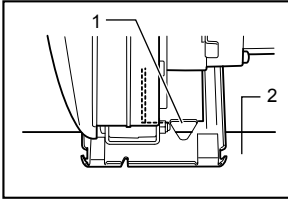
- Never twist or force the tool in the cut. This may cause motor overload and/or a dangerous kickback, resulting in serious injury to the operator.



- Carbide-tipped saw blade
- Workpiece

005352

Hold the tool firmly with both hand. Set the base plate on the workpiece to be cut without the blade making any contact. Then turn the tool on and wait until the blade attains full speed. Move the tool forward over the workpiece surface, keeping it flat and advancing smoothly until the cutting is completed. Keep your cutting line straight and your speed of advance uniform. The sight window in the base makes it easy to check the distance between the front edge of the saw blade and the workpiece whenever the blade is set to the maximum depth of cut.

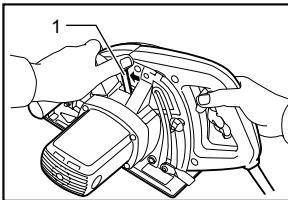


1. Sight window
2. Workpiece

005353

NOTE:

- When making a miter cuts etc., sometimes the lower guard does not move easily. At that time, use the retracting lever to raise the lower guard for starting enters cut and as soon as blade enters the material, release the retracting lever.



1. Retracting lever

005354

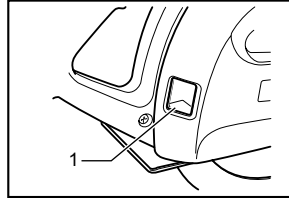
CAUTION:

- Do not use a deformed or cracked blade. Replace it with a new one.
- Do not stack materials when cutting them.
- Do not cut hardened steel, stainless steel, aluminum, wood, plastics, concrete, tile, etc. **Cut only mild steel.**
- Do not touch the saw blade, workpiece or cutting chips with your bare hand immediately after cutting, they may be extremely hot and could burn your skin.
- **Always use the carbide-tipped saw blades appropriate for your job.** The use of inappropriate saw blades may cause a poor cutting performance and/or present a risk of personal injury.

Chip disposal

CAUTION:


- Always be sure that the tool is switched off and unplugged before removing or installing the dust cover.
- The dust cover may become hot due to hot chips. Do not touch the cutting chips or dust cover.

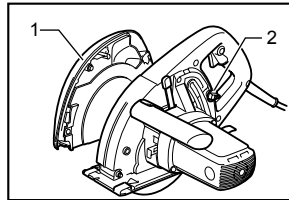


1. Sight window

005355

When the cutting chips are visible through the sight window, dispose of them.

Push and turn the knob clockwise to the  symbol and remove the dust cover. Dispose of the cutting chips accumulated inside the dust cover.



1. Dust cover
2. Knob

005347

CAUTION:

- Do not turn the tool upside down. The cutting chips accumulated inside the dust cover may fall out of the dust cover.
- Handle the dust cover carefully so that it will not be deformed or damaged.

MAINTENANCE

CAUTION:

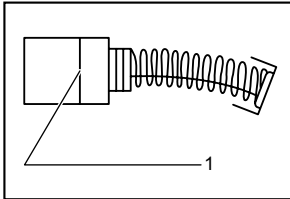
- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

Inspecting saw blade

- Check the blade carefully for cracks or damage before and after each use. Replace a cracked or damaged blade immediately.
- Continuing to use a dull blade may cause a dangerous kickback and/or motor overload. Replace with a new blade as soon as it no longer cuts effectively.

- Carbide-tipped saw blades for metal cutter cannot be re-sharpened.

Replacing carbon brushes

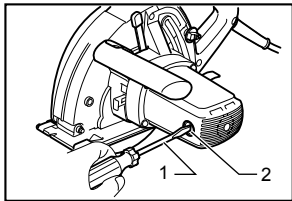


1. Limit mark

001145

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.

Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



1. Screwdriver
2. Brush holder cap

005356

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

⚠CAUTION:

- These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Rip fence (Guide rule)
- Safety goggle
- Recommended Carbide-tipped saw blades & workpiece ranges

Carbide-Tipped Metal Blades for Many Applications

Size(mm)	Applications													
	METAL SHEET		C-STUD		ANGLE-STUD		METAL STUD		REBAR	PIPE			CORRUGATED SHEET	
	t=1.5	t=3.0	50X100 t=1.6	45X90 t=3.2	50X50 t=4	50X50 t=6	t=0.56 25Ga	t=1.6 16Ga	∅20	50X100 t=3.2	∅25 t=1.2	∅60 t=3.8	t=0.9	t=1.0-2.0
185X36T	X	⊙	X	⊙	⊙	⊙	⊙	X	⊙	⊙	△	⊙	X	X
185X38T	△	⊙	△	⊙	⊙	⊙	⊙	△	⊙	⊙	⊙	⊙	X	X
185X48T	⊙	⊙	⊙	⊙	△	⊙	⊙	⊙	△	⊙	⊙	△	X	△
185X70T	⊙	△	X	X	X	X	△	X	X	X	X	X	⊙	△

⊙ Excellent ⊙ Good △ Fair X Not Applicable

005705

⚠CAUTION:

- Always use carbide-tipped saw blades appropriate for your job. Do not cut aluminum, wood, plastics, concrete, tiles, etc.

- Carbide-tipped saw blades for metal cutting saw are not to be re-sharpened.

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

< USA only >

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.