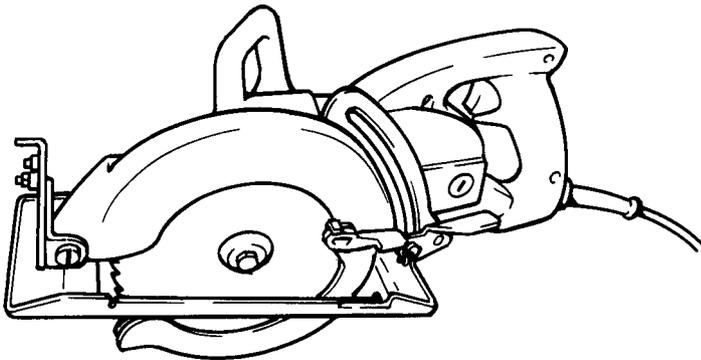


# Makita

## 7-1/4" Hypoid Saw

185 mm (7-1/4") MODEL 5177B  
MODEL 5277B

### INSTRUCTION MANUAL



 **DOUBLE INSULATION**

### SPECIFICATIONS

Blade diameter	Max. cutting capacities			No load speed (RPM)	Overall length	Net weight
	90°	50°	45°			
185 mm (7-1/4")	62 mm (2-3/8")	40 mm (1-9/16")	44 mm (1-23/32")	4,300	439 mm (17-1/4")	6.8 kg (15.0 lbs)

\* Manufacturer reserves the right to change specifications without notice.

\* Note: Specifications may differ from country to country.

WARNING: For your personal safety, READ and UNDERSTAND before using.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# GENERAL SAFETY RULES

## (For All Tools)

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

# SAVE THESE INSTRUCTIONS

## READ ALL INSTRUCTIONS.

1. **Keep your work area clean and well lit.** Cluttered benches and 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 bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.
4. **Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.
5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
6. **Don't 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 to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
8. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W."** These cords are rated for outdoor use and reduce the risk of electric shock.
9. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

11. **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
12. **Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
15. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
18. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool service before using.** Many accidents are caused by poorly maintained tools.
22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.
23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

## ***Specific Safety Rules***

- 1. DANGER! Keep hands away from cutting area and 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.

**Keep your body positioned to either side of the saw blade, but not in line with the saw blade.** KICKBACK could cause the saw to jump backwards. (See "Causes and Operator Prevention of Kickback")

**Do not reach underneath the work while blade is rotating.** The guard can not protect you from the blade below the work. Don't attempt to remove cut material when blade is moving.

**CAUTION:** Blades coast after turn off.

- 2. Check lower guard for proper closing before each use. Do not operate 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.
- 3. Check the operation and condition 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 buildup of debris.
- 4. Lower guard should be retracted manually only for special cuts such as "Pocket Cuts" and "Compound Cuts." Raise lower guard by Retracting Handle. As soon as blade enters the material, lower guard must be released.** For all other sawing, the lower guard should operate automatically.
- 5. 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.
- 6. NEVER hold piece being cut in your hands or across your leg.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- 7. Hold tool by insulated gripping surfaces 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 tool "live" and shock the operator.
- 8. When ripping always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance for blade binding.
- 9. Always use blades with correct size and shape (diamond vs. round) arbor holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- 10. Never use damaged or incorrect blade washers or bolts.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety or operation.

## 11. Causes and Operator Prevention of Kickback:

*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 wood causing the blade to climb out of the kerf and jump back toward operator.*

*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.*

**Maintain a firm grip with both hands on the saw and position your body and arm to allow you to resist KICKBACK forces.** KICKBACK forces can be controlled by the operator, if proper precautions are taken.

**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.

**When restarting a saw in the workpiece, center 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.

**Support large panels to minimize 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 as shown in Fig. 1.

To minimize the risk of blade pinching and kickback. When cutting operation requires the resting of the saw on the work piece, the saw shall be rested on the larger portion and the smaller piece cut off.

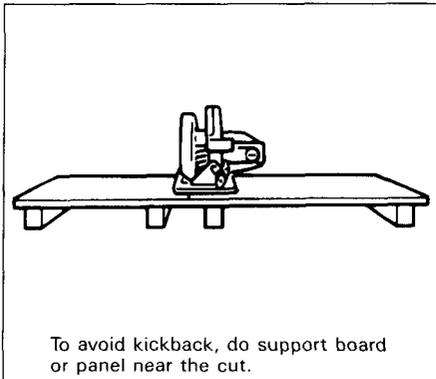


Fig. 1

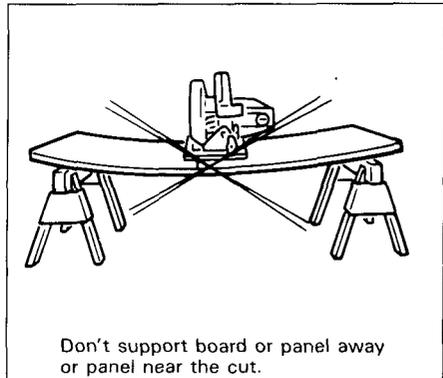


Fig. 2

**Do not use dull or damaged blade.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and KICKBACK.

**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.

**Use extra caution when making a "Pocket Cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause KICKBACK.

**NEVER** place your hand or fingers behind the saw. If kickback occurs, the saw could easily jump backwards over your hand, possibly causing severe injury.

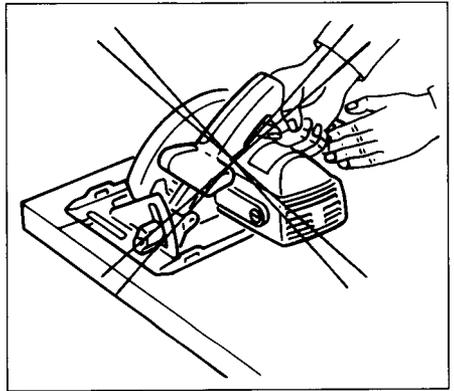


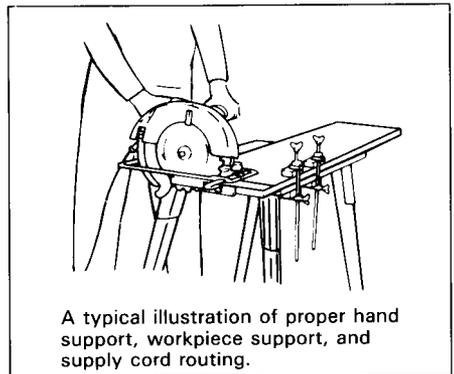
Fig. 3

12. **Adjustments.** Before cutting be sure depth and bevel adjustments are tight.

13. **Avoid Cutting Nails.** Inspect for and remove all nails from lumber before cutting.

14. **When operating the saw, keep the cord away from the cutting area and position it so that it will not be caught on the workpiece during the cutting operation.**

**Operate with proper hand support, proper workpiece support, and supply cord routing away from the work area.**



A typical illustration of proper hand support, workpiece support, and supply cord routing.

Fig. 4

**WARNING:**

**It is important to support the workpiece properly and to hold the saw firmly to prevent loss of control which could cause personal injury. Fig. 4 illustrates typical hand support of the saw.**

15. Place the wider portion of the saw base on that part of the workpiece which is solidly supported, not on the section that will fall off when the cut is made. As examples, Fig. 5 illustrates the RIGHT way to cut off the end of a board, and Fig. 6 the WRONG way. If the workpiece is short or small, clamp it down. DON'T TRY TO HOLD SHORT PIECES BY HAND!

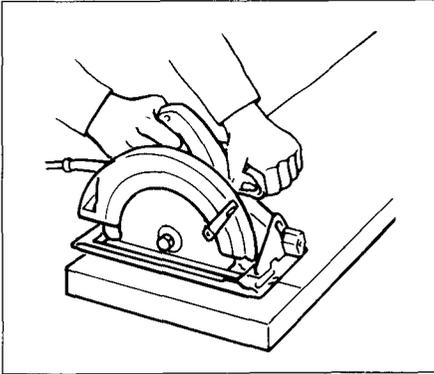


Fig. 5

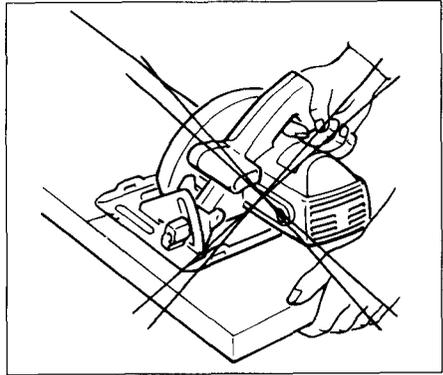


Fig. 6

16. Never attempt to saw with the circular saw held upside down in a vise. This is extremely dangerous and can lead to serious accidents.

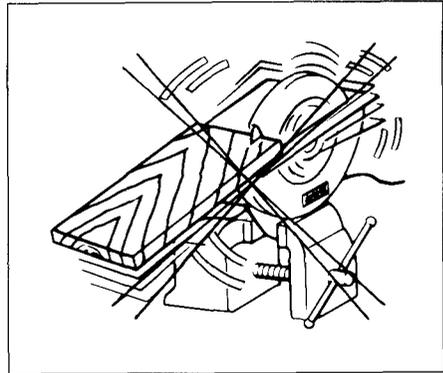


Fig. 7

17. Before setting the tool down after completing a cut, be sure that the lower (telescoping) guard has closed and the blade has come to a complete stop.

# SYMBOLS

Described below are symbols commonly listed on tools.

V	.....	volts
A	.....	amperes
Hz	.....	hertz
kg	.....	kilograms
h	.....	hours
min	.....	minutes
s	.....	seconds
	.....	alternating current
	.....	direct current
$n_0$	.....	no load speed
	.....	alternating or direct current
	.....	Class II Construction
	.....	splash-proof construction
	.....	watertight construction
.../min	.....	revolutions or reciprocation per minute
	.....	number of blows

## OPERATION

### Removing or installing saw blade

#### CAUTION:

Always be sure that the tool is switched off and unplugged before removing or installing the blade.

To remove the blade, press the shaft lock so that the blade cannot revolve and use the wrench to loosen the hex bolt clockwise. Then remove the hex bolt, outer flange and blade.

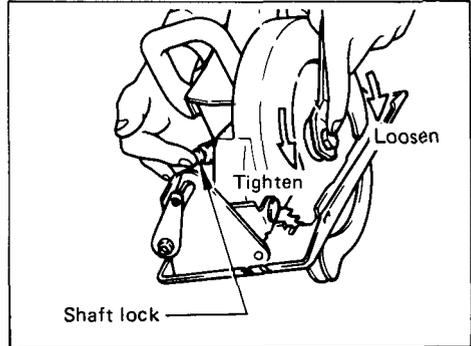


Fig. 8

To install the blade, follow the removal procedure in reverse. **BE SURE TO TIGHTEN THE HEX BOLT SECURELY.**

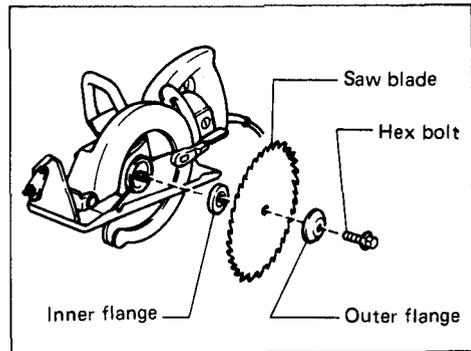


Fig. 9

#### CAUTION:

- Be sure the blade is installed with teeth pointing up at the front of the tool.
- Use only the Makita wrenches to install or remove the blade.
- One side of the inner flange is for 5/8" hole diameter or the blade; the other side is for 13/16" hole diameter.

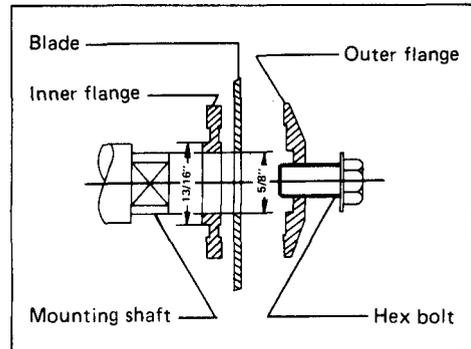


Fig. 10

Use the correct side for the hole diameter of the blade you intend to use. Mounting the blade on the wrong side can result in dangerous vibration.

### Adjusting depth of cut

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.

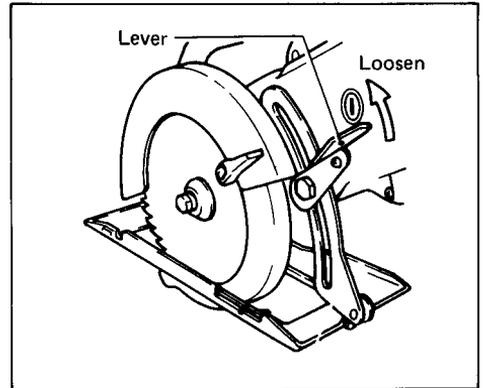


Fig. 11

### CAUTION:

- Use a shallow depth of cut when cutting thin workpiece for cleaner, safer cuts.
- After adjusting the depth of cut, always tighten the lever securely.

### Bevel cutting

Loosen the lever on the bevel scale plate on the front of the base. Set for the desired angle ( $0^{\circ}$  -  $45^{\circ}$ ) by tilting accordingly, then tighten the lever securely.

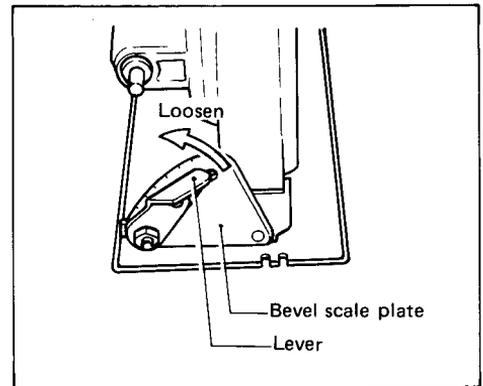


Fig. 12

### Sighting

The front of the base is notched to provide two guide edges.

For straight cuts, align the edge with 0 engraved on it with your cutting line on the workpiece.

For  $45^{\circ}$  bevel cuts, align the edge with  $45^{\circ}$  engraved on it with your cutting line.

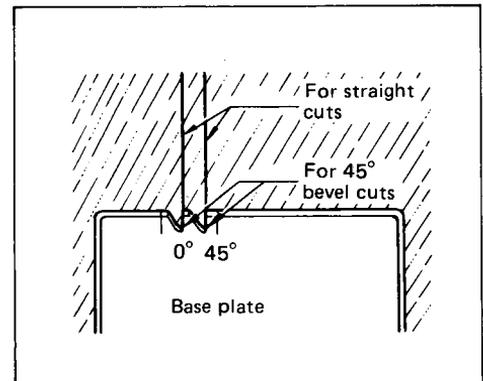


Fig. 13

### Switch action

To start the tool, simply pull the trigger. Release the trigger to stop.

### CAUTION:

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

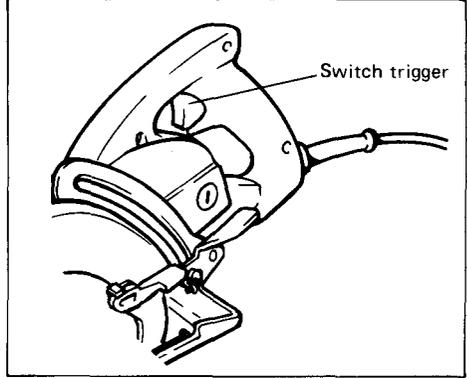


Fig. 14

### Cutting operation

Grasp the rear handle with your right hand, the front grip with your left. 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. Now simply move the tool forward over the workpiece surface, keeping it flat and advancing smoothly until the sawing is completed. To get clean cuts, keep your sawing line straight and your speed of advance uniform.

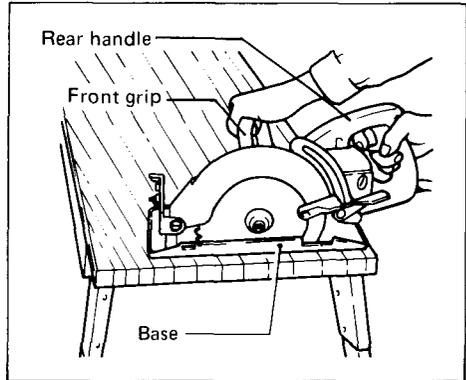


Fig. 15

### CAUTION:

Always gently keep the tool moving straight ahead when cutting. Forcing or twisting the tool will result in overheating of the motor and dangerous kickback, possibly causing severe injury.

### Guide rule

The handy guide rule allows you to do extra-accurate straight cuts. Simply slide the guide rule 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.

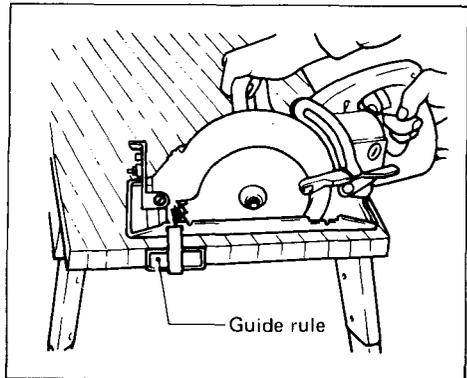


Fig. 16

## MAINTENANCE

### CAUTION:

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

### Replacing carbon brushes

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.

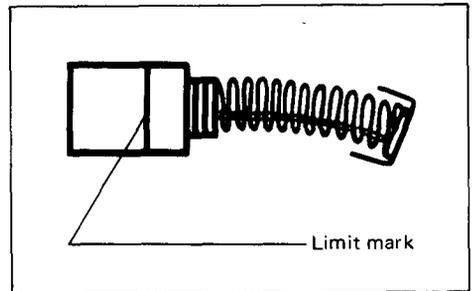


Fig. 17

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.

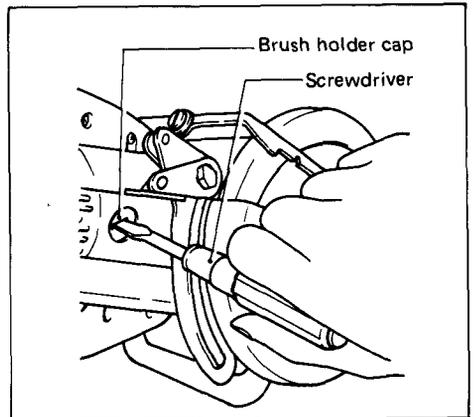


Fig. 18

### CAUTION:

Never remove the breather from the gear housing. It is not an oil cap.

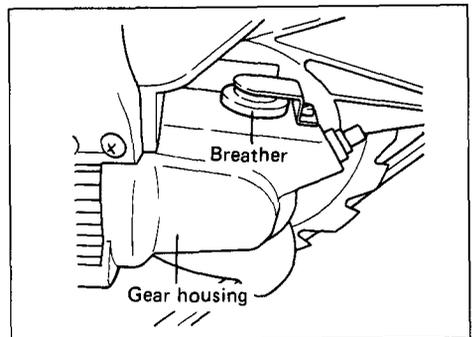


Fig. 19

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.

## 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. The accessories or attachments should be used only in the proper and intended manner.

#### ● Guide rule

Part No. 165153-3



#### ● Wrench 13

Part No. 782016-4



#### ● Chisel tooth combination saw blade

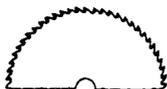
For rip and cross-cut work.  
Most frequently used for general carpentry.



Part No.	Diameter	Hole diameter	No. teeth
792436-4	7-1/4'' (185 mm)	5/8''	20

#### ● Combination saw blade

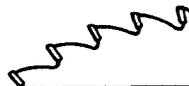
For rip and cross-cut work.



Part No.	Diameter	Hole diameter	No. teeth
792446-1	7-1/4'' (185 mm)	5/8''	40

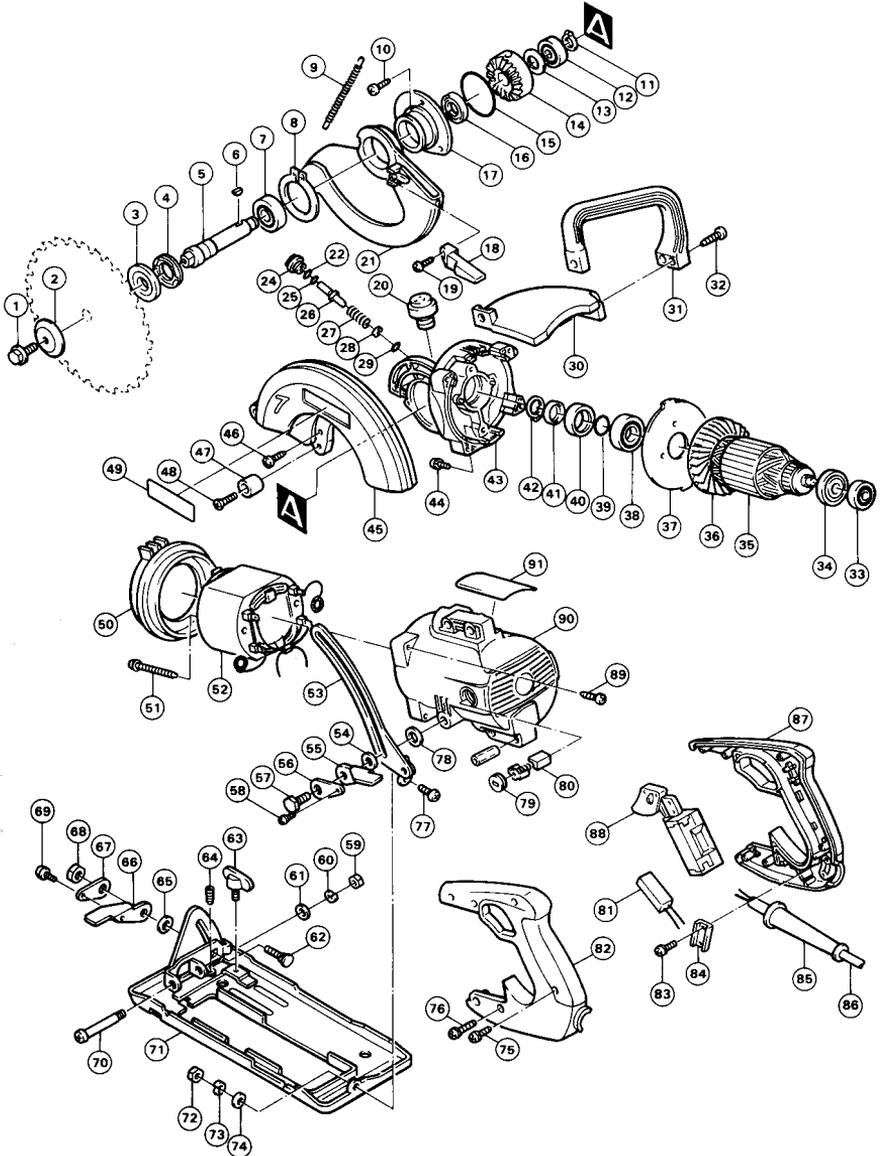
#### ● Carbide-tipped saw blade

Faster, smoother, longer sawing without blade sharpening.  
Cuts wood, drywall, plastics, hard wood, etc.



Part No.	Diameter	Hole diameter	No. teeth
792435-6	7-1/4'' (185 mm)	5/8''	16
A-90021	7-1/4'' (185 mm)	5/8''	16
A-90037	7-1/4'' (185 mm)	5/8''	20

# 185 mm (7-1/4") HYPOID SAW Model 5177B/5277B



Note: The switch and other part configurations may differ from country to country.

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<b>MACHINE</b>			<b>MACHINE</b>		
1	1	Hex Flange Head Bolt M8x20	48	1	Countersunk Head Screw M6x28
2	1	Outer Flange 40	49	1	Makita Mark
3	1	Inner Flange 40	50	1	Baffle Plate
4	1	Bearing Retainer 23-36	51	2	Tapping Screw Flange PT 5x65
5	1	Spindle	52	1	FIELD ASSEMBLY
6	1	Woodruff Key 4	53	1	Depth Guide
7	1	Ball Bearing 6003DDW	54	1	Flat Washer 8
8	1	Retaining Ring S-42	55	1	Lever Plate
9	1	Tension Spring 4	56	1	Lock Plate
10	3	Tapping Screw Bind CT M5x20	57	1	Hex. Bolt M8x20
11	1	Retaining Ring S-12	58	1	Pan Head Screw M4x8 (With Washer)
12	1	Ball Bearing 6201LLB	59	1	Hex. Nut M8
13	1	Flat Washer 12	60	1	Spring Washer 8
14	1	Hypoid Gear 36	61	1	Flat Washer 8
15	1	O Ring 50	62	1	Cap Square Neck Bolt M8x24
16	1	Oil Seal 17	63	1	Screw M6x14
17	1	Bearing Box	64	1	Screw M5x12
18	1	Lever	65	1	Flat Washer 8
19	1	Tapping Screw Bind CT 4x12	66	1	Lever Plate
20	1	Breather	67	1	Lock Plate
21	1	Safety Cover	68	1	Hex. Nut M8
22	1	O Ring 14	69	1	Pan Head Screw M4x8 (With Washer)
24	1	Cap 20	70	1	Flat Head Screw M8
25	1	O Ring 5	71	1	Base
26	1	Pin 6	72	1	Hex. Nut M6
27	1	Compression Spring 6	73	1	Spring Washer 6
28	1	Flat Washer 6	74	1	Flat Washer 6
29	1	O Ring 6	75	2	Tapping Screw Flange PT 4x20
30	1	Cover	76	4	Tapping Screw Flange PT 5x25
31	1	Grp	77	1	Flat Head Screw M6
32	3	Tapping Screw Bind CT 5x20	78	1	Flat Washer 8
33	1	Ball Bearing 629LLB	79	2	Brush Holder Cap
34	1	Insulation Washer	80	2	Carbon Brush
35	1	ARMATURE ASSEMBLY (With Item 33, 34 & 36)	81	1	Triac Circuit (5177B only)
36	1	Fan	82	1	Handle Set (With Item 87)
37	1	Bearing Retainer	83	2	Tapping Screw Flange PT 4x12
38	1	Ball Bearing 6003LLB	84	1	Strain Relief
39	1	O Ring 16	85	1	Cord Guard
40	1	Oil Seal 22	86	1	Cord
41	1	Ring 17	87	1	Handle Set (With Item 82)
42	1	Retaining Ring S-17	88	1	Switch
43	1	Gear Housing	89	4	Tapping Screw Bind CT 5x30
44	2	Pan Head Screw M5x10 (With Washer)	90	1	Motor Housing
45	1	Blade Case	91	1	Name Plate
46	3	Tapping Screw Bind CT 5x20	92	1	Breather Retainer (Not Illustrated)
47	1	Rubber Sleeve 6	93	1	Pan Head Screw M4x12 (With Washer) (Not Illustrated)

Note: The switch and other part specifications may differ from country to country.

## **MAKITA LIMITED ONE YEAR WARRANTY**

### **Warranty Policy**

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others;
- repairs are required because of normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

**Makita Corporation of America**

2650 Buford Hwy., Buford, GA 30518