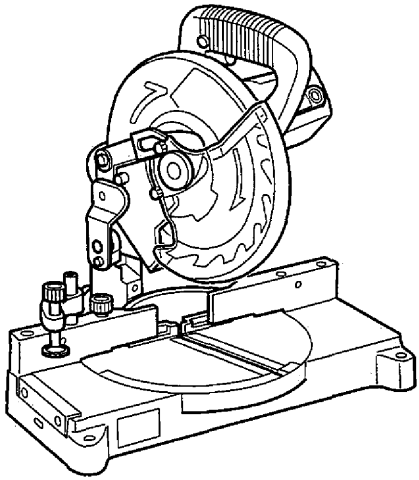
Miter Saw

LS0810



SPECIFICATIONS

Model	LS0810
Blade diameter	210 mm
Max. cutting capacities (H x W)	
Cross cut (90°)	55 x 130 mm
Miter cut (45°)	55 x 95 mm
No load speed (RPM)	5,000
Dimensions (L x W x H)	390 x 270 x 385 mm
Net weight	5.6 kg

- Due to the continuing program of research and development, the specifications herein are subject to change without prior notice.
- Note: Specifications may differ from country to country.

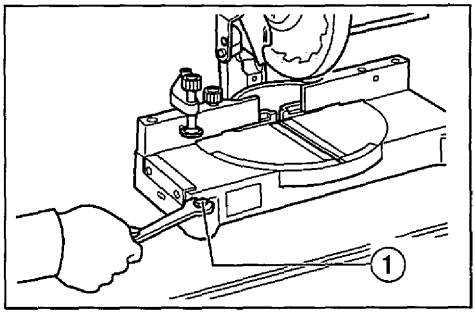
Power supply

The machine should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

These symbols mean:

Read instruction manual.

DOUBLE INSULATION



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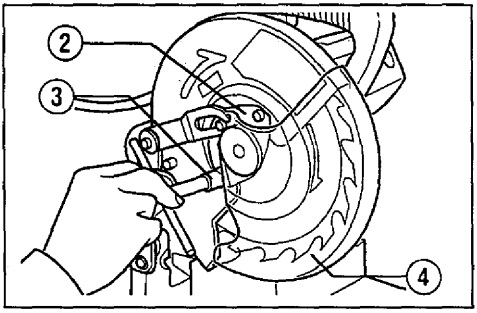

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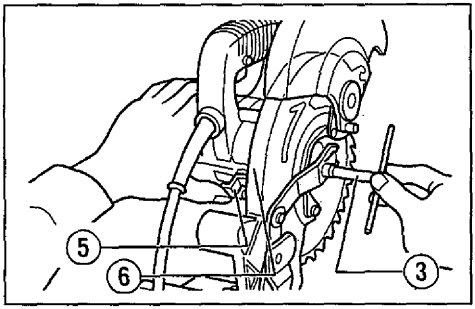

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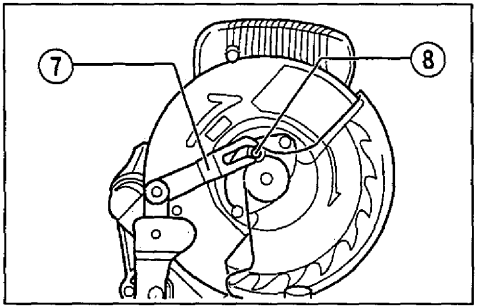

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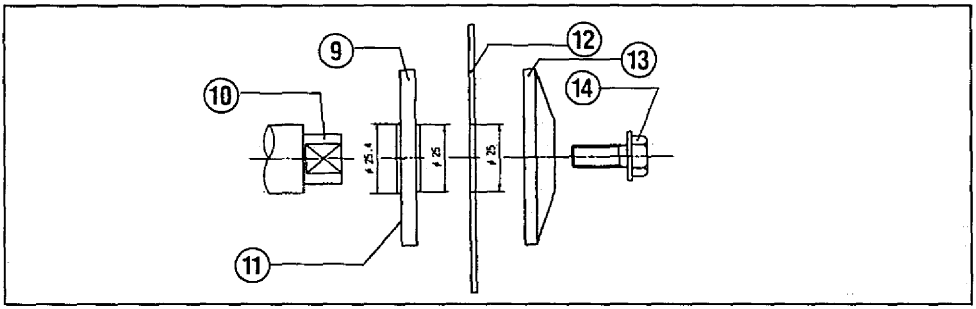

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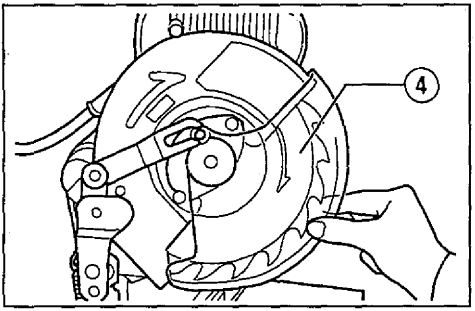

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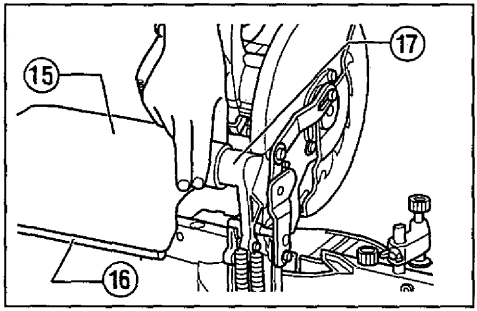

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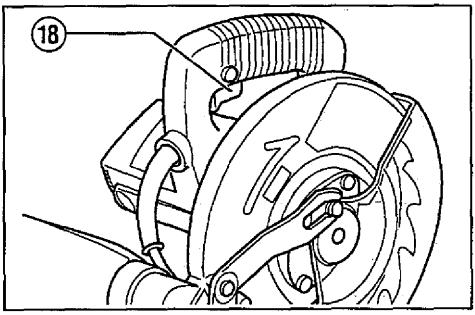

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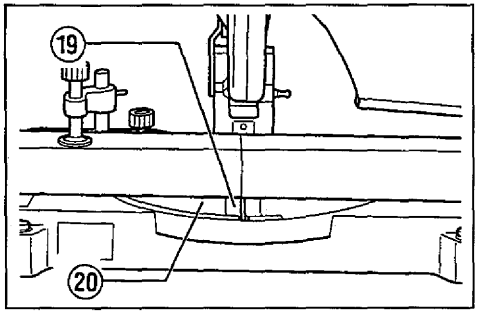

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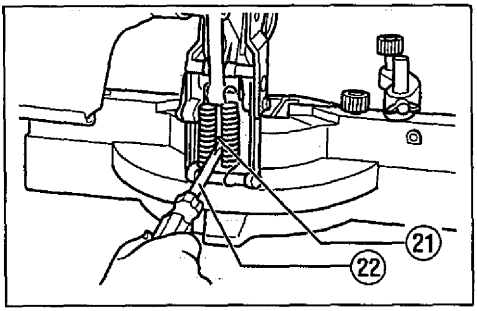

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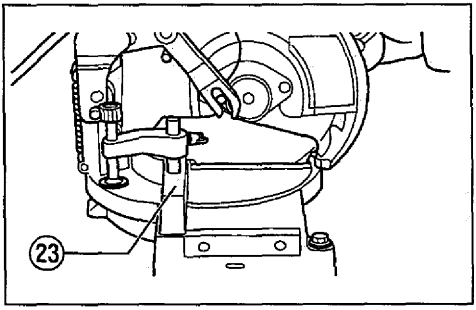

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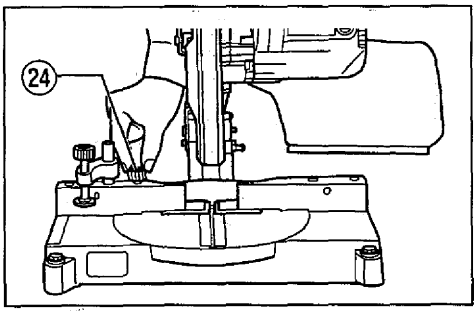

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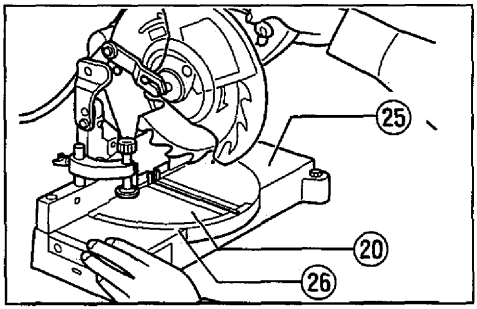

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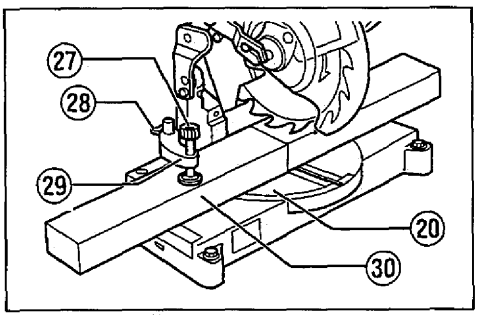

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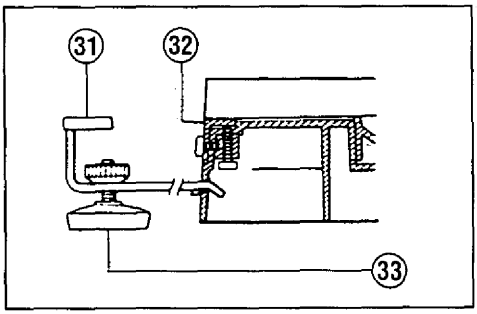

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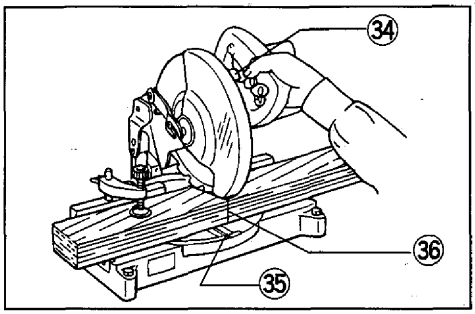

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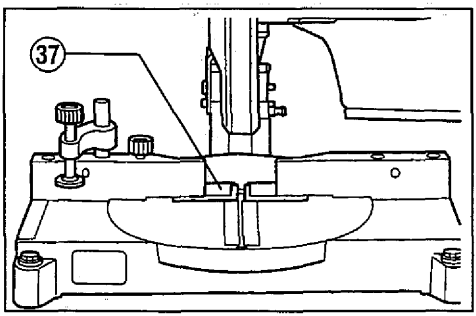

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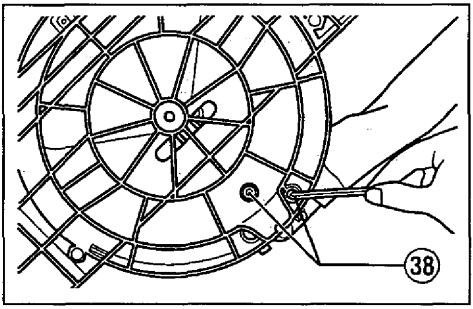

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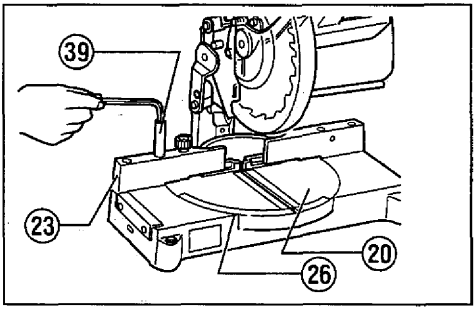

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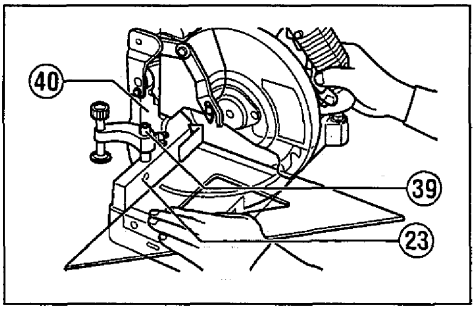

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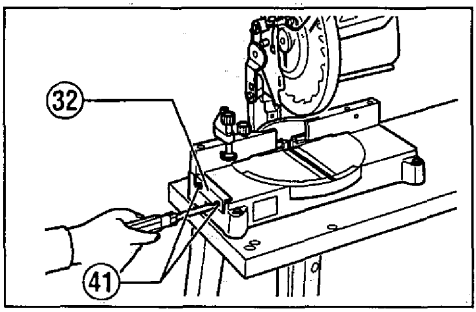

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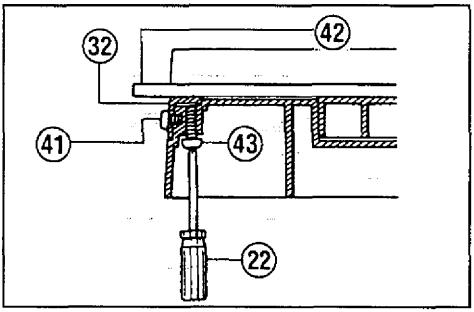

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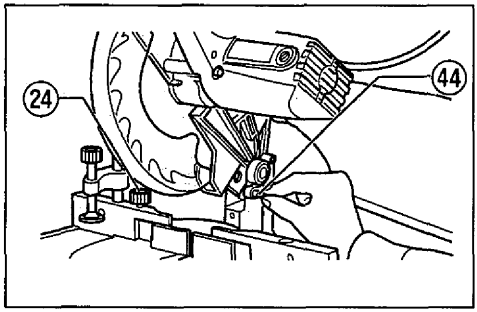

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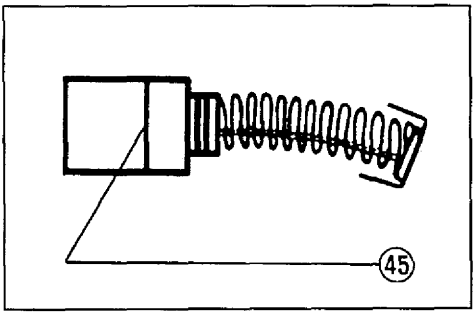

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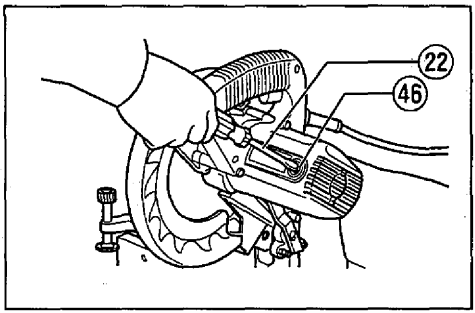

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Explanation of general view

① Bolt
② Center cover
③ Socket wrench
④ Safety cover
⑤ Shaft lock
⑥ Blade case
⑦ Guide arm
⑧ Pin
⑨ Inner flange
⑩ Spindle
⑪ 25.4 mm marking
⑫ Saw blade
⑬ Outer flange
⑭ Hex bolt
⑮ Dust bag
⑯ Fastener
⑰ Dust spout
⑱ Switch trigger
⑲ Kerf board
⑳ Turn base
㉑ Depth adjusting screw
㉒ Screwdriver
㉓ Guide fence
㉔ Screw
㉕ Base
㉖ Pointer
㉗ Clamp screw
㉘ Wing bolt
㉙ Vise arm
㉚ Workpiece
㉛ Holder
㉜ Adjusting plate
㉝ Knob
㉞ Lock lever
㉟ Groove
㊱ Cutting line
㊲ Fence plate
㊳ Bolts
㊴ Bolt
㊵ Arm
㊶ Screw (A)
㊷ Ruler
㊸ Screw (B)
㊹ Stopper pin
㊺ Limit mark
㊻ Brush holder cap

SAFETY INSTRUCTIONS

Warning! When using electric machines, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following.
Read all these instructions before attempting to operate this product and save these instructions.

For safe operation:

1. **Keep work area clean**
   Cluttered areas and benches invite injuries.
2. **Consider work area environment**
   Don't expose power machines to rain. Don't use power machines in damp or wet locations. Keep work area well lit. Don't use power machines in presence of flammable liquids or gases.
3. **Guard against electric shock**
   Prevent body contact with grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).
4. **Keep children away**
   Do not let visitors contact machine or extension cord. All visitors should be kept away from work area.
5. **Store idle machines**
   When not in use, machines should be stored in dry, high, or locked-up place, out of the reach of children.
6. **Don't force machine**
   It will do the job better and safer at the rate for which it was intended.
7. **Use right machine**
   Don't force small machines or attachments to do the job of a heavy duty machine. Don't use machines for purposes not intended; for example, don't use circular saw for cutting tree limbs or logs.
8. **Dress properly**
   Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. **Use safety glasses**
   Also use face or dust mask if cutting operation is dusty.
10. **Connect dust extraction equipment**
    If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
11. **Don't abuse cord**
    Never carry machine by cord or yank it to disconnect it from receptacle. Keep cord from heat, oil and sharp edges.
12. **Secure work**
    Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate machine.
13. **Don't overreach**
    Keep proper footing and balance at all times.
14. **Maintain machines with care**
    Keep machines sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect machine cords periodically and, if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
15. **Disconnect machines**
    When not in use, before servicing, and when changing accessories such as blades, bits and cutters.
16. **Remove adjusting keys and wrenches**
    Form the habit of checking to see that keys and adjusting wrenches are removed from machine before turning it on.
17. **Avoid unintentional starting**
    Don't carry plugged-in machine with finger on switch. Be sure switch is off when plugging in.
18. **Outdoor use extension cords**
    When machine is used outdoors, use only extension cords intended for use outdoors and so marked.
19. **Stay alert**
    Watch what you are doing. Use common sense. Do not operate machine when you are tired.

20. **Check damaged parts**
Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by and authorized service center. Do not use machine if switch does not turn it on and off.
21. **Warning**
The use of any other accessory or attachment other than recommended in this operating instruction or the catalog may present a risk of personal injury.
22. **Have your machine repaired by an expert**
This electric appliance is in accordance with the relevant safety rules. Repairing of electric appliances may be carried out only by experts otherwise it may cause considerable danger for the user.

ADDITIONAL SAFETY RULES

1. **Wear eye protection.**
2. **Do not operate saw without guards in place.**
3. **Don't use the machine in the presence of flammable liquids or gases.**
4. **Check the blade carefully for cracks or damage before operation. Replace cracked or damaged blade immediately.**
5. **Use only flanges specified for this machine.**
6. **Be careful not to damage the arbor, flanges (especially the installing surface) or bolt. Damage to these parts could result in blade breakage.**
7. **Make sure that the turn base is properly secured so it will not move during operation.**
8. **For your safety, remove the chips, small pieces, etc. from the table top before operation.**
9. **Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.**
10. **Make sure the shaft lock is released before the switch is turned on.**
11. **Be sure that the blade does not contact the turn base in the lowest position.**
12. **Hold the handle firmly. Be aware that the saw moves up or down slightly during start-up and stopping.**
13. **Do not perform any operation freehand. The workpiece must be secured firmly against the turn base and guide fence with the vise during all operations. Never use your hand to secure the workpiece.**
14. **Keep hands out of path of saw blade. Avoid contact with any coasting blade. It can still cause severe injury.**
15. **Never reach around saw blade.**
16. **Make sure the blade is not contacting the workpiece before the switch is turned on.**
17. **Before using the machine on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced blade.**
18. **Wait until the blade attains full speed before cutting.**
19. **Stop operation immediately if you notice anything abnormal.**
20. **Do not attempt to lock the trigger in the ON position.**
21. **Shut off power and wait for saw blade to stop before servicing or adjusting machine.**
22. **Be alert at all times, especially during repetitive, monotonous operations. Don't be lulled into a false sense of security. Blades are extremely unforgiving.**
23. **Always use accessories recommended in Makita catalog. Use of improper accessories such as abrasive wheels may cause an injury.**
24. **Don't abuse cord. Never yank cord to disconnect it from the receptacle. Keep cord away from heat, oil, water and sharp edges.**
25. **Do not use the saw to cut other than aluminum, wood or similar materials.**
26. **Connect miter saws to a dust collecting device when sawing.**
27. **Select saw blades in relation to the material to be cut.**
28. **Take care when slotting.**
29. **Replace the kerf board when worn.**

SAVE THESE INSTRUCTIONS.

OPERATING INSTRUCTIONS

Bench mounting miter saw (Fig. 1)

This machine should be bolted with two bolts to a level and stable surface using the bolt holes provided in the machine's base. This will help prevent tipping and possible injury.

Removing or installing saw blade

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

To remove the blade, use the socket wrench to loosen the hex bolt holding the center cover by turning it more than three turns counterclockwise. Raise the safety cover and center cover. **(Fig. 2)**

Press the shaft lock so that the blade cannot revolve and use the socket wrench to loosen the hex bolt clockwise. Then remove the hex bolt, outer flange and blade. **(Fig. 3)**

To install the blade, mount the blade onto the spindle, making sure that the direction of the arrow on the surface of the blade matches the direction of the arrow on the blade case.

Install the outer flange and hex bolt, and then use the socket wrench to tighten the hex bolt securely counterclockwise while pressing the shaft lock. **(Fig. 3)**

Slip the pin on the safety cover into the slot in the guide arm while returning the safety cover to its original fully closed position. Then tighten the hex bolt clockwise to secure the center cover. **(Fig. 4)**

CAUTION:

- Use only the Makita socket 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 an injury.
- The inner flange has a 25 mm diameter on one side and a 25.4 mm diameter or the other. The side with 25.4 mm diameter is marked by "25.4".
  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. **(Fig. 5)**

Safety cover (Fig. 6)

When lowering the handle, the safety cover rises automatically. The cover returns to its original position when the cut is completed and the handle is raised. NEVER DEFEAT OR REMOVE THE SAFETY COVER. In the interest of your personal safety, always maintain the safety cover in good condition. Any irregular operation of the safety cover should be corrected immediately. NEVER USE THE MACHINE WITH A FAULTY SAFETY COVER. If the see-through safety cover becomes dirty, or sawdust adheres to it in such a way that the blade and/or workpiece is no longer easily visible, unplug the saw and clean the cover carefully with a damp cloth. Do not use solvents or any petroleum-based cleaners on the plastic cover.

Dust bag (Fig. 7)

The use of the dust bag makes cutting operations clean and dust collection easy. To attach the dust bag, fit it onto the dust spout on the blade case.

When the dust bag is about half full, remove the dust bag from the machine and pull the fastener out. Empty the dust bag of its contents, tapping it lightly so as to remove particles adhering to the insides which might hamper further collection.

Switch action (Fig. 8)

CAUTION:

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

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

Kerf board (Fig. 9)

This machine is provided with the kerf board in the turn base. If the kerf groove has not yet been cut in the kerf board by the factory, you should cut the groove before actually using the machine to cut a workpiece. Switch on the machine and lower the blade gently to cut a groove in the kerf board.

Maintaining maximum cutting capacity (Fig. 10 & 11)

Unplug the machine before any adjustment is attempted.

This machine is factory adjusted to provide the max. cutting capacity for a 210 mm saw blade. When the diameter of the blade has been reduced due to sharpening, use a screwdriver to adjust the depth adjusting screw. By turning the depth adjusting screw counterclockwise, you can obtain wider max. cutting capacity. Adjust so that when the handle is in the fully lowered position, there will be a distance of about 130 mm from the front face of the guide fence to the point where the front edge of the blade enters the kerf.

With the machine unplugged, rotate the blade by hand while holding the handle all the way down. Be sure that the blade does not contact any part of the lower base when the handle is lowered completely.

Positioning for adjusting the miter angle (Fig. 12 & 13)

Loosen the screw on the guide fence. Hold down the base and move the handle to turn the turn base until the pointer on the base indicates the desired angle on the turn base. Then tighten the screw on the guide fence to secure the turn base.

CAUTION:

When turning the turn base, be sure to raise the handle fully.

Securing workpiece (Fig. 14 & 15)

WARNING:

It is extremely important to always secure the workpiece properly and tightly with the vise. Failure to do so can cause the machine to be damaged and/or the workpiece to be destroyed. PERSONAL INJURY MAY ALSO RESULT. Also, after a cutting operation, DO NOT raise the blade until the blade has come to a complete stop.

Secure the turn base firmly at the position of the desired miter angle. Position the vise arm according to the thickness and shape of the workpiece and secure the vise arm by tightening the wing bolt. Press the workpiece flat against the guide fence and the turn base. Position the workpiece at the desired cutting position and secure it firmly by tightening the clamp screw.

When the workpiece is long (i.e., more than half the workpiece overhangs the base), use the holder (standard equipment) or other supports that are as high as the top surface of the adjusting plate.

To install the holder on the base, raise the left side of the base slightly and insert the holder into the slot in the base.

Adjust the knob so that the holder is flush with the top surface of the adjusting plate.

Operation (Fig. 16)

1. When cutting with this machine, the thickness of the blade is cut out of the workpiece as well. Therefore, your cutting line should be on either the left or right side of the groove in the kerf board.
2. **For machines with lock lever**
   Switch on the machine and wait until the blade attains full speed. Pull the lock lever at the side of the handle and then lower the blade gently into the cut.
   For machines without lock lever
   Switch on the machine and wait until the blade attains full speed. Then lower the blade gently into the cut.
3. When the blade contacts the workpiece, gradually bear down on the handle to perform the cut.
4. When the cut is completed, switch off the machine and WAIT UNTIL THE BLADE HAS COME TO A COMPLETE STOP before returning the blade to its fully elevated position. A thin piece of cut off material could otherwise contact the coasting blade and be thrown around dangerously.

Fence plate (Fig. 17)

The fence plate is designed to prevent smaller cutting scraps from jamming inside the blade base. The fence plate moves right or left automatically as the turn base is rotated.

Alignment for secureness

This machine was carefully adjusted and aligned for squareness of cut at the factory, but rough handling may have affected the alignment. If your machine is not aligned properly, perform the following.

Lower the handle and make sure that the blade is centered in the middle of the kerf board. If the lowered blade is off center, the arm is not aligned properly. Gently lay the machine back to expose the underside of the turn base. Loosen the three bolts holding the arm with the hex wrench and leave them in a semi-tightened condition. Adjust the arm so that the lowered blade is centered in the middle of the kerf board. Then tighten the bolts clockwise to secure the arm. **(Fig. 18)**

Return the machine to its normal, upright position. Loosen the four bolts holding the guide fence and leave them in a semi-tightened condition. Turn the turn base so that 0° graduation on the turn base is aligned with the pointer on the base. **(Fig. 19)**

Square the side of the blade with the face of the guide fence using a triangular rule, try-square, etc. Then tighten the bolts on the guide fence securely, making sure that the steel ball on the turn base exactly fits the hole in the underside of the guide fence. **(Fig. 20)**

Adjusting the adjusting plate (Fig. 21 & 22)

Place the machine on a level table or work bench with the left end of the base protruding from the table or work bench surface. Loosen the screws (A) holding the adjusting plate and leave them in a semi-tightened condition.

Place the ruler on the turn base and adjust the adjusting plate by turning the screws (B) with a screwdriver so that the top surface of the adjusting plate is flush with the surface of the turn base. Then tighten the screws (A) securely to secure the adjusting plate.

Carrying machine (Fig. 23)

When carrying the machine, raise or lower the handle fully and press the stopper pin to lock the handle in the raised or lowered position. Also secure the turn base by tightening the screw on the guide fence.

MAINTENANCE

CAUTION:
Always be sure that the machine is switched off and unplugged before carrying out any work on the machine.

Replacement of carbon brushes (Fig. 24 & 25)

Replace carbon brushes when they are worn down to the limit mark. Both identical carbon brushes should be replaced at the same time.

To maintain product safety and reliability, repairs, maintenance or adjustment should be carried out by Makita Authorized Service Center.

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