

## Makita TCT Metal Cut Off Saw

Non-sparking tungsten carbide tipped saw ideal for cutting steel sections, channel and threaded rods. No additional tools are required for adjustment of the angle of the fence – can be made by loosening the lever. Featuring quick vice, aluminium base, dismountable dust tray and anti-vibration for the chip saw. This allows for decreased noise during work and contributes to saving of the life of the blade.



### User Benefits

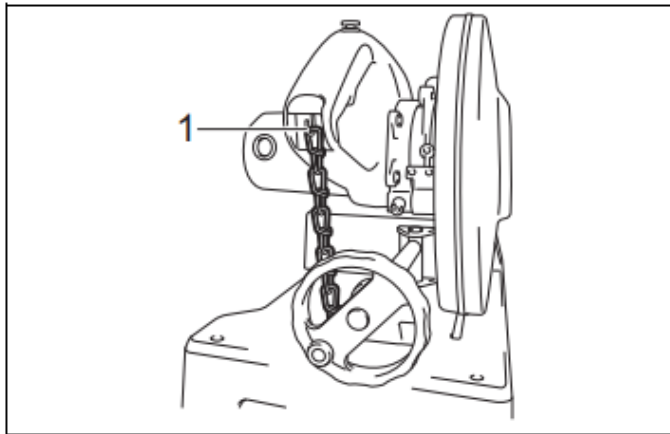
- ◆ Double insulation
- ◆ Forward & reverse rotation
- ◆ Variable speed control
- ◆ New aesthetic design: non-slip elastomer covering on main handle for a sure and comfortable grip
- ◆ 360-degree rotatable D-Handle with 24 positive stops for multi position operation
- ◆ Keyed chuck

### Machine Specifications

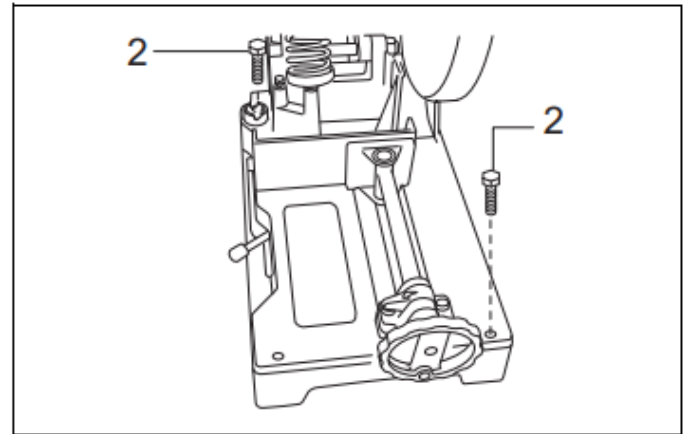
<b>Blade Diameter</b>	305 mm
<b>Hole (arbor) Diameter</b>	25.4 mm
<b>Max. Kerf Thickness of Saw Blade</b>	2.5 mm
<b>No Load Speed</b>	1700 min-1
<b>Dimensions (L x W x H)</b>	516 x 306 x 603 mm
<b>Net Weight</b>	19.2 kg

### Cutting capacity

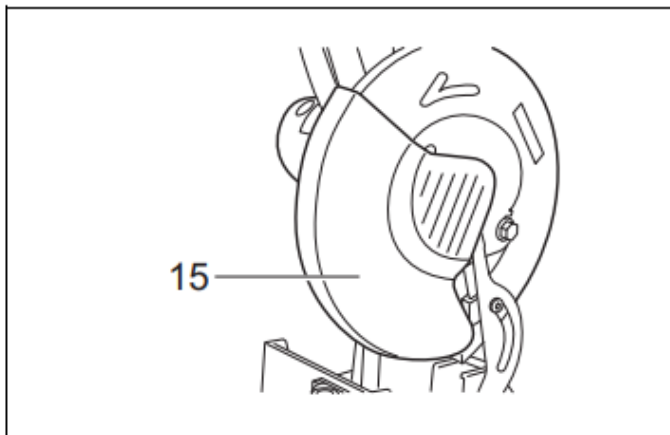
Cutting angle	Workpiece shape	Diagram	Dimensions
90°			115 mm
45°			90 mm



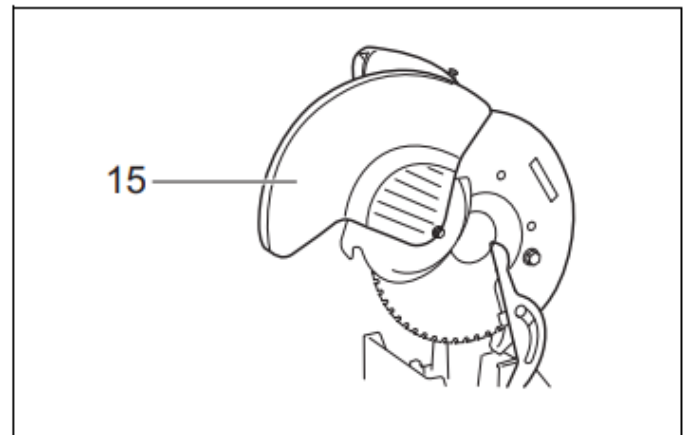
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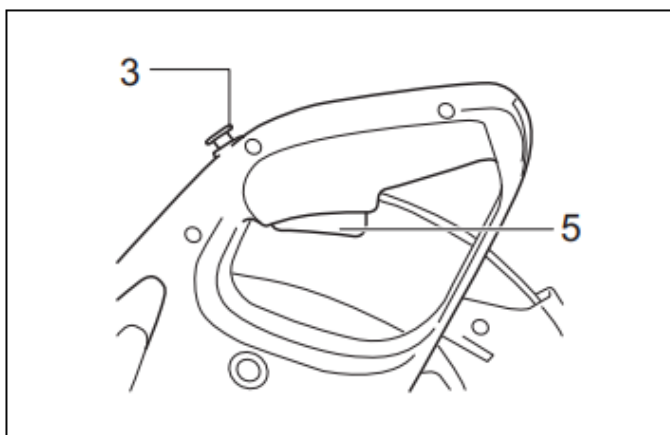
**2** 003772



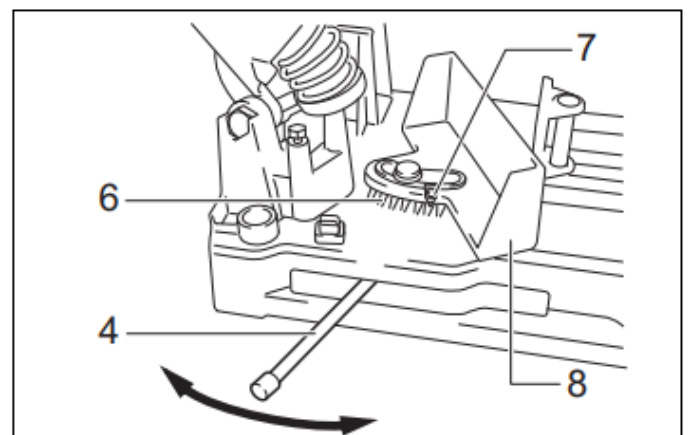
**3** 1105405



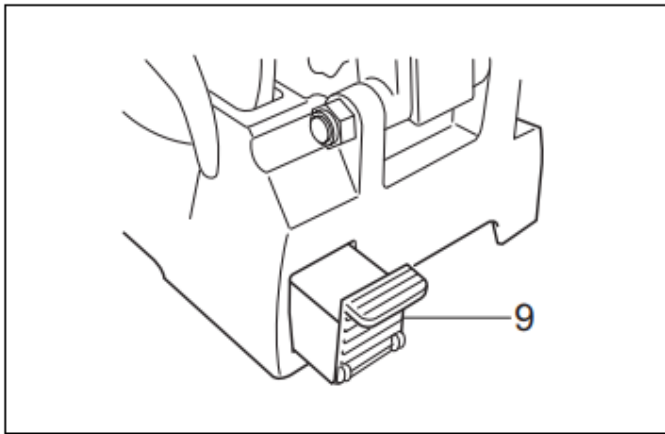
**4** 1105408



**5** 003773

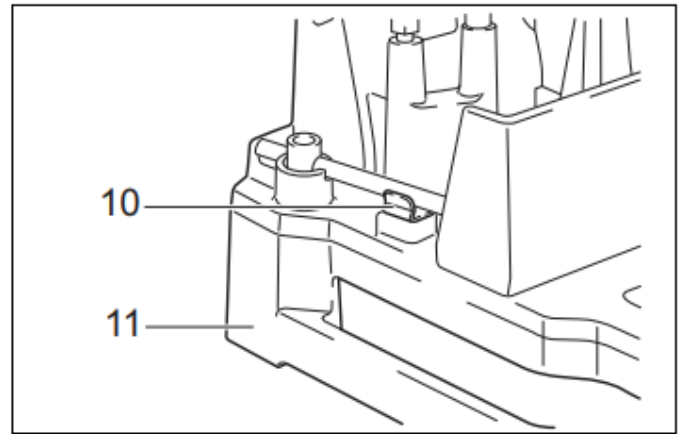


**6** 1105410



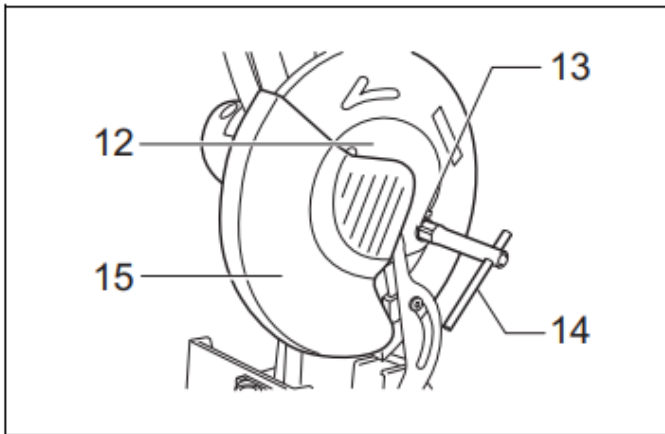
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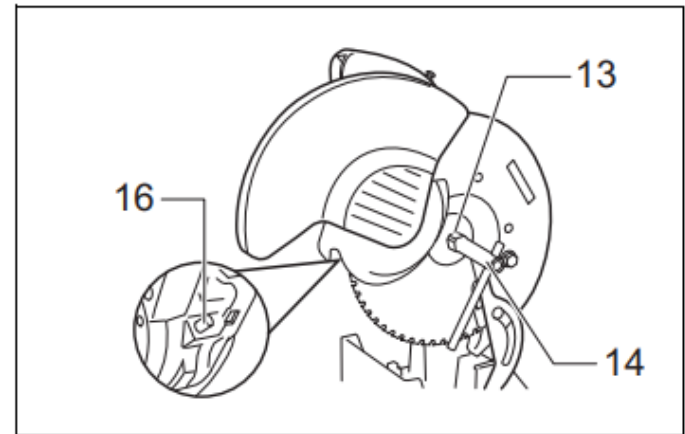
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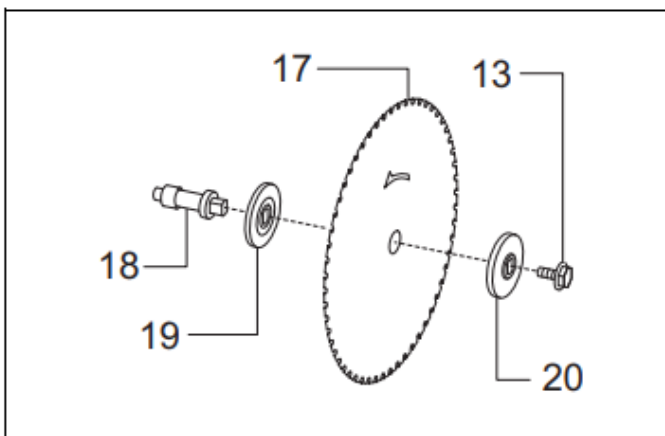
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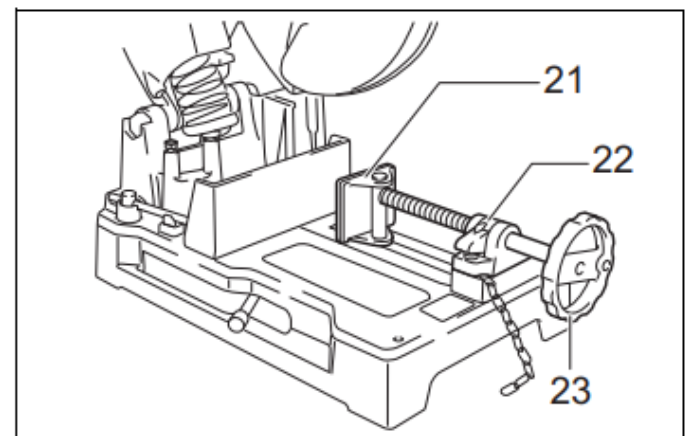
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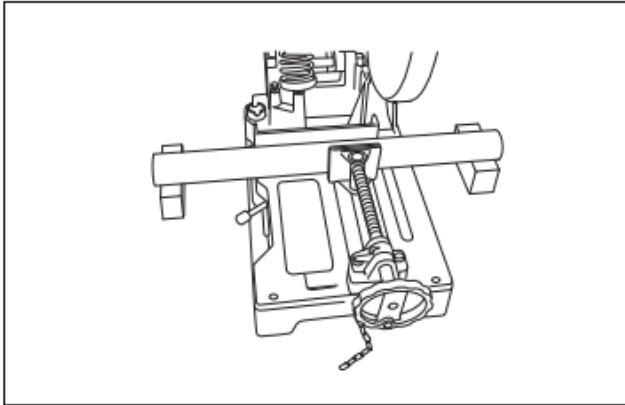
**11**

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**12**

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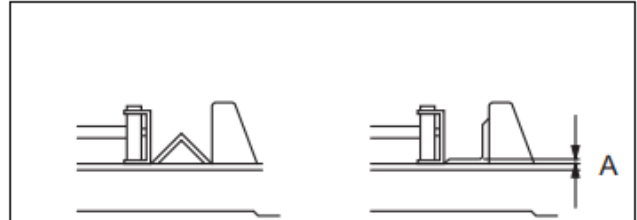


Fig. A

Fig. B



Fig. C

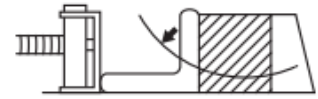


Fig. D

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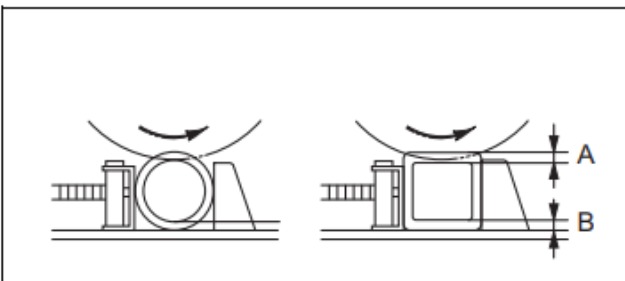


Fig. E

Fig. F

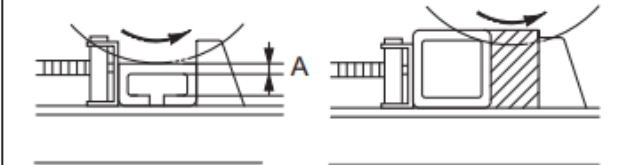


Fig. G

Fig. H



Fig. I

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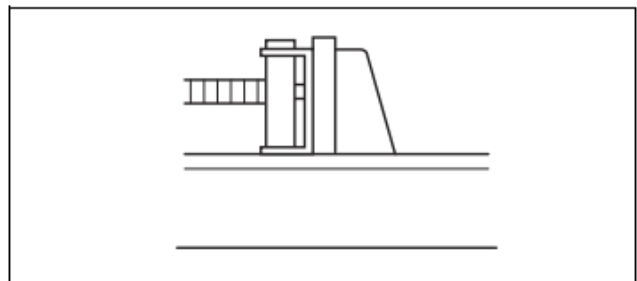


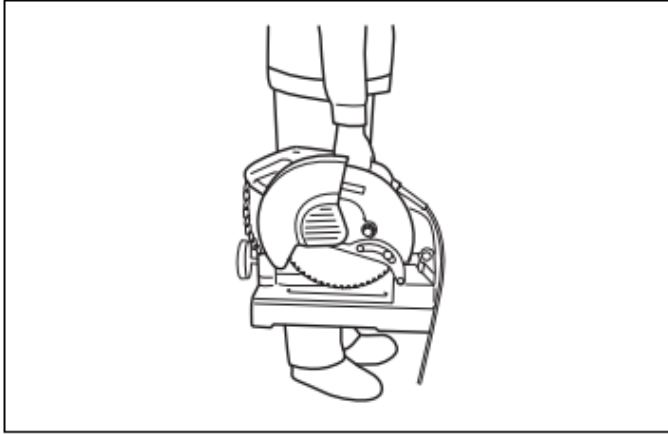
Fig. J



Fig. K

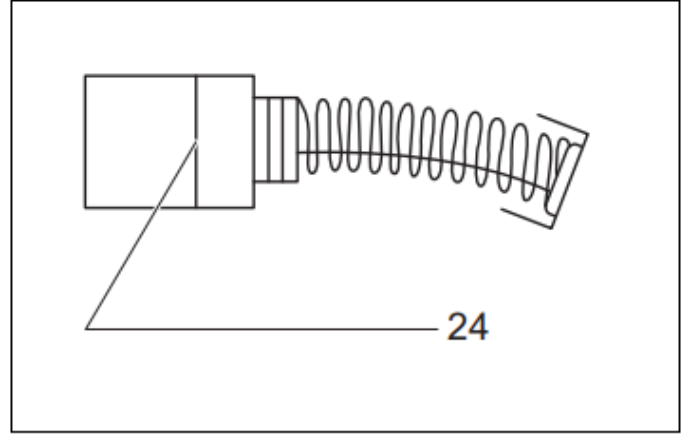
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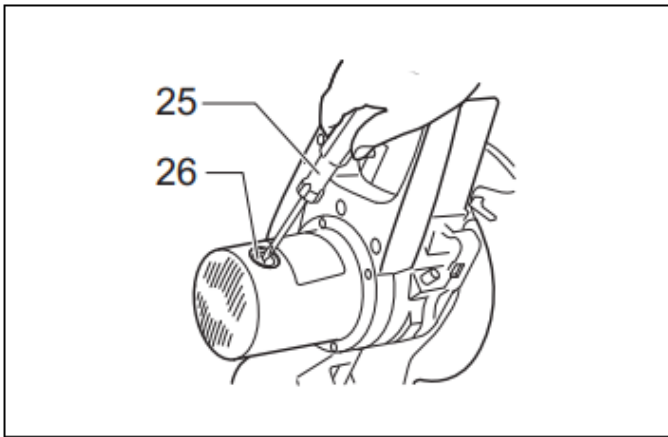
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**ENGLISH** (Original instructions)

**Explanation of general view**

- |                   |                             |                     |
|-------------------|-----------------------------|---------------------|
| 1 Hook            | 10 Wrench holder            | 19 Inner flange     |
| 2 Bolt            | 11 Base                     | 20 Outer flange     |
| 3 Lock-off button | 12 Center cover             | 21 Vise plate       |
| 4 Lever           | 13 Hex bolt                 | 22 Vise nut         |
| 5 Switch trigger  | 14 Socket wrench            | 23 Vise handle      |
| 6 Graduation      | 15 Blade guard              | 24 Limit mark       |
| 7 Indicator       | 16 Shaft lock               | 25 Screwdriver      |
| 8 Vise stop       | 17 Carbide-tipped saw blade | 26 Brush holder cap |
| 9 Dust box        | 18 Spindle                  |                     |

**Symbols**

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



- Read instruction manual.



- DOUBLE INSULATION



- Wear safety glasses.



- Do not place hand or fingers close to the blade.



- To avoid injury from flying debris, keep holding the saw head down, after making cuts, until the blade has come to a complete stop.



- For your safety, remove the chips, small pieces, etc. from the table top before operation.



- Only for EU countries  
 Due to the presence of hazardous components in the equipment, used electrical and electronic equipment may have a negative impact on the environment and human health.  
 Do not dispose of electrical and electronic appliances with household waste!  
 In accordance with the European Directive on waste electrical and electronic equipment and its adaptation to national law, used electrical and electronic equipment should be collected separately and delivered to a separate collection point for municipal waste, operating in accordance with the environmental protection regulations.  
 This is indicated by the symbol of the crossed-out wheeled bin placed on the equipment.

ENE008-1

**SAFETY WARNINGS**

GEA010-2

**Intended use**

The tool is intended for cutting in mild steel and stainless steel with appropriate saw blades.

ENF002-2

**Power supply**

The tool 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 and can, therefore, also be used from sockets without earth wire.

ENF100-1

**For public low-voltage distribution systems of between 220 V and 250 V**

Switching operations of electric apparatus cause voltage fluctuations. The operation of this device under unfavorable mains conditions can have adverse effects to the operation of other equipment. With a mains impedance equal or less than 0.25 Ohms it can be presumed that there will be no negative effects. The mains socket used for this device must be protected with a fuse or protective circuit breaker having slow tripping characteristics.

**General power tool safety warnings**

**⚠ WARNING** Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below 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.

**SAFETY INSTRUCTIONS FOR METAL CUTTING SAWS**

1. **Metal cutting saws are intended to cut ferrous material, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard and other plastic parts.
  2. **Regularly clean the power tool's air vents.** The motor's fan can draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
  3. **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop apron capable of stopping small fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
  4. **Do not operate the metal cutting saw near flammable or combustible materials.** Sparks and/or hot debris during cutting operation could ignite these materials.
  5. **Always use clamps to support the workpiece. Never support the workpiece by hand. Do not use this saw to cut pieces that are too small to be securely clamped.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.
  6. **The workpiece must be stationary and clamped using the vise. Do not feed the workpiece into the blade or cut "freehand" in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.
  7. **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.
  8. **Do not reach behind the vise stop with either hand from either side of the saw blade, to remove scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
  9. **Inspect your workpiece before cutting. If the workpiece is bowed or warped, always make certain that there is no gap between the clamped workpiece, vise and vise stop along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting.
  10. **Do not use the saw until the table is clear of all tools, scraps, etc., except for the workpiece.** Small debris or loose pieces of ferrous or other objects on the table that contact the revolving blade can be thrown with high speed.
  11. **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
  12. **Ensure the power tool is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the power tool becoming unstable.
  13. **Provide adequate support such as blocks, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the metal cutting saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
  14. **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
  15. **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
  16. **Always use the vise and properly support the workpiece considering its shape.** For example, Rods and channels have a tendency to roll or shift while being cut, causing the blade to "bite" and pull the work with your hand into the blade.
  17. **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
  18. **If the workpiece or blade becomes jammed, turn the power tool off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the power tool.
  19. **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
  20. **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.
  21. **The outside diameter of the saw blade must be the specified capacity.** Incorrectly sized accessories cannot be adequately guarded or controlled.
  22. **The arbour size of saw blade and flanges must properly fit the spindle of the power tool.** Saw blade and flanges with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
  23. **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.**
  24. **Do not use the metal cutting saw to cut other than mild steel or stainless steel.**
- Additional instructions**
1. **Never stand on the metal cutting saw.** Tipping over or unintentional contact with the cutting means could cause serious injury.

2. Never leave the power tool running unattended. Turn the power off. Do not leave tool until it comes to a complete stop.
3. Do not operate saw without guards in place. Check blade guard for proper closing before each use. Do not operate saw if blade guard does not move freely and close instantly. Never clamp or tie the blade guard into the open position.
4. Keep hands out of the path of the saw blade. Avoid contact with any coasting blade. It can still cause serious injury.
5. Always secure all moving portions before carrying the power tool.
6. Check the blade carefully for cracks or damage before operation. Replace cracked or damaged blade immediately.
7. Use only flanges specified for this tool.
8. Always use undamaged flanges and fixing bolt that are of correct diameter for the blade. Proper flanges support the blade thus reducing the possibility of blade breakage.
9. Make sure the shaft lock is released before turning the power tool on.
10. Hold the handle firmly. Be aware that the saw moves up or down slightly during start-up and stopping.
11. Make sure the blade is not contacting the workpiece before turning the power tool on.
12. Before using the power tool 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.
13. Stop operation immediately if you notice anything abnormal.
14. Do not attempt to lock the trigger in the "ON" position.
15. Always use accessories recommended in this manual. Use of improper accessories such as abrasive wheels may cause an injury.
16. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

### 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.

### INSTALLATION

#### Positioning the tool

When the tool is shipped from the factory, the handle is locked. Release the handle from the lowered position by lowering it slightly and removing the chain from the hook on the handle. (Fig. 1)

Bolt the tool with two bolts to a level and stable surface using the bolt holes provided in the tool base. This will help prevent tipping and possible injury. (Fig. 2)

### FUNCTIONAL DESCRIPTION

#### **CAUTION:**

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

#### Blade guard (Fig. 3 & 4)

When lowering the handle, the blade guard rises automatically. The guard is spring loaded so it returns to its original position when the cut is completed and the handle is raised. NEVER DEFEAT OR REMOVE THE BLADE GUARD OR THE SPRING WHICH ATTACHES TO THE GUARD.

In the interest of your personal safety, always maintain the blade guard in good condition. Any irregular operation of the blade guard should be corrected immediately. Check to assure spring loaded return action of guard. NEVER USE THE TOOL IF THE BLADE GUARD OR SPRING IS DAMAGED, FAULTY OR REMOVED. DOING SO IS HIGHLY DANGEROUS AND CAN CAUSE SERIOUS PERSONAL INJURY.

If the blade guard is especially dirty, use the supplied socket wrench to loosen the hex bolt holding the center cover. Loosen the hex bolt by turning it counterclockwise and raise the blade guard and center cover. With the blade guard so positioned, cleaning can be more completely and efficiently accomplished. When cleaning is complete, reverse procedure above and secure bolt. Do not remove spring holding blade guard. DO NOT DEFEAT OR REMOVE GUARD.

#### Switch action (Fig. 5)

#### **CAUTION:**

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.
- When not using the tool, remove the lock-off button and store it in a secure place. This prevents unauthorized operation.

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

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

#### Setting for desired cutting angle (Fig. 6)

#### **CAUTION:**

- Always tighten the hex bolt securely after changing the cutting angle.

To change the cutting angle, loosen the lever. Move the vise stop so that the indicator will point to the desired graduation. Then tighten the lever to secure the vise stop.

#### Dust collection (Fig. 7)

#### **CAUTION:**

- Do not touch any part of the dust box except its handle immediately after operation; it may be extremely hot and could burn your skin.

This tool is equipped with the dust box to collect dust and cut chips. When the dust box is full, hold the handle of the dust box and raise it slightly. Then pull the dust box out of the tool base. Empty the dust box of its contents.

## ASSEMBLY

### ⚠ CAUTION:

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

### Socket wrench storage (Fig. 8)

The socket wrench is stored as shown in the figure. When using the socket wrench, pull it out of the wrench holder. After using the socket wrench, return it to the wrench holder.

### Installing or removing saw blade

### ⚠ CAUTION:

- When mounting the blade, make sure that the direction of the arrow on the surface of the blade matches the direction of the arrow on the blade case.
- 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 a personal injury.
- Do not touch the blade immediately after operation; it may be extremely hot and could burn your skin.

To remove the blade, use the socket wrench to loosen the hex bolt holding the center cover by turning it counterclockwise. Raise the blade guard and center cover. (Fig. 9)

Press the shaft lock to lock the spindle and use the socket wrench to loosen the hex bolt by turning counterclockwise. Then remove the hex bolt, outer flange and blade. (Fig. 10)

To install the blade, mount the inner flange, saw blade, outer flange and hex bolt onto the spindle in that order. Tighten the hex bolt by turning clockwise while pressing the shaft lock. Return the blade guard and center cover to its original position. Then tighten the hex bolt clockwise to secure the center cover. Lower the handle to make sure that the blade guard moves properly. (Fig. 11)

### Securing workpieces

### ⚠ CAUTION:

- Always set the vise nut to the right fully when securing the workpiece. Failure to do so may result in insufficient securing of the workpiece. This could cause the workpiece to be ejected or cause damage to the blade.

By turning the vise handle counterclockwise and then flipping the vise nut to the left, the vise is released from the shaft threads and can be moved rapidly in and out. To grip workpieces, push the vise handle until the vise plate contacts the workpiece. Flip the vise nut to the right and then turn the vise handle clockwise to securely retain the workpiece. (Fig. 12)

Long workpieces must be supported by blocks of non-flammable material on either side so that it will be level with the base top. (Fig. 13)

## OPERATION

### Cutting operation

### ⚠ CAUTION:

- Never attempt to cut workpieces less than 2 mm thick except pipe or workpieces which cannot be secured firmly with the vise. The piece cut off may be caught by the blade, causing dangerous scattering of chips and/or damage to the carbide-tips. Possible serious injury may result.

- Do not apply excessive pressure on the handle when cutting. Too much pressure may result in overload of the motor, decreased cutting efficiency and/or damage to the carbide-tips or blade itself.
- Too little pressure on the handle may result in more sparks and premature blade wear.
- Do not touch the blade, workpiece or cutting chips immediately after operation; they may be extremely hot and could burn your skin.
- If the blade stops during operation, makes an odd noise or begins to vibrate, switch off the tool immediately. Replace cracked or damaged blade with a new one.
- Do not cut aluminum, wood, plastics, concrete, tiles, etc.
- Always use 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.
- Do not release the saw head uncontrolled from the fully down position. Uncontrolled saw head may hit you and it will result in personal injury.

Hold the handle firmly. Switch on the tool and wait until the blade attains full speed. Then lower the handle gently to bring the blade close to the workpiece. When the blade makes contact, ease into the cut gently at first, then gradually add pressure as the cutting position steadies. Your pressure on the handle should be adjusted to produce the minimum amount of sparks.

When the cut is completed, switch off the tool and WAIT UNTIL THE BLADE HAS COME TO A COMPLETE STOP before returning the handle to the fully elevated position. If the handle is raised while the blade is still rotating, the piece cut off may be caught by the blade, causing dangerous scattering of chips. When cutting only part of the way into a workpiece, raise the handle while the blade is rotating. Switching off during the cut may cause damage to the carbide-tips as they contact the workpiece.

### Cutting angles (Fig. 14)

Secure the workpiece in the vise as shown in Fig. A, and proceed to cut it. The saw blade life will be shortened if the workpiece is cut as shown in Fig. B.

### ⚠ CAUTION:

- Do NOT cut the workpiece as shown in Fig. C since this may cause it to be ejected from the vise, possibly resulting in injury.

The saw blade is subjected to greater wear when the area A in the Fig. B is cut. Place a wooden block up against the workpiece as shown in the Fig. D so that the saw blade will enter area A at an angle. This will help to extend the saw blade life.

The allowable cutting dimensions are reduced when a wooden block is used. Use a wooden block whose dimensions are equivalent to the maximum allowable cutting dimensions minus the dimensions of the workpiece to be cut. This will further minimize the shortening of the saw blade life.

### Cutting pipes, squares and channels (Fig. 15)

The saw blade is subjected to greater wear when the areas A and B in Figs. F and G are cut. Place a wooden block up against the workpiece as shown in Figs. H and I so that the saw blade will enter areas A and B at an angle. This will help to minimize the shortening of the saw blade life.

The allowable cutting dimensions are reduced when a wooden block is used. Use a wooden block whose dimensions are equivalent to the maximum allowable cutting dimensions minus the dimensions of the workpiece to be cut. This will further minimize the shortening of the saw blade life.

### Cutting rectangles (Fig. 16)

Secure the workpiece in the vise as shown in Fig. J, and proceed to cut it.

#### ⚠ CAUTION:

- Do NOT cut the workpiece as shown in Fig. K since this may cause it to be ejected from the vise, possibly resulting in injury.

### Carrying tool (Fig. 17)

Fold down the tool head to the position where you can attach the chain to the hook on the handle. Grasp the carrying grip when carrying the tool.

## MAINTENANCE

#### ⚠ CAUTION:

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

### Replacing saw blade

Continuing to use a dull and worn blade may cause motor overload and decreased cutting efficiency. Replace with a new blade as soon as it is no longer effective.

### Replacing carbon brushes (Figs. 18 & 19)

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.

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

### After use

After use, wipe off chips and dust adhering to the tool with a cloth or the like. Keep the blade guard clean according to the directions in the previously covered section titled "Blade guard". Lubricate the sliding portions with machine oil to prevent rust.

## 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.

- Carbide-tipped saw blade  
(Refer to our website or contact your local Makita dealer for the correct saw blades to be used for the material to be cut.)
- Socket wrench
- Lock-off button (Switch button)

#### NOTE

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

ENG905-1

### Noise

The typical A-weighted noise level determined according to EN62841-3-10:

Sound pressure level ( $L_{pA}$ ): 107 dB (A)

Sound power level ( $L_{WA}$ ): 115 dB (A)

Uncertainty (K): 3 dB (A)

#### NOTE:

- The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.
- The declared noise emission value(s) can also be used in a preliminary assessment of exposure.

#### ⚠ WARNING:

- **Wear ear protection.**
- **The noise emission during actual use of the power tool can differ from the declared total value(s) depending on the ways in which the tool is used.**
- **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

### Vibration

The continuous vibration total value (tri-axial vector sum) determined according to EN62841-3-10:

Vibration emission ( $a_h$ ): 3.0 m/s<sup>2</sup>

Uncertainty (K): 1.5 m/s<sup>2</sup>

#### NOTE:

- The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.
- The declared vibration total value(s) can also be used in a preliminary assessment of exposure.

#### ⚠ WARNING:

- **The vibration emission during actual use of the power tool can differ from the declared total value(s) depending on the ways in which the tool is used.**
- **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

## DECLARATIONS OF CONFORMITY

### For European countries only

The EU Declaration of Conformity can be accessed from the following URL.



[https://support.makita.biz/doc/doc\\_index.html](https://support.makita.biz/doc/doc_index.html)

### For the UK

The Declaration of conformity is included in Annex A to this instruction manual.