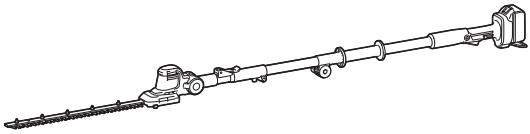
ENGLISH: Original instructions

INSTRUCTION MANUAL

Cordless Pole Hedge Trimmer

DUN461W



Read before use.

SPECIFICATIONS

Model:		DUN461W
Blade length		460 mm
Strokes per minute		3,600 min^{-1}
Cutting blade angle		135° (up 60°, down 75°)
Overall length		1,889 - 2,511 mm
Rated voltage		D.C. 18 V
Net weight	*1	2.7 kg
	*2	3.0 - 3.3 kg

- 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.

*1: Weight without any accessories or battery cartridge(s)
*2: The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combinations, according to EPTA-Procedure 01/2014, are shown in the table.

Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820B / BL1830B / BL1840B / BL1850B / BL1860B
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF / DC18SH / DC18WC

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠***WARNING:*** **Only use the battery cartridges and chargers listed above.** Use of any other battery cartridges and chargers may cause injury and/or fire.

Recommended cord connected power source

Portable power pack	PDC01

- The cord connected power source(s) listed above may not be available depending on your region of residence.
- Before using the cord connected power source, read instruction and cautionary markings on them.

Symbols

The followings show the symbols which may be used for the equipment. Be sure that you understand their meaning before use.

	Read instruction manual.
	Do not expose to moisture.
	Wear a helmet, goggles and ear protection.
	DANGER - Keep hands away from blade.
	Beware of electrical lines, risk of electrical shock.
	Keep distance at least 15 m.
	Do not expose to rain.
 Ni-MH Li-ion	Only for EU countries Due to the presence of hazardous components in the equipment, waste electrical and electronic equipment, accumulators and batteries may have a negative impact on the environment and human health. Do not dispose of electrical and electronic appliances or batteries with household waste! In accordance with the European Directive on waste electrical and electronic equipment and on accumulators and batteries and waste accumulators and batteries, as well as their adaptation to national law, waste electrical equipment, batteries and accumulators should be stored separately and delivered to a separate collection point for municipal waste, operating in accordance with the regulations on environmental protection. This is indicated by the symbol of the crossed-out wheeled bin placed on the equipment.
	Guaranteed sound power level according to EU Outdoor Noise Directive.
	Sound power level according to Australia NSW Noise Control Regulation.

Intended use

The tool is intended for trimming hedges.

Noise

The typical A-weighted noise level determined according to EN62841-4-2:

Sound pressure level		Guaranteed sound power level	Measured sound power level	
L_{pA} (dB(A))	Uncertainty K (dB(A))	L_{wA} (dB(A))	L_{wA} (dB(A))	Uncertainty K (dB(A))
73	3	87	85	2.0

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.

NOTE: The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

⚠***WARNING:*** **Wear ear protection.**

⚠***WARNING:*** **The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

⚠***WARNING:*** **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 vibration total value (tri-axial vector sum) determined according to EN62841-4-2:

Left hand (Front grip)		Right hand (Rear grip)	
a_h (m/s^2)	Uncertainty K (m/s^2)	a_h (m/s^2)	Uncertainty K (m/s^2)
2.5 m/s^2 or less	1.5	2.5 m/s^2 or less	1.5

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.

NOTE: The declared vibration total value(s) may 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 value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

⚠***WARNING:*** **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 Declarations of conformity are included in Annex A to this instruction manual.

SAFETY WARNINGS

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.

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.

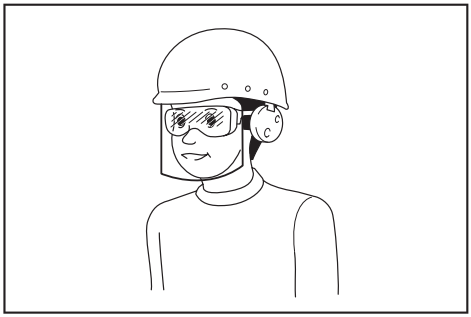
Electrical safety

1. **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.

2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
7. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.** However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal safety

1. **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.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
3. **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.
4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **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.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
9. **Always wear protective goggles to protect your eyes from injury when using power tools. The goggles must comply with ANSI Z87.1 in the USA, EN 166 in Europe, or AS/NZS 1336 in Australia/New Zealand. In Australia/New Zealand, it is legally required to wear a face shield to protect your face, too.**



It is an employer's responsibility to enforce the use of appropriate safety protective equipments by the tool operators and by other persons in the immediate working area.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.
4. **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.
5. **Maintain power tools and accessories. 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.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.

Battery tool use and care

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
5. **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

1. **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.
2. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. **Follow instruction for lubricating and changing accessories.**

Cordless pole hedge trimmer safety warnings

Cordless hedge trimmer safety warnings:

1. **Do not use the hedge trimmer in bad weather conditions, especially when there is a risk of lightning.** This decreases the risk of being struck by lightning.
2. **Keep all power cords and cables away from cutting area.** Power cords or cables may be hidden in hedges or bushes and can be accidentally cut by the blade.
3. **Wear ear protection.** Adequate protective equipment will reduce the risk of hearing loss.
4. **Hold the hedge trimmer by insulated gripping surfaces only, because the blade may contact hidden wiring.** Blades contacting a "live" wire may make exposed metal parts of the hedge trimmer "live" and could give the operator an electric shock.
5. **Keep all parts of the body away from the blade. Do not remove cut material or hold material to be cut when blades are moving.** Blades continue to move after the switch is turned off. A moment of inattention while operating the hedge trimmer may result in serious personal injury.
6. **When clearing jammed material or servicing the hedge trimmer, make sure all power switches are off and the battery pack is removed or disconnected.** Unexpected actuation of the hedge trimmer while clearing jammed material or servicing may result in serious personal injury.
7. **Carry the hedge trimmer by the handle with the blade stopped and taking care not to operate any power switch.** Proper carrying of the hedge trimmer will decrease the risk of inadvertent starting and resultant personal injury from the blades.
8. **When transporting or storing the hedge trimmer, always use the blade cover.** Proper handling of the hedge trimmer will decrease the risk of personal injury from the blades.

Cordless pole hedge trimmer safety warnings:

1. **Always use head protection when operating the pole hedge trimmer overhead.** Falling debris can result in serious personal injury.
2. **Always use two hands when operating the pole hedge trimmer.** Hold the pole hedge trimmer with both hands to avoid loss of control.
3. **To reduce the risk of electrocution, never use the pole hedge trimmer near any electrical power lines.** Contact with or use near power lines may cause serious injury or electric shock resulting in death.

Additional safety warnings

Preparation

1. **THIS HEDGE TRIMMER CAN CAUSE SERIOUS INJURIES. Read the instructions carefully for the correct handling, preparation, maintenance, starting and stopping of the tool. Become familiar with all controls and the proper use of the tool.**
2. **Check the hedges and bushes for foreign objects, such as wire fences or hidden wiring before operating the tool.**
3. **The tool must not be used by children or young persons under 18 years of age.** Young persons over 16 years of age may be exempted from this restriction if they are undergoing training under the supervision of an expert.
4. **In the event of an emergency, switch off the tool and remove the battery cartridge immediately.**
5. **DANGER - Keep hands away from blade.** Contact with blade will result in serious personal injury.
6. **First-time users should have an experienced user show them how to use the tool.**
7. **Before operation, examine the work area for wire fences, stones, or other solid objects. They can damage the blades.**
8. **Use the tool only if you are in good physical condition.** If you are tired, your attention will be reduced. Be especially careful at the end of a working day. Perform all work calmly and carefully. The user is responsible for all damages to third parties.
9. **Before starting work, check to make sure that the tool is in good and safe working order. Ensure guards are fitted properly. The tool must not be used unless fully assembled.**

10. **Avoid dangerous environment. Don't use the tool in damp or wet locations or expose it to rain. Water entering the tool will increase the risk of electric shock.**

Personal protective equipment

1. **Work gloves of stout leather are part of the basic equipment of the tool and must always be worn when working with it. Also wear sturdy shoes with anti-skid soles.**
2. **Wear ear protection such as ear muffs to prevent hearing loss.**
3. **Wear protective goggles, safety helmet and protective gloves to protect yourself from flying debris or falling objects.**
4. **When touching blades or adjusting the blade angle, wear protective gloves.** Blades can cut bare hands severely.

Operation

1. **Always use two hands to operate the tool.** Using one hand could cause loss of control and result in serious personal injury.
2. **While operating the tool, always ensure that the operating position is safe and secure. Overreaching with the tool, particularly from a ladder, is extremely dangerous. Do not work from anything wobbly or infirm.**
3. **Do not simultaneously wear multiple belt harnesses and/or shoulder harnesses when operating the tool.**
4. **During operation, keep bystanders or animals at least 15 m away from the tool. Stop the tool as soon as someone approaches.**
5. **If cutting tool strikes any object or the tool starts making unusual noise or vibration, switch off the tool and remove the battery cartridge immediately and allow the tool to stop. And then take the following steps:**
   - **inspect for damage**
   - **check for, and tighten, any loose parts**
   - **have any damaged parts replaced or repaired with genuine spare parts.**
6. **Only use the tool for its intended purpose. Do not use the tool for any other purpose.**
7. **Switch off the tool and remove the battery cartridge before:**
   - **cleaning or when clearing a blockage,**
   - **checking, carrying out maintenance or working on the tool,**
   - **adjusting the working position of the shear blades,**
   - **leaving the tool unattended.**
8. **Ensure that the tool is correctly located in a designated working position before starting the tool.**
9. **Do not operate the tool with a damaged or excessively worn shear blades.**
10. **Always be aware of your surroundings and stay alert for possible hazards of which you may not be aware due to the noise of the tool.**
11. **Be careful not to accidentally contact a metal fence or other hard objects during operation.** The blade will break and may cause serious injury.
12. **Avoid unintentional starting. Do not carry the tool when the battery cartridge is installed and with finger on the switch. Make sure that the switch is off when installing the battery cartridge.**
13. **Do not grasp the exposed cutting blades or cutting edges when picking up or holding the tool.**
14. **Do not force the tool.** It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
15. **Do not use the tool in the rain or in wet or very damp conditions.** The electric motor is not waterproof.
16. **Hold the tool firmly when using the tool.**
17. **Do not operate the tool at no-load unnecessarily.**
18. **Before checking the shear blades, taking care of faults, or removing foreign objects caught in the shear blades, always switch off the tool and remove the battery cartridge.**
19. **Never point the shear blades to yourself or others.**
20. **If the blades stop moving due to the stuck of foreign objects between the blades during operation, switch off the tool and remove the battery cartridge, and then remove the foreign objects using tools such as pliers.** Removing the foreign objects by hand may cause an injury for the reason that the blades may move in reaction to removing the foreign objects.
21. **When attaching or removing the blade cover, be careful not to injure your hands.**

Electrical and battery safety

1. **Avoid dangerous environment. Don't use the tool in damp or wet locations or expose it to rain.** Water entering the tool will increase the risk of electric shock.
2. **Do not dispose of the battery(ies) in a fire.** The cell may explode. Check with local codes for possible special disposal instructions.
3. **Do not open or mutilate the battery(ies).** Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
4. **Do not charge battery in rain, or in wet locations.**
5. **Do not charge the battery outdoors.**
6. **Do not handle charger, including charger plug, and charger terminals with wet hands.**

Maintenance and storage

1. **When the tool is stopped for servicing, inspection or storage, switch off the tool and remove the battery cartridge, and make sure all moving parts have come to a stop. Allow the tool to cool before making any inspections, adjustment, etc.**
2. **Always allow the tool to cool down before storing.**
3. **When not in use, attach the blade cover to the tool and store the tool indoors in dry, and high locked-up place, out of reach of children.**
4. **Maintain the tool with care. Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Keep grips dry, clean, and free from oil and grease.**

5. **Check damaged parts. Before further use of the tool, any part which 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 condition that may affect its operation.** A guard or other part that is damaged should be properly repaired or replaced by your authorized service center.
6. **Use genuine spare parts only.**
7. **When moving the tool to another location, including during work, always remove the battery cartridge and put the blade cover on the shear blades. Never carry or transport the tool with the blades running. Never grasp the blades with your hands.**
8. **Clean the tool and especially the shear blades after use, and before putting the tool into storage for extended periods. Lightly oil the shear blades and put on the blade cover.**
9. **Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.**
10. **Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.**
11. **Do not charge battery in rain, or in wet locations.**

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.

Important safety instructions for battery cartridge

1. **Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.**
2. **Do not disassemble or tamper with the battery cartridge.** It may result in a fire, excessive heat, or explosion.
3. **If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.**
4. **If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.**
5. **Do not short the battery cartridge:**
   (1) **Do not touch the terminals with any conductive material.**
   (2) **Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.**
   (3) **Do not expose battery cartridge to water or rain.**

   A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. **Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge.** Such conduct may result in a fire, excessive heat, or explosion.
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**
    For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.
    For preparation of the item being shipped, consulting an expert for hazardous material is required.
    Please also observe possibly more detailed national regulations.
    Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.
11. **When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.**
12. **Use the batteries only with the products specified by Makita.** Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
13. **If the tool is not used for a long period of time, the battery must be removed from the tool.**
14. **During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.**
15. **Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.**
16. **Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge.** It may cause heating, catching fire, burst and malfunction of the tool or battery cartridge, resulting in burns or personal injury.
17. **Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines.** It may result in a malfunction or breakdown of the tool or battery cartridge.
18. **Keep the battery away from children.**

SAVE THESE INSTRUCTIONS.

⚠*CAUTION:* Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with room temperature at 10 °C - 40 °C (50 °F - 104 °F). Let a hot battery cartridge cool down before charging it.**
4. **When not using the battery cartridge, remove it from the tool or the charger.**
5. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

PARTS DESCRIPTION

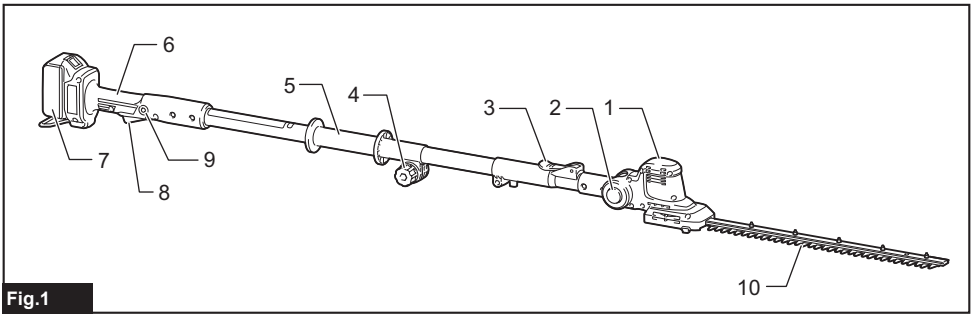


Fig.1

1	Head	2	Angle adjustment button	3	Lock-lever	4	Thumb nut
5	Front grip	6	Rear grip	7	Battery cartridge	8	Switch trigger
9	Lock-off button	10	Shear blades	-	-	-	-

FUNCTIONAL DESCRIPTION

⚠***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.**

Installing or removing battery cartridge

⚠***CAUTION:*** **Always switch off the tool before installing or removing of the battery cartridge.**

⚠***CAUTION:*** **Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.** Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

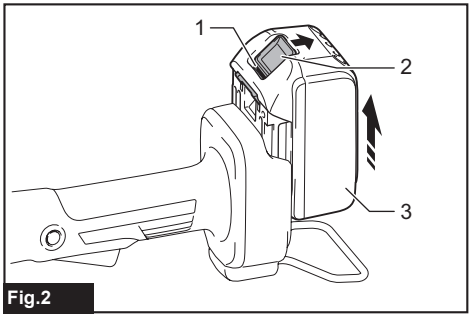


Fig.2

► **1.** Red indicator **2.** Button **3.** Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator as shown in the figure, it is not locked completely.

⚠***CAUTION:*** **Always install the battery cartridge fully until the red indicator cannot be seen.** If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

⚠***CAUTION:*** **Do not install the battery cartridge forcibly.** If the cartridge does not slide in easily, it is not being inserted correctly.

Indicating the remaining battery capacity

Only for battery cartridges with the indicator

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

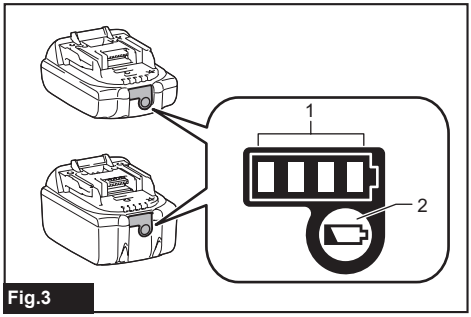


Fig.3

► **1.** Indicator lamps **2.** Check button

Indicator lamps			Remaining capacity
Lighted	Off	Blinking	
■ ■ ■ ■			75% to 100%
■ ■ ■ □			50% to 75%
■ ■ □ □			25% to 50%
■ □ □ □			0% to 25%
◪ □ □ □			Charge the battery.
■ ■ □ □ ↑ ↓ □ □ ■ ■			The battery may have malfunctioned.

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

NOTE: The first (far left) indicator lamp will blink when the battery protection system works.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload protection

When the tool or battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat protection

When the tool or battery is overheated, the tool stops automatically. In this case, let the tool and battery cool before turning the tool on again.

Overdischarge protection

When the battery capacity is not enough, the tool stops automatically. In this case, remove the battery from the tool and charge the battery.

Switch action

⚠***WARNING:*** **Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.**

⚠***WARNING:*** **For your safety, this tool is equipped with the lock-off button which prevents the tool from unintended starting. Never use the tool if it starts when you pull the switch trigger without pressing the lock-off button.** Ask your local Makita Service Center for repairs.

⚠***WARNING:*** **Never disable the lock function or tape down the lock-off button.**

NOTICE: **Do not pull the switch trigger forcibly without pressing the lock-off button.** The switch may break.

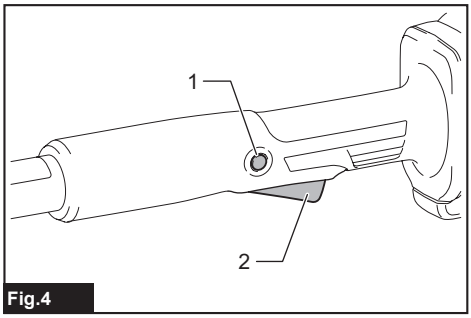


Fig.4

► **1.** Lock-off button **2.** Switch trigger

To prevent the switch trigger from being accidentally pulled, a lock-off button is provided.
To start the tool, press the lock-off button and pull the switch trigger. Release the switch trigger to stop. The lock-off button can be pressed from either the right or left side.

Adjusting the cutting angle

⚠*CAUTION:* Always be sure that the tool is switched off before folding or unfolding the head.

⚠*CAUTION:* When folding the head for carrying the tool or after using the tool, be sure to attach the blade cover before folding the head.

⚠*CAUTION:* When folding the head, be careful not to pinch your fingers between the head and the tool body.

The angle of the head can be adjusted in 10 steps. To change the angle of the head, follow the steps below.

1. Hold the head and the tool body as shown in the figure.

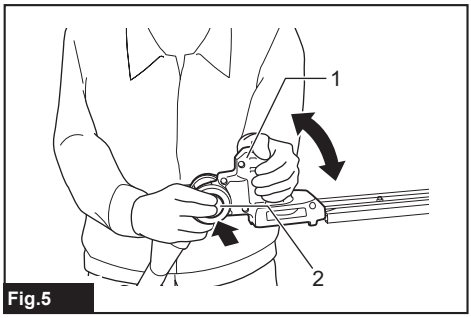


Fig.5

► **1.** Head **2.** Angle adjustment button

2. Adjust the angle of the head while holding down the angle adjustment button, and then release the angle adjustment button.

3. Move the head slightly until it is locked with a click.

NOTE: Make sure that the head is securely locked before operating the tool.

Adjusting the pipe length

⚠*CAUTION:* Always be sure that the tool is switched off before adjusting the pipe length.

⚠*CAUTION:* When adjusting the pipe length, be sure to attach the blade cover before adjusting the pipe length.

⚠*CAUTION:* When adjusting the pipe length, be careful not to pinch your fingers.

⚠*CAUTION:* Make sure that the lock-lever is locked securely.

⚠*CAUTION:* When adjusting the pipe length, lay the tool on its side. If you stand the tool upright, the head will come down suddenly, which may cause an injury.

Loosen the lock-lever, then adjust the length of the pipe, and then lock the lock-lever.

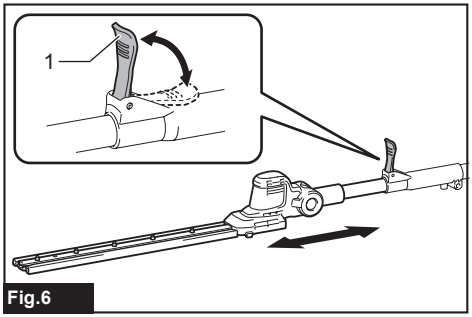


Fig.6

► **1.** Lock-lever

Adjusting the front grip position

⚠*CAUTION:* Always be sure that the tool is switched off before adjusting the position of the front grip.

⚠*CAUTION:* When adjusting the position of the front grip, be careful not to pinch your fingers.

⚠*CAUTION:* Make sure that the thumb nut is tightened securely.

⚠*CAUTION:* Do not move the front grip beyond the arrow mark.

To adjust the position of the front grip, loosen the thumb nut by turning it counterclockwise, then adjust the position of the front grip, and then tighten the thumb nut by turning it clockwise.

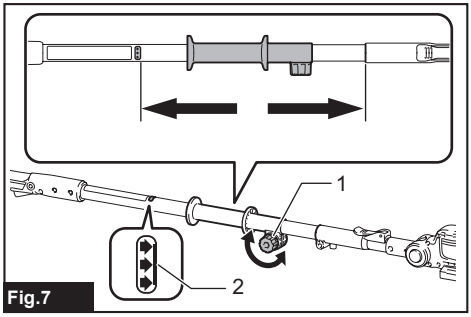


Fig.7

► **1.** Thumb nut **2.** Arrow mark

ASSEMBLY

⚠*CAUTION:* Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

⚠*CAUTION:* When replacing the shear blades, always wear gloves so that your hands do not directly contact the blades.

Installing or removing the shear blades

⚠*CAUTION:* Attach the blade cover before removing or installing the shear blades.

***NOTICE:* When replacing the shear blades, do not wipe off grease from the gear and crank.**

NOTE: Before installing or removing the shear blades, unfold the head of the tool so that the head is straight to the tool body.

1. Place the tool upside down.

2. Remove 4 screws with a screwdriver and remove the shear blades.

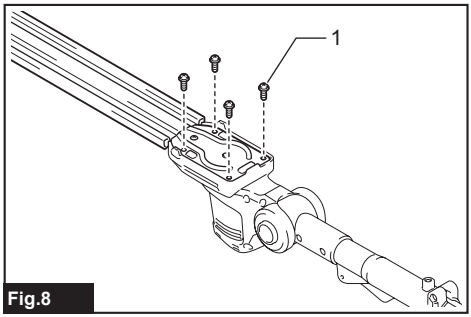


Fig.8

► **1.** Screw

3. Remove the crank from the shear blades.

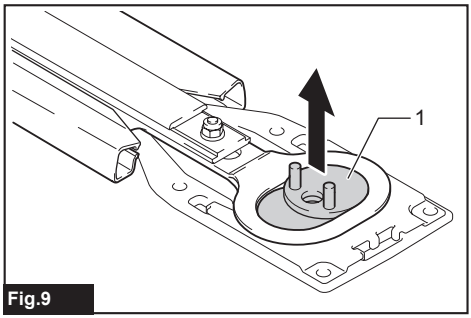


Fig.9

► **1.** Crank

NOTE: The crank may remain in the tool.

4. Prepare the crank and new shear blades.

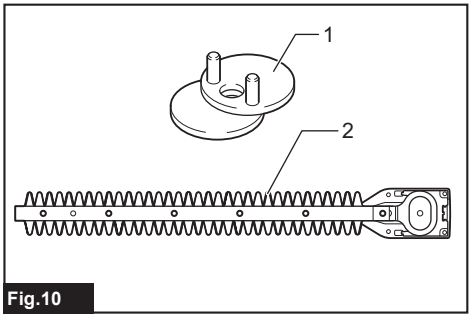


Fig.10

► **1.** Crank **2.** Shear blades

5. Remove the blade cover, and then attach it to the new shear blades.

6. Apply a small amount of grease to the periphery of the crank. Attach the washer, gear, and the crank to the pin in order.

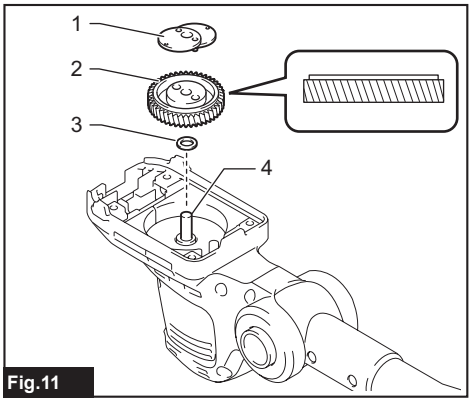


Fig.11

► **1.** Crank **2.** Gear **3.** Washer **4.** Pin

7. Adjust the crank so that the 2 small holes on the crank are lined up on the alignment line as shown in the figure.

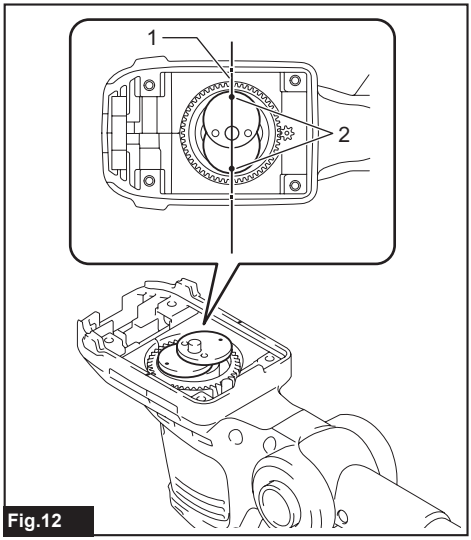


Fig.12

► **1.** Alignment line **2.** Small hole

8. Slide the shear blades so that the hole on the guide plate is positioned at the center of the rings of blades.

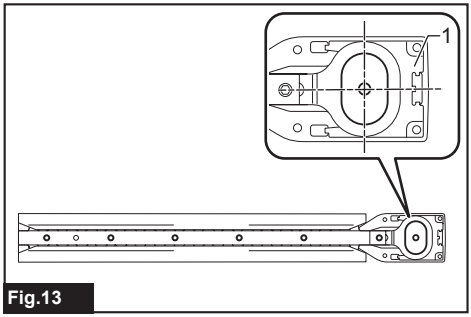


Fig.13

► **1.** Guide plate

9. Insert the screw removed in step 2 into the hole on the shear blades through the hole on the blade cover.

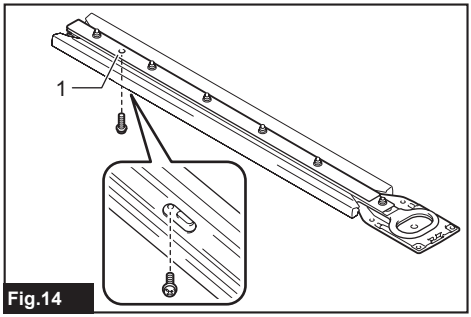


Fig.14

► **1.** Hole

10. Attach the shear blades to the tool, and then tighten 3 screws with the screwdriver.

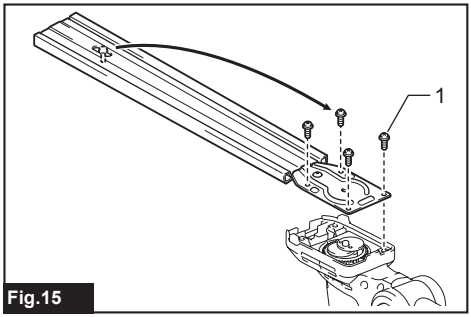


Fig.15

► **1.** Screw

11. Remove the screw inserted into the hole on the shear blades in step 9, and then tighten it to fix the shear blades.

NOTICE: **If the shear blades do not operate properly, the blades are not engaging the crank properly. Remove the blades and install them again.**

NOTICE: **If the parts other than the shear blades such as the crank are worn out, ask Makita Authorized Service Centers for parts replacement or repairs.**

Installing or removing the chip receiver

Optional accessory

⚠***CAUTION:*** **When installing or removing the chip receiver, always wear gloves so that your hands do not directly contact the shear blades.**

⚠***CAUTION:*** **Attach the blade cover before installing or removing the chip receiver.**

The chip receiver gathers discarded leaves and makes clean-up afterward much easier. It can be installed on either side of the tool.

1. Align the holes on the chip receiver with the nuts on the shear blades.

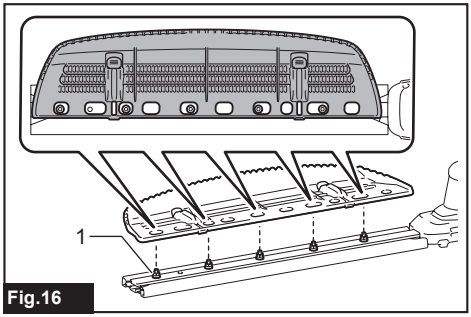


Fig.16

► **1.** Nut

2. Hook the claws of the chip receiver to the groove on the shear blades.

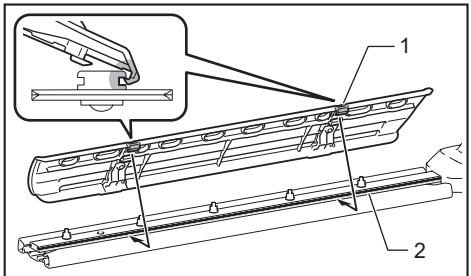


Fig.17

► **1.** Claw **2.** Groove

3. Press the levers on the chip receiver, and then hook the claws on the other side to the groove on the shear blades.

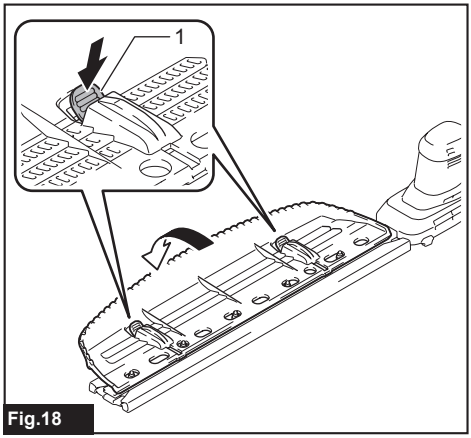


Fig.18

► **1.** Lever

To remove the chip receiver, press the levers to release the claws.

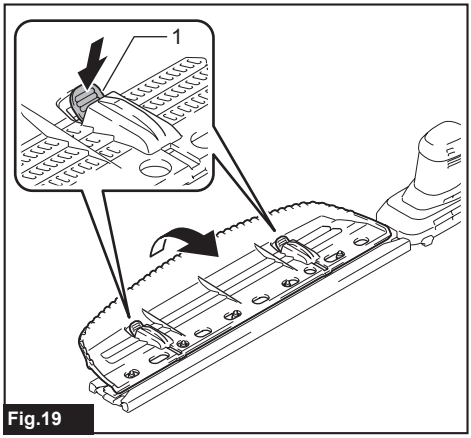


Fig.19

► **1.** Lever

***NOTICE:* Never try to remove the chip receiver by an excessive force with its claws locked in the grooves of the shear blades.**

OPERATION

Operating the tool

⚠***WARNING:* Do not use the tool near any electrical power lines.** Contacting with power lines or using the tool near power lines may cause serious injury or electric shock resulting in death.

⚠***WARNING:* Keep hands away from shear blades.**

⚠***WARNING:* Be extremely careful to maintain control of the tool at all times. Do not allow the tool to be deflected toward you or anyone in the work vicinity.** Failure to keep control of the tool could result in serious injury to the bystander and the operator.

⚠***CAUTION:* Avoid operating the tool in very hot weather as much as practicable. When operating the tool, be careful of your physical condition.**

⚠***CAUTION:* Be careful not to accidentally contact a metal fence or other hard objects while trimming.** The shear blades may break and cause an injury.

⚠***CAUTION:* Be careful not to allow the shear blades to contact the ground.** The tool may recoil and cause an injury.

⚠***CAUTION:* Overreaching with a hedge trimmer, particularly from a ladder, is extremely dangerous.** Do not work while standing on anything wobbly or infirm.

***NOTICE:* Do not attempt to cut branches thicker than 10 mm in diameter with the tool.** Cut branches to 10 cm lower than the cutting height using branch cutters before using the tool.

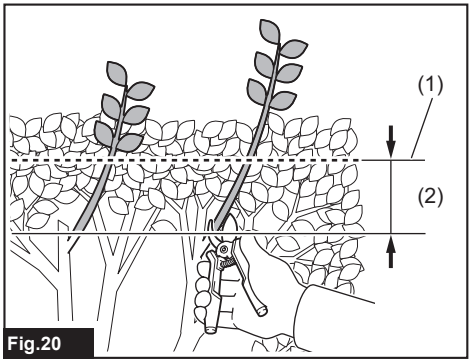


Fig.20

► **(1)** Cutting height **(2)** 10 cm

NOTICE: **Do not cut down dead trees or similar hard objects.** Doing so may damage the tool.

NOTICE: **Do not trim the grass or weeds while using the shear blades.** The shear blades may become tangled in the grass or weeds.

Hold the tool with both hands by holding the front grip and the rear grip.

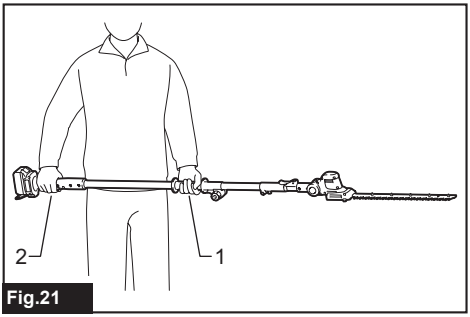


Fig.21

► **1.** Front grip **2.** Rear grip

Pull the switch trigger while pressing the lock-off button, and then move the tool forward.

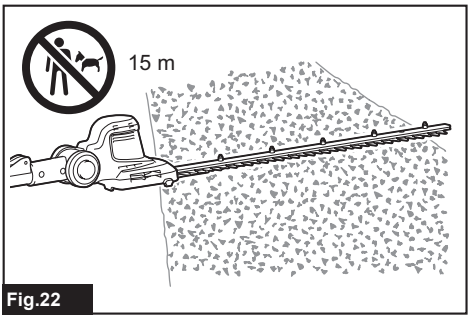


Fig.22

For basic operation, tilt the shear blades toward the trimming direction and move it calmly and slowly at the speed rate of 3 to 4 seconds per meter.

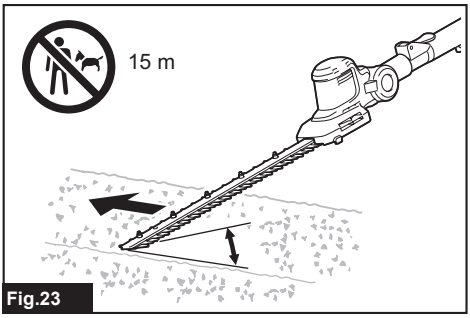


Fig.23

To cut a hedge side evenly, cut from the bottom to top.

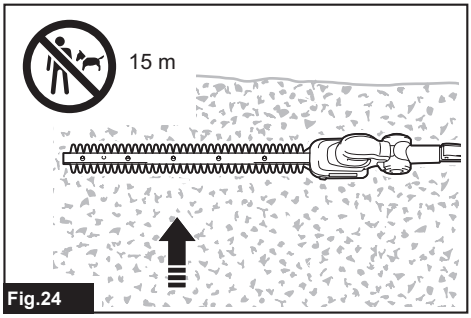


Fig.24

When trimming to make a round shape (trimming boxwood or rhododendron, etc.), trim from the root to the top for a beautiful finish.

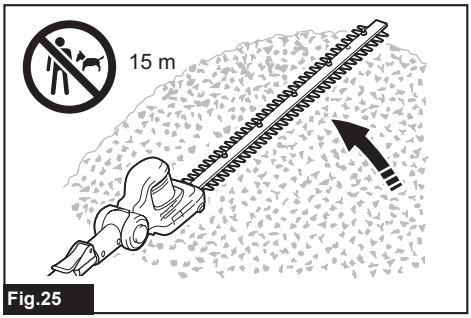


Fig.25

If the chip receiver is attached to the shear blades, it gathers discarded leaves and makes clean-up afterward much easier.

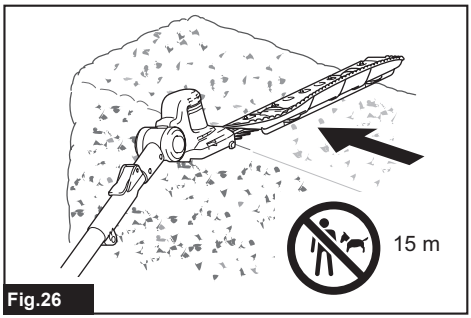


Fig.26

MAINTENANCE

⚠***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.**

⚠***CAUTION:*** **When inspecting or maintaining the tool, always put the tool down.** Assembling or adjusting the tool in an upright position may result in serious injury.

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.

Cleaning the tool

Clean the tool by wiping off dust with a dry cloth or one dipped in soapy water and wrung out.

NOTICE: **Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.**

Shear blade maintenance

Before the operation or once per hour during operation, apply low-viscosity oil (machine oil, or spray-type lubricating oil) to the shear blades.

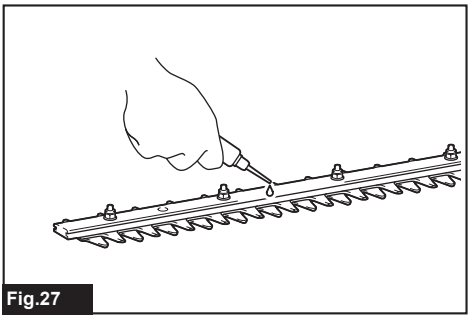


Fig.27

After operation, remove dust from both sides of the shear blades with a wired brush, wipe it off with a cloth and then apply low-viscosity oil (machine oil, or spray-type lubricating oil) to the shear blades.

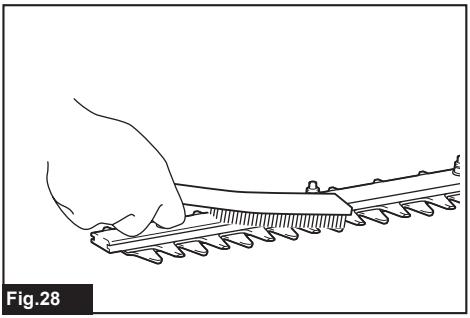


Fig.28

NOTICE: **Do not wash the shear blades in water.** Doing so may cause rust or damage to the tool.

NOTICE: **Dirt and corrosion cause excessive blade friction and shorten the operating time per battery charge.**

Storage

Attach the blade cover to the shear blades so that the blades are not exposed. Store the tool out of the reach of children. Store the tool in a place not exposed to moisture or rain.

TROUBLESHOOTING

Before asking for repairs, conduct your own inspection first. If you find a problem that is not explained in the manual, do not attempt to dismantle the tool. Instead, ask Makita Authorized Service Centers, always using Makita replacement parts for repairs.

State of abnormality	Probable cause (malfunction)	Remedy
Motor does not run.	Battery cartridge is not installed.	Install the battery cartridge.
	Battery problem (under voltage)	Recharge the battery. If recharging is not effective, replace battery.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Motor stops running after a little use, or motor does not run.	Battery's charge level is low.	Recharge the battery. If recharging is not effective, replace battery.
	Overheating.	Stop using of tool to allow it to cool down.
Tool does not reach maximum RPM.	Battery is installed improperly.	Install the battery cartridge as described in this manual.
	Battery power is dropping.	Recharge the battery. If recharging is not effective, replace battery.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Shear blades do not move: ⇨ stop the machine immediately!	Inappropriate angle of shear blades.	Make sure that the head is properly fixed in the operational angle.
	Foreign objects are caught between the shear blades.	Switch off the tool and remove the battery cartridge, and then remove the foreign objects using tools such as pliers.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Abnormal vibration: ⇨ stop the machine immediately!	Shear blades are broken, bent or worn.	Replace the shear blades.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Shear blades and motor cannot stop: ⇨ Remove the battery immediately!	Electric malfunction.	Remove the battery and ask your local authorized service center for repair.

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.

- Shear blade assembly
- Chip receiver
- Grease vessel
- Makita genuine battery and charger

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

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