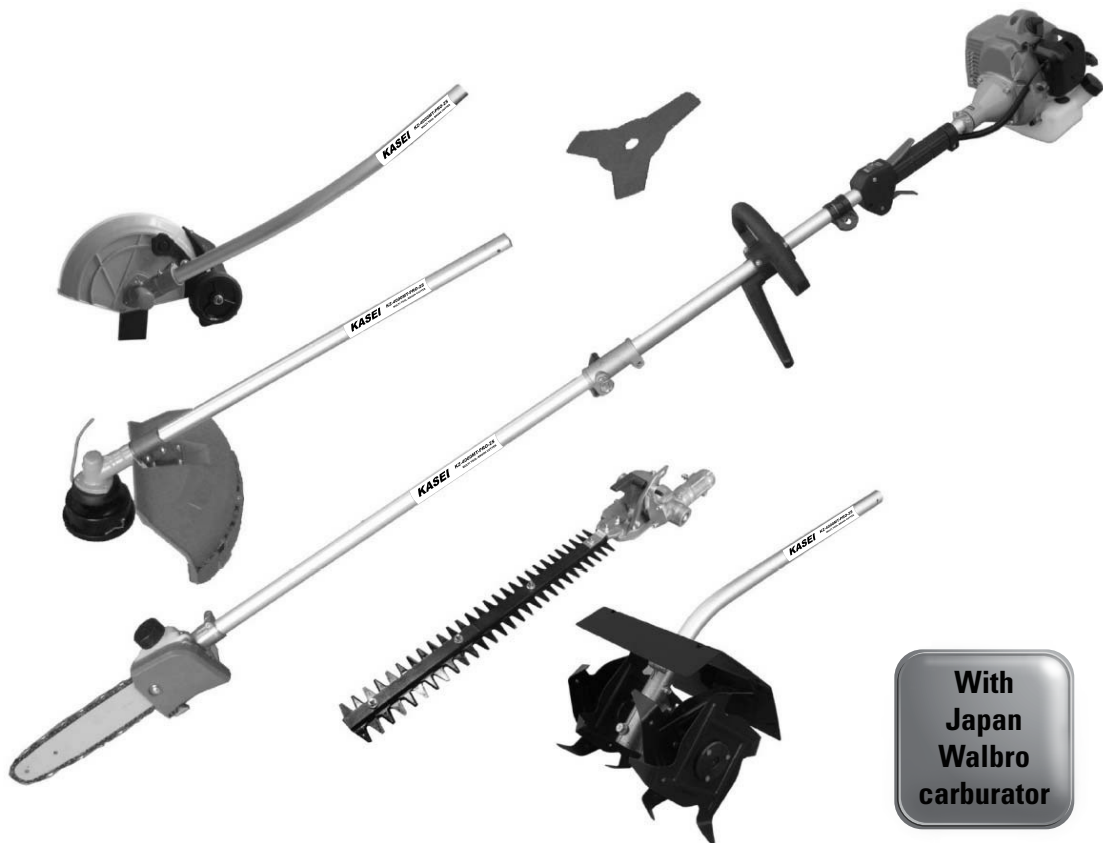


# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

**MODEL: KZ-4000MT-PRO-2S**



**With  
Japan  
Walbro  
carburetor**



**Original Instructions**

#### **CAUTION:**

Thank you for purchasing a product. Before using our pole saw, please read this manual carefully to understand the proper use of your unit.



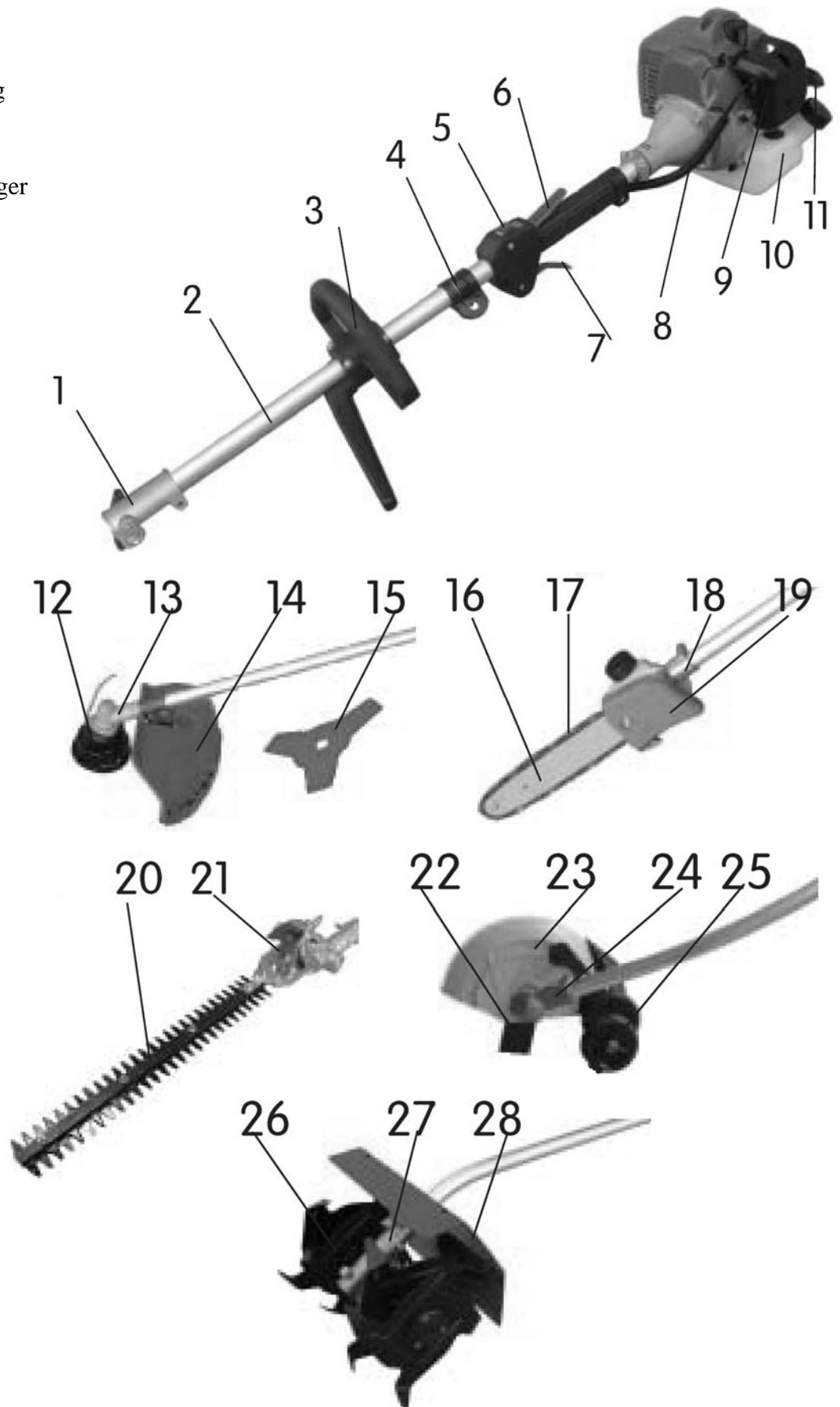
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## PARTS LOCATION

1. Knob bolt
2. Drive shaft housing
3. Loop handle
4. Shoulder strap hanger
5. Ignition switch
6. Throttle cable
7. Throttle lever
8. Throttle cable
9. Air cleaner cover
10. Fuel tank
11. Starter knob
12. Cutting line head
13. Gear case
14. Debris guard
15. Blade
16. Guide bar
17. saw chain
18. Gear case
19. chain cover
20. Blade
21. Gear case
22. Blade
23. Blade guard
24. Gear case
25. wheel
26. Blade
27. Gear case
28. Blade guard





# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

**MODEL: KZ-4000MT-PRO-2S**

**(PART 1: LONG REACH TRIMMER)**



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## INTRODUCTION

Thank you for your purchasing the trimmer of our Company. The present manual explains how to handle the trimmer well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task safely. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.





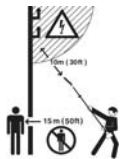











## TECHNICAL DATA

	<b>Model</b>	<b>KZ-4000MT-PRO-2S (PART 1: LONG REACH TRIMMER)</b>	
<b>Main unit</b>	Remote type	Spiral bevel gear; Drive shaft	
	Maximum speed of gear shaft/engine speed (/min)	4550/ 9100	
	Idle speed(/min)	2500-3000	
	Reduction ratio	1:2	
	Type of handle	Double grip	
	Weight when dry(kg)	8.7	
	Cutting Attachment	Type of cut	Cutting blades
		Number of teeth	28
		Tooth pitch	30 mm
		Useful cutting width	390 mm
Maximum cutting diameter		5 mm	
<b>Engine</b>	Name of engine	<b>HP40</b>	
	Type	Air-cooled; 2 cycle; vertical piston valve; gasoline engine	
	Displacement(mL)	39.8	
	Maximum output(kW//min)	1.25/7000	
	Fuel tank capacity(L)	1	
	Dry weight(kg)	4.2	
	Carburetor	Diaphragm-type	
	Ignition	Non-contact electronic ignition	
	Method of starting	Recoil type	
	Fuel used	Gasoline mixed with lubricating oil (ratio of 30:1)	

**Technical Data subject to changed without notice.**


## SYMBOLE


Some of the following symbols may be used on this tool. Please study them and understand their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.


SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates danger, warning or caution. It means attention! Your safety is involved.
	Read The Operator' Manual	Read the operation manual and follow all warnings and safety instructions.
	Cutting Tool	Do not touch the tool without first switching off the engine.
	Keep bystanders away	Keep all bystanders at least 15m (50 ft) away. Keep the pole pruner a sufficient distance away from electrical power lines.
	Keep high-voltage power lines away	Always keep a distance of at least 10 m between the machine and high-voltage power lines and/or any objects that are touching them.
	Boots	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty gloves.
	No Smoking	Do not smoke when mixing fuel or filling fuel tank.
	Petrol	Use unleaded petrol intended for motor vehicle use with an octane rating of 91([R+M]/2) or higher.
	Oil	Use 2-stroke oil for air cooled engines.
	Mix Petrol and Oil	Mix the fuel mix thoroughly and also each time before refuelling.
		Fully press and release the prime bulb 5 times.
		All relevant directives, which require the CE-marking and which are applicable for the product, are fulfilled.
		Wear eye, hearing and head protection when operating this equipment.
		To reduce the risk of injury or damage, avoid contact with any hot surface.
		Guaranteed sound power level

## **Note the following before starting:**

Please read the operator's manual carefully.

 **WARNING!** Long-term exposure to noise can result in permanent hearing impairment. So always use approved hearing protection.

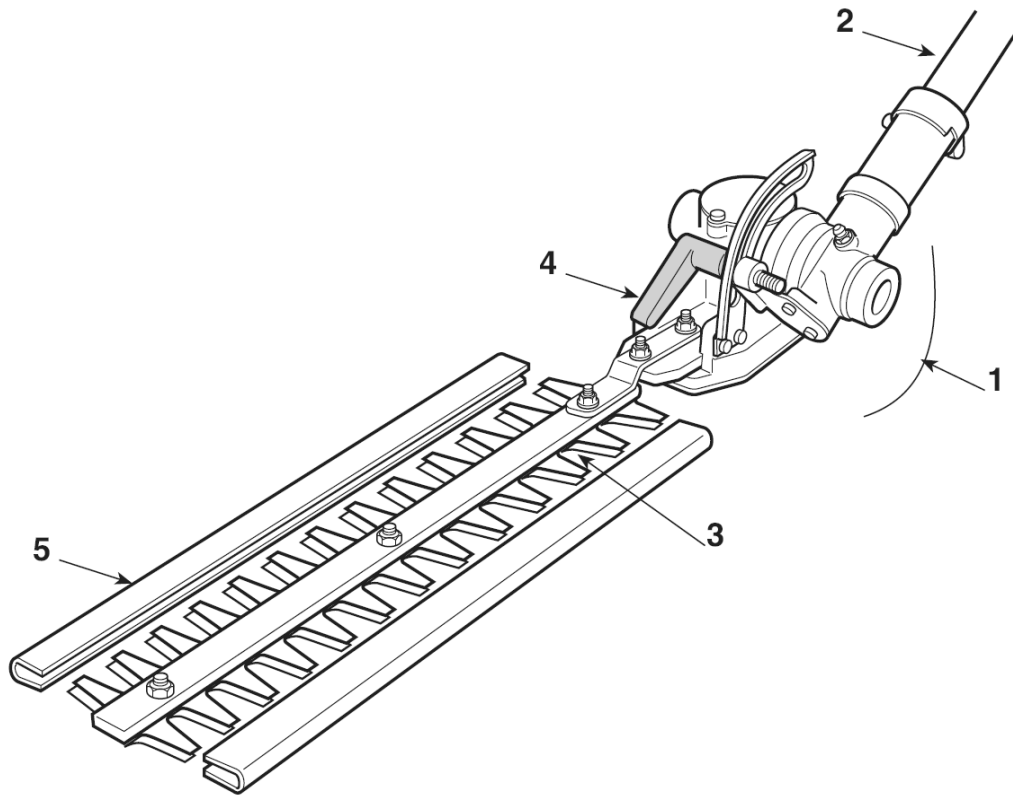
 **WARNING!** Under no circumstances may the design of the machine be modified without the permission of the manufacturer. Only use spare parts which are identical with the original one to replace damaged accessories. Find your nearest dealer for spare parts. Non-authorized modifications and/or accessories can result in serious personal injury or the death of the operator or others. Your warranty may not cover damage or liability caused by the use of non-authorized accessories or replacement parts.

 **WARNING!** Incorrect or careless use of a trimmer can turn it into a dangerous tool that can cause serious or even fatal injury. It is extremely important that you read and understand the contents of this operator's manual.

# IDENTIFICATION OF MAIN COMPONENTS

## MAIN COMPONENTS

1. Gear case
2. Connecting rod
3. Cutting device (blade)
4. Release lever (to regulate the inclination)
5. Blade protection



# GENERAL SAFETY PRECAUTIONS

## Important

The machine is only designed for cutting branches and twigs.

Never use a machine that has been modified in any way from its original specification.

Never use the machine if you are tired, if you have drunk alcohol, or if you are taking medication that could affect your vision, your judgement or your co-ordination.

Wear personal protective equipment. See instructions under the heading "Personal protective equipment".


Never use the machine in extreme weather conditions such as severe cold, very hot and/or humid climates.


Never use a machine that is faulty. Carry out the checks, maintenance and service instructions described in this manual. Some maintenance and service measures must be carried out by trained and qualified specialists.


See instructions under the heading Maintenance.


All covers and guards must be fitted before starting.

Ensure that the spark plug cap and ignition lead are undamaged to avoid the risk of electric shock.

 **WARNING!** This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this machine.

 **WARNING!** Running an engine in a confined or badly ventilated area can result in death due to asphyxiation or carbon monoxide poisoning.

 **WARNING!** Never allow children to use or be in the vicinity of the machine. As the machine can be started by low speed and force on the starter handle, even small children under some circumstances can produce the force necessary to start the machine. This can mean a risk of serious personal injury. Therefore remove the spark plug cap when the machine is not under close supervision.

 **WARNING!** Faulty blades can increase the risk of accidents.

## Personal protective equipment

### Important

Incorrect or careless use of a trimmer can turn it into a dangerous tool that can cause serious or even fatal injury. It is extremely important that you read and understand the contents of this operator's manual.

You must use approved personal protective equipment whenever you use the machine. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your dealer for help in choosing the right equipment.



**WARNING!** Listen out for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as soon as the engine stops.

#### HEARING PROTECTION

Wear hearing protection that provides adequate noise reduction.

#### EYE PROTECTION

Always wear approved eye protection. If you use a visor then you must also wear approved protective goggles.

#### GLOVES

Gloves should be worn when necessary, e.g., when fitting cutting attachments.

#### BOOTS

Wear sturdy, non-slip boots or shoes.



# GENERAL SAFETY PRECAUTIONS

## CLOTHING

Wear clothes made of a strong fabric and avoid loose clothing that can catch on twigs and branches. Always wear heavy, long pants. Do not wear jewellery, shorts sandals or go barefoot. Secure hair so it is above shoulder level.

## FIRST AID KIT

Always have a first aid kit nearby.

## Machine's safety equipment

This section describes the machine's safety equipment, its purpose, and how checks and maintenance should be carried out to ensure that it operates correctly.

The life span of the machine can be reduced and the risk of accidents can increase if machine maintenance is not carried out correctly and if service and/or repairs are not carried out professionally. If you need further information please contact your nearest servicing dealer.

## IMPORTANT!

All servicing and repair work on the machine requires special training. This is especially true of the machine's safety equipment. If your machine fails any of the checks described below you must contact your service agent. When you buy any of our products we guarantee the availability of professional repairs and service. If the retailer who sells your machine is not a servicing dealer, ask him for the address of your nearest service agent.

**⚠ WARNING!** Never use a machine with faulty safety equipment. The machine's safety equipment must be checked and maintained as described in this section. If your machine fails any of these checks contact your service agent to get it repaired.

## Adjusting the harness

You should always use the harness with the machine to give maximum control over the machine and reduce the risk of fatigue in your arms and back.

1. Put on the harness.
2. Hook the machine onto the harness support hook.
3. Adjust the length of the harness so that the support hook is roughly level with your right hip.



# FUEL HANDLING

## Fuel safety


Never start the machine:

- 1.If you have spilled fuel on it. Wipe off the spillage and allow remaining fuel to evaporate.
- 2.If you have spilled fuel on yourself or your clothes, change your clothes. Wash any part of your body that has come in contact with fuel. Use soap and water.
- 3.If the machine is leaking fuel. Check regularly for leaks from the fuel cap and fuel lines.

## Transport and storage


- Store and transport the machine and fuel so that there is no risk of any leakage or fumes coming into contact with sparks or naked flames, for example, from electrical machinery, electric motors, electrical relays/switches or boilers.
- When storing and transporting fuel always use approved containers intended for this purpose.
- When storing the machine for long periods the fuel tank must be emptied. Contact your local gas station to find out where to dispose of excess fuel.
- Ensure the machine is cleaned and that a complete service is carried out before long-term storage.
- The transport guard must always be fitted to the cutting attachment when the machine is being transported or in storage.
- Secure the machine during transport.

In order to prevent unintentional starting of the engine, the spark plug cap must always be removed during long-term storage, if the machine is not under close supervision and when performing all service measures.

 **WARNING!** Take care when handling fuel. Bear in mind the risk of fire, explosion and inhaling fumes.

## Fuel

**CAUTION!** The machine is equipped with a two-stroke engine and must always be run using a mixture of gasoline and two-stroke engine oil. It is important to accurately measure the amount of oil to be mixed to ensure that the correct mixture is obtained. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.

 **WARNING!** Fuel and fuel fumes are highly inflammable and can cause serious injury when inhaled or allowed to come in contact with the skin. For this reason observe caution when handling fuel and make sure there is adequate ventilation.

## Gasoline

**CAUTION!** Always use a quality gasoline/oil mixture with an octane rating of at least 91 octane ((RON+MON)/2). If your machine is equipped with a catalytic converter (see chapter on Technical data) always use a good quality unleaded gasoline/oil mixture. Leaded gasoline will destroy the catalytic converter.

## Mixing

- Always mix the gasoline and oil in a clean container intended for fuel.
- Always start by filling half the amount of the gasoline to be used. Then add the entire amount of oil. Mix (shake) the fuel mixture. Add the remaining amount of gasoline.

● Mix (shake) the fuel mixture thoroughly before filling the machine's fuel tank.

Do not mix more than one month's supply of fuel at a time.

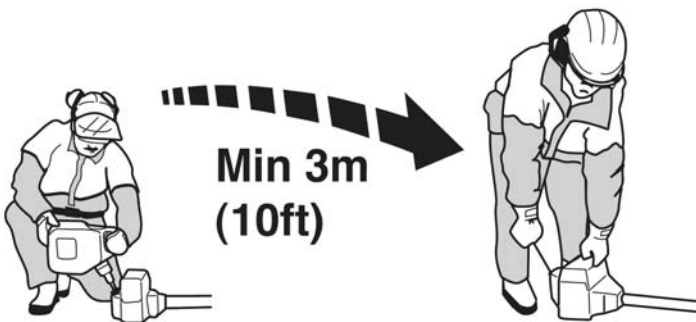
If the machine is not used for some time the fuel tank should be emptied and cleaned.

**⚠️ WARNING!** The catalytic converter muffler gets very hot during and after use. This also applies during idling. Be aware of the fire hazard, especially when working near flammable substances and/or vapours.

## Fueling

**⚠️ WARNING!** Taking the following precautions, will lessen the risk of fire:

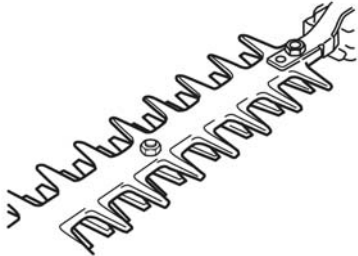
1. Do not smoke or place hot objects near fuel.
  2. Always shut off the engine before refuelling.
  3. Always stop the engine and let it cool for a few minutes before refuelling.
  4. When refuelling, open the fuel cap slowly so that any excess pressure is released gently.
  5. Tighten the fuel cap carefully after refuelling.
  6. Always move the machine away from the refuelling area before starting.
- Clean the area around the fuel cap. Contamination in the tank can cause operating problems.
  - Ensure that the fuel is well mixed by shaking the container before filling the tank.



## STARTING AND STOPPING

### Check before starting

- Inspect the working area. Remove any objects that could be thrown out.
- Check the cutting attachment. Never use blades that are dull, cracked or damaged.



- Check that the machine is in perfect working order. Check that all nuts and screws are tight.
- Make sure the gear housing is lubricated correctly. See instructions under the heading Gear housing.
- Check that the cutting attachment always stops when the engine is idling.
- Only use the machine for the purpose it was intended for.
- Make sure that the handle and safety features are in good working order. Never use a machine that lacks a part or has been modified outside its specifications.
- All covers must be correctly fitted and undamaged before you start the machine.

### Starting and stopping

**⚠ WARNING!** The complete clutch cover and shaft must be fitted before the machine is started, otherwise the clutch can come loose and cause personal injury.

**⚠ WARNING!** Always move the machine about 3 metres from the refuelling position before starting. Place the machine on a firm surface. Remember that the blades may start to move when the engine is started. Make sure the blades cannot come into contact with any object. Make sure that no unauthorised persons are in the working area, otherwise there is a risk of serious personal injury.

**⚠ WARNING!** The safety distance is 15 metres.

### Starting

**Primer bulb:** Press the air purge repeatedly until fuel begins to fill the bulb. The bulb need not be completely filled.

**Choke:** Set the choke control in the choke position.

Hold the body of the machine on the ground using your left hand (CAUTION! Not with your foot!). Grip the starter handle, slowly pull out the cord with your right hand until you feel some resistance (the starter pawls grip), now quickly and powerfully pull the cord.

Push the choke control back to its original position as soon as the engine fires, and continue trying

to start until the engine starts.

**CAUTION!** Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the machine.



**CAUTION!** Do not put any part of your body in marked area. Contact can result in burns to the skin, or electrical shock if the spark plug cap has been damaged. Always use gloves. Do not use a machine with damaged spark plug cap.

## **Stopping**

The engine is switched off by moving the stop switch to the stop position.

# WORKING TECHNIQUES

## General working instructions

### IMPORTANT!

This section takes up the basic safety precautions for working with a trimmer.

If you encounter a situation where you are uncertain how to proceed you should ask an expert. Contact your dealer or your service workshop. Avoid all usage which you consider to be beyond your capability.

**⚠️ WARNING!** The machine can cause serious personal injury. Read the safety instructions carefully. Learn how to use the machine.

**⚠️ WARNING!** Cutting tool. Do not touch the tool without first switching off the engine.

## Personal protection



- Always wear boots and other equipment described under the heading Personal protective equipment.
- Always wear working clothes and heavy-duty long trousers.
- Never wear loose clothing or jewellery.
- Make sure your hair does not hang below shoulder

## Safety instructions regarding the surroundings

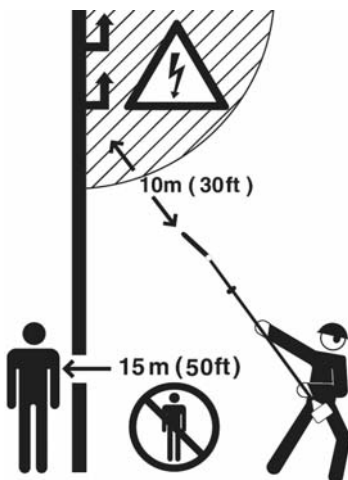
- Never allow children to use the machine.
- Ensure that no-one comes closer than 15 m while you are working.
- Never allow anyone else to use the machine without first ensuring that they have understood the contents of the operator's manual.
- Never work from a ladder, stool or any other raised position that is not fully secured.



● Keep in mind that the operator is responsible for accidents or hazards occurring to other people or their property.

## Safety instructions while working

- Always ensure you have a safe and stable working position.
- Always use both hands to hold the machine. Hold the machine at the side of your body.
- Use your right hand to control the throttle setting.
- Make sure that your hands and feet do not come near the cutting attachment when the engine is running.
- When the engine is switched off, keep your hands and feet away from the cutting attachment until it has stopped completely.
- Watch out for stumps of branches that can be thrown out during cutting.
- Always lay the machine on the ground when you are not using it.
- Do not cut too close to the ground. Stones and other objects can be thrown out.
- Check the working area for foreign objects such as electricity cables, insects and animals, etc, or other objects that could damage the cutting attachment, such as metal items.
- If any foreign object is hit or if vibrations occur stop the machine immediately. Disconnect the connection between the ignition coil and spark plug from the spark plug. Check that the machine is not damaged. Repair any damage.
- If anything jams in the blades while you are working, switch off the engine and wait until it has stopped completely before cleaning the blades. Disconnect the connection between the ignition coil and spark plug from the spark plug.
- Never put the machine down with the engine running unless you have it in clear sight.
- This machine is not electrically insulated. If the machine touches or comes close to high-voltage power lines it could lead to death or serious bodily injury. Electricity can jump from one point to another by arcing. The higher the voltage, the greater the distance electricity can jump. Electricity can also travel through branches and other objects, especially if they are wet. Always keep a distance of at least 10 m between the machine and high-voltage power lines and/or any objects that are touching them. If have to work within this safe distance you should always contact the relevant power company to make sure the power is switched off before you start work.



## **Safety instructions after completing work**

- The transport guard should always be fitted to the cutting attachment when the machine is not in use.
- Make sure the cutting attachment has stopped before cleaning, carrying out repairs or an inspection. Disconnect the connection between the ignition coil and spark plug from the spark plug.
- Always wear heavy-duty gloves when repairing the cutting attachment. This is extremely sharp and can easily cause cuts.



- Store the machine out of reach of children.
- Use only original spare parts for repairs.

## **Basic working techniques**

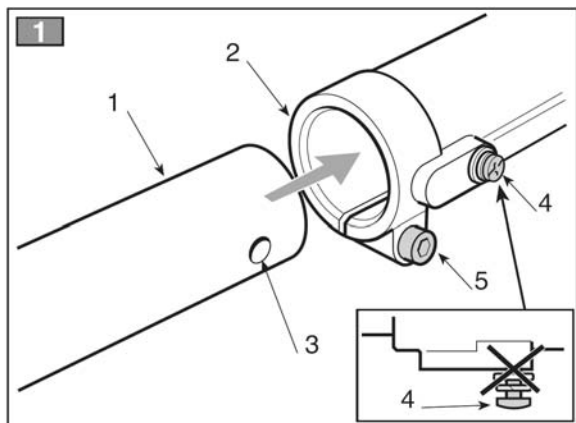
- Work with a swinging action from the bottom upwards when trimming sides.
- Adjust the throttle setting to suit the load.
- When trimming a hedge the engine should always face away from the hedge.
- Hold the machine as close to your body as possible to get the best balance.
- Make sure that the tip does not touch the ground.
- Do not rush the work, but work steadily until all the branches have been cut back cleanly.



## USING THE MACHINE

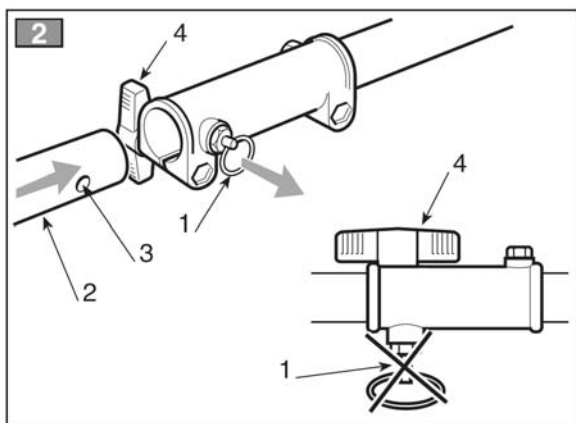
### ASSEMBLING THE ROD (if supplied separately)(Fig.1)

- Insert the rod(1) in the sleeve (2) so that the hole (3) coincides with the screw(4).
- Tighten the two screws (4) and (5) completely. The head of the screw(4) must not stick out when tightened.



### CONNECTING THE TRIMMER (Fig.2)

- Pull out the stop pin (1) and push the rod (2) right down until the stop pin (1) clicks into the hole (3) in the rod. This is easier to do if you rotate the bottom of the rod (2) slightly in both directions. The pin (1) is in place when it is completely lodged in the hole.
- Once inserted, tighten the knob (4) securely.



### SETTING AT WORK

**IMPORTANT!** Also carefully read the operator's manual for the brush cutter fitted with the hedge trimming device.

Before starting work please:

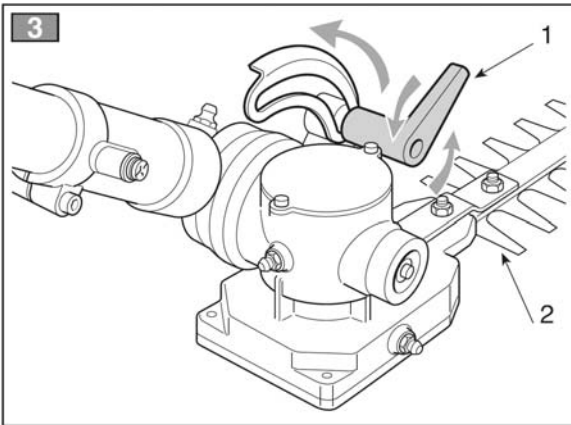
- Check that all the screws on the machine and the blade are tightly fastened;
- Check that the blades are sharp and there are no signs of any damage;
- Check that the protection devices are well fastened and working efficiently;
- Check that the handgrips are well fastened

## Directions for use

- Cut branches up to a maximum diameter of 4.5mm; cutting branches with a larger diameter could damage the trimmer.
- ONLY adjust the tilt angle with the motor switched off. SWITCH OFF the motor before removing any branches caught up in the blades.
- Never bring the blades close to body parts while working.
- Always fit the blade guards when the device is switched off.

## Adjustment of blade inclination (Fig. 3)

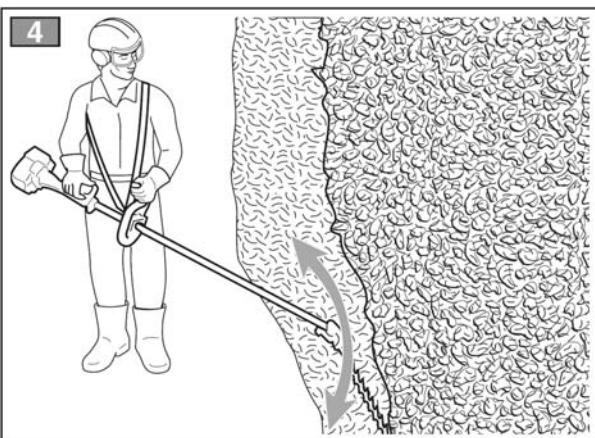
- Turn the engine off and wait for the blade to stop.
- Loosen the knob (1) and incline the cutting device (2) as desired.
- Tighten the knob (1) securely. If the knob does not move enough to guarantee it is tight, extract it and re-position it so that it can be tightened securely.



**⚠ WARNING!** Do not work unless the cutting device is blocked securely.

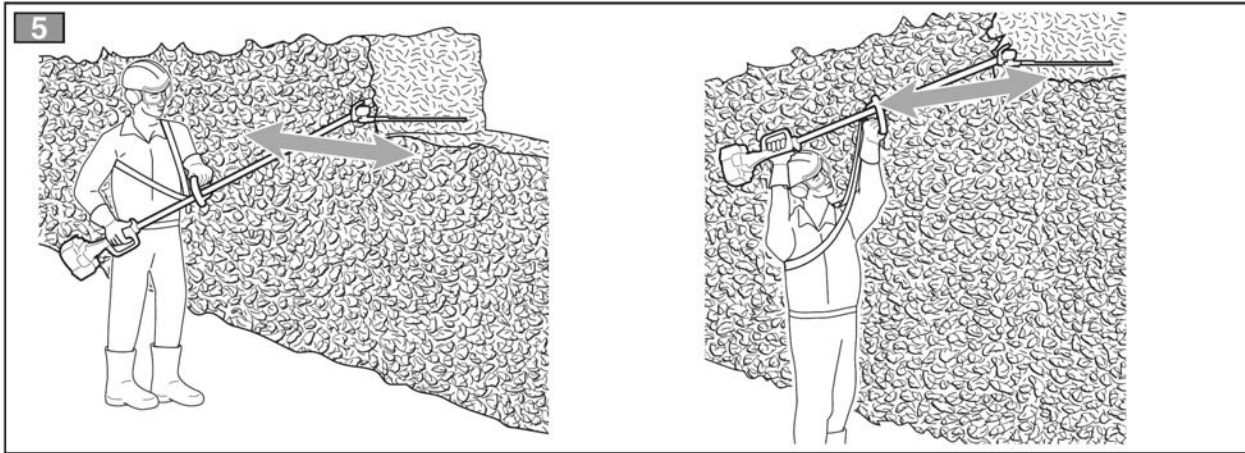
## Vertical trimming (Fig. 4)

Proceed to cut by using curved movements from the bottom towards the top, keeping the blade as far from the body as possible.



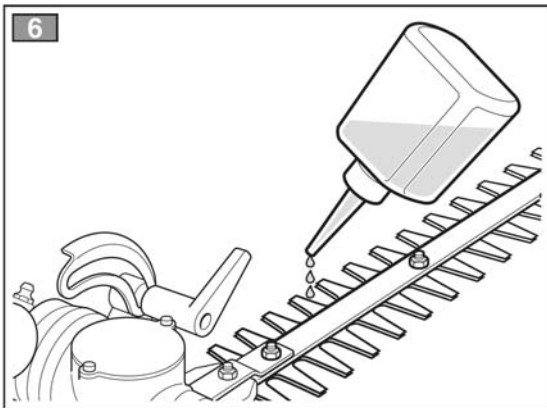
## Horizontal trimming (Fig. 5)

The best results will be obtained with the blade slightly inclined ( $5^{\circ}$  -  $10^{\circ}$ ) in the direction you are cutting, proceed with a curved movement, slowly and without interruptions, especially in the case of very thick hedges.



## LUBRICATING THE BLADES DURING JOBS(Fig. 6)

If the cutting device gets excessively hot during operations,grease the blade's internal surfaces with the specific oil.



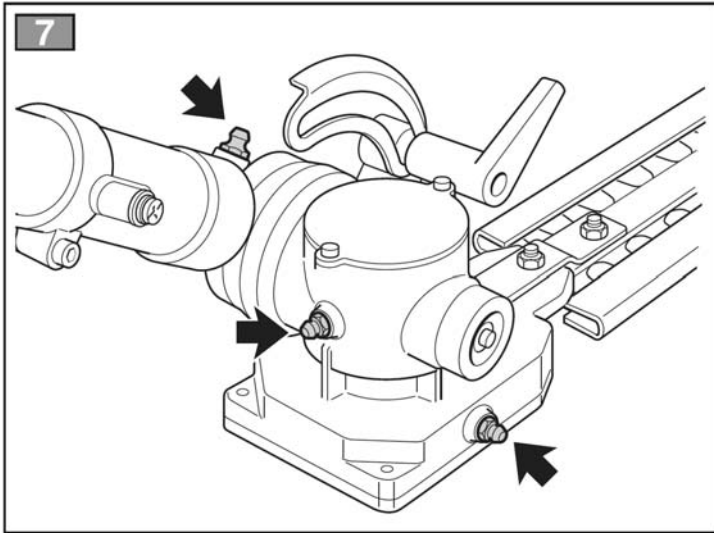
**⚠ WARNING!** This operation must only be performed when the blades have stopped running and the motor is switched off.

## MAINTENANCE AND STORAGE

**⚠**WARNING! Always work with the motor switched off.

### 1. BLADE REDUCTION GEAR GUARD (Fig. 7)

- Lubricate every 20 hours through the grease nipples provided.
- Only use lithium-based grease for high temperatures and extreme pressures.



### 2. MAINTENANCE AND SHARPENING OF THE BLADE

**⚠**WARNING! Periodically check that the blades are not bent or damaged and that the fixed comb on the blade is intact.

Adjustment of the distance between blades is not necessary, as this is predetermined by the manufacturer.

If the blades are used correctly, following all the instructions provided, they will not require any maintenance work and will not need sharpening.

It is necessary to sharpen the blades only when the trimming performance decreases and the branches tend to stick together.

**NOTE:** Any intervention on the blade should always be conducted at a specialised Centre that has the most appropriate tools and is able to perform the operations without compromising the safety of the machine

# MAINTENANCE

## Maintenance schedule

The following is a list of the maintenance that must be performed on the machine. Most of the items are described in the Maintenance section. The user must only carry out the maintenance and service work described in this manual. More extensive work must be carried out by an authorized service workshop.

Maintenance	Daily maintenance	Weekly maintenance	Monthly maintenance
Clean the outside of the machine.	✓		
Make sure the throttle trigger lock and the throttle function correctly from a safety point of view.	✓		
Check that the stop switch works correctly.	✓		
Check that the blades do not move when the engine is idling or when the choke is in the start throttle position.	✓		
Check that the blades are undamaged and show no signs of cracking or other damage. Replace the blades if necessary.	✓		
Clean the air filter. Replace if necessary.	✓		
Check that nuts and screws are tight.	✓		
Check that there are no fuel leaks from the engine, tank or fuel lines.	✓		
Check the starter and starter cord.		✓	
Check that the vibration damping elements are not damaged.		✓	
Clean the outside of the spark plug. Remove it and check the electrode gap. Adjust the gap to 0.5 mm (.20"), or replace the spark plug. Check that the spark plug is fitted with a suppressor.		✓	
Clean the machine's cooling system.		✓	
Clean or replace the spark arrestor screen on the muffler (only applies to mufflers without a catalytic converter).		✓	
Clean the outside of the carburettor and the space around it.		✓	
Fill the gear housing with grease. This should be carried out approximately every 60 working hours.		✓	

Check that the screws that hold the blades together are correctly tightened.		✓	
Clean the fuel tank.			✓
Check the fuel filter from contamination and the fuel hose from cracks or other defects. Replace if necessary.			✓
Check all cables and connections.			✓
Check the clutch, clutch springs and the clutch drum for wear. Replace if necessary by an authorized service workshop.			✓
Replace the spark plug. Check that the spark plug is fitted with a suppressor.			✓
Check and clean the spark arrestor screen on the muffler (only applies to mufflers fitted with a catalytic converter).			✓
To reduce the fire hazard, clean dirt, leaves and surplus lubricant, etc from the muffler and engine.			✓

# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

#### **MODEL: KZ-4000MT-PRO-2S**

(PART 2: POLE SAW)



**Original Instructions**

#### **CAUTION:**

Thank you for purchasing a product. Before using our pole saw, please read this manual carefully to understand the proper use of your unit.





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## INTRODUCTION

Thank you for your purchasing the pole saw of our Company. The present manual explains how to handle the pole saw well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task safely. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.










## TECHNICAL DATA

	<b>Model</b>	<b>KZ-4000MT-PRO-2S (PART 2: POLE SAW)</b>	
<b>Main unit</b>	Remote type	Spiral bevel gear; Drive shaft	
	Maximum speed of gear shaft /engine speed (/min)	9635/ 9100	
	Idle speed(/min)	2500-3000	
	Reduction ratio	18:17	
	Type of handle	Double grip	
	Weight when dry(kg)	8	
	Cutting Attachment	Cutting length(mm)	255
		Nose sprocket	7-teeth
		Oil tank capacity(L)	0.1
		Saw Chain Type	OREGON 91VG(Picco Micro Mini(3/8"P))
Guide Bar Type		JF10-40-50A	
<b>Engine</b>	Name of engine	<b>HP40</b>	
	Type	Air-cooled; 2 cycle; vertical piston valve; gasoline engine	
	Displacement(mL)	39.8	
	Maximum output(kW//min)	1.25/7000	
	Fuel tank capacity(L)	1	
	Dry weight(kg)	4.2	
	Carburetor	Diaphragm-type	
	Ignition	Non-contact electronic ignition	
	Method of starting	Recoil type	
	Fuel used	Gasoline mixed with lubricating oil (ratio of 30:1)	

**Technical Data subject to changed without notice.**

## SYMBOLS WARNING

Important: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and more safely.


SYMBOLS	NAME	DESIGNATION/EXPLANATION
	Safety Alert Symbol	Indicates danger, warning or caution. It means attention! Your safety is involved.
	Read The Operator's Manual	Your manual contains special messages to bring attention to potential safety concerns as well as operating and servicing information. Please read all the information carefully to ensure satisfaction and safe use.
	Boots	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty gloves.
	Keep bystanders away	Keep all bystanders at least 15m (50 ft) away. Keep the pole pruner a sufficient distance away from electrical power lines.
	No Smoking	Do not smoke when mixing fuel or filling fuel tank.
	Oil	Use 2-stroke oil for air cooled engines.
	Appropriate ear, eye, and head protection must be worn - Option 2 (front view of human head)	Depiction of human head (front view) wearing ear, eye, and head protective equipment.
	Beware of chain saw kickback and avoid contact with bar tip	Movement of chain saw upward from log.

### **WARNING DANGER**

The engine exhaust from this product contains chemicals to cause cancer, birth defects, of other reproductive harm.


Specifications, descriptions and illustrative material in this manual are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.


## SAFETY RULES & PRECAUTIONS


 Proper and safety precautions must be observed. Like all power equipment this unit must be handled carefully. **DO NOT EXPOSE YOURSELF OR OTHERS TO DANGER** Follow these general rules. Do not permit others to use this machine unless they are thoroughly responsible and have read, and understand the machine manual and are trained in its operation.





Always wear safety goggles for eye protection. Dress properly, do not wear loose clothing or jewelry that could become caught in moving parts of the unit. Safe, sturdy, nonskid footwear should always be worn. Long hair should be tied back. It is recommended that legs and feet be covered to protect from flying debris during operation.


 Inspect the entire machine for loose parts (nuts, bolts, screws, etc.) and any damage. Repair or replace as necessary before using the machine.


 **DO NOT USE** any attachment with this power head other than the ones recommended by our company. Serious injury to the operator or bystanders could result as well as damage to the machine.


 Keep the handles free from oil and fuel.


 Always use proper handles and shoulder strap when cutting.


 Do not smoke while mixing fuel or filling tank.


 Do not mix fuel in an enclosed room or near open flames. Assure adequate ventilation.


 Always mix and store the fuel in a properly marked container that is approved by local codes and ordinances for such usage.


 Never remove the fuel tank cap while the engine is running.


 It is essential to keep the machine in good working condition, as well as the cutting attachment and the cutting attachment guard.


 Never use of non-conformant replacement components, or the removal or modification of safety components.


 Never start or run the machine inside a closed room or building. Fumes from the exhaust contain dangerous carbon monoxide.


 Never attempt to make engine adjustments while the unit is running and strapped to the operator. Always make engine adjustments with the unit resting on a flat, clear surface.


 Do not use the unit if it is damaged or poorly adjusted. Never remove the machine's guard. Serious injury to the operator or bystanders could result as well as damage to the machine.


 Inspect the area to be cut and remove all debris that could become entangled in the machine. Also remove any objects that the unit may throw during cutting.

 Keep all bystanders, especially children and pets, from the work area, at least 15 METER(50 FEET) from the operating area.


 Never leave the machine unattended.


 Do not use this unit for any job other than those for which it is intended as described in this manual.


 Do not overreach. Keep proper footing and balance at all times. Do not run the unit while standing on a ladder or on any other unstable footing location.


 Do not use the unit when you are tired, ill or under the influence of medication, drugs or alcohol.


 FOLLOW INSTRUCTION FOR CHANGING ACCESSORIES.


 Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, heaters, furnaces, etc. Store in a locked, well ventilated area only.


 Ensure safe and proper performance of your product. These part are available from your dealer.

 The use of any other accessories or attachments may cause a potential hazard or injury to the user, damage to the machine and void this warranty. Replace damaged parts with only the ones that are identical with original part. Spare parts are available from your dealer.

 Clean the machine completely, especially, the fuel tank, its surroundings, and the air cleaner.

 When refueling, be sure to stop the engine and confirm that it is cooled down. Never refuel when the engine is running or hot. When gasoline spills, be sure to wipe it up completely and properly dispose of those materials before starting the engine.

 When ever approaching an operator of the machine, carefully call his attention and confirm that the operator stops the engine. Be careful not to distract the operator which can cause an unsafe situation.

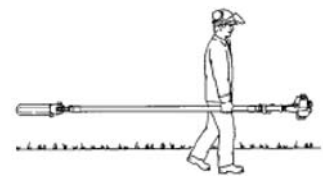
 Never touch the rotating parts when ever the engine is running.

**⚠** Pay attention to loosening and overheating of parts. If there is any abnormality of the machine, stop operation immediately and check the machine carefully. If necessary, have the machine serviced by a authorized dealer. Never continue to operate a machine which may be malfunctioning.

**⚠** In start-up or during operation of the engine, never touch hot parts such as the muffler, the high voltage wire or the spark plug.

**⚠** This power tool should be carried only in a horizontal position. Grip the shaft in a manner that the machine is balanced horizontally. Keep the hot muffler away from your body and the cutting attachment behind you. Accidental acceleration of the engine can cause the chain to rotate and cause serious injuries.

**⚠** Always switch off the engine and fit the scabbard over the cutting attachment before transporting the power tool over long distances. When transporting it in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the unit.



**⚠** After the engine has stopped, the muffler is still hot. Never place the machine in any places where there are flammable materials (dry grass, etc.), combustible gasses or combustible liquids.

**⚠** Pay special attention to operation in the rain or just after the rain as the ground may be slippery.


**⚠** If you slip or fall to the ground or into a hole, release the throttle lever immediately.

**⚠** Be careful not to drop the machine or hit it against obstacles.


**⚠** Before proceeding to adjust or repair the machine, be sure to stop the engine and detach the spark plug cap from the spark plug.


**⚠** When the machine is placed in storage for a long time, drain fuel from the fuel tank and carburetor, clean the parts, move the machine to a safe place and confirm that the engine is cooled down.


**⚠** Make periodic inspections to assure safe and efficient operation. For a thorough inspection of your machine, please contact a dealer.


**⚠**  Keep the machine away from fire or spark.


**⚠** It is believed that a condition called Raynaud's phenomenon, which affects the fingers of certain individuals may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations followed by loss of color and numbness in the fingers. The following precautions are strongly recommended because the minimum exposure which might trigger the ailment is unknown.

 Check for fuel leakage while refueling and during operation. If fuel leakage is found, do not start or run the engine until the leak is fixed and any spilled fuel has been wiped away. Take care not to get fuel on your clothing. If this happens, change your clothing immediately.


 National regulation can restrict the use of the pruner.

 It is needed for daily inspection before use and after dropping or other impacts in order to identify any significant damage or defects.


 Unit vibrations can cause an improperly tightened fuel filler cap to loosen or come off and spill quantities of fuel. In order to reduce the risk of fuel spillage and fire, tighten the fuel filler cap by hand as securely as possible.



 To reduce the risk of fire and burn injuries, start the engine at least 10 feet (3 m) from the fueling spot, outdoors only. Start and operate your pole pruner without assistance. For specific starting instructions, see the appropriate section of your manual. Proper starting methods reduce the risk of injury. Place the pole pruner on firm ground or other solid surface in an open area or, in the alternative, as shown in the above picture. Maintain good balance and secure footing.

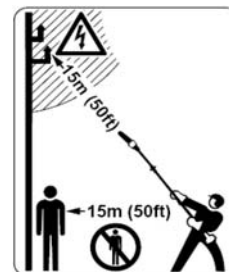




 Always hold the unit firmly with both hands on the handles while you are working. Wrap your fingers and thumbs around the handles. Place your left hand on the shaft and your right hand on rear grip and throttle trigger. Left-handers should follow these instructions, too. Keep your hands in this position to have your pole pruner under control at all times.



 Never attempt to operate your power tool with one hand. Loss of control of the power tool resulting in serious or fatal injury may result.

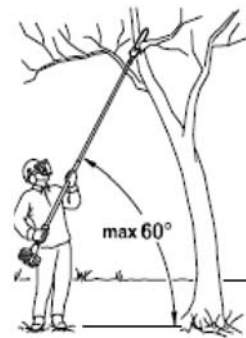
 **Danger!**  Your power tool is not insulated against electric shock. To reduce the risk of electrocution, never operate this power tool in the vicinity of any wires or cables (power, etc.) which may be carrying electric current.



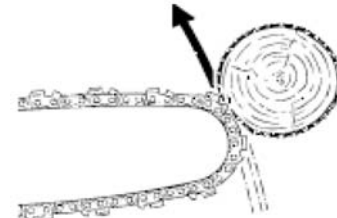
  The power tools are equipped with a catalytic converter, which is designed to reduce the exhaust emissions of the engine by a chemical process in the muffler. Due to this process, the muffler does not cool down as rapidly as conventional mufflers when the engine returns to idle or is shut off. To reduce the risk of fire and burn injuries, the following specific safety precautions must be observed.



**⚠** To reduce the risk of severe or even fatal injury from falling objects do not cut vertically above your body. Hold the pole pruner at an angle of not more than 60° from the horizontal level (see picture). Objects may fall in unexpected directions. Do not stand directly underneath the limb being cut! It is recommended to remove branches in sections.

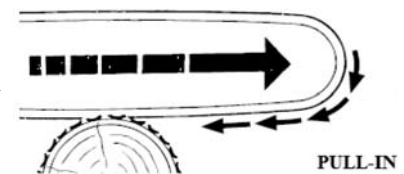


**⚠** Kickback may occur when the moving saw chain near the upper quadrant of the bar nose contacts a solid object or is pinched. The reaction of the cutting force of the chain causes a rotational force on the chainsaw in the direction opposite to the chain movement. This may cause the bar to move upward.



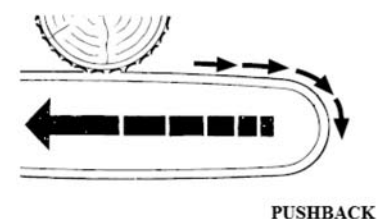
**⚠** To Avoid Kickback: The best protection from kickback is to avoid kickback situations: 1. Be aware of the location of the guidebar nose at all times. 2. Never let the nose of the guide bar contact any object. Do not cut limbs with the nose of the guide bar. Be especially careful near wire fences and when cutting small, tough limbs, which may easily catch the chain. 3. Cut only one limb at a time.

**⚠** Pull-in: Pull-in occurs when the chain on the bottom of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain pulls the saw forward. Pull-in frequently occurs when the chain is not rotating at full speed



before it contacts the wood. To Avoid Pull-in: 1. Be alert to forces or situations that may cause material to pinch the chain at the bottom of the bar. 2. Always start a cut with the chain rotating at full speed.


**⚠** Pushback: Pushback occurs when the chain on the top of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain may drive the saw rapidly straight back toward the operator. Pushback frequently occurs when



the top of the bar is used for cutting. To Avoid Pushback 1. Be alert to forces or situations that may cause material to pinch the chain at the top of the bar. 2. Do not cut more than one limb at a time. 3. Do not twist the bar when withdrawing it from an underbuck cut because the chain can pinch.

**⚠** Keep the chain, bar and sprocket clean; replace worn sprockets or chains. Keep the chain sharp. You can spot a dull chain when easy-to-cut wood becomes hard to cut or burn marks appear

on the wood. Keep chain at proper tension. Tighten all nuts, bolts and screws except the carburetor adjustment screws after each use. For maintenance items please also refer to the maintenance chart in this manual. Do not clean your machine with a pressure washer. The solid jet of water may damage parts of the machine. Store the power tool in a dry and high or locked location out of reach of children. Before storing for longer than a few days, always empty the fuel tank. See chapter "Storing the machine" in this manual. Store fuel and chain oil in approved and properly labeled safety-type canisters only. Take care when handling gasoline! Avoid direct contact with the skin and avoid inhaling fuel vapor!

** Note: Noise and vibration**

1. The running at low speed can reduce the noise and quiver.
2. In order to reduce noise, the pole saw should be operated at an open environment.
3. The vibration can be lowered if the handle is grasped firmly.
4. In order to avoid disturbing others, the machine should be operated in daytime.
5. Dress personal protective equipment, such as gloves and ear protection during the operation.
6. The machine is not for professional work and not for long time operation.
7. In order to keep the user's fit and prolong the machine's life, please do not work more than 2 hours in a whole day and don't keep working more than 10 minutes and often changing working positions.

# USING THE UNIT

## Preparations:

●Wear suitable protective clothing,observe safety precautions. ●Adjust telescoping shaft to the required length . ●Starting the engine. ●Put on the shoulder strap.

## Cutting Sequence:

To allow branches a free fall, always cut the lower branches first. Prune heavy branches (large diameter) in several controllable pieces. ⚠Never stand directly underneath the branch you are cutting – be wary of falling branches. Note that a branch may spring back at you after it hits the ground – risk of injury. Remove branches in sections

## Disposal:

Do not throw cuttings into the garbage can – they can be composted.

## Working Techniques:

Hold the control handle with your right hand, and the shaft with your left hand. Your left arm should be extended to the most comfortable position. Always hold the shaft with your left hand in the area of the handle hose. The shaft should always be held at an angle of 60° or less. The least tiring working position is a tool angle of 60°. Any lesser angle may be used to suit the situation concerned.



## WARNING!

When you use the machine,if the saw chain is locked by the branch,you must move over the saw and then saw the branch over again .

## Cross-cut:

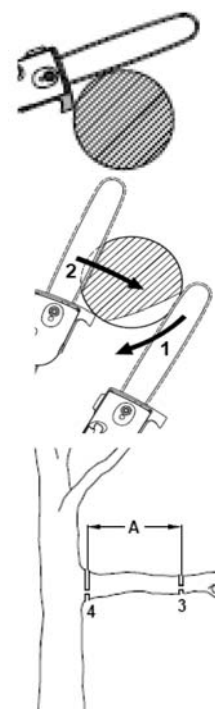
To avoid pinching the bar in the cut,position the cutting attachment with the hook against the branch and then perform the cross-cut from the top downwards.

## Relieving cut:

To avoid tearing the bark on thick branches, always start by performing a relieving cut (1) on the underside of the branch. To do this, apply the cutting attachment and pull it across the bottom of the branch in an arc as far as the bar nose. Perform the cross-cut (2) – position the bar with the hook against the branch and then perform the crosscut.

## Flushing-cutting thick branches:

If branch diameter is more than 4 in (10 cm), first perform undercut (3) and thencross-cut at a distance of about 8 in./20 cm (A) from the final cut.



Then carry out the flush-cut (4), starting with a relieving cut and finishing with a cross-cut.

### Cutting above obstacles:

The unit's long reach makes it possible to prune branches that are overhanging obstacles, such as rivers or lakes. The tool angle in this case depends on the position of the branch.



### Cutting from a lift bucket:

The unit's long reach enables cutting to be performed next to the trunk without the risk of the lift bucket damaging other branches. The tool angle in this case depends on the position of the branch.



## Mounting the Bar and Chain

### Removing the chain sprocket cover:

- Unscrew the cover and remove the cover(1).
- Turn the screw (2) counterclockwise until the tensioner slide butts against the left end of the housing slot, then back it off 5 full turns.

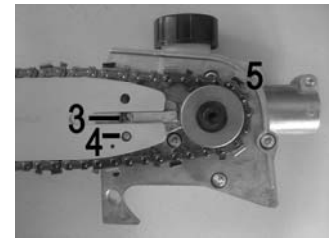
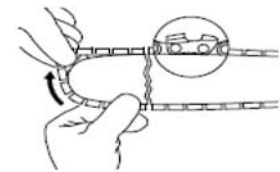


**⚠** Guide-bar and chain adjustments can only be made with the engine stopped.

### Fitting the chain:

**⚠** Wear work gloves to protect your hands from the sharp cutters.

- Fit the chain – start at the bar nose.
- Fit the guide bar over the screw hole(3) and engage peg of tensioner slide in the hole (4) – place the chain over the sprocket (5) at the same time.
- Turn the tensioning screw (1) clockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are engaged in the bar groove.



- Refit the cover and screw on the nut fingertight. N Go to chapter on "Tensioning the Saw Chain".

### Tensioning the Chain:

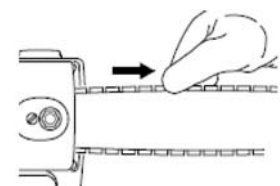
#### Retensioning during cutting work:

- Stopping the engine
- Loosen the nut.
- Hold the bar nose up.
- Use a screwdriver to turn the tensioning screw (1) clockwise until the chain fits snugly against the underside of the bar.
- While still holding the bar nose up, tighten down the nut firmly.
- Go to "Checking Chain Tension". A new chain has to be retensioned more often than one that has been in use for some time.
- Check chain tension frequently –see chapter on "Operating Instructions".



### Checking Chain Tension:

- Shut off the engine
- Wear work gloves to protect your hands.
- The chain must fit snugly against the underside of the bar and it must still be possible to pull the chain along the bar by hand.

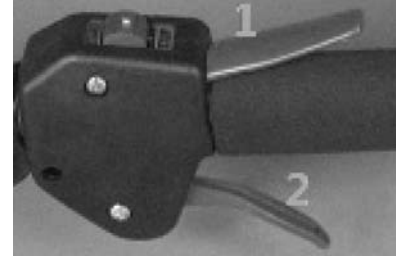


- If necessary, retension the chain. A new chain has to be retensioned more often than one that has been in use for some time.
- Check chain tension frequently –see chapter on "Operating Instructions".

## Adjusting the Throttle Cable

A properly adjusted throttle cable is the precondition for correct operation in the full throttle, starting throttle and idle positions.

- Adjust the throttle cable only when the unit is completely and properly assembled.
- Press down the throttle trigger lockout (1) and squeeze the throttle trigger (2) (full throttle) – this sets the throttle cable correctly.

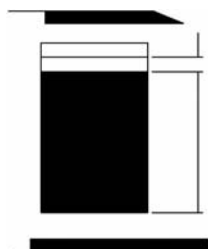


## Fuel & OIL MIXTURE



- Never fill the fuel tank to the very top.
- Never add fuel to the tank in a closed non-ventilated area.
- Do not add fuel to this unit close to an open fire or sparks.
- Be sure to wipe off spilled fuel before attempting to start engine.
- Do not attempt to refuel a hot engine

Fuel used for this model is a mixture of unlead gasoline and approved engine lubricant. When mixing gasoline with two-cycle engine oil, use only gasoline which contains NO ETHANOL or METHANOL (Types of Alcohol) Use Branded 89 octane or higher unlead gasoline known to be of good quality. This will help to avoid possible damage to engine fuel lines and other engine parts.



OIL-1 PART  
GASLINE  
30 PART

**MIXTURE RATIO IS 30:1**

GASLINE-30PART ----- OIL-1 PART

Fuel mixture at the rate other than 30:1 may cause damage to the engine, Ensure mixture ratio is correct.

### Fuel

The engine uses two-stroke fuel, a mixture of gasoline and 2-stroke lubricant 30:1

### Gasoline

Use branded 89 octane or higher unlead gasoline known to be of good quality.

### Storing Fuel

Store fuel only in a clean, safe, approved container. Check and follow local ordinances on type and location of storage container.

### Important

Two-stroke fuel may separate. Shake fuel container thoroughly before each use. Stored fuel ages. Do not mix more fuel than you expect to use within a month.

### Fuel And Oil Mixture


Inspect fuel tank making sure that it is clean and fill with fresh fuel. Use a mixture of 30:1.

**⚠** The engine exhaust from this product contains chemicals known to cause cancer, birth defects, or other reproductive harm.





# Chain Lubricant



For automatic and reliable lubrication of the chain and guide bar – use only an environmentally compatible quality chain and bar lubricant.

 Biological chain oil must be resistant to aging since it will otherwise quickly turn to resin. This results in hard deposits that are difficult to remove, especially in the area of the chain drive and chain. It may even cause the oil pump to seize.

The service life of the chain and guide bar depends on the quality of the lubricant. It is therefore essential to use only a specially formulated chain lubricant.

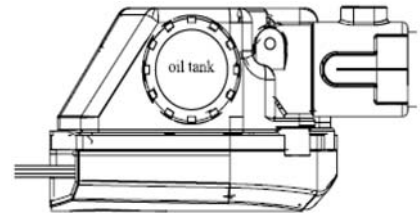
 **Do not use waste oil.** Renewed contact with waste oil can cause skin cancer. Moreover, waste oil is environmentally harmful.

 Waste oil does not have the necessary lubricating properties and is unsuitable for chain lubrication.

  A full chain oil tank is sufficient for only half a tankful of fuel. Check the oil level regularly during cutting work. Never allow the oil tank to run dry.

## Preparations

- Thoroughly clean the oil filler cap and the area around it to ensure that no dirt falls into the tank.
- Position the machine so that the filler cap is facing up.



## Opening the filler cap

- The bayonet-type oil tank filler cap with hinged grip can be opened and closed without tools.
- To open the tank, swing the grip to the vertical position.
- Turn the filler cap counterclockwise as far as stop and remove.

## Filling up with chain oil

- Filling up with chain oil
- Take care not to spill chain oil while refilling and do not overfill the tank.

## Closing the filler cap

- To close the oil tank, place the filler cap in position with the grip upright, making sure the recesses are in alignment.
- Turn the filler cap clockwise as far as stop.
- Fold the grip down so that it is flush with the top of the cap.

If the oil level in the tank does not go down, the reason may be a fault in the oil supply system: Check chain lubrication, clean the oilways.

## Checking Chain Lubrication

The saw chain must always throw off a small amount of oil.

⚙️ Never operate your saw without chain lubrication. If the chain runs dry, the whole cutting attachment will be irretrievably damaged within a very short time. Always check chain lubrication and the oil level in the tank before starting work. Every new chain has to be broken in for about 2 to 3 minutes. After breaking in the chain, check chain tension and adjust if necessary – see "Checking Chain Tension".



# PREPARING FOR OPERATIONS

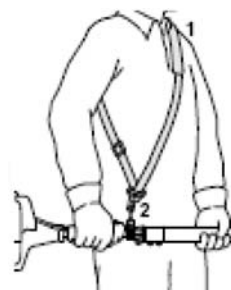
## Adjusting the Telescoping Shaft

⚠ Always shut off the engine and fit the chain guard. ● Loosen the screw. ● Adjust shaft to the required length. ● Tighten down the screw firmly.

## Fitting the Harness

The type and style of the harness depend on the market. ● Put on the shoulder strap (1). ● Adjust the length of the strap. ● With the power tool attached, the carabiner (2) must be at about the same height as your right hip.

⚠ **WARNING!** To quickly detach the pole saw from the shoulder strap, pull the quick-release latch tab upward.



QUICK-RELEASE LATCH



## Controls

1 Throttle trigger lockout; 2 Throttle trigger; 3 Slide control



## Starting


Press down the trigger lockout lever and squeeze the throttle trigger and hold them in that position. Move the slide control to START and hold it there. Now release the throttle trigger, slide control and trigger lockout in order. This is the starting throttle position. Set the choke knob: if the engine is cold for warm start – also use this position if the engine has been running but is still cold. Press the fuel pump bulb at least five times – even if the bulb is already filled with fuel.

## Starting method 1:


● Remove the blade scabbard. Check that the chain is not touching the ground or any other obstacles. ● Place the unit on the ground: It must rest securely on the engine support and the hook. If necessary, rest the hook on a raised support (e.g. a branch, mound or something). ● Make sure you have a safe and secure footing. ● Hold the unit with your left hand on the fan housing and press it down firmly – your thumb should be under the fan housing.




⚠ Check that nobody is standing within the working range of the pruner.

 Do not stand or kneel on the drive tube. This will bend the drive tube and may result in permanent damage.


### Starting method 2:

● Remove the chain guard. Position the shaft on a branch so that it is held by the hook. ● Hold the unit firmly with your left hand on the fan housing – your thumb should be under the fan housing. ● Hold the starter grip with your right hand. ● Pull the starter grip slowly until you feel it engage and then give it a brisk strong pull. ● Do not let the starter grip snap back. Guide it slowly back into the housing so that the starter rope can rewind properly. ● Crank the engine until it begins to fire. After no more than five attempts, turn the choke knob to . ● Continue cranking.




 Do not pull out the starter rope all the way – it might otherwise break.

### As soon as the engine runs:

 Make sure the carburetor is correctly adjusted. The saw chain must not rotate when the engine is idling. Your machine is now ready for operation.

### Shut off the engine:



 Push the slide control in the direction of the arrow on the stop symbol to STOP.

### At very low outside temperatures:

As soon as the engine runs:

● Slip the throttle trigger to disengage the starting throttle position. The slide control moves to the normal run position and the engine settles down to idle speed. ● Open the throttle slightly. ● Warm up the engine for a short period.

### If the engine does not start:

Choke knob: If you did not turn the choke knob to  quickly enough after the engine began to fire, the combustion chamber is flooded. ● Turn the choke knob to . ● Set the slide control, lockout lever and throttle trigger to the starting throttle position. ● Start the engine by pulling the starter rope briskly – 10 to 20 pulls may be necessary.

### Fuel tank run until completely dry:


● After refueling, press the fuel pump bulb at least five times – even if the bulb is filled with fuel. ● Set the choke knob according to engine temperature. ● Start the engine.

# Operating Instructions

## During break-in period:

A factory-new machine should not be run at high revs (full throttle off load) for the first three tank fillings. This avoids unnecessary high loads during the break-in period. As all moving parts have to bed in during the break-in period, the frictional resistances in the engine are greater during this period. The engine develops its maximum power after about 5 to 15 tank fillings.

## During break-in period:

 Do not make the mixture leaner to achieve an apparent increase in power – this could damage the engine.


● **Check chain tension frequently:** A new chain has to be retensioned more often than one that has been in use for some time. ● **Chain cold:** Tension is correct when the chain fits snugly against the underside of the bar and can still be pulled along the bar by hand. Retension if necessary – see "Tensioning the Saw Chain". ● **Chain at operating temperature :** The chain stretches and begins to sag. The drive links must not come out of the bar groove – the chain may otherwise jump off the bar. Retension the chain – see "Tensioning the Saw Chain". ● **After long period of full-throttle operation:** Allow engine to run for a short while at idle speed so that engine heat can be dissipated by the flow of cooling air. This protects engine-mounted components (ignition, carburetor) from thermal overload.

 The chain contracts as it cools down. If it is not slackened off, it can damage the gear shaft and bearings.

## After Finishing Work:

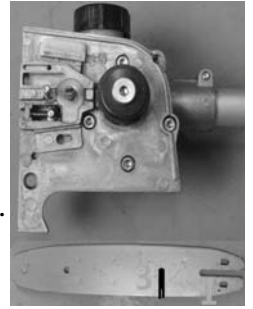
● **Slacken off the chain** if you have retensioned it at operating temperature during cutting work. ● **Storing your saw for a short period** Wait for the engine to cool down. Drain the fuel tank. Store the machine in a dry location. Check the tightness of all accessible screws and nuts (not adjusting screws) at regular intervals and retighten if necessary.

● **Storing for a long period** See chapter on "Storing the Machine"

 Always slacken off the chain after finishing work. The chain contracts as it cools down. If it is not slackened off, it can damage the gear shaft and bearings.

## Taking Care of the Guide

- Turn the bar over – every time you sharpen the chain and every time you replace the chain – this helps avoid one-sided wear, especially at the nose and underside of the bar.
- Regularly clean the oil inlet hole (1), the oilway (2) and the bar. If groove depth is less than specified: Replace the guide bar. The drive link tangs will otherwise scrape along the bottom of the groove – the cutters and tie straps will not ride on the bar rails groove (3).
- Measure the groove depth – with the scale on the filing gauge (special accessory) – in the area used most for cutting.



### WARNING!

Before every cutting, make sure that the cutting attachment stops turning when the engine idles.

# Engine Management

## Cleaning the Air Filter:

- Accumulated dust in the air filter will reduce engine efficiency. Increase fuel consumption and allow abrasive particles to pass into the engine. Remove the air filter as often as necessary to maintain in a clean condition.
- Light surface dust can readily be removed by tapping the filter. Heavy deposits should be washed out in suitable solvent.
- Remove filter cover by loosening air filter cover knob.

## WARNING!

Always have your servicing dealer to adjust the carburetor. Do not adjust the carburetor by yourself.

## Spark Plug:

If engine is down on power, difficult to start or runs poorly at idling speed, first check the spark plug. Fit a new spark plug after approx. 100 operating hours or earlier if the electrodes are badly eroded. Wrong fuel mix (too much engine oil in the gasoline), a dirty air filter and unfavorable running conditions (mostly at part throttle etc.) affect the condition of the spark plug. These factors cause deposits to form on the insulator nose which may result in trouble in operation.

### Removing the spark plug:

- Move the slide control to STOP.
- Pull off the spark plug boot (1).
- Unscrew the spark plug.

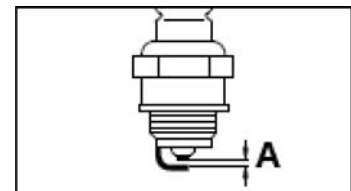
### Checking the Spark Plug:

- Clean dirty spark plug.
- Check electrode gap (A) and readjust if necessary see "Specifications".
- Use only resistor type spark plugs of the approved range. Rectify problems which have caused fouling of spark plug:– Too much oil in fuel mix.– Dirty air filter.– Unfavorable running conditions, e.g. operating at part load.

**⚠ WARNING!** To reduce the risk of fire and burn injury, use only spark plugs authorized by us. Always press spark plug boot (1) snugly onto spark plug terminal (2) of the proper size. (Note: If terminal has detachable SAE adapter nut, it must be attached.) A loose connection between spark plug boot and ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire.

### Installing the spark plug:

- Screw the spark plug (2) into the cylinder and fit the boot (1) (press it down firmly).



## Transportation of the Machine

For periods of 3 months or longer

● Drain and clean the fuel tank in a well ventilated area. ● Dispose of fuel properly in accordance with local environmental requirements. ● Run the engine until the carburetor is dry – this helps prevent the carburetor diaphragms sticking together. ● Remove the saw chain and guide bar, clean them and spray with corrosion inhibiting oil. ● Thoroughly clean the machine – pay special attention to the cylinder fins and air filter. ● If you use a biological chain and bar lubricant, completely fill the chain oil tank. ● Store the machine in a dry, high or locked location, out of the reach of children and other unauthorized persons.

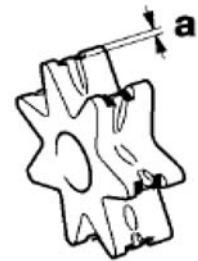
## Checking and Replacing the Chain Sprocket

● Remove the chain sprocket cover, chain and guide bar.

### Replace the chain sprocket

– after using two saw chains or sooner

– if the wear marks (a) are deeper than 0.02 in (0.5 mm) since this would reduce the life of the chain. Use a gauge (special accessory) to check the depth of the wear marks. It is best to use two saw chains in rotation with one sprocket.

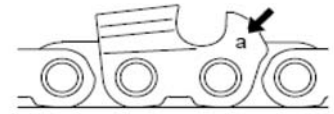




# Maintaining and Sharpening the Saw Chain

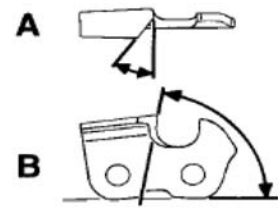
## Cutting effortlessly with a correctly sharpened chain

A properly sharpened chain slices through wood effortlessly and requires very little feed pressure. Do not work with a dull or damaged chain as it will increase the physical effort required, produce unsatisfactory results and a higher rate of wear. ● Clean the chain. ● Check the chain for cracks in the links and damaged rivets. ● Replace any damaged or worn parts of the chain and match the new parts to the shape and size of the original parts. Carbide-tipped saw chains are particularly wear resistant. The saw chain cannot be locked in place on the guide bar. Therefore, it is best to remove the chain from the bar and sharpen it on a workshop sharpening tool (FG 2, HOS, USG).



The chain pitch (a) is marked on the depth gauge end of each cutter.

**⚠** It is absolutely essential to comply with the angles and dimensions specified below. If the saw chain is incorrectly sharpened – and in particular if the depth gauge is set too low – there is an increased risk of kickback, with resulting risk of injury.



A-Filing angle B-Side plate angle

Chain type	Angle(o)	
Rapid Micro (RM)	A:30	B:75
Picco Micro (PM)	A:30	B:75

Use only special saw chain sharpening files. Other files have the wrong shape and cut. Select file diameter according to chain pitch – see table “Sharpening Tools”. You must observe certain angles when sharpening the chain cutter.

### Cutter shapes: Micro = Semi-chisel

The specified angles A and B are obtained automatically if the recommended files or sharpening tools and correct settings are used. The angles must be the same on all cutters. If the angles are uneven: Chain will run roughly, not in a straight line, wear quickly and finally break. As these requirements can be met only after sufficient and constant practice: ● Use a file holder :A file holder must be used for manual sharpening . The correct filing angles are marked on the file holder.



### For checking angles

● Select sharpening tools according to chain pitch. ● If you use an FG 2, HOS or USG sharpener: Remove the chain from the bar and sharpen according to the instructions supplied with the tool. ● Clamp the bar in a vise if necessary.

● Sharpen the chain frequently, take away as little metal as possible –two or three strokes of the file are usually enough. ● Hold the file horizontally (at a right angle to the side of the guide bar) and file according to the angles marked on the file holder. ● Always file from the inside to the outside of the cutter. ● The file only sharpens on the forward stroke – lift the file off the cutter on the backstroke.

● Avoid touching the tie straps and drive links with the file. ● Rotate the file at regular intervals while

filing to avoid one-sided wear. ● Use a piece of hardwood to remove burrs from the cutting edge.

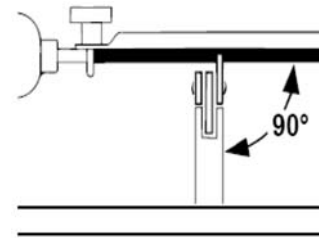
● Check angles with the filing gauge. All cutters must be the same length.

If the cutters are not the same length, they will have different heights.

This makes the chain run roughly and can cause it to break. ● Find the

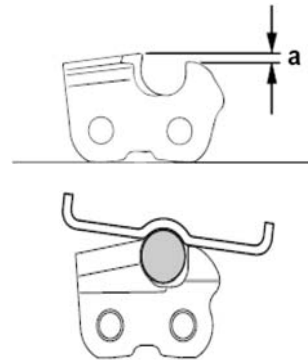
shortest cutter and then file all other cutters back to the same length.

It is best to have this work done in the workshop on an electric grinder.



## Depth gauge setting

The depth gauge determines the height at which the cutter enters the wood and thus the thickness of the chip removed. (a-Specified distance or setting between depth gauge and cutting edge.) This setting may be increased by 0.2 mm (0.008 in.) for cutting softwood in the mild weather season – no frost.



## ⚠ WARNING!

You must use the saw chain and guide bar, which we are recommended in the technical data table. If you use non-approved cutting attachments (saw chain and guide bar), that may cause risk of injury.

## Maintenance and Care

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	daily maintenance	weekly	monthly	every 12 months	if problem	if damaged	if required
Complete machine	Visual inspection (condition, leaks)	✓		✓							
	Clean		✓								
Control handle	Check operation	✓		✓							
Air filter	Clean								✓		
	Replace									✓	✓
Pickup body in fuel tank	Check				✓				✓		
	Replace							✓		✓	✓
Fuel tank	Clean				✓				✓		✓
Carburetor	Check idle adjustment – chain must not rotate	✓		✓							
	Readjust idle										✓
Spark plug	Adjust electrode gap								✓		
	Replace after every 100 operating hours		✓								
Cooling inlets	Visual inspection										✓
	Clean										✓
All accessible screws and nuts (not adjusting screws)	Retighten										✓
Antivibration elements	Check	✓							✓		✓
	Have replaced by dealer									✓	
	Inspect, also check sharpness	✓		✓							
	Check chain tension	✓		✓							
	Sharpen										✓
Chain lubrication	Check	✓									
Guide bar	Check (wear, damage)	✓									
	Clean and turn over				✓			✓			

	Deburr				√						
	Replace									√	√
Chain sprocket	Check				√						
	Have replaced by dealer)										√
Safety labels	Replace									√	

We recommends our servicing dealer.

**NOTICE!** Daily maintenance, including the checking for loose fasteners, fuel leaks and damaged parts (e.g. cracks in the saw chain).

 **WARNING!**

Before use the machine,you must have be familiar with regular maintenance, pre-operating procedures and daily maintenance routines,otherwise improper maintenance and care can cause risk of injury and damage.

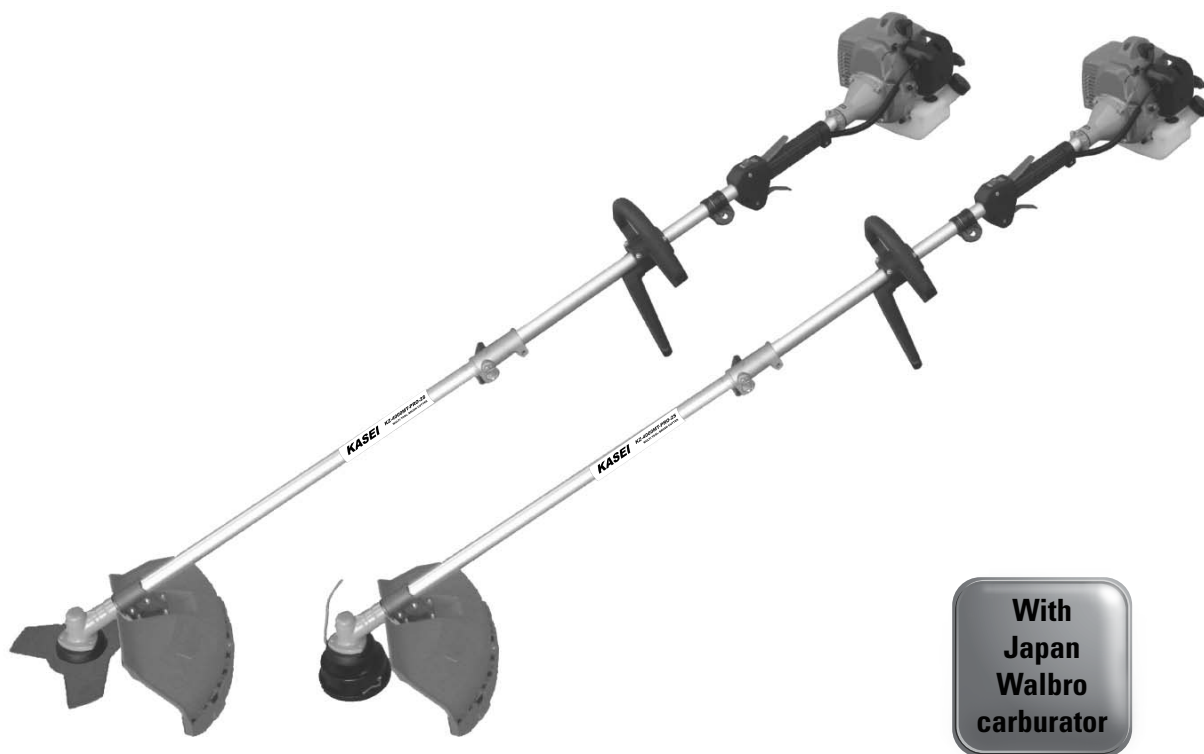
# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

**MODEL: KZ-4000MT-PRO-2S**

**(PART 3: BRUSH CUTTER)**



**With  
Japan  
Walbro  
carburetor**



**Original Instructions**

#### **CAUTION:**

Thank you for purchasing a product. Before using our pole saw, please read this manual carefully to understand the proper use of your unit.



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## INTRODUCTION

Thank you for your purchasing the brush cutter of our Company. The present manual explains how to handle the brush cutter well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task safely. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.

















## TECHNICAL DATA




	<b>Model</b>	<b>KZ-4000MT-PRO-2S (PART 3: BRUSH CUTTER)</b>
<b>Main unit</b>	Remote type	Automatic centrifugal clutch; Spiral bevel gear; Drive shaft
	Maximum speed of gear shaft/engine speed (/min)	7030/ 9100
	Idle speed(r/min)	2500-3000
	Reduction ratio	17:22
	Blade rotation direction	Counter-Clockwise(seen from the top)
	Type of handle	Double grip
	Weight when dry(kg)	8
	Standard blades(mm)	CG420-2/255mm/3-blade (255×1.4)
	Standard nylon head/nylon rope	CG520-HL.17/CG520-HS.1/ φ 2.5mm(nylon66)
<b>Engine</b>	Name of engine	<b>HP40</b>
	Type	Air-cooled; 2 cycle; vertical piston valve; gasoline engine
	Displacement(mL)	39.8
	Maximum output(kW//min)	1.25/7000
	Fuel tank capacity(L)	1
	Dry weight(kg)	4.2
	Carburetor	Diaphragm-type
	Ignition	Non-contact electronic ignition
	Method of starting	Recoil type
Fuel used	Gasoline mixed with lubricating oil (ratio of 30:1)	

**Technical Data subject to changed without notice.**

## SYMBOLE

Some of the following symbols may be used on this tool. Please study them and understand their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates danger, warning or caution. It means attention! Your safety is involved.
	Read The Operator' Manual	Read the operation manual and follow all warnings and safety instructions.
	Ricochet Alert	Danger of Ricochet.
	Keep Bystanders Away	Keep all bystanders (especially children and pets) at least 15m away from the work area.
	Do not use toothed blade	This unit is not intended for use with a toothed saw type blade.
	RPM Decal	Rotational direction and maximum speed of the shaft for the cutting attachment.
	Boots	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty gloves.
	No Smoking	Do not smoke when mixing fuel or filling fuel tank.
	Petrol	Use unleaded petrol intended for motor vehicle use with an octane rating of 91([R+M]/2) or higher.
	Oil	Use 2-stroke oil for air cooled engines.
	Mix Petrol and Oil	Mix the fuel mix thoroughly and also each time before refuelling.
		Fully press and release the prime bulb 5 times.
		All relevant directives, which require the CE-marking and which are applicable for the product, are fulfilled.
		Wear eye, hearing and head protection when operating this equipment.
		To reduce the risk of injury or damage, avoid contact with any hot surface.

		Guaranteed sound power level
	Beware Of Blade Thrust	Continued movement of saw blade after cutting through log.
		A hazard from fire/flammable materials.

## SAFETY RULES & PRECAUTIONS

### **WARNING** **CAUTION**

Before using the product, Please Confirm the local laws and regulations no limit to this kind of product .Or the product can meet the requirements of local laws and regulations.

Proper safety precautions must be observed. Like all power equipment this unit must be handled carefully. **DO NOT EXPOSE YOURSELF OR OTHERS TO DANGER** Follow these general rules. Do not permit others to use this machine unless they are thoroughly responsible and have read, and understand the machine manual and are trained in its operation. This machine is not to be operated by children.

- Always wear safety goggles for eye protection. Dress properly , do not wear loose clothing or jewelry that could become caught in moving parts of the unit. Safe, sturdy, nonskid footwear should always be worn. Long hair should be tied back. It is recommended that legs and feet be covered to protect from flying debris during operation.
- Before using and after dropping or other impacts, inspect the entire machine for loose parts (nuts, bolts, screws, etc.) and any damage. Repair or replace as necessary.
- **DO NOT USE** any attachment with this power head other than the ones recommended by our company. Serious injury to the operator or bystanders could result as well as damage to the machine.
- Keep the handles free from oil and fuel.
- Always use proper handles and shoulder strap when cutting.
- Do not smoke while mixing fuel or filling tank.
- Do not mix fuel in an enclosed room or near open flames. Ensure adequate ventilation.
- Always mix and store the fuel in a properly marked container that is approved by local codes and ordinances for such usage.
- Never remove the fuel tank cap while the engine is running.
- Never start or run the engine inside a closed room or building. Fumes from the exhaust contain dangerous carbon monoxide.
- Never attempt to make engine adjustments while the unit is running and strapped to the operator. Always make engine adjustments with the unit resting on a flat, clear surface.
- Do not pull on the cable.
- Do not lift the machine other than by the handle of the shaft.
- Do not rest the machine on the ground while the engine runs (e.g.in idling).
- Regular check for damages, failing of parts, component or cables.
- Do not use the unit if it is damaged or poorly adjusted. Never remove the machine's guard. Serious injury to the operator or bystanders could result as well as damage to the machine.
- Inspect the area to be cut and remove all debris that could become entangled in the nylon cutting head. Also remove any objects that the unit may throw during cutting.
- Keep children away. Onlookers should be kept at a safe distance from the work area, at least 15 METER(50 FEET).

- Never leave the machine unattended.
- Do not use this unit for any job other than those for which it is intended as described in this manual.
- Do not overreach. Keep proper footing and balance at all times. Do not run the unit while standing on a ladder or on any other unstable footing location.
- Keep hands and feet clear of the nylon cutting head while unit is in use .
- Do not use this type of machine for sweeping away debris.
- Do not use the unit when you are tired, ill or under the influence of medication, drugs or alcohol.
- Use nylon cutting head which is free of damage. If a stone or any other obstacle is hit, stop the engine and check the nylon cutting head. A broken or unbalanced nylon cutting head must never be used.

#### FOLLOW INSTRUCTION FOR CHANGING ACCESSORIES.

- Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, heaters, furnaces, etc. Store in a locked, well ventilated area only.
- Ensure safe and proper performance of your product. These part are available from your dealer. The use of any other accessories or attachments may cause a potential hazard or injury to the user, damage to the machine and void this warranty.
- Clean the machine completely, especially, the fuel tank, its surroundings, and the air cleaner.
- When refueling, be sure to stop the engine and confirm that it is cooled down. Never refuel when the engine is running or hot. When gasoline spills, be sure to wipe it up completely and properly dispose of those materials before starting the engine.
- Stay clear of other workers or bystanders by at least 15 meters /50 feet.
- When ever approaching an operator of the machine, carefully call his attention and confirm that the operator stops the engine. Be careful not to startle or distract the operator which can cause an unsafe situation.
- Never touch the nylon cutting head when ever the engine is running. If it is necessary to adjust the protector or nylon cutting head, be sure to stop the engine and confirm that the nylon cutting head has stopped running.
- The engine should be turned off when the machine is moved between work areas.
- Be careful not to hit the nylon cutting head against stones, or the ground.
- Unreasonable rough operation will shorten the life of the machine as well as create an unsafe environment for yourself and those around you.
- Pay attention to loosening and overheating of parts. If there is any abnormality of the machine, stop operation immediately and check the machine carefully. If necessary, have the machine serviced by a authorized dealer. Never continue to operate a machine which may be malfunctioning.
- In start-up or during operation of the engine, never touch hot parts such as the muffler, the high voltage wire or the spark plug.
- After the engine has stopped, the muffler is still hot. Never place the machine in any places where there are flammable materials (dry grass, etc.), combustibile gasses or combustibile liquids.
- Pay special attention to operation in the rain or just after the rain as the ground may be slippery.
- If you slip or fall to the ground or into a hole, release the throttle lever immediately.

- Be careful not to drop the machine or hit it against obstacles.
- Before proceeding to adjust or repair the machine, be sure to stop the engine and detach the spark plug cap from the spark plug.
- When the machine is placed in storage for a long time, drain fuel from the fuel tank and carburetor, clean the parts, move the machine to a safe place and confirm that the engine is cooled down.
- Make periodic inspections to assure safe and efficient operation. For a thorough inspection of your machine, please contact a dealer.
- Keep the machine away from fire or sparks.
- It is believed that a condition called Raynaud's phenomenon, which affects the fingers of certain individuals may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations followed by loss of color and numbness in the fingers. The following precautions are strongly recommended because the minimum exposure which might trigger the ailment is unknown.

Keep your body warm, especially the head, neck, feet, ankles, hands and wrists.

Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks and also by not smoking.

Limit the hours of operation. Try to fill each day with jobs where operating the brush cutter or other hand-held power equipment is not required.

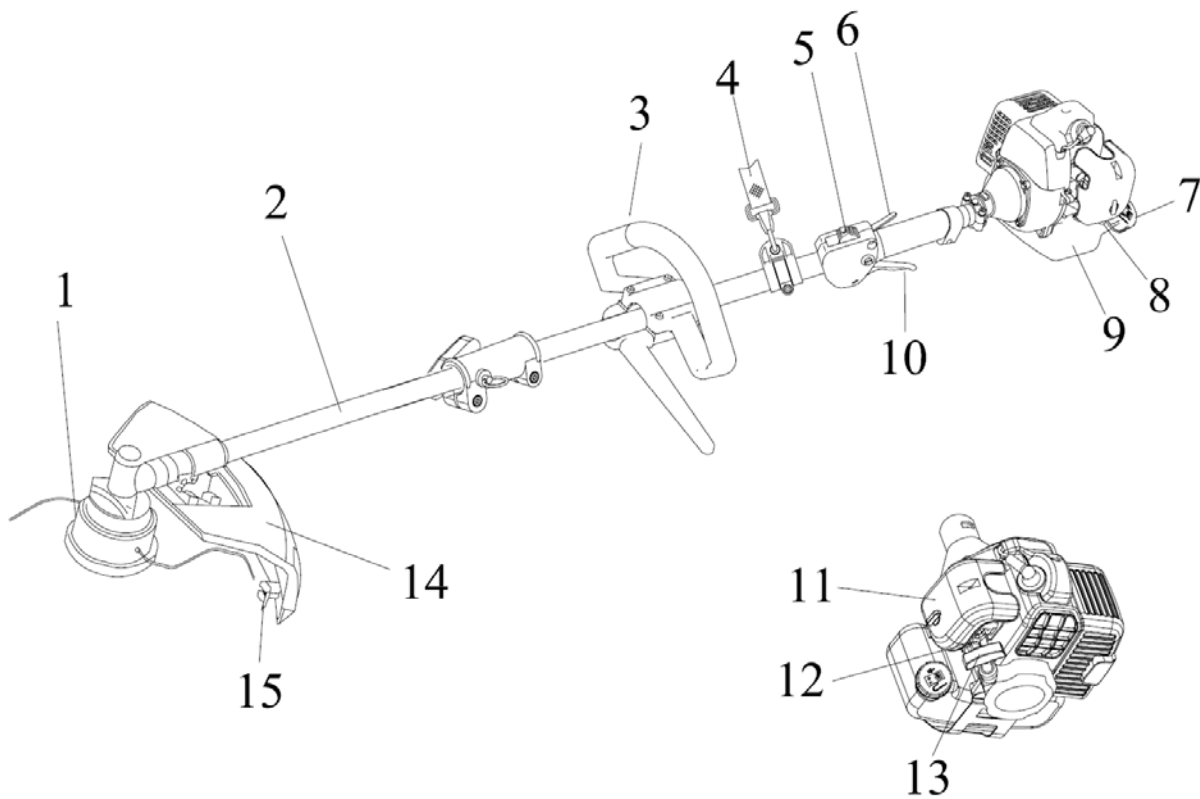
If you experience discomfort, redness and swelling of the fingers followed by whitening and loss of feeling, consult your physician before further exposing yourself to cold and vibration.

- Always wear ear protection, as being exposed to loud noise for long time can result in diminished hearing or even loss of hearing. Total face and head protection must be worn to prevent bodily injury from either slipping or falling into shrubbery, branches, or bushes.
- Wear no-slip heavy duty work gloves to improve your grip on the brush cutter handle. Gloves also reduce the transmission of machine vibration to your hands.
- **WARNING:** The cutter area is still dangerous while the machine is coasting to a stop.

**Note: Noise and vibration**

- 1.The running at low speed can reduce the noise and quiver.
- 2.In order to lower noise, the grass trimmer should be operated in an open environment.
- 3.The vibration can be lowered if the handle is grasped firmly.
- 4.In order to avoid disturbing others, the machine should be operated in daytime.
- 5.Wear personal protective equipment, such as gloves and ear protection during the operation.
- 6.The machine is not for professional work and not for long time operation.
- 7.In order to keep the user's fit and prolong the machine's life, please do not work more than 2 hours in a whole day and don't keep working more than 10 minutes at a time.

**DESCRIPTION**



**TOOL LIST**

<b>TOOL</b>	<b>BESCHREIBUNG</b>
<b>Socket Spanner</b>	<b>19</b>
<b>Hex Key</b>	<b>4/5</b>

## DESCRIPTION

SAFETY MANUAL included with unit.

Read before operating and keep for future reference to learn proper, safe operating techniques.

### **1. NYLON CUTTER HEAD**

Contains replaceable nylon trimming line that advances when the trimmer head is tapped against the ground while the head is turning at normal operating speed.

### **2. DRIVE SHAFT ASSEMBLY**

Contains a specially designed liner flexible drive shaft.

### **3. HANDLE ASS'Y**

This handle can be adjusted at your convenience for comfort.

### **4. HARNESS ASS'Y**

A attachment which hang the machine on the operator and adjustable in length.

### **5. IGNITION SWITCH**

“Slide switch” mounted on top of the Throttle Trigger Housing. Move switch FORWARD to Run, BACK to STOP.

### **6. SAFETY LEVER**

Before acceleration, compress it please.

### **7. FUEL TANK LID.**

Mit dem Gurtzeug können Sie das Gerät an Ihrem Körper befestigen und Ihrer Größe entsprechend anpassen.

### **8. PURGE BULB**

Pushing purge bulb (7 to 10 times before starting), will remove all air and stale fuel from fuel system and bring fresh fuel to the carburetor.

### **9. FUEL TANK**

Contains fuel and fuel filter.

### **10. THROTTLE TRIGGER**

Spring loaded to return to idle when released. When accelerating, press trigger gradually for best operating technique. Do not hold trigger while starting.

### **11. AIR CLEANER COVER**

Contains replaceable felt element.

### **12. CHOKE**



The choke control is located on the top of the filter cover.

### **COLD STARTS**

Pull lever up to close choke for cold starts.push lever down for RUN position.

### **13. STARTER HANDLE**

Pull handle until engine starts,then return handle slowly.DO NOT let handle snap back ,if not,starter will be damaged.

### **14. DEBRIS SHIELD**

Mounted just above the cutting attachment .Helps protect operator by deflecting debris produced during the trimming operation .Do not operate unit without shield.

### **15. CUT-OFF KNIFE**

Trims nylon filament to the correct length-7",head to end of line-when nylon trimming head is bumped on the ground during opration,line advance.if trimmer is operated without a cut-off knife the line becomes too long(more than 7") the operating speed will slow down the engine,which will overheat or damage the engine.

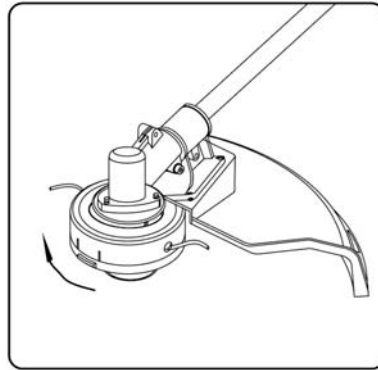
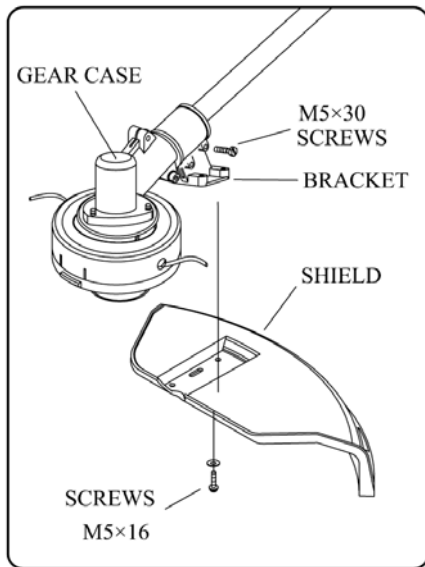
## **WARNING CAUTION**

Before using the product, Please Confirm the local laws and regulations no limit to this kind of product .Or the product can meet the requirements of local laws and regulations

## ASSEMBLY

### INSTALLING PLASTIC SHIELD

Install the safety cover on the shaft with the safety cover bracket and the screws provided. Tighten the screws after setting the safetycover bracket at the appropriate position.



### **WARNING** **CAUTION**

#### **INSTALLING NYLON LINE CUTTER HEAD**

Align hole in adapter plate with hole in shaft and install locking tool.  
Thread cutter head onto shaft (turning it clockwise) until it is tight.  
Remove locking tool.

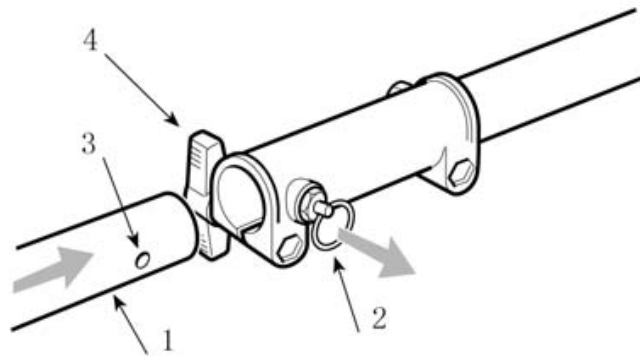
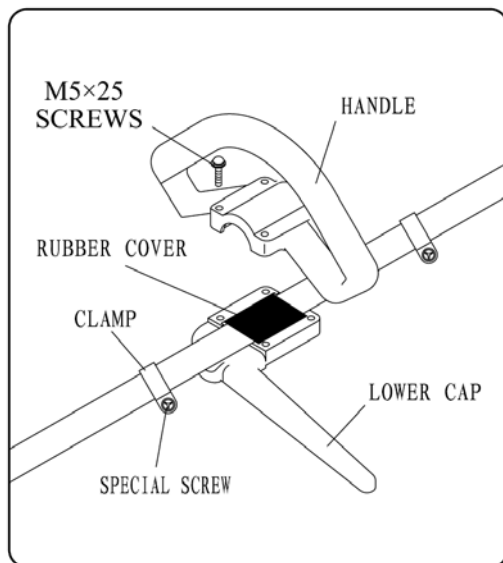
## INSTALLING HANDLE

Install handle and lower cap on the rubber cover, and tighten four M5×25 screws.

### **WARNING** **CAUTION**

Do not attempt to disassemble the two special screws.

The two clamps position has been adjusted at a suitable place, do not attempt to remove or move them. Otherwise, it can result in serious personal injury.



Pull out the stop pin (2) and push the lower part of the rod (1) right down until the stop pin (2) slots into the hole (3) in the rod. This is easier to do if you rotate the bottom of the rod (4) slightly in both directions. The pin (2) is in place when it is completely lodged in the hole. - Lastly, tighten the knob (4) securely.

## RULES FOR SAFE OPERATION

### **WARNING DANGER**

All models trimmers can throw small stone, metal or small objects as well as the material being cut. Read these "Rules for Safe Operation" with care. Follow the instructions in your operator's manual.

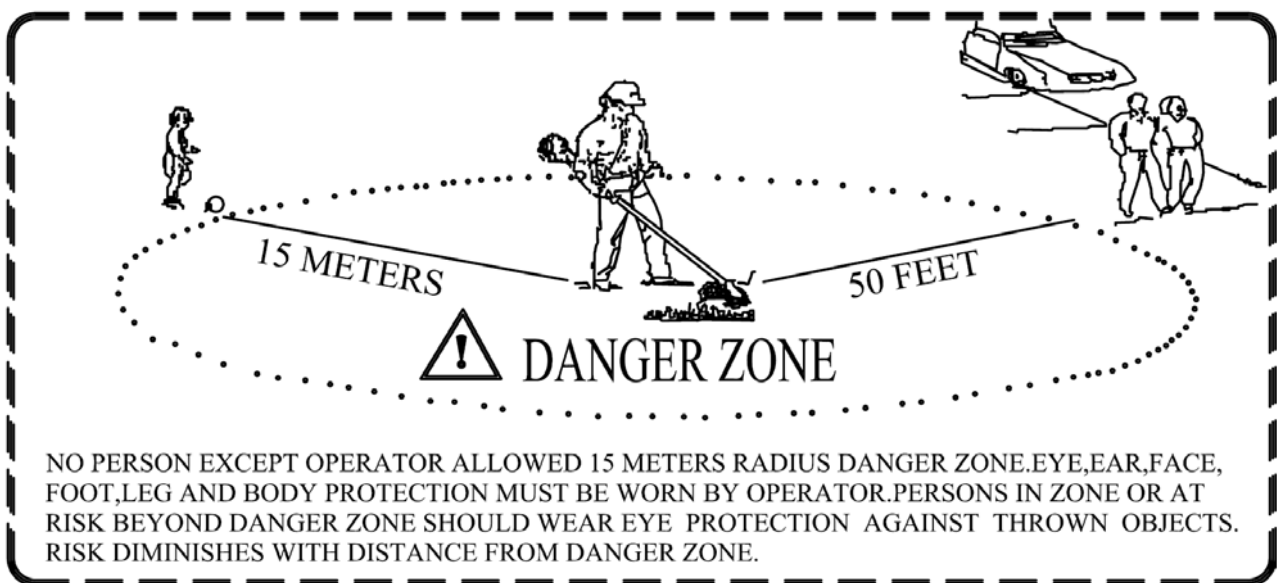
Read the operator's manual carefully. Be thoroughly familiar with the controls and proper use of the unit. Know how to stop the unit and shut off the engine. Know how to unhook a harnessed unit quickly.

Never allow anyone to use the unit without proper instruction. Be sure the operator wears the foot, leg, eye, face and hearing protection.

Do not rely on the debris shield on the unit to protect your eyes from ricocheting or thrown objects. Keep the area clear of bystanders, children and pets. Never allow children to operate or play with the unit.

Do not allow anyone to enter the operating DANGER ZONE with you. The danger zone is an area 15 meters in radius (about 16 paces) or 50 feet.

Insist that persons in the RISK ZONE beyond the danger zone wear eye protection from thrown objects. If the unit must be used where there are unprotected people, operate at a low throttle speed to reduce the risk of thrown objects.



Move the stop switch to "stop" position when the engine idles, here by ensuring it is reliable before cutting. Only may continue to operate the unit when stop switch is in good condition. Routines for checking that the cutting attachment stops turning when the engine idles.

Hold the grass trimmer with the right hand on the trigger handle and the left hand on the front handle.

Keep a firm grip with both hands while in operation.

Grass trimmer should be held at a comfortable position with the trigger handle about hip height. Maintain your grip and balance on both feet. Position yourself so that you will not be drawn

off balance by the kick-back reaction of the nylon head.

Use the shoulder harness at all times. Adjust both harness and harness clamp on the unit so that the unit hangs a few inches above ground level. The cutting head and the plastic debris shield should be level in all directions. Harness the unit on the right side of your body.

**WARNING**  **DANGER**

In addition to head, eye, face and ear protectors wear shoes to protect your feet and improve your footing on slippery surfaces. Do not wear ties, jewelry, or loose, dangling clothing which could be caught in the unit.

Do not wear open-toed footwear, or go barefoot or bare legged. In certain situations you must wear total face and head protection.

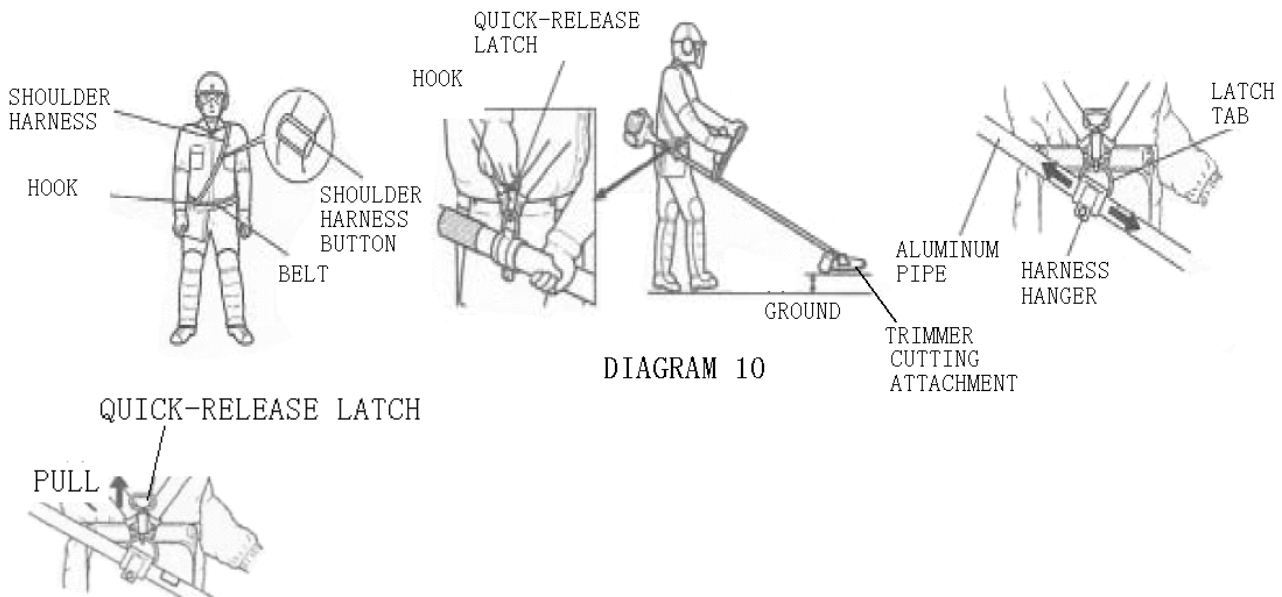
Pay attention so as not to kick back and blade thrust.

## ASSEMBLING AND USING THE SHOULDER HARNESS

1. Assemble and adjust the shoulder harness and belt, as shown.
2. Adjust the shoulder-harness button, and move the hook to your waist, then adjust the belt (if there is a belt).
3. Hang the latch tab on the harness hook.
4. If the trimmer doesn't balance, then adjust the harness hanger, and the handlebar, until the grass trimmer balances.

### **WARNING** **CAUTION**

The hook is situated at your right hip, and the quick-release latch is situated at the outside.

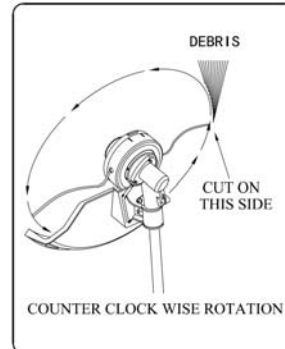
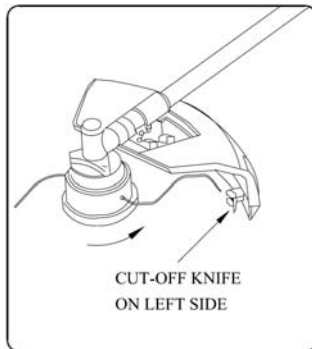


5. To quickly detach the grass trimmer from the harness, pull the quick-release latch tab upward;
6. Insert the latch tongue in the slot of the quick-release latch to reattach the grass trimmer to the harness.

### **WARNING** **DANGER**

Before using, please check the shoulder harness and confirm it is OK. Encounter danger, please stop the grass trimmer immediately, and pull the quick-release latch tab, the grass trimmer will be depart from your body.

## CUTTING WITH A NYLON HEAD



Line head rotates in a counter **CLOCKWISE** direction. The **CUT-OFF KNIFE** will be on the right side of the debris shield.

### **WARNING** **DANGER**

The proper debris shield must be in place on the unit when nylon cutting line is used. The cutting line can flap around if too much line is exposed. Always use the plastic debris shield with cut-off knife when using nylon cutting heads.

For nearly all cutting, it is good to tilt the line head so that contact is made on the part of the line circle where the line is moving **AWAY** from you and the debris shield. (See appropriate picture) This results in the debris being thrown **AWAY** from you.

### **WARNING** **DANGER**

Tilting the head to the wrong side will shoot the debris **TOWARDS** you. If the line head is held flat to the ground so that cutting occurs on the whole line circle, debris will be **THROWN** at you, drag will slow the engine down, and you will use up a lot of line.

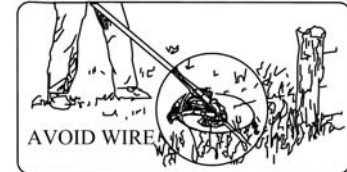
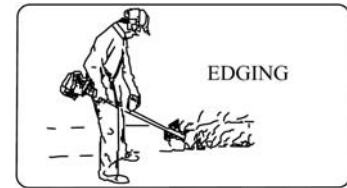
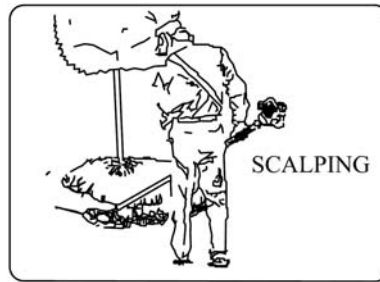
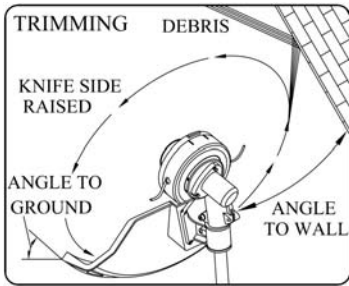
### **WARNING** **DANGER**

Use only quality nylon monofilament line of the diameter 2.5mm. Never use wire or wire-reinforced line in place of nylon trimmer line. Load your nylon line cutting head only with nylon trimmer line of the proper diameter.

### **WARNING** **DANGER**

Use extreme caution when operating over bare spots and gravel, because the line can throw small rock particles at high speeds. Debris shields on the unit cannot stop objects which bounce or ricochet off hard surfaces.

## CUTTING WITH A NYLON HEAD



### TRIMMING:

This is feeding the trimmer carefully into the material you wish to cut. Tilt the head slowly to direct debris away from you. If cutting up to a barrier such as fence, wall or tree, approach from an angle where any debris ricocheting off the barrier will fly away from you. Move the line head slowly until the grass is cut right up to the barrier, but do not jam (overfeed) the line into the barrier. If trimming up to a wire mesh or chain linked fence be careful to feed only up to wire. If you go too far the line will snap off around the wire. Trimming can be done to cut through weed stems one at a time. Place the trimmer line head near the bottom of the weed—never high up which could cause the weed to chatter and catch the line. Rather than cut the weed right through, just use the very end of the line to wear through the stem slowly.

### **WARNING DANGER**

Do not use a steel blade for edging or scalping.

### SCALPING AND EDGING:

Both of these are done with the line head tilted at a steep angle. Scalping is removing top growth leaving the earth bare. Edging is trimming the grass back where it has spread over a sidewalk or drive way. During both edging and scalping, hold the unit at a steep angle and in a position where the debris, and any dislodging dirt and stones, will not come back towards you even if it ricochets off the hard surface. Although the picture shows how to edge and scalp every operator must find for himself the angles which suits his body size and cutting situation.

### **WARNING DANGER**

Do not trim in any area where there are strands of fencing wire. Wear protective safety gear. Do not cut where you cannot see what the cutting device is cutting.



## CUTTING WITH A BLADE

### CUTTING WITH A BLADE

There are many different types of blades, however the two most commonly used are the following.

**BRUSHBLADE** is used for cutting brush and weeds up to 3/4" in diameter. Only CG420-2 255mm 3-blade can be used in this type of brush cutter.

**SAWBLADE** is used for cutting growth from 3/4" to 3" in diameter.



### **WARNING ⚠ DANGER**

**DO NOT USE A BRUSH CUTTER FOR CUTTING TREES.**

### **WARNING ⚠ DANGER**

Do not cut with dull, cracked or damaged metal blade. Before cutting growth, inspect for obstructions such as boulders, metal stakes or strands of wire from broken fences. If an obstruction cannot be removed, mark its location so that you can avoid it with the blade. Rocks and metal will dull or damage a blade. Wires can catch on the blade head and flap around or be thrown into the air.

Blade thrust is the reaction which may occur when the spinning blade contacts anything it cannot cut. This contact may cause the blade to stop for an instant, and suddenly "thrust" the unit away from the object that was hit. This reaction can be violent enough to cause the operator to lose control of the unit. Blade thrust may occur without warning if the blade snags, stalls or binds. This is more likely to occur in areas where it is difficult to see the material being cut. For cutting ease and safety, approach the weeds being cut from the right to the left, in the event that an unexpected object or woody stock is encountered, this could minimise the blade thrust reaction.

### **SCYTHING WEEDS**

This is cutting by swinging the blade in a level arc. It can quickly clear areas of field grass and weeds. Scything should not be used to cut large, tough weeds or woody growths.

**WARNING  DANGER**

Do not use a brush blade to cut trees which exceed a diameter of 1/2 to 3/4 inches.

Scything can be done in both directions, or just in one way which results in the debris being thrown away from you.

That is using the side of the blade that it is rotating away from you. Tilt down the blade slightly on this same side. You will be hit by some debris if you scythe in both directions.

**SAWING**

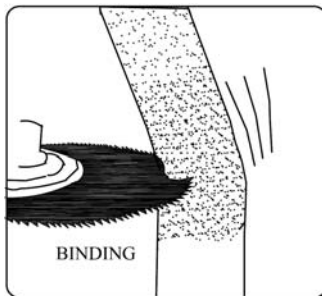
This must be done with a saw blade when the weeds are too thick and strong for scything.

If kickback occurs, the blade may be dull, or the material so thick and hard that you should use a saw blade instead of the brush blade.

Growth up to 3-inches in diameter, which is too thick for scything, may be cut by sawing. Sawing requires judgement on your part whether to cut on the side where the blade pulls away from you but throws back the debris, or on the side where the debris is thrown away from you but the reaction is push which could become a kickout (blade thrust).

Always cut on the side of the tree which will cause the tree to fall away from the unit. A kickout or bind may result if the tree falls toward the unit and pinches the blade.

Do not force the blade to cut. Do not change the angle of cut after into the wood. Avoid using any pressure or leverage which could cause the blade to bind or crack.



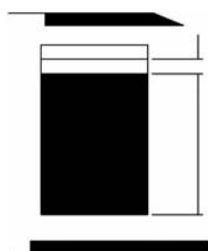
## FUEL & OIL MIXTURE



**WARNING**

- Never fill the fuel tank to the very top.
- Never add fuel to the tank in a closed non-ventilated area.
- Do not add fuel to this unit close to an open fire or sparks.
- Be sure to wipe off spilled fuel before attempting to start engine.
- Do not attempt to refuel a hot engine

Fuel used for this model is a mixture of unlead gasoline and approved engine lubricant. When mixing gasoline with two-cycle engine oil, use only gasoline which contains NO ETHANOL or METHANOL (Types of Alcohol) Use Branded 89 octane or higher unlead gasoline known to be of good quality. This will help to avoid possible damage to engine fuel lines and other engine parts.



OIL-1 PART  
GASLINE  
30 PART

**MIXTURE RATIO IS 30:1**

GASLINE-30PART ----- OIL-1 PART

Fuel mixture at the rate other than 30:1 may cause damage to the engine, Ensure mixture ratio is correct.

### FUEL

The engine uses two-stroke fuel, a mixture of gasoline and 2-stroke lubricant 30:1

### GASOLINE

Use branded 89 octane or higher unlead gasoline known to be of good quality.

### STORING FUEL

Store fuel only in a clean, safe, approved container. Check and follow local ordinances on type and location of storage container.

### IMPORTANT

Two-stroke fuel may separate. Shake fuel container thoroughly before each use. Stored fuel ages. Do not mix more fuel than you expect to use within a month.

### FUEL AND OIL MIXTURE

Inspect fuel tank making sure that it is clean and fill with fresh fuel. Use a mixture of 30:1.

## PREPARING FOR OPERATIONS

**WHEN MIXING GASOLINE WITH TWO CYCLE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL(TYPES OF ALCOHOL). THIS WILL HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS.**

**DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE ENGINE FUEL TANK.**

IMPORTANT: Failure to follow proper fuel mix instructions may cause damage to the engine.

1. When preparing fuel mixture, mix only the amount needed for the job you are to do. Do not use fuel that has been stored longer than two months. Fuel mixture stored longer than this will cause hard starting and poor performance. If fuel mix has been stored longer than this time, it should be removed and filled with fresh mixture.

### **WARNING DANGER**

2. Never fill the fuel tank to the very top. (under 3/4 of the tank)
3. Never add fuel to the tank in a closed non-ventilated area.
4. Do not add fuel to this unit close to an open fire or sparks.
5. Be sure to wipe off spilled fuel before attempting to start engine
6. Do not attempt to refuel a hot engine.

### CHECK POINTS BEFORE OPERATION

1. Check for loose bolts, nuts and fittings.
2. Check the air cleaner for dirt. Clean the air filter of all dirt, etc. before operation.
3. Check to be sure that protector is securely in place.
4. Check to be sure that fuel is not leaking.
5. Check to be sure that blade is not cracked.

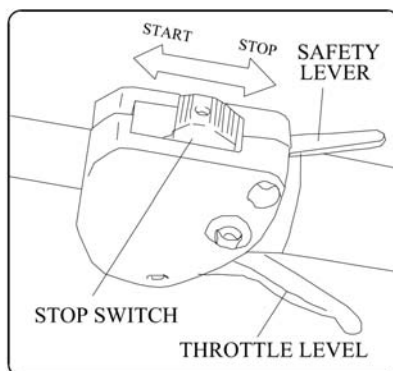
### **WARNING DANGER**

The engine exhaust from this product contains chemicals known to cause cancer, birth defects, or other reproductive harm.

## OPERATIONS



### ENGINE STARTING AND STOPPING PROCEDURES



#### STARTING COLD ENGINE

1. Move the stop switch to "START" position.
2. Give a gentle push on the primer pump repeatedly (7-10times) until fuel comes into the primer pump.
3. Cold Starts: Pull lever up to close choke.
4. Pull starter handle until engine false fires.
5. Push choke lever inwards( excessive cranking with choke lever will cause flooding engine making it difficult to start.)
6. Pull starter handle until engine starts.
7. Allow engine to warm up for a few minutes before using.

#### STARTING WARM ENGINE

- If fuel tank was not run dry, pull starter one to three times and engine should start.

#### DO NOT USE CHOKE

- If fuel tank was run dry, after refilling repeat steps 3 thru 7 in STARTING COLD ENGINE.

#### STOPPING THE ENGINE

- Move switch to STOP position.

## MAINTENANCE & CARE

### **WARNING** **CAUTION**

Use only original manufacturer's replacement parts, accessories and attachments. Failure to do so can cause possible injury, poor performance and may void your warranty.

- The cutting attachment must not rotate in idle mode. If this requirement is not satisfied, the clutch has to be adjusted or the machine needs an urgent maintenance by a qualified technician.
- You may make adjustments and repairs described here. For other repairs, have the trimmer serviced by an authorized service agent.
- Consequences of improper maintenance may include excess carbon deposits resulting in loss of performance and discharge of black oily residue dripping from the muffler.
- Make sure all guards, straps, deflectors and handles are properly and securely attached to avoid the risk of personal injury.

### **EXHAUST PORT AND SILENCER**

- Depending on the type of fuel used, the type and amount of oil used, and/or your operating conditions, the exhaust port and silencer may become blocked with carbon deposits. If you notice a power loss with your petrol-powered tool, a qualified service technician will need to remove these deposits to restore performance.

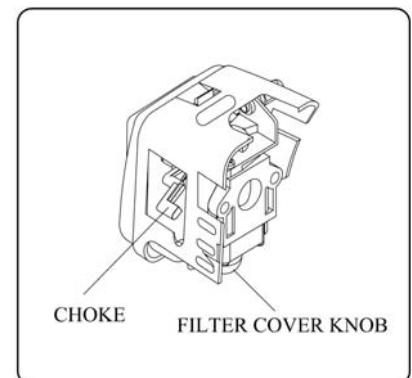
### **AIR FILTER**

- Accumulated dust in the air filter will reduce engine efficiency. Increase fuel consumption and allow abrasive particles to pass into the engine. Remove the air filter as often as necessary to maintain in a clean condition.
- Light surface dust can readily be removed by tapping the filter. Heavy deposits should be washed out in suitable solvent.
- Remove filter cover by loosening air filter cover knob.

### **ADJUSTING CARBURETOR**

#### **NOTE**

Do not adjust carburetor unless necessary. If you have trouble with the carburetor, see your dealer. Improper adjustment may cause engine damage and void warranty.

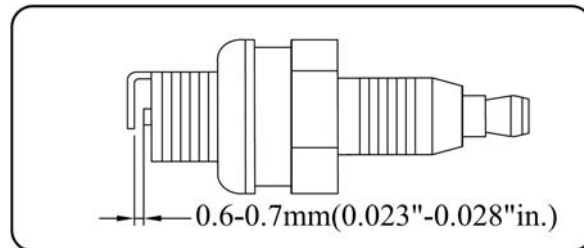
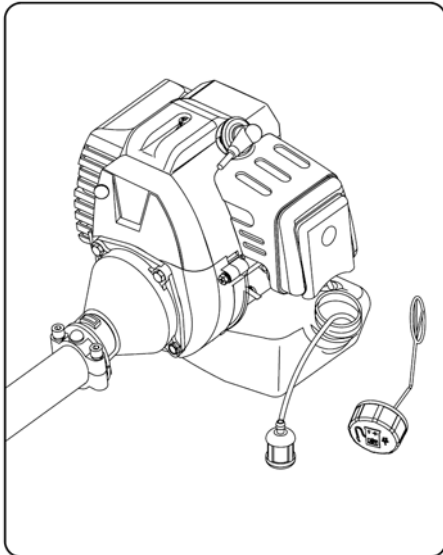


## FUEL FILTER

- Fuel tank is fitted with a filter.  
Filter is situated at the free end of fuel pipe and can be picked out through fuel port with a piece of hooked wire or the like.
- Check the fuel filter periodically. Do not allow dust to enter into fuel tank. Clogged filter will cause difficulty in starting engine or abnormalities in engine performance.
- When filter is dirty, replace the filter.
- When the inside of the fuel tank is dirty, it can be cleaned by rinsing the tank out with gasoline.

## CHECK SPARK PLUG

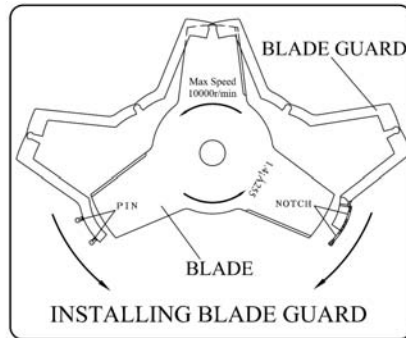
- Do not attempt to remove the plug from a hot engine in order to avoid possible damage to the threads.
- Clean or replace the plug if fouled with heavy oily deposits.
- Replace the plug if the center electrode is worn rounded at the end.
- Spark gap 0.6-0.7mm (.023"-.028")
- Fastening torque =145-155kg.cm(125-135in.lb)



## TRANSPORT & STORAGE

### TRANSPORT, HANDLING

- The engine should be turned off when the unit is moved between work areas.
- After the engine has stopped, the muffler is still hot. never touch hot Parts such as the muffler.
- Confirm that the fuel has not leaked from the tank.
- Allow the engine to cool; empty the fuel tank and secure the unit from moving before transporting in a vehicle, if the blade is fitted, always use the blade guard.
- Installing blade guard. Open the blade guard and install on the blade, then put the pin into the guard notch.



### **WARNING** **DANGER**

Always place the blade guard on the blade when the unit is not in use. Remove the blade guard before using the unit. If not removed, the blade guard could become a thrown object as the blade begins to turn.

### **WARNING** **DANGER**

Please empty the fuel tank before transporting, to avoid the engine leaking. For avoiding the cutting attachment damaged the brush cutter and people, please remove the cutting attachment, and at the same time, reset the brush cutter as factory state, and then cast all parts into the package. Before transporting, all parts should be packed and validated safe.

### EXTENDED STORAGE

- Inspect, clean and repair unit if necessary.
- Remove all fuel from tank.
- Start engine-This will consume all fuel in fuel line and carburetor.
- Remove spark plug and pour one tea spoon of clean motor oil into spark plug hole of cylinder-replace spark plug.
- Store in clean, dry, dust free area.

### **WARNING** **DANGER**

Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, heaters, furnaces, etc. Store in a locked, well ventilated area only.



# TROUBLE SHOOTING GUIDE

## 1. FAILURE TO START

symptom			probable cause	remedy	
cylinder compress pressure  normal	spark plug spark normal	fuel system abnormality	these is no fuel in tank fuel filter obstructed	add fuel in tank clean fuel filter	
		fuel system normal	fuel	fuel is too dirty there is water in fuel there is too much fuel in cylinder mixture ratio is improper	replace fuel replace fuel take down spark plug and dry it mixture proration
	fuel system normal	high voltage wire spark normal	park plug	spark plug fouled with oily deposits spark plug insulation damage spark gap is too large or small	clean the oily deposits  replace spark plug  adjust spark gap 0.6-0.7mm
		high voltage wire spark abnormality		high voltage wire breach or break off  coil looseness	replace or tighten  tighten
fuel system normal	Ignition system normal	compression pressure is inadequate	piston ring attrite piston ring is broken piston ring cementation spark plug looseness conjoint surface of the cylinder and crank cass leak	replace a new replace eliminate tighten eliminate	
		compression normal	high voltage wire and spark plug contact poor  stop switch failure or short circuit	tighten the spark plug cap  repair or replace	

## 2. LOW OUTPUT

symptom	probable cause	remedy
flameout when speedup the smoke is thin, carburetor spout backward	fuel filter obstruct, fall short of fuel muffler fouled with oily deposits	clean fuel filter、 clean fuel road、 adjust carburetor clean the oily deposits
compress press is inadequate	piston、 piston ring、 cylinder attrite	replace piston、 piston ring
engine leak	conjoint surface of the cylinder and crank cass leak	repair
the end of two crank shaft leak	the seal is bad	replace seal
	engine overheats burning room fouled with oily deposits	avoid use it for long time 、 high speed and heavy load clean the oily deposits

## 3.ENGINE RUNNING UNSTABLE

symptom	probable cause	remedy
there are knock sound in engine	piston、 piston ring、 cylinder attrite、 piston pin、 piston attrite bearing of crank shaft attrite	replace piston、 piston ring  replace piston pin、 piston replace bearing
there are metal knock sound	engine overheats  burning room fouled with oily deposits gasoline branded is unfit	avoid use it for long time 、 high speed and heavy load clean the oily deposits  replace with required branded octane
engine ignition break off	there is water in fuel spark gap is wrong coil gap is wrong	instead fuel adjust spark gap 0.6-0.7mm adjust coil gap 0.3-0.4mm

## 4.THE ENGINE SUDDENLY STOPPED

probable cause	remedy
fuel has been used up spark plug fouled with oily deposits and short circuit high voltage wire fall off	add fuel clean the oily deposits connect

# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

#### **MODEL: KZ-4000MT-PRO-2S**

**(PART 4: LAWN EDGER)**



**Original Instructions**

#### **CAUTION:**

Thank you for purchasing a product. Before using our pole saw, please read this manual carefully to understand the proper use of your unit.



## CONTENTS

<b>INTRODUCTION/TECHNICAL DATA -----</b>	<b>82</b>
<b>SYMBOL-----</b>	<b>83</b>
<b>ATTACHING THE TOOLS TO THE DRIVE SHAFT ASSEMBLY-----</b>	<b>85</b>
<b>Operation -----</b>	<b>86</b>



## INTRODUCTION

Thank you for your purchasing the lawn edger of our Company. The present manual explains how to handle the lawn edger well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task safely. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.

















## TECHNICAL DATA

	<b>Model</b>	<b>KZ-4000MT-PRO-2S (PART 4: LAWN EDGER)</b>
<b>Main unit</b>	Remote type	Spiral bevel gear; Drive shaft
	Maximum speed of gear shaft/engine speed (/min)	7030/ 9100
	Idle speed(/min)	2500-3000
	Weight when dry(kg)	8.8
	Reduction ratio	17:22
	Type of handle	Double grip
	Cutting Attachment	Maximum Operating Depth
Thickness of the Blade		3 mm
<b>Engine</b>	Name of engine	<b>HP40</b>
	Type	Air-cooled; 2 cycle; vertical piston valve; gasoline engine
	Displacement(mL)	39.8
	Maximum output(kW//min)	1.25/7000
	Fuel tank capacity(L)	1
	Dry weight(kg)	4.2
	Carburetor	Diaphragm-type
	Ignition	Non-contact electronic ignition
	Method of starting	Recoil type
Fuel used	Gasoline mixed with lubricating oil (ratio of 30:1)	




**Technical Data subject to changed without notice.**

## SYMBOLE

Some of the following symbols may be used on this tool. Please study them and understand their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

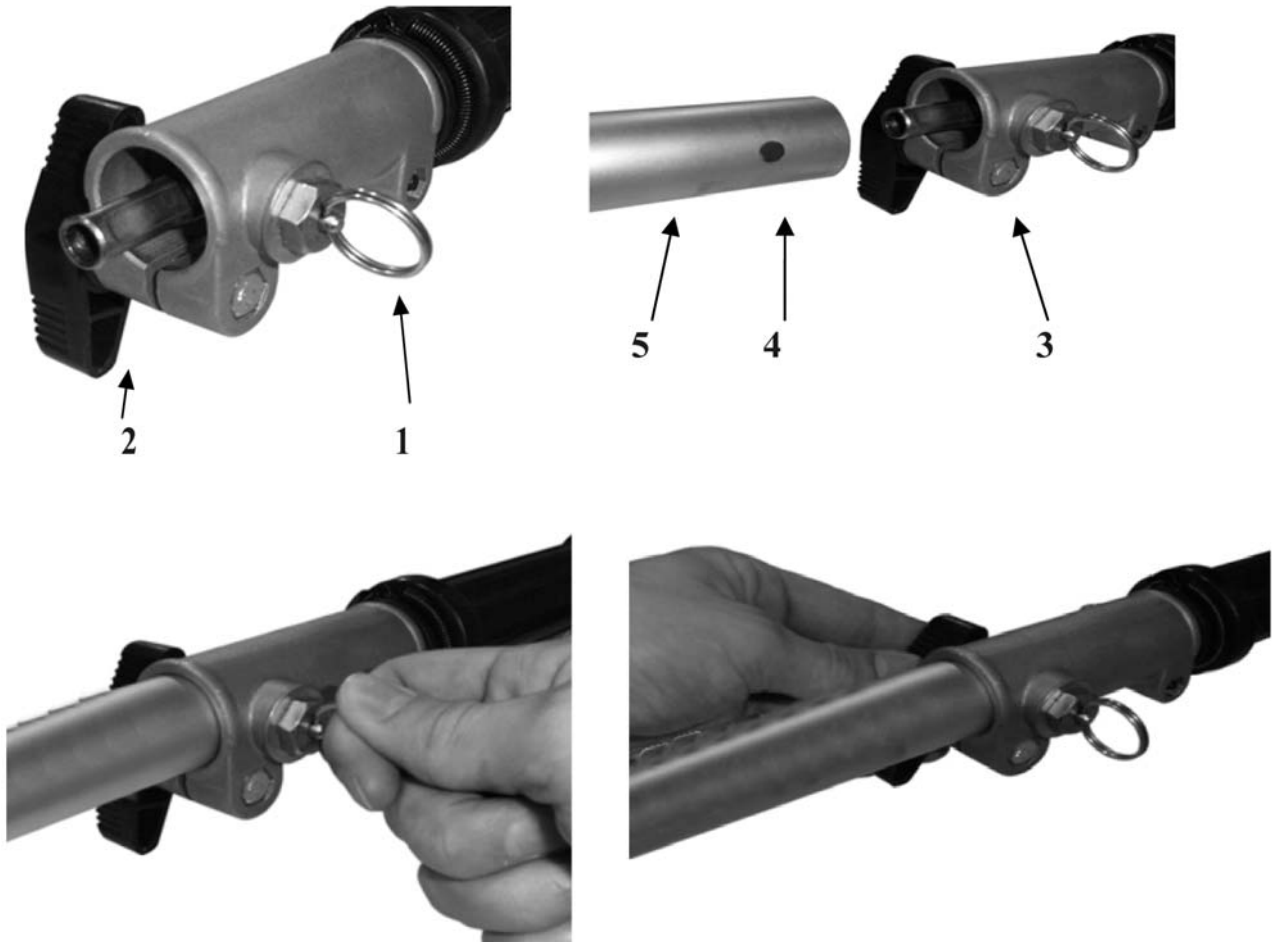
SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates danger, warning or caution. It means attention! Your safety is involved.
	Read The Operator' Manual	Read the operation manual and follow all warnings and safety instructions.
	Ricochet Alert	Danger of Ricochet.
	Keep Bystanders Away	Keep all bystanders (especially children and pets) at least 15m away from the work area.
	Do not use toothed blade	This unit is not intended for use with a toothed saw type blade.
	RPM Decal	Rotational direction and maximum speed of the shaft for the cutting attachment.
	Boots	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty gloves.
	No Smoking	Do not smoke when mixing fuel or filling fuel tank.
	Petrol	Use unleaded petrol intended for motor vehicle use with an octane rating of 91([R+M]/2) or higher.
	Oil	Use 2-stroke oil for air cooled engines.
	Mix Petrol and Oil	Mix the fuel mix thoroughly and also each time before refuelling.
		Fully press and release the prime bulb 5 times.
		All relevant directives, which require the CE-marking and which are applicable for the product, are fulfilled.
		Wear eye, hearing and head protection when operating this equipment.
		To reduce the risk of injury or damage, avoid contact with any hot surface.



		Guaranteed sound power level
	Beware Of Blade Thrust	Continued movement of saw blade after cutting through log.
		A hazard from fire/flammable materials.

## ATTACHING THE TOOLS TO THE DRIVE SHAFT ASSEMBLY

1. Rest the power unit/shaft assembly on a flat firm surface.
2. Ensure that the clamping wing nut (2) is loose, pull out locator pin (1).
3. Carefully fit attachment drive shaft assembly (5) into coupler (3).
4. After the attachment drive shaft is in the coupler, release the locator pin (1).
5. Turn the attachment drive shaft until the locator pin engages with the locating hole (4) in the drive shaft, when this has happened it will not be possible to twist the drive shaft.
6. Secure the drive shaft by tightening the clamping wing nut (2).



## **Operation**

Always wear eye protection such as safety goggles. Never lean over the rotating cutting head. Rocks or other debris could be thrown into eyes and face and cause serious personal injury.

Keep the blade guard and the mud guard attached in place at all times when the unit is operated.

Before starting a job, check the area and remove all obstacles and objects that could be thrown by the blade.

Do not adjust the wheel height or try to remove anything entangled to the blade with the engine running.

1. Before starting a job, plan your direction of travel so that you can always hold the edger on your right side and can walk on a hard surface as much as possible.
2. When starting to edge, run the engine at full throttle, and slowly have the blade cut into the edge groove.



# ***KASEI***

## **OWNER/OPERATOR MANUAL**

### **MULTI TOOL - BRUSH CUTTER**

#### **MODEL: KZ-4000MT-PRO-2S**

(PART 5: CULTIVATOR)



**With  
Japan  
Walbro  
carburator**



**Original Instructions**

#### **CAUTION:**

Thank you for purchasing a product. Before using our pole saw, please read this manual carefully to understand the proper use of your unit.



## CONTENTS

<b>INTRODUCTION/TECHNICAL DATA</b>	<b>-----89</b>
<b>SYMBOL</b>	<b>-----90</b>
<b>ATTACHING THE TOOLS TO THE DRIVE SHAFT ASSEMBLY</b>	<b>-----92</b>
<b>DESCRIPTION</b>	<b>-----93</b>
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<b>RESETTING TINED FOR DEEP CULTIVATION</b>	<b>-----95</b>





## INTRODUCTION

Thank you for your purchasing the cultivator of our Company. The present manual explains how to handle the cultivator well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task safely. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.

















## TECHNICAL DATA




	<b>Model</b>	<b>KZ-4000MT-PRO-2S (PART 5: CULTIVATOR)</b>	
<b>Main unit</b>	Remote type	Spiral bevel gear; Drive shaft	
	Maximum speed of gear shaft/engine speed (/min)	240/ 9100	
	Idle speed(/min)	2500-3000	
	Weight when dry(kg)	11	
	Reduction ratio	1:38	
	Type of handle	Double grip	
	Cutting Attachment	Type of cut	Cutting blades
		Number of teeth	4
		Thickness of the Blade	1.5 mm
		Useful cutting width	320 mm
Maximum Operating Depth		80 mm	
<b>Engine</b>	Name of engine	<b>HP40</b>	
	Type	Air-cooled; 2 cycle; vertical piston valve; gasoline engine	
	Displacement(mL)	39.8	
	Maximum output(kW//min)	1.25/7000	
	Fuel tank capacity(L)	1	
	Dry weight(kg)	4.2	
	Carburetor	Diaphragm-type	
	Ignition	Non-contact electronic ignition	
	Method of starting	Recoil type	
	Fuel used	Gasoline mixed with lubricating oil (ratio of 30:1)	

**Technical Data subject to changed without notice.**

## SYMBOLE

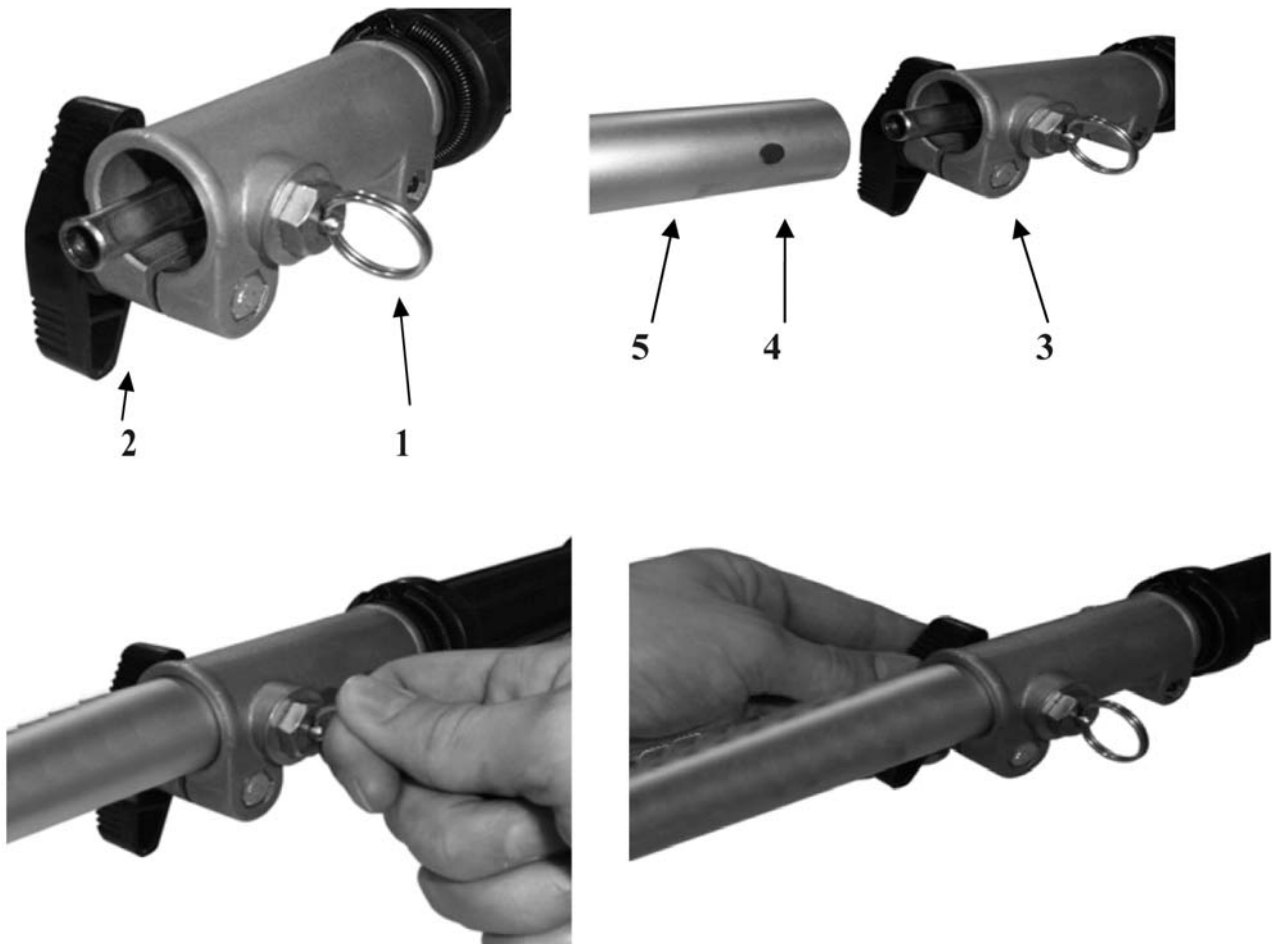
Some of the following symbols may be used on this tool. Please study them and understand their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates danger, warning or caution. It means attention! Your safety is involved.
	Read The Operator' Manual	Read the operation manual and follow all warnings and safety instructions.
	Ricochet Alert	Danger of Ricochet.
	Keep Bystanders Away	Keep all bystanders (especially children and pets) at least 15m away from the work area.
	Do not use toothed blade	This unit is not intended for use with a toothed saw type blade.
	RPM Decal	Rotational direction and maximum speed of the shaft for the cutting attachment.
	Boots	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty gloves.
	No Smoking	Do not smoke when mixing fuel or filling fuel tank.
	Petrol	Use unleaded petrol intended for motor vehicle use with an octane rating of 91([R+M]/2) or higher.
	Oil	Use 2-stroke oil for air cooled engines.
	Mix Petrol and Oil	Mix the fuel mix thoroughly and also each time before refuelling.
		Fully press and release the prime bulb 5 times.
		All relevant directives, which require the CE-marking and which are applicable for the product, are fulfilled.
		Wear eye, hearing and head protection when operating this equipment.
		To reduce the risk of injury or damage, avoid contact with any hot surface.

		Guaranteed sound power level
	Beware Of Blade Thrust	Continued movement of saw blade after cutting through log.
		A hazard from fire/flammable materials.

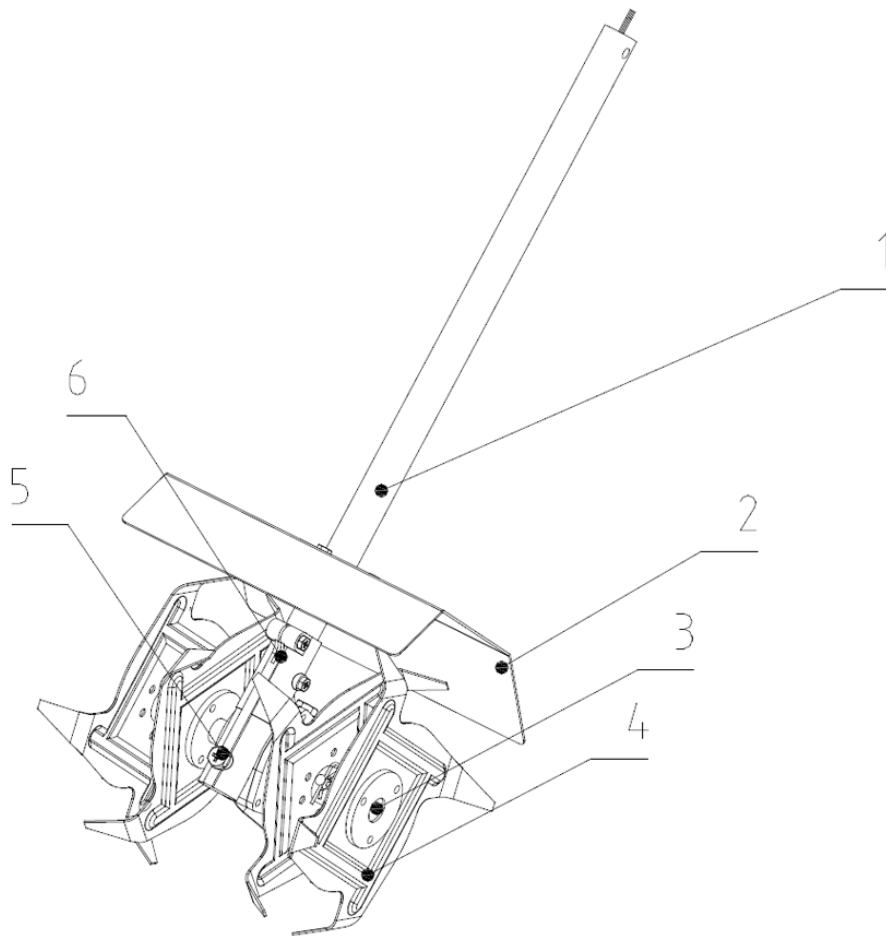
## ATTACHING THE TOOLS TO THE DRIVE SHAFT ASSEMBLY

1. Rest the power unit/shaft assembly on a flat firm surface.
2. Ensure that the clamping wing nut (2) is loose, pull out locator pin (1).
3. Carefully fit attachment drive shaft assembly (5) into coupler (3).
4. After the attachment drive shaft is in the coupler, release the locator pin (1).
5. Turn the attachment drive shaft until the locator pin engages with the locating hole (4) in the drive shaft, when this has happened it will not be possible to twist the drive shaft.
6. Secure the drive shaft by tightening the clamping wing nut (2).



## DESCRIPTION

1. DRIVE SHAFT ASSEMBLY - Contains a specially designed liner and the flexible drive shaft.
2. SHIELD - Attached to deflect debris away from operator and reduce accidental contact with tines.
3. HUB - Separately attached to axle ends by clevis pin and spring pin. Tines bolt to hubs.
4. TINES - Identical on right and left side from operator's position. See page 12 for optional settings.
5. GREASE ACCESS BOLT - Apply lithium grease with grease gun to gear housing every 30 hours of use.
6. GEAR HOUSING - Houses gears and ball bearings for driving tines.



## Operation

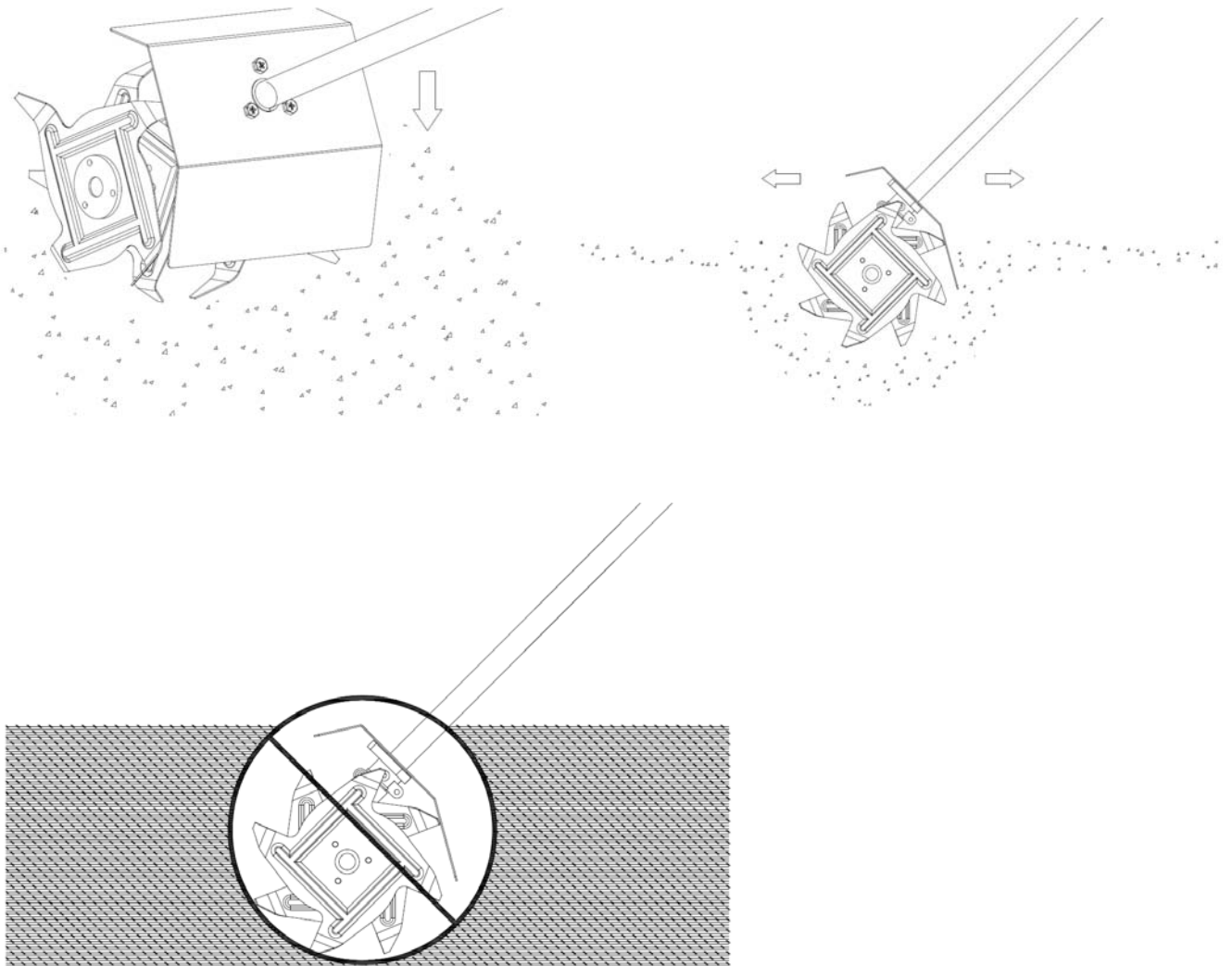
The tilling width of the cultivator is approximately 300mm place cultivator in area to be tilled, hold unit firmly with left hand on front grip and right hand on rear grip and gradually engage throttle trigger. guide the cultivator allowing the tines to pull forward the soil hardness will control tilling speed

The cultivator attachment is capable of tilling in the forward or reverse direction, for deep soil tilling. Till forward then lightly pull unit rearward allowing the tines to make a deeper cut into the soil deep soil cultivating can also be enhanced by repositioning the tines.

To raise or aerate the soil, tilt engine closer to the ground which will raise cultivator tines higher relative to the soil surface

### Important

Do not operate cultivator under water, the gear housing is not sealed and water will wash away lubrication damaging gears, bearings, and seals



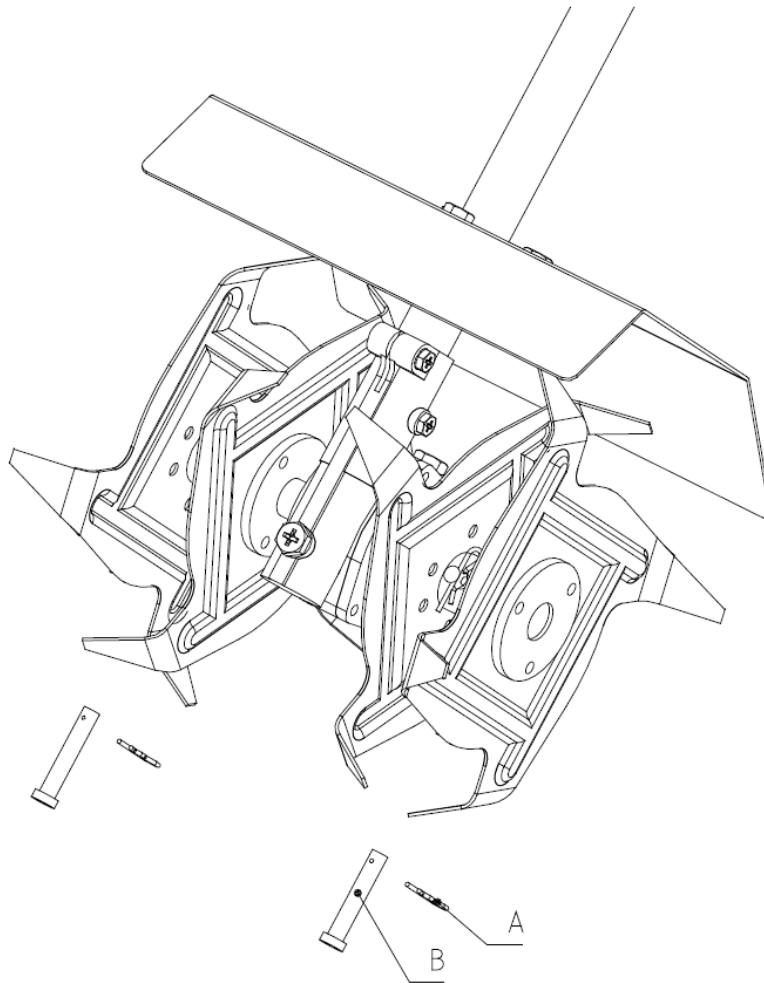
## Resetting tined for deep cultivation

The tines are factory assembled with blade ends offset for standard cultivation, for deep cultivation ,the left tine must be repositioned on the hub aligning the left and right tine blade ends directly across from each other

1 remove four(4)spring pins (A)and four(4)parallel pins(B)mounting left tine to hub ,the bolts will be mounted in hole labeled

2.Rotate tine counter clockwise and position hole labeled(4)over hub mounting holes, the tine blade ends should be aligned directly opposite each other

3 install and tighten bolts



## INSPECTION & MAINTENANCE

For safety use, make sure the machine is cleaned every three-months. Before working, make sure to inspect the filter and the nozzle, and ensure there is no impurity. After working, make sure there is no water in the pump and the hose.

If the machine needs to be repaired in the guarantee period, please return the machine to the shop. You need to provide the certificate of purchase in order to repair or get the substitute.

Before Packing, the machine should be cleaned, then use closed packaging, packaging should be firm. Store the machine in dry place.

For transportation safety. The machine should comply with ISTA.



Meaning of crossed - out wheeled dustbin:

Do not dispose of electrical machines as unsorted municipal waste, use separate collection facilities.

If electrical machines are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old machines with new ones, the retailer is legally obligated to take back your old machine for disposals at least free of charge.



# Warranty Card

## CUSTOMER COPY



Purchaser's Name & Address

\_\_\_\_\_  
\_\_\_\_\_

Date of Delivery

\_\_\_\_\_

Product Name

KZ-4000MT-PRO-2S MULTI TOOL - BRUSH CUTTER

Dealer's Office Seal

\_\_\_\_\_

Product Serial No.

\_\_\_\_\_

Dealer Sign \_\_\_\_\_

Customer Sign. \_\_\_\_\_

Invoice / DN No.

\_\_\_\_\_

I/We accept the terms and conditions of Warranty as in the Warranty Card.

# Warranty Card

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Customer Sign. \_\_\_\_\_

Invoice / DN No.

\_\_\_\_\_

I/We accept the terms and conditions of Warranty as in the Warranty Card.

1. **LIMITED WARRANTY PERIOD** : For a period of six months from the date of Sale / delivery of the product which ever is earlier. 2. **LIMITED WARRANTY OBLIGATION** : Replacement of defective part(s) by authorized dealer are free of charges. If found defective by reasons of defective material / poor workmanship, parts will be replaced and there will be no value re-imbusement. 3. **TERMS & CONDITIONS** : a. Claims under warranty will be accepted on submission of Warranty Card duly filled and stamped by authorized dealer together with the original purchase document. : b. Shipping / transportation / Incidental charges incurred in replacing defective parts under warranty shall be borne by the purchaser.

**WARRANTY null & void if**

- (i) Lack of maintenance, (ii) Incorrect use of the machine or tampering, (iii) Use of non-genuine spare parts, (iv) Usage of acids, solvents, or any flammable materials, (v) Non-usage of filter water / clear water / soft water & using water above 40°C temperature, (vi) While using the pressure washers to draw water which is contaminated with dust & solvents (eg. paint thinners, gasoline, oil, etc.), (vii) Repair done by unauthorized service people, (viii) Those parts subject to wear & tear due to normal operations and plastic parts, rubber items etc, (ix) Loose connections, faulty electrical fixtures & fluctuations in power supply.
4. Should any failure occur during or after the warranty period, customer does not have the right to interrupt payment / price discount.
  5. Incidental or consequential damages like inconvenience commercial loss, loss of tie, mental agony etc.
  6. Loss of any nature due to operation or non-operation is not covered under warranty.
  7. All free service are at Dealer's service point only.
  8. Warranty ceases if service is not done periodically.
  9. The attached card should be completed and returned to Ratnagiri Impex Pvt. Ltd. for registration immediately after sale / delivery.
  10. The warranty is void unless you register the warranty card with Ratnagiri Impex Pvt. Ltd.
  11. The decision of Ratnagiri Impex Pvt. Ltd., in settling the warranty is final in all respects.
  12. All disputes are subject to Bangalore Courts Jurisdiction

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## 1st Free Service Coupon

ISO 9001-2008  
CERTIFIED COMPANY

**FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))**

Model

KZ-4000MT-PRO-2S MULTI TOOL - BRUSH CUTTER

Serial Number

PDI Date

Service No.

Purchase bill no.

Date

Dealer's Office Seal & Signature

Operations:

- Check and Test the Fuel Mixture.
- Check and Clean the Air Filter
- Check, Clean and Adjust the Spark plug
- Check and Adjust the Carburetor Tuning
- Check and Sharpen the cutting Tools
- Start and Check the Noise, Vibration, Loosen / Fasteners etc.
- Product familiarization on Usage
- Routine maintenance and Storage

Customer Signature.....

Conditions: Operations listed have been performed to my entire satisfaction without any labour charges. Only consumables were charged.



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WARRANTY AND FREE SERVICE COUPON



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## 2nd Free Service Coupon

ISO 9001-2008  
CERTIFIED COMPANY

**FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))**

Model

KZ-4000MT-PRO-2S MULTI TOOL - BRUSH CUTTER

Serial Number

PDI Date

Service No.

Purchase bill no.

Date

Dealer's Office Seal & Signature

Operations:

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Customer Signature.....

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WARRANTY AND FREE SERVICE COUPON



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## 3rd Free Service Coupon

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CERTIFIED COMPANY

**FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))**

Model

KZ-4000MT-PRO-2S MULTI TOOL - BRUSH CUTTER

Serial Number

PDI Date

Service No.

Purchase bill no.

Date

Dealer's Office Seal & Signature

Operations:

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- Check and Clean the Air Filter
- Check, Clean and Adjust the Spark plug
- Check and Adjust the Carburetor Tuning
- Check and Sharpen the cutting Tools
- Start and Check the Noise, Vibration, Loosen / Fasteners etc.
- Product familiarization on Usage
- Routine maintenance and Storage

Customer Signature.....

Conditions: Operations listed have been performed to my entire satisfaction without any labour charges. Only consumables were charged.



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WARRANTY AND FREE SERVICE COUPON



Small Maintenance. Big Savings.



Small Maintenance. Big Savings.



Small Maintenance. Big Savings.





***KASEI***  
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multi-applications

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Mysore Road, Bangalore-560 026

Customer Care: 1800-425-3036

email: [marketing@ratnagiriimpex.com](mailto:marketing@ratnagiriimpex.com)

[www.ratnagiriimpex.com](http://www.ratnagiriimpex.com)



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