

# POWER KING<sup>®</sup>

## INSTRUCTION MANUAL

**43cc** Brush cutter and Grass trimmer 2in1 COMBO

MODEL PK1101



**WARNING:** read this instruction handbook before using this machine.

## DESCRIPTION OF THE SYMBOLS

The use of symbols in this manual is intended to draw your attention to possible risks. The safety symbols and the explanations that accompany them must be perfectly understood. The warnings in themselves do not remove the risks and cannot replace correct actions for preventing accidents.

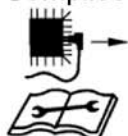


**Read the instruction handbook and follow all warning and safety instructions**

Before any use, refer to the corresponding paragraph in the present manual.



Complies with European regulations applicable to this product..



Remove the SPARKPLUG cable before all maintenance work, and read the instructions for use.



USE CAUTION when handling fuel and lubricants!



Don' expose to rain.



The exhaust and exhaust gases are hot



Danger of injury from flying parts! Always maintain a safe distance. Be aware of thrown objects.

The distance between the machine and by standers should beat least 50 FEET



The blade is very sharp, it must be handled with protective gloves. Handle only when the blade is completely stopped and the engine is off.



Warning:Sharp blade behind the blade guard



Starting the engine creates a spark.  
Sparking can ignite nearby flammable gases.



Engines give off carbon monoxide, an odorless, colorless, poison gas. Breathing carbon monoxide can cause nausea, fainting or death. **USE IN OUTDOOR AREAS ONLY.**



For outdoor use only



Strictly no open flames or smoking near the equipment



**Wear** hearing protection, eye protection and gloves when using the product.



Wear **slip-resistant** footwear when using the device.



Push the primer bubble 8 times before starting cold



Wear head protection, when there is a risk of falling objects.



Choke closed



Choke open



Beware of blade thrust, keep your body clear at all times

## **IMPORTANT READ CAREFULLY BEFORE USE KEEP FOR FUTURE REFERENCE**

The machine shall always be used in accordance with the manufacturer's instructions in the instruction manual.

The manufacturer will not be liable in cases of inappropriate use or modifications of the equipment. Also, follow the safety advice, the installation and operation manual and also the accident prevention regulations.

Equipment without correct or missing parts should never be operated.

### **1). Training**

- a) Read the instruction carefully. Be familiar with the controls and proper use of the equipment.
- b) Never allow children to operate this cutter.

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- c) Never work while people, children, or pets are nearby.
  - d) Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
  - e) Major repair work shall be carried out only by authorized service centers.
  - f) All persons and animals must be kept at least 50 feet from the machine while it is in operation.

## **2). Preparation**

- a) WARNING-Petrol is highly flammable:
  - store fuel in containers specifically designed for this purpose;
  - refuel outdoors only and do not smoke while refueling;
  - add fuel before starting the engine. Never remove the cap of fuel tank or add fuel while the engine is running or when the engine is hot;
  - if fuel is spilled, do not attempt to start

the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated;

- replace all fuel tank and container caps securely.

- b) The brush cutter is fitted with a 2-stroke engine, proper fuel and oil mix is required.
- c) Before using, always visually inspect to see that the tools are not worn or damaged. Replace worn or damaged elements and bolts in sets to preserve balance.
- d) Do not smoke near the machine.
- e) Do not wear loose clothing, jewelery, or similar items that could be caught in the starter or other moving parts.
- f) Never put any items into the ventilation openings. Non-observance may lead to injury, or damage to the machine.
- g) It is necessary reduction in power due to use in higher temperatures, altitudes and humidity as below conditions.
  - 1) Max Working Temperature: 104°F
  - 2) Max altitudes: 3280 ft
  - 3) Max humidity: 95%

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### **3). Operation**

- a) Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect
- b) Keep the machine free of oil, dirt and other impurities.
- c) Please always place the machine on even and stable surfaces.
- d) Never operate the machine inside buildings or in an environment without proper ventilation. Pay attention to air flow and temperature.
- e) Do not operate or store the appliance in wet or humid surroundings.
- f) Ensure the muffler and air filter work properly. These parts serve as flame protection in case of misfire.
- g) To avoid possible burn injuries, do not touch the exhaust system or other parts that become hot during operation. Pay attention to the warnings on the machine.
- h) The engine must not be operated with excessive rotary speed. The operation of

the engine with excessive rotary speed raises the risk of injury. Parts which affect the rotary speed must not be altered or replaced.

- i) Regularly check for leakage or traces of abrasion in the fuel system, such as porous pipes, loose or missing clamps and damage to the tank or tank cap. Repair all damage before using the machine.
- j) Work only in daylight or in good artificial light.
- k) Never lay down a machine while the engine is running
- l) Stop the engine:
  - whenever you leave the machine–
  - always refuel when engine is cool
- m) Before checking or adjusting the machine, the ignition wire must be removed to prevent accidental starting.
- n) Do not use this machine when you are tired, ill or under the influence of alcohol or the drugs.
- o) Comply with local regulations to use the brush cutter.
- p) Contact your local government offices for

information regarding minimum age requirements for operating the equipment.

- q) Wear safety goggles and ear protection. Other safety equipment for the hands, legs and feet is recommended. Correct safety equipment reduces the risk of injury caused by flying objects or in the event of accidental contact with the brush cutter.
- r) Ensure that you maintain a steady foothold. Only use the brush cutter on flat surfaces where you have a firm footing.
- s) While working, always wear substantial slip-resistant foot protection as well as protective clothing and long trousers. Wear protective work boots to protect your feet. Always keep proper footing and operate the brush cutter only when standing on fixed, secure and level surface.
- t) Always hold the brush cutter with two hands and take frequent breaks

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- u) Always use the harness when operate the tool, and adjust the length of the harness to ensure it is suitable for operation.
  - v) Always use the correct blade and spool recommended by the manufacturer.
  - w) Take care against injury to feet and hands from the cutting area.
  - x) Always ensure that the ventilation openings are kept clear of debris
  - y) Perform daily inspection after use and after dropping or other impacts to identify any significant damage.
  - z) Keep always correct working posture, have frequently rest periods and change working positions. Keep firm footing and balance during operation, use the harness provided.
  - aa) It has been reported that, for some people, the vibrations produced by the motorized hand tools can lead to develop a disease called Raynaud's syndrome or white finger. Symptoms may include tingling, numbness and blanching of the fingers, usually caused by exposure to cold. Heredity, exposure to cold and dampness,

diet, smoking and work habits are all thought to contribute to the development of these symptoms. There is currently no evidence that a certain type of vibration or exposure actually contributes to the development of this assignment. Some measures that can reduce the effects of vibration, can be taken by the operator:

- Keep your body warm in cold weather. During use, wear gloves to keep your hands and wrists warm. It has been reported that cold weather is one of the main causes of Raynaud's Syndrome.
- After each period of operation, exercise to increase circulation in hands, arms and legs.
- Take frequent breaks. Limit the duration of daily exposure.
- Keep the tool well maintained, all fasteners tightened and worn parts replaced.
- In case of occurrence of one or more of the symptoms described above, stop using the tool and seek medical attention.

#### **4). Maintenance and storage**

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- a) Keep all nuts and screws tight to be sure the equipment is in safe working condition.
  - b) Never store the equipment with fuel in the tank inside a building where fumes can reach an open flame or spark.
  - c) Allow the engine to cool before storing in any enclosure.
  - d) To reduce the fire hazard, keep the engine, muffler and fuel storage area free of vegetative material and excessive grease.
  - e) Replace worn or damaged parts for safety.
  - f) If the fuel tank has to be drained, this should be done outdoors.
  - g) Always clean and perform maintenance before storage.
  - h) Never remove the guard from the machine during cutting.
  - i) Always store the metal blade in cool and dry place, never use rusted blade. It may cause serious injury during working.

## **5) TRANSPORTATION AND HANDLING**

- a) Whenever the machine is to be handled or transported you must:

- turn off the engine, wait for the cutting device to stop and disconnect the spark plug cap;
  - install the cutting guard;
  - use protective gloves when handling the blades;
  - Keep the blade protection device on;
  - only hold the machine using the handgrips and position the cutting device in the opposite direction to that used during operation.
- b) when using a vehicle to transport the machine, position it so that it can cause no danger to persons and fasten it firmly in place to avoid it from tipping over, which may cause damage or fuel spillage.

#### INTENDED USE

This unit is designed to be used in accordance with the descriptions and safety instructions indicated in this operating manual

- for private use
- for trimming lawns in accessible areas of grass (e.g. under bushes)
- for cutting wild growth, shrubs and undergrowth.

It is not permitted to use this unit for any other purposes.

The user is liable for all injuries to third parties and damage to their property. Operate the unit only in the technical condition as stipulated and delivered by the manufacturer. Arbitrary changes to the unit will exclude the manufacturer from any liability for resulting injury and/or damage.

#### TECHNICAL SPECIFICATIONS

Model	PK1101 POWERKING
Equipment mobility	hand-held
Unit mass(empty tank without cutting attachment)	16.5 LBS

Volumes of fuel tank	0.90USQUARTS
Engine model	PK1101
Engine type	Wind-cooling,2-stroke
Engine displacement	43CC
Max altitude	3280 FT
Max working temperature	104 F
Max engine speed for brush cutter	10500 min <sup>-1</sup>
Max engine speed for grass trimmer	9000 min <sup>-1</sup>
Max brush cutter rotational speed	7900 min <sup>-1</sup>
Max grass trimmer head rotational speed	6800 min <sup>-1</sup>
Gear ratio	20:15
Cutting diameter	Brushcutter:10.03 IN Grasstrimmer:17.0 IN
Cutting blade	Φ 10 X Φ 1 X .06 Max: 10000min-1 POWERKING BLADE
Spool for grass trimmer line	POWERKING Ø .078 IN / 13 FT
Engine idling speed	3050±350 min <sup>-1</sup>
Clutch engagement speed	4300 min <sup>-1</sup>
Maximum engine performance	1.7 HP
Fuel ratio	40:1
Vibration levels for IDLE and HIGH	Left handle: 7,0 m/s <sup>2</sup> , K=1,5m/s <sup>2</sup> Right handle: 7,0 m/s <sup>2</sup> , K=1,5m/s <sup>2</sup>
Soundpressurelevel:LpA	Brush cutter: LpA, av = 96,6dB(A) Grass trimmer: LpA, av = 96,5dB(A) K=3 dB(A)
Sound power level: LwA	Brush cutter: LwA, av= 105,1dB(A) Grass trimmer: LwA, av= 108,4dB(A) K=3 dB(A)
Type of carburetor	Huayi
Type of spark plug	BM6A

#### Noise Information

Measured sound values determined according to SO 11806-1:2011.

The noise figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of work-force include the characteristics of the workroom, the other sources of noise, etc. i.e. the number of machines and other adjacent processes, and the length of time for which an operator is exposed to the noise. Also the permissible exposure level can vary from country. This

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information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

**Wear hearing protection!**

It is recommended to limit the duration of operation of the machine to 2 hours per day in order to minimize the risks regarding exposure to noise

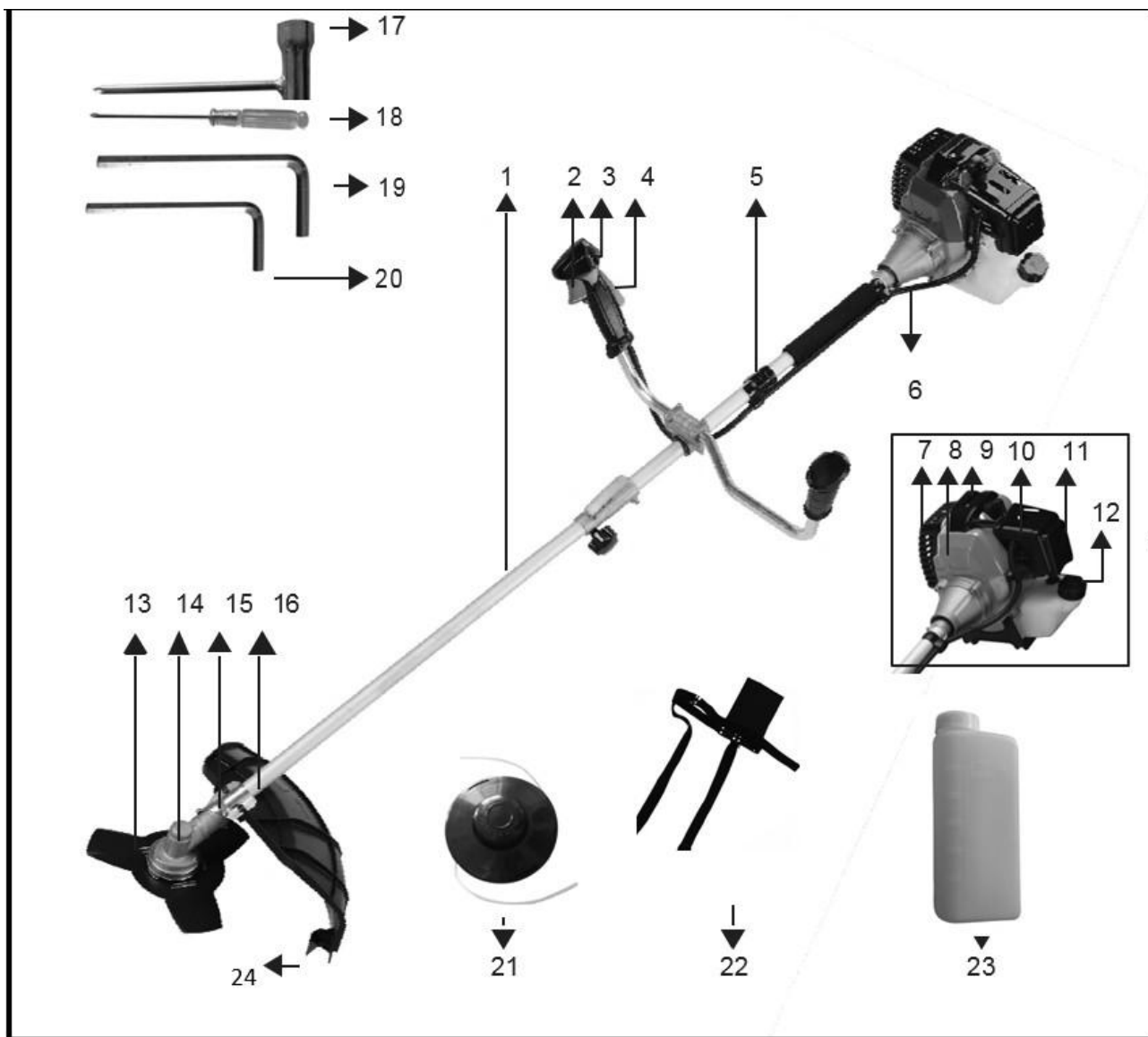
Vibration total values (triax vectorsum) determined according to ISO11806-1:2011:

The vibration mission level given in this information sheet has been measured in accordance with a standardized test given in ISO 11806-1:2011. and maybe used to compare one tool with another.

It may be used for a preliminary assessment of exposure.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organization of work patterns.



1	Tube P/N PK110101	13	Blade P/N PK110113
2	Throttle trigger P/N PK110102	14	Gearbox P/N PK110114
3	Engine Switch P/N PK110103	15	Guard P/N PK110115
4	Throttle trigger lockout P/N PK110104	16	Cutting attachment guard P/N PK110116
5	Suspension point P/N PK110105	17	Socket spanner P/N PK110117
6	Output Block P/N PK110106	18	Phillips screwdriver P/N PK110118
7	Muffler cover P/N PK110107	19	5mm Allen keys P/N PK110119
8	Cylinder cover P/N PK110108	20	4mm Allen keys P/N PK110120
9	Spark plug P/N PK110109	21	Trimmer head P/N PK110121
10	Airfilter cover P/N PK110110	22	Harness P/N PK110122
11	Choke lever P/N PK110111	23	Fuel mixture container P/N PK110123
12	Fuel tank cap P/N PK110112	24	Cord cutter P/N PK110124

## ASSEMBLY

### WARNING!

Please ensure that the brush cutter is switched off properly and that the engine has stopped completely before assembly and adjustment.



Fig.1-1



Fig.1-2

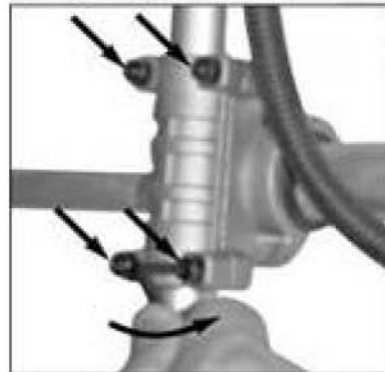


Fig.1-3

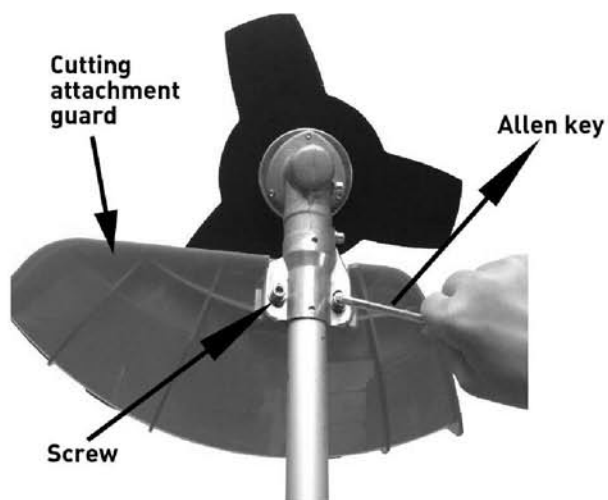


Fig.1-4

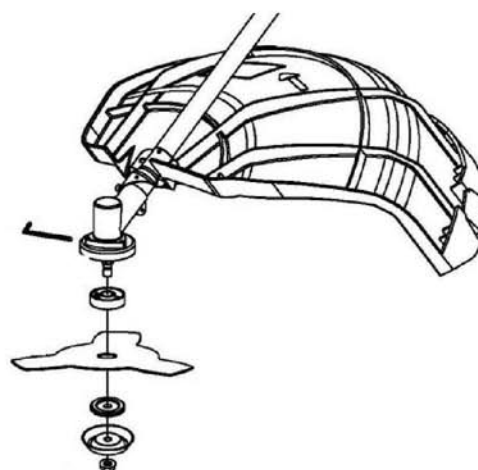


Fig.1-5

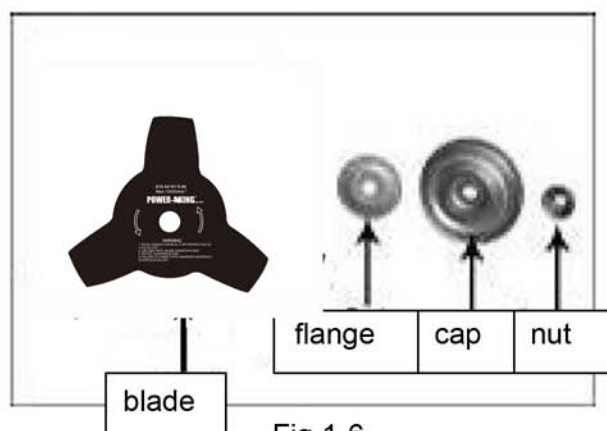


Fig.1-6

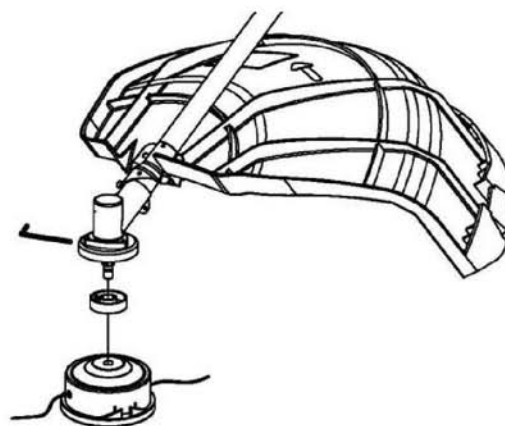


Fig.1-7

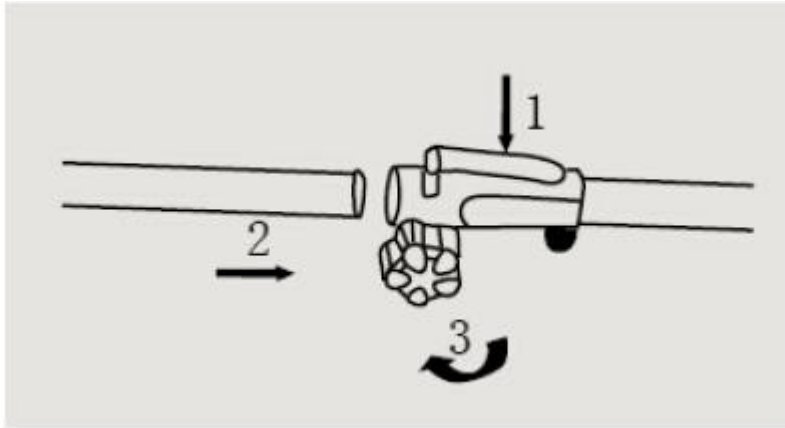


Fig.1-8

#### **Assembly of the handle (Fig.1-1,1-2,1-3)**

1. Remove the screws infixing device and remove the front cover.
2. Place the handle in position and assembly the front cover.
3. Assembly and tighten the screw.

#### **CAUTION!**

Do not tighten the screws until you have set the handle in optimal working position. Please always adjust the handle position with full assembled accessories.

The black cable tie can be used to fix the throttle cable to the metal tube.



#### **Assembly the guard(Fig.1-4)**

1. Loosen the 2 screws on the fixed guard with the 5mm Allen key
2. Place the guard on the **fixture**.
3. Assembly and tighten the screws.

#### **WARNING!**

Please check the blade and output shaft before each adjusting or assembly, it must be correctly assembled and running smoothly.

#### **Fitting the blade(Fig.1-5,1-6)**

1. Insert the 4mm Allen key into these circular opening on the back side of blade to prevent turning of output shaft.(Fig.1-5)
2. Fitting the blade on the output shaft and the assembly the flange, cap and nut.(1-6)
3. Fasten the nut by the socket spanner and turning it in anti-clock wise direction (viewed from above).
4. Remove the allen key.

#### **CAUTION!**

When installing the blade cap,ensure that the concave side is properly assembled towards the blade.

#### **Replacetheblade(Fig.1-5,1-6)**

1. Insert the 4mm Allen key into these circular opening on the back side of blade to prevent turning

- of out put shaft.(Fig.1-5)
2. Loose the nut with the socket spanner by turning it in clock wise direction (viewed from above), then remove the cap,the retainer and the blade from the output shaft.(Fig.1-5,1-6)
3. Refit the blade, aligning the center of the blade.
4. Assembly the front flange and the cap, and then tighten the nut.
5. Remove the allen key.

**WARNING!**

Never use non-recommended cutting attachments and have appropriate guards attached. The non - approved cutting attachments may cause serous injure during working.

**Fitting the spool(Fig.1-5,1-6,1-7)**

1. Insert the 4mm Allen key into these circular opening on the backside of blade/spool to prevent turning of output shaft.(Fig.1-5)
2. Loose the nut with the socket spanner by turning it in clockwise direction(viewed from above), then remove the cap, the flange and the blade from the output shaft(if applicable).(Fig.1-5,1-6)
3. Screw the edge trimmer head onto the thread of output shaft by turning it in anti-clock wise direction (viewed fromabove) (Fig.1-7)
4. Remove the allen key.

**Replace the spool (Fig.1-5,1-7)**

1. Insert the 4mm Allen key into these circular opening on the backside of blade/spool to prevent turning of output shaft.(Fig.1-5)
2. Loose the edge trimmer head by turning it in clockwise direction (viewed from above). (Fig.1-7)
3. Screw the new trimmer head on to the thread of output shaft by turning it in anti-clock wise direction until tightening (viewed from above) (Fig. 1-7)
4. Remove the allen key.

**WARNING!**

Never use non-recommended cutting attachments and appropriate guards and their location.The nonapproved cutting attachments may cause serous injure during working.

**Assembly the two-piece tube (Fig.1-8)**

Using one hand press the pressing plate of the pipe connector

Using the other hand insert the front aluminum tube into the pipe connector, until the pressing plate insert the slot of front aluminum tube,

- 1) Fasten the pattern lock knob

**WARNING!**

The pressing plate of pipe connector must be insert the slot of the front aluminum tube, unless it is very dangerous when the machine working, and the front aluminum tube will be rotated.

## OPERATION

**Before use**

Please always read the instruction manual carefully and check the machine before operating. **WARNING!** The brush cutter is fitted with a two-stroke engine. Fill the oil mixed with fuel 40:1, please consult below section.

Check the cutting attachment, never use blades that are dull, cracked or damaged.

Make sure 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.

The enclosures must be correctly fitted and undamaged before you start the machine.

**WARNING!**

Please always use quality gloves, foot, ear and eye protector. They should with CE mark and tested according to PPE(Person Protective Equipment) directive.

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### **WARNING!**

The brush cutter is fitted with a two-stroke engine; use fuel mixed with oil only.

Only fuel the machine in well-lit areas. Avoid fuel spillage. Never refuel the machine during operation. Let the engine cool down for about ten minutes before refueling.

Refueling must not be done near open flames, control lamps or spark producing electrical equipment such as electric tools, welders or sanders.

1. Make sure the machine is turned off, by turn the engine switch to the "off" position.
2. Check the fuel by a visual check, remove the fuel tank cap and reviewing the fuel level.
3. Fill unleaded fuel into the fuel tank, because of fuel expands, please fill the tank to the neck of tank only.
4. Turn the fuel tank cap clockwise to assembly it in position.

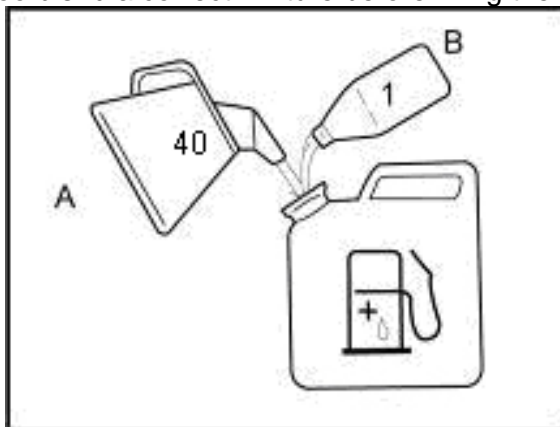
### **WARNING.**

- Do not refill fuel while engine is running or hot.
- Make sure fuel is not leaking.

Use quality two-stroke oil and mix 40 parts gas to (1) one part oil only (2.5% oil mixed in fuel).

Never use two-stroke oil intended for water-cooled engines. Never use oil intended for four-stroke engines. A poor oil quality and/or too high oil /fuel ratio may jeopardize function and decrease the life time of catalytic converters.

Shake the container well too blend a correct mixture before filling the tank.



Use at least 90octane fuel. We recommend unleaded gas as it leaves fewer residues inside the motor and on the ignition plug, and prolongs the life cycle of the exhaust system. Never use old or dirty gas or oil/ petrol mixtures. Avoid contamination with dirt or water in the tank. Occasionally ignition knocking or clanging can be heard with high loads. This is normal and no cause for alarm. If ignition knocking or clanging occurs during normal loads and with constant motor speed you should change to new gas. If this does not solve the problem contact an authorized specialist dealer. When working at continuous high revs a higher octane rating is recommended.

### **Check the air filter**

Check the air filter to be sure it is clean and in good condition.

Loosen the air cleaner cover screw, and remove the air cleaner cover, then check the main air filter. Clean or replace the air filter if necessary.

**Starting the engine****WARNING!**

The cutting attachment may start to move when the engine is started. Make sure the attachment cannot come into contact with any object.

Make sure that no unauthorized persons are in the working area, otherwise there is a risk of serious personal injury.

1. Press the intake pump several times until fuel begins to fill the bulb.
2. Turn the engine switch to the "ON" position.
3. To start a cold engine, move the choke lever to the START position. In order to restart a warm engine, leave the choke lever in the run position.



Close the choke: Start position

Position: airfilter cover

4. To start the engine, the throttle trigger should be locked in idling position.
5. Slowly pull the coil starter until you feel it engage and then pull it quickly. Return the coil start urgently and slowly to the original position by hand.

**Attention : Please make sure the blade is stop turning when the machine stayed idle speed**

**Note: when the engine is started for the first time. It will require a number of attempts to start until the fuel has travelled from the tank to the motor.**

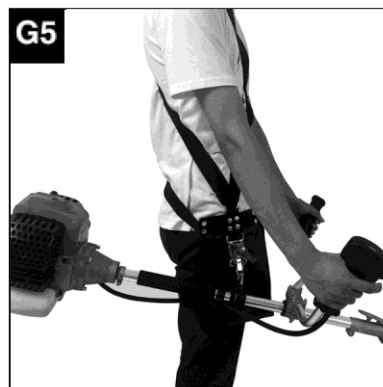
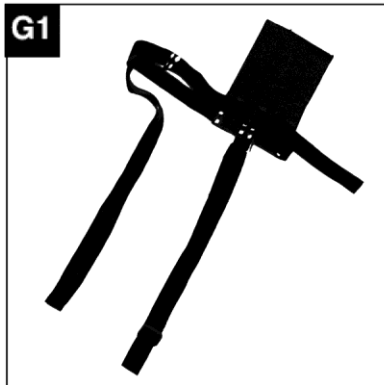
6. Turn the choke lever to the run position as the engine started.
7. After starting the engine, let the engine run for 2 to 3 minutes so that it warms up before subjecting it to any load.

Under the following conditions the machine must be stop:

1. When the motor rotary speed changes
2. When spark occurs
3. When blades are damaged
4. In case of misfire
5. In case of high vibration
6. When flames or smoke appear
7. In rain or stormy weather

**WARNING!**

Check the cutting attachment always stops when the engine is idling. Wear the harness.



1. Wear the harness shown in (G1-G3). (harness vary by model, DUAL vs SINGLE HARNESS)
2. Hook the machine to the carrying belt(G4).
3. Adjust the perfect working and cutting position by using the various strap adjusters on the carrying strap(G 5).
4. In order to set the optimum length of the carrying strap,the user should then make a test without starting the engine.

**Important:**

The carrying strap is fitted with a quick-release mechanism. Pull the red strap section(G 6) if you need to remove the strap quickly.

**Important:**

Always use the harness when working with the machine. Attach the strap as soon as you have started the engine and it is running in idle mode.

**WARNING!**

Please always switch off the engine before you take off the harness.

**Cutting**

During cutting,please don't keep the running speed just above clutch engagement speed. Any prolonged use at low speed is likely to cause premature wear of the clutch.

On the otherhand, the user should not keep the engine speed in max speed after cutting. Any prolonged use at the highest speed is likely to reduce lifetime of engine.

Cut the grass from right to left.

Always take care to maintain a well balanced and secure position.

Wear the harness as illustrated in the figure.The blade turns anti-clockwise, so it is advised to use the unit

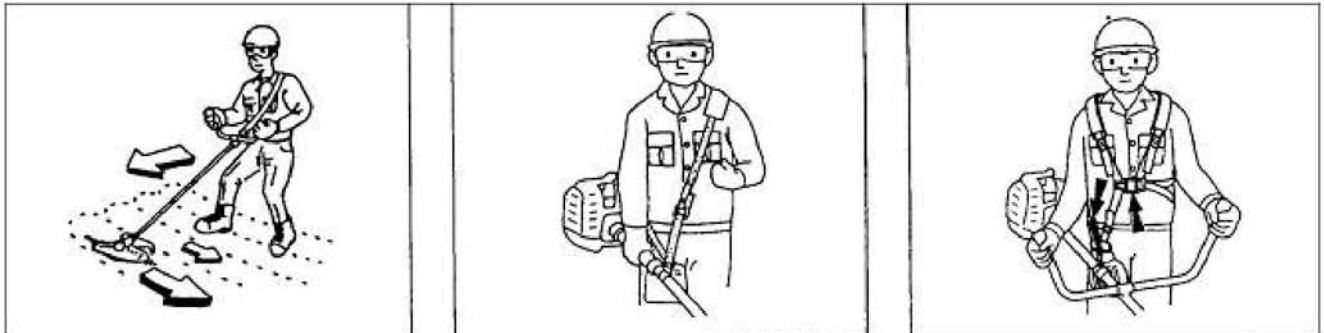
from right to left to make an effective cut. Ensure the people present are at least 15 meters away.

#### CAUTION!

In an emergency, stop the engine by moving the engine switch to the stop position.

If the cutter accessory strikes other debris, stop the engine and check whether something has been damaged and the cutter attachment is still secure.

If wet grass or branches remain in the cutter attachment, stop the engine and remove them.



#### Cutting attachments:

Attention! Use only original cutting devices by the Manufacturer



**WARNING!** In consideration that the selection, application and usage of the accessory to be fitted in the variety of possible usage are actions made solely by the user, the latter assumes responsibility for damages of any kind due to such actions. When in doubt or if lacking knowledge of the specificity of each accessory, contact POWERKING.

#### Kick back and related warnings

Kick back is a sudden reaction to a pinched or snagged rotating blade. Pinch causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if a blade is snagged or pinched by a stone, the edge of the blade that is entering into the pinch point can dig into the surface of the material causing the blade to climb out or kick out. The blade may either jump toward or away from the operator, depending on direction of the blade's movement at the point of pinching.

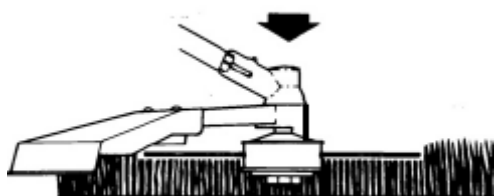
Kick back is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- Maintain a firm grip on the power tool and position your body and arm to allow you to resist kick back forces.
- Never place your hand near the rotating accessory. Accessory may kick back over your hand.
- Do not position your body in the area where power tool will move if kick back occurs. Kick back will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kick back.

### **Extending the cutting line**

WARNING: Do not use any kind of metal wire or metal wire encased in plastic in the cutting head. This may cause serious injuries to the user

To extend the cutting line run the motor at full speed and tap the cutting head on the ground. This will automatically extend the line. The cord cutter (23) under the cutting attachment guard (15) will cut the line to the appropriate length.



### **Stopping the engine**

1. Reduce the engine speed and let it run with no load for a few minutes.
2. Switch off the engine by moving the engine switch to the stop position.

The accessory may cause an accident if it continues to turn after the engine has stopped or after the engine switch has been released. When the unit has stopped, check carefully that the accessory has stopped turning before putting the unit down.

## **MAINTENANCE**

Good maintenance is essential for safe, economical and trouble-free operation. It will also help reduce air pollution.

The purpose of the maintenance and adjustment schedule is to keep the machine in the best operating condition.

Turn off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas

Please always select recommended accessories. The accessories with poor quality may damage the machine.

Please never use non approved components.

<b>Maintenance</b>	<b>Daily maintenance</b>	<b>Weekly maintenance</b>	<b>Monthly maintenance</b>
Clean the outside of the machine.	X		
Make sure the throttle trigger lock and the throttle function correctly from a safety point of view.	X		
Check that the engine switch works correctly.	X		
Check that the blades do not move when the engine is idling or when the choke is in the start throttle position.	X		
Check that the blades are not damaged and show no signs of cracks. Replace the blades if necessary.	X		
Check that the blade guard is not damaged or distorted. Replace the blade guard if it is bent or damaged.	X		
Clean the air filter. Replace if necessary.	X		

Check that nuts and screws are tight.	X		
Check that there are no fuel leaks from the engine, tank or fuel lines.	X		
Check the starter and starter cord.		X	
Clean the outside of the spark plug. Remove it and check the electrode gap. Adjust the gap to 0,6-0,7 mm or replace the spark plug. Check that the spark plug is fitted with a spark plug cap.		X	
Clean the machine's cooling system.		X	
Clean the outside of the carburetor and the space around it.		X	
Check the flange, cap and nut are assembled correctly and tightened		X	
Clean the fuel tank.			X
Check all cables and connections.			X
Check the clutch, clutch springs and the clutch drum for wear. Replace if necessary by an authorized service workshop.			X
Replace the spark plug. Check that the spark plug is fitted with a spark plug cap.			X
To reduce the fire hazard, clean dirt, leaves and surplus lubricant, etc from the muffler and engine.			X

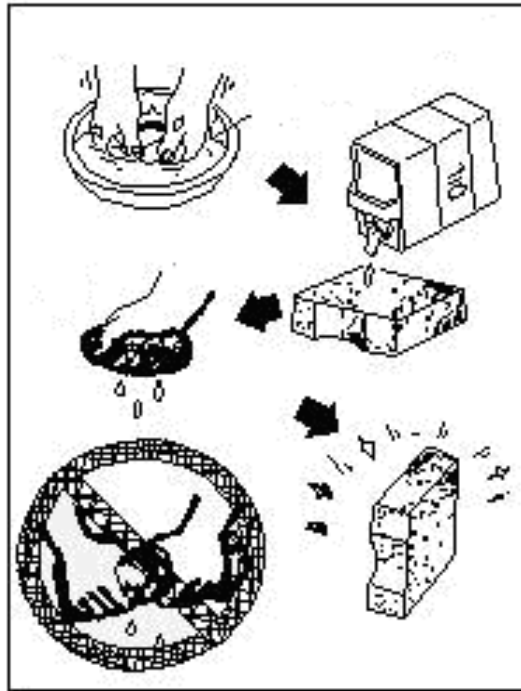
MAINTENANCE should be carried out at REGULAR INTERVALS in each of the indicated months or after a certain number of hours of operation (whichever comes first).(1)		Before use everytime	Monthly or after 25 hours	Every three months or after 50 hours	Every six months or after 100 hours
Airfilter	Clean			X(1)	
Valve-clearance	Check–Clean				X(2)
Fuel tank and filter	Clean				X(2)
Grease inside gear box	Filling			X(1)	
Blade	Check (replace if necessary)	X		X	
Fuel feed line	Check (replace if necessary)	Every three years (2)			

(1) If operated in industry areas carry out maintenance more frequently.

(2) A specialist technician should carry out this maintenance if the owner does not have the appropriate tools or mechanical knowledge.

### **Airfilter**

1. Loosen the air filter cover screw and remove the airfilter cover.
2. Wash the airfilter in solvent.
3. Thoroughly squeeze the filter removing excess oil.



4. Reinstall the airfilters.
5. Reinstall the airfilter cover, and tighten the airfilter cover screw.

**WARNING:**

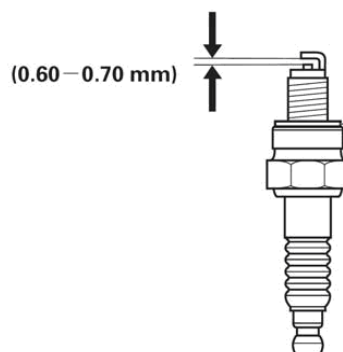
The use of gas or combustible solvents for cleaning can cause fire or explosion. Therefore only use soap and water or non-combustible solvent. Never operate the machine without the air filter.

**Spark plug**

**RECOMMENDED SPARKPLUG:** NHSP LD /L8RTF

To ensure proper engine operation, the sparkplug must be properly gapped and free of deposits.

1. Remove the spark plug cover from the housing.
2. Remove the spark plugcap.
3. Clean any dirt from around the spark plug base.
4. Use the socket spanner which is provided to remove the sparkplug.
5. Visually inspect the spark plug. Remove carbon deposits using a wire brush.
6. Check for discoloration on the top of the spark plug. The standard color should be a tan color.
7. Check the spark plug gap. The acceptable gap should be between 0,6-0,7mm.



8. Install / reinstall the spark plug carefully by hand.
9. Once the sparkplug has been seated, tighten with a socket spanner.
10. Reinstall the spark plug cap on top of the sparkplug.
11. Reinstall the sparkplug cover.

### **Cleaning**

1. Keep your machine clean, the outside of the machine can be cleaned using a damp soft cloth with a mild detergent if required, never use water to clean the machine as it may cause damage to internal parts.
2. Some maintenance products and solvents may damage the plastic parts, these include products containing benzene, trichloroethylene, chloride or ammonia.
3. Take special care to keep the ventilation inlets/outlets free from obstruction. Cleaning with a soft brush followed by compressed air jet will usually be sufficient to ensure acceptable internal cleanliness.
4. Wear eye protection when carrying out cleaning.

### **Empty the fuel**

1. Place the machine on even and stable surface. Warm up the engine for several minutes and then stop it.
2. Loosen the fuel tank cover and remove it.
3. Drain fuel into a container thoroughly.
4. Press the intake pump several times until fuel begins to empty the bulb.
5. Drain fuel again.
6. Reinstall the fuel tank cover.

### **Repairs**

Only an authorized service center should repair the machine.

Problem	Check	Condition	Cause	Solution
The engine stalls, is difficult to start or does not start	Fuel at the carburetor	carburetor not getting fuel	Fuel filter blocked	Clean or replace
			Fuel supply blocked	Clean or replace
			Carburetor	Ask your distributor for advice
	Fuel at the cylinder	The fuel does not arrive at the cylinder	Carburetor	Ask your distributor for advice
		There is fuel in the exhaust	The fuel mixture is too rich	Open the throttle valve Clean or replace the air filter Adjust the carburetor Ask your distributor for advice
	Sparks at the spark plug electrodes	There is no spark	Switch in off position	Set the switch to the ON Position (Run)
			Electrical problem	Ask your distributor for advice
			Locked switch	
	Sparks at the spark plug	There is no spark	Bad spacing of the electrodes	Adjust the gap to 0,6-0,7 mm
			Electrodes contaminated	Clean or replace
			Electrodes contaminated with fuel	Clean or replace
			Defective spark plug	Replace the spark plug
	Air filter	Dirty air filter	Fair wear and tear	Clean or replace
	Fuel filter	Dirty fuel filter	Dirt or residue in the fuel	Replace
	Fuel vent	Blocked fuel vent	Dirt or residue in the fuel	Clean or replace

The engine turns, but stalls or does not accelerate correctly	Sparkplug	Dirty or worn spark plug	Fair wear and tear	Clean, adjust or replace
	Carburetor	Bad adjustment	Vibration	Adjust
	Cooling system	Excessive	Prolonged use in dirty or dusty places	Clean
	Spark suppressor	Plate cracked, contaminated or perforated	Fair wear and tear	Replace
The engine does not engage	N/A	N/A	Internal engine problem	Ask your distributor for advice

## STORING

Transporting the machine in a car, please empty the fuel tank completely first to avoid the leakage.

Store the machine, operating instructions and where necessary the accessories in the original packaging. In this way you will always have all the information and parts ready to hand. Pack the device well or use the original packaging in order to avoid transit damage. Use protective gloves when handling the blades. Keep the blade protection device on, except when intervening directly on the blade.

Store the machine in dry and well ventilated surroundings and with the fuel tank empty. Do not store fuel next to the machine



QVTOOLS, LLC.

## Warranty Statement

QVTOOLS, LLC warrants all gas power equipment 1 year for manufacture defects, Kohler and Briggs engine have 3 years from date of purchase. Proof of purchase date required for warranty repairs. Keep your receipt. QVTOOLS, LLC will provide parts and labor of Powerking products only at our approved service centers, Customer is responsible for delivery and pickup of the product to and from the service center. Please call us at 800-344-3371 for warranty claims and to be assigned a service center. Gas Equipment is non-returnable and will be serviced by authorized service centers only. Only authorized service centers have parts and can perform repairs as to not void your warranty. This warranty does not cover cosmetic defects such as paint, decals or wear items. This warranty does not cover failures or problems due to acts of God, or events or forces beyond the control of the QVTOOLS, LLC. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, or accidents, repairs or alterations, or a lack of maintenance. Normal wear components are not covered under warranty. QVTOOLS shall in no event be liable for death, injuries to persons or property, or for incidental, special, or consequential damages arising from the use of our products.

All NON-GAS products are covered with 1 year warranty from manufactures defects and will be repaired or replaced by QVTOOLS, LLC. with proof of purchase date. Please call 800-344-3371 PST to obtain an RGA number from our customer service department to return your product.

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## SERVICE RECORD NOTES.

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