

# REAR TINE TILLER OPERATION MANUAL



**KEEP THIS CAREFULLY FOR INSTALLATION INSTRUCTIONS**  
**SAFETY USE**

Read the manual to reduce the risk to injuries.  
Keep the manual of the device, so that you can consult it later.  
This document is an original instructions.




**WARNING!** Depending on the actual use of the product the vibration values can differ from the declared total! Adopt proper measures to protect yourself against vibration exposures. Take the whole work process including times the product is running under no load or switched off into consideration.

Proper measures include among others regular maintenance and care of the product and application tools, keeping hands warm, periodical breaks and proper planning of work processes.

## Symbols

On the product, the rating label and within these instructions you will find among others the following symbols and abbreviations. Familiarise yourself with them to reduce hazards like personal injuries and damage to property.

kW	Kilowatt
cm <sup>3</sup>	Cubic centimetre
min <sup>-1</sup>	per minute
mm	Millimetre
kg	Kilogram
dB(A)	Decibel (A-rated)
m/s <sup>2</sup>	Metres per second squared
l	Litre
yyWxx	Manufacturing date code; year of manufacturing (20yy) and week of manufacturing (Wxx);
	Caution / Warning.



Read the instruction manual.



Wear hearing protection.

Wear eye protection.



Switch the product off and disconnect the spark plug connector before assembly, maintenance, storage and transportation.



Open flames in the work area, around the product and in the vicinity of flammable materials!



Do not smoke in the work area, around the product and in the vicinity of flammable materials!



Risk of fire / flammable materials



Hot surface, do not touch. High temperatures on the product's surfaces and structural parts that could cause burns, if they are touched.  
The product can also stay hot for a longer period of time after operation!



This product produces noxious exhaust fumes. If the product is used improperly, these fumes can lead to poisoning, a loss of consciousness or death!



Only refuel unleaded petrol!



Add engine oil



Check and refill oil.



Objects thrown by the product could hit the user or other bystanders. Always ensure that other people and pets remain at a safe distance from the product when it is in operation. In general, children must not come near the area where the product is.



Choke – CLOSE position



Choke – OPEN position



Maximum speed(Speed adjustment for this model is supposed to be done by professionals)



Minimum speed(Speed adjustment for this model is supposed to be done by professionals)



Warning! Rotating working tool, keep feet away.



Do not put hand into the guide hole when the engine is starting or normal working.



The product complies with the applicable European directives and an evaluation method of conformity for these directives was done.



Move forward



Move backward



Choke



Fuel Switch

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## General safety instructions

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On the product, the rating label and within these instructions you will find among others the following symbols and **Training**

1. Read the instructions carefully. Be familiar with the controls and the proper use of the product.
2. Never allow children or people unfamiliar with these instructions to use the product. Local regulations can restrict the age of the operator.
3. Never work while people, especially children, or pets are nearby.
4. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

### Preparation

1. Always wear substantial footwear and long trousers while working. Do not operate the product when barefoot or wearing open sandals.
2. Thoroughly inspect the area where the product is to be used and remove all objects which can be thrown up by the product.
3. **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 the fuel tank or add petrol while the engine is running or when the engine is hot,
  - if petrol is spilled, do not attempt to start the engine but move the product away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated,
  - replace all fuel tank and container caps securely.
4. Replace faulty mufflers.
5. Before using, always visually inspect to see that the tools are not worn out or damaged. Replace worn out or damaged elements and bolts in sets to preserve balance.

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## Operation

1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
2. Work only in daylight or in good artificial light.
3. Always be sure of your footing on slopes.
4. Walk, never run with the product.
5. Work across the slopes, never up and down.
6. Exercise extreme caution when changing direction on slopes.
7. Do not work on excessively steep slopes.
8. Use extreme caution when reversing or pulling the product towards you.
9. Do not change the engine governor settings or overspeed the engine.
10. Start the engine carefully according to manufacturer instructions and with feet well away from the tool(s).
11. Do not put your hands or feet near or under rotating parts.
12. Never pick up or carry a product while the engine is running.
13. Stop the engine:
  - whenever you leave the product,
  - before refueling.
14. Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of working.
15. Never carelessly touch the product, you can burn yourself. While the product is in operation or shortly thereafter, its parts such as the exhaust pipe, engine, and other surfaces are extremely hot! Pay attention to the markings on the product.

## Maintenance and storage

1. Follow the maintenance and repair instructions for this product. Never carry out any modifications of the product. Never change the pre-set rotary speed or the engine and product settings. Information about maintenance and repair is provided in this user manual.
2. Keep all nuts, bolts and screws tight to ensure the product is in safe working condition.
3. Never store the product with petrol in the tank inside a building where fumes can reach an open flame or spark.
4. Allow the engine to cool before storing in any enclosure.
5. Keep the engine, muffler, battery compartment and petrol storage area free of vegetative material and excessive grease to reduce the fire hazard.
6. Replace worn or damaged parts for safety.
7. Drain the fuel tank outdoors.
8. Make sure that the air intake of the combustion engine is clear. Keep the air intake free of dust, dirt particles, gases and fumes.
9. Make sure that air circulation is adequate and good. The product must be easily accessible from all sides.
10. During transportation of the product, the operator must control the handles by two hands.
11. The appropriate carriage must be used when assembly, dismantling and any other action involving the product, so that the product and its components must be stable enough to avoid overturning, falling or uncontrolled movements.

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12. When meeting a blockage, firstly stop the product, secondly if the cleaning seems to be feasible, clean it then operate; if the cleaning seems not to be feasible then do not operate the product at this place.

### **Fuel handling**

1. Always disconnect the spark plug connector and let the product cool down, before refuelling it. Petrol is easily flammable. Never smoke when you are refuelling the product. Do not refuel the product, if there is an open fire in the vicinity!
2. Always use suitable aids such as funnels and filler necks. Do not spill any fuel on the product or its exhaust system. There is a risk of ignition. However, if fuel should be spilled, then you must remove it carefully from all parts of the product. Any residue which may be present must be completely removed, before the product is operated!
3. Exhaust gases and fuel fumes are noxious. Fuel fumes can ignite. Never use the product in environments where there is a risk of explosion.
4. Never breathe in any fuel fumes, when you are refuelling the product. Never fill the tank in enclosed spaces, such as basements or sheds. There is a risk of poisoning and explosion!
5. Avoid skin contact with petrol.
6. Do not eat or drink, while you are refuelling the product. If you have swallowed petrol or oil, or if petrol or oil has got into your eyes, then seek medical advice immediately.
7. Close the tank lid immediately after filling the tank. Make sure that it is properly closed.
8. Never use the product without an air filter.

### **Vibration and noise reduction**

To reduce the impact of noise and vibration emission, limit the time of operation, use low-vibration and low-noise operating modes as well as wear personal protective equipment.

Take the following points into account to minimize the vibration and noise exposure risks:

1. Only use the product as intended by its design and these instructions.
2. Ensure that the product is in good condition and well maintained.
3. Use correct application tools for the product and ensure they in good condition.
4. Keep tight grip on the handles/grip surface.
5. Maintain this product in accordance with these instructions and keep it well lubricated (where appropriate).
6. Plan your work schedule to spread any high vibration tool use across a longer period of time.

### **Emergency**

**Familiarize yourself with the use of this product by means of this instruction manual. Memorize the safety directions and follow them to the letter. This will help to prevent risks and hazards.**

1. **Always be alert when using this product, so that you can recognize and handle risks early.** Fast intervention can prevent serious injury and damage to property.
2. **Stop the engine and disconnect the spark plug connector if there are malfunctions.** Have the product checked by a qualified professional and repaired, if necessary, before you operate it again.
3. **In case of fire stop the engine and disconnect the spark plug connector.** Take fire-extinguishing measures immediately if the product switch is no longer accessible.



**WARNING!** Never use water to extinguish a product on fire. Burning fuel must be extinguished with special extinguishing agents! We recommend that you keep a suitable fire extinguisher within reach in your work area!

## Residual risks

**Even if you are operating this product in accordance with all the safety requirements, potential risks of injury and damage remain. The following dangers can arise in connection with the structure and design of this product:**

1. Health defects resulting from vibration emission if the product is being used over long periods of time or not adequately managed and properly maintained.
2. Injuries and damage to property due to broken application tools or the sudden impact of hidden objects during use.
3. Danger of injury and property damage caused by flying objects.
4. Burns, if touching hot surfaces.



**WARNING!** This product 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 doctor and the medical implant manufacturer before operating this product!

## Technical data

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Model	CLD –T02
Engine displacement	208cc
Maximum rotational speed	3300rpm
Motor power	3.7kw
Type of engine	ST210
Type of spark plug	F6RTC (NHSP LD)
Type of carburetor	P19
Volumes of fuel tank	3.6L
Volumes of oil tank	0.6L
Cutting width	400mm
Blade thickness	5.5mm
Noise pressure level(LPA)*	83dB(A)
Noise power level (LWA)*	98dB(A)
Vibration level	9.7m/s <sup>2</sup>
Net weight	75kg

## Assembly instructions

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### STEP 1 Install the wheels

Tilt the tiller, and insert the shaft into the wheel hole.

**KEEP THIS INSTRUCTION CAREFULLY BEFORE USING THE TOOL**

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**Important!**

There are two driving mode of the wheels.

**P1: Working (engagement) mode: (See below picture P1)**

Insert the lock pin axle through the hole on the shaft of the wheel and the hole on the wheel frame. With this fixation, wheels are engaged and will be driven by the engine during operation.

Then fold lock-pin ring to secure pin to the axle.

Repeatedly do the same assembling on the other side of the wheel.

**P2: Transport mode: (See below picture P2)**

Insert the lock pin axle through the hole on the shaft **ONLY**. Wheels are free from the lock-pin engagement. Then you may move and transport the tiller by pushing or pulling the handle, without engine driven.

Then fold lock-pin ring to secure pin to the axle.

Repeatedly do the same assembling on the other side of the wheel.

**Note:**

During normal operation, the user may switch the driving mode of wheels from time to time. Make sure you are aware of the wheel driving mode on both left and right wheels, before you start the machine to avoid danger of injury.

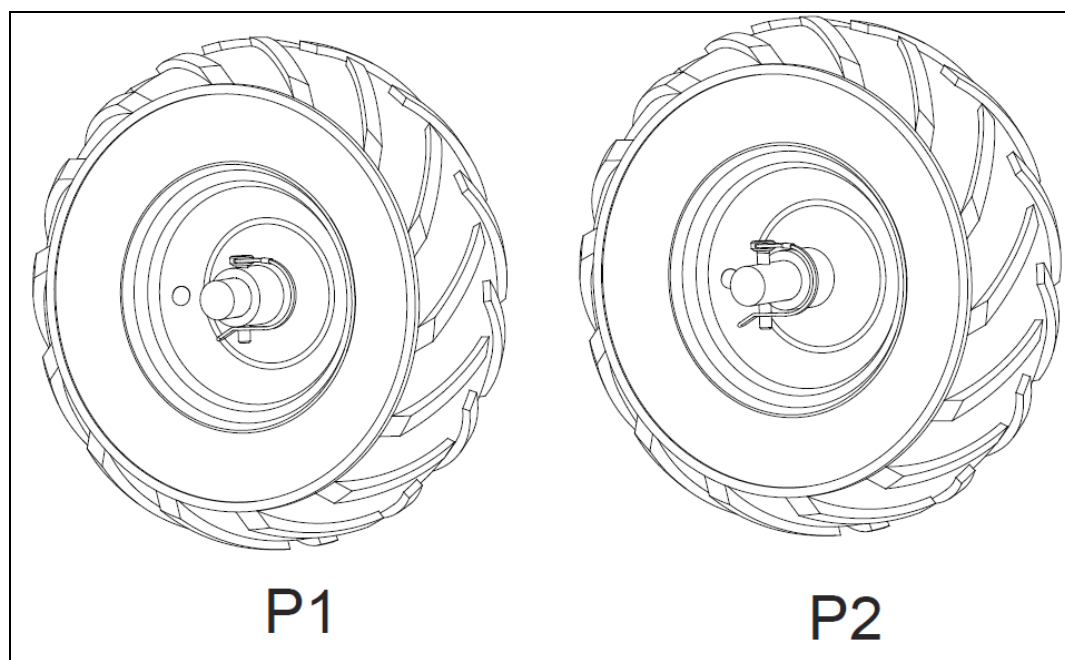


Fig. 1

**STEP2 Install the tine extension (Fig.2~4)**

1. Put the tine extension into the driving axle
2. Insert the lock-pin 1(Fig.3) shaft through the hole of the tine extension and the driving axle..
3. Insert the clip1(Fig.4) into the hole of the lock-pin shaft, and fix the clip by bent it on the end.



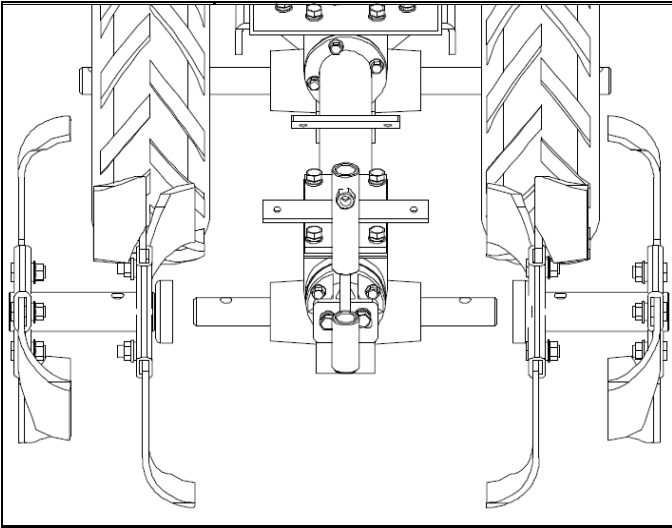


Fig. 2

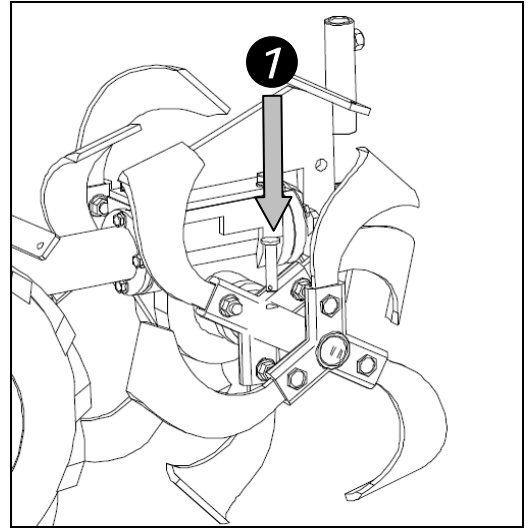


Fig.3

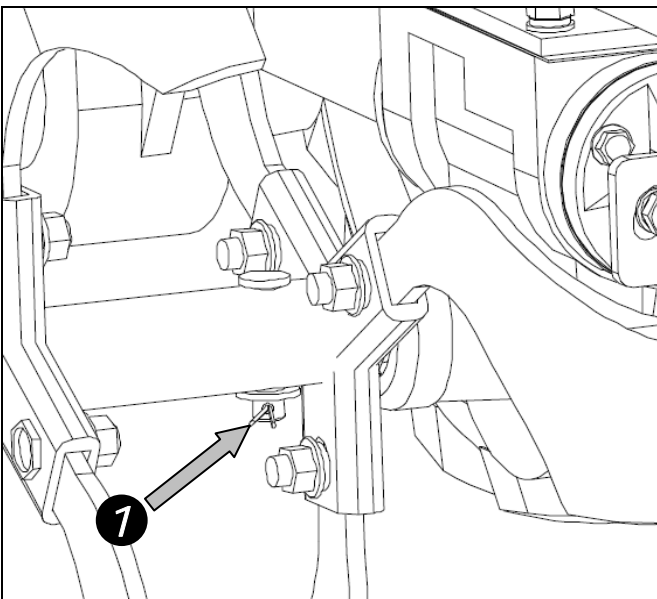


Fig.4

### STEP 3 Install the Depth Regulator (Fig.5)

1. Lift the product a little and install the depth regulator1(Fig.5) into the top of the depth regulator bracket2(Fig5). Let the holes face backward (to the user side) for fixation.
2. Screw in the knob bolt3(Fig.5) into the top hole of depth regulator-tines.

### STEP4 Assemble the rear top cover (Fig.6)

- 1.put the top cover ①(Fig.6) on the bracket;
- 2.Tight the top cover by four bolts ②(Fig.6).

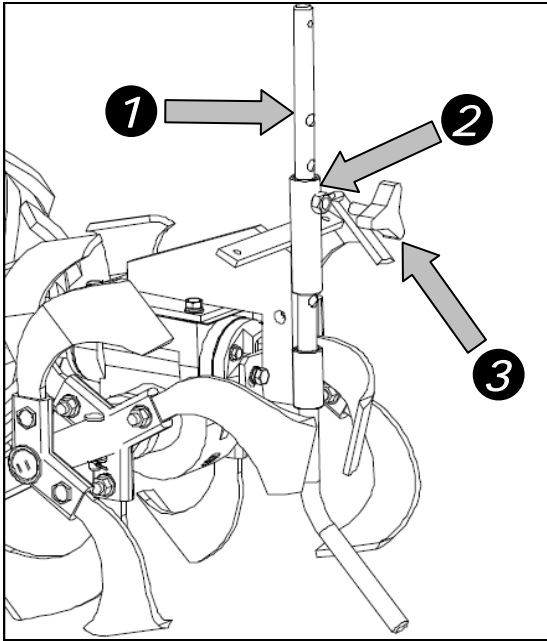


Fig.5

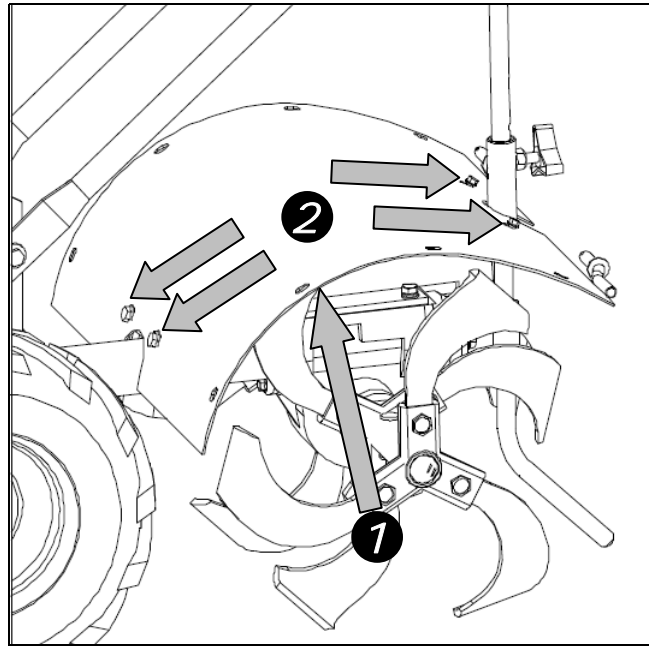


Fig.6

**STEP5 Attach the side covers (Fig.7)**

1. Tighten the side cover ①(Fig.7) by four bolts and washers ②(Fig.7), tension washers and nuts half and fix all assembling holes in the right position with the side cover.
2. Finally tighten all the nuts.
3. The other side, make the same assembling.

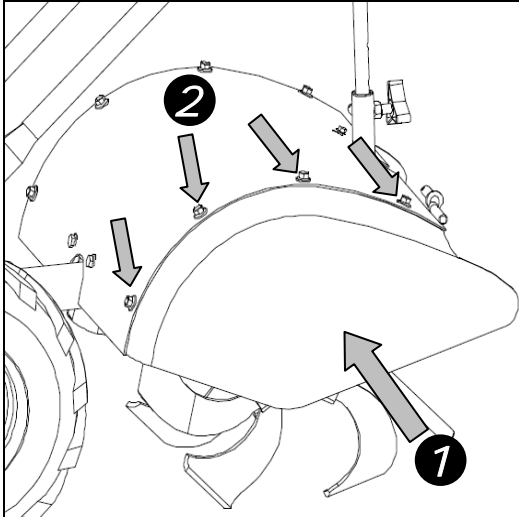


Fig.7

**STEP6 Attach the rear flappy cover (Fig.8~9)**

1. Put the rubber cover ①(Fig.8)
2. Attach the rear flappy cover ②(Fig.8) with top cover by the pivot;
3. Tight the pivot shaft by two clips ①(Fig.9).

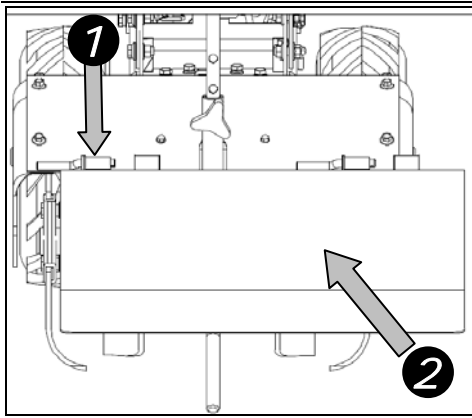


Fig.8

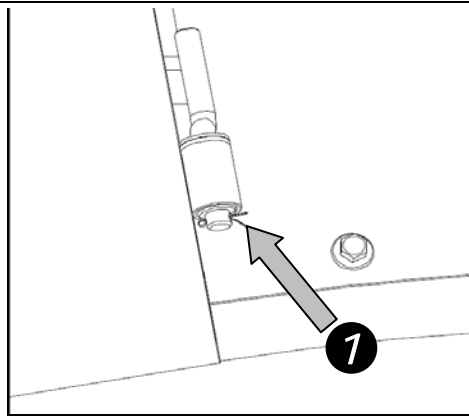


Fig.9

**STEP7 Attach the front handle.(Fig.10)**

1. Place the catcher ④(Fig10) to two sides of motor mount bracket
2. Insert four fastness bolts ①.②.③(Fig.10) for each side in every holes.
3. Start fastness nuts on each bolt.
4. Tighten all the nuts.

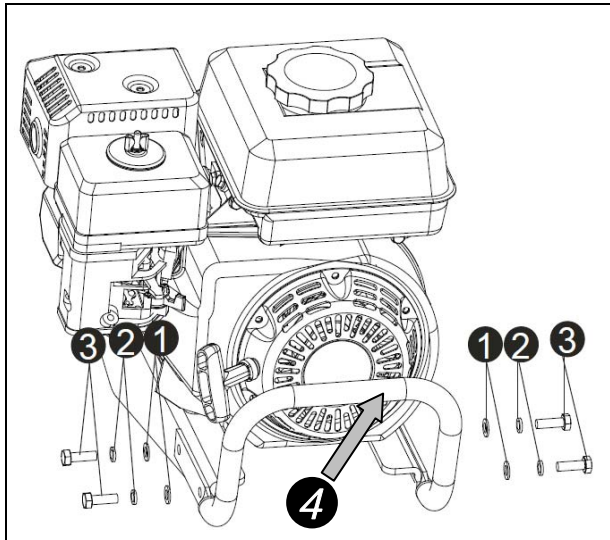


Fig.10

**STEP8 Attach the muffler protection cage. (Fig.11)**

Screw in two bolt ①(Fig.11) from top side to the muffler and fix the muffler protection cage ②(Fig.11) to the engine.

**Caution!** The muffler protection cage only preventing the user from serious burnt injury by high temperature device, **DO NOT** touch the protection cage until the engine is totally cooling down.

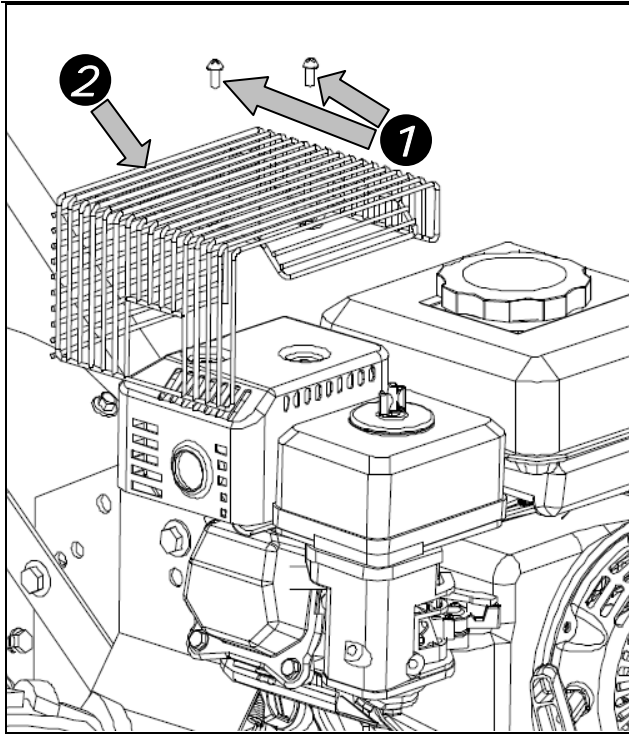


Fig.11

**STEP9 Attach lower handle and up handle to the Tiller**

1. Screw out the bolt ①(Fig.12) of the belt housing frame. Disassemble the belt cover ②(Fig.12).
2. Place Ex-arm-rest ⑤(Fig.13) to two sides of the belt housing frame ⑥(Fig.13),the Insert four fastness bolts ①. ②.③(Fig.13)for each side in each hole.
3. Start fastness nuts on each bolt.
4. Tighten all the nuts.

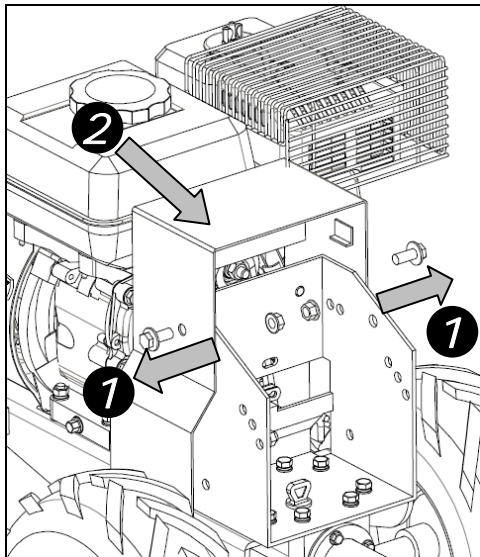


Fig.12

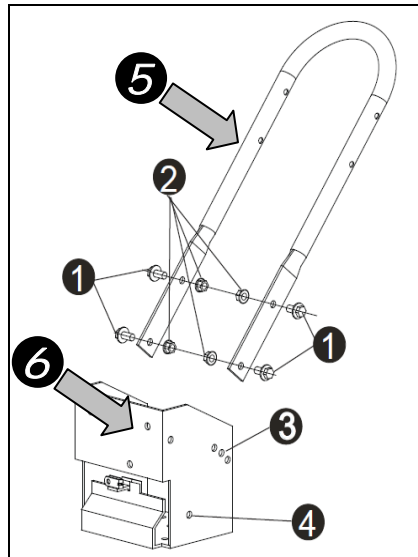


Fig.13

5. Place Empress Arm-rest ④(Fig.14) on the Ex-arm-rest, Insert four bolts ③(Fig.14) for each side in assembling threaded holes.
6. Start fastness knob nuts ①(Fig.14), washers and spring washers ②(Fig.14) on each bolt.
7. Tighten all the knob nuts.
8. Put the belt cover on the tiller base (Fig.15).

9. Insert the two bolts each side in both holes

10. Start fastness nuts on each bolt.

11. Tighten all the nuts.

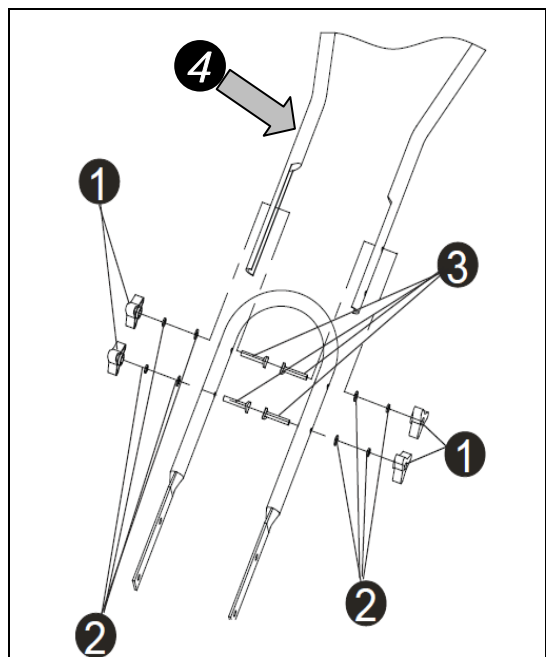


Fig.14

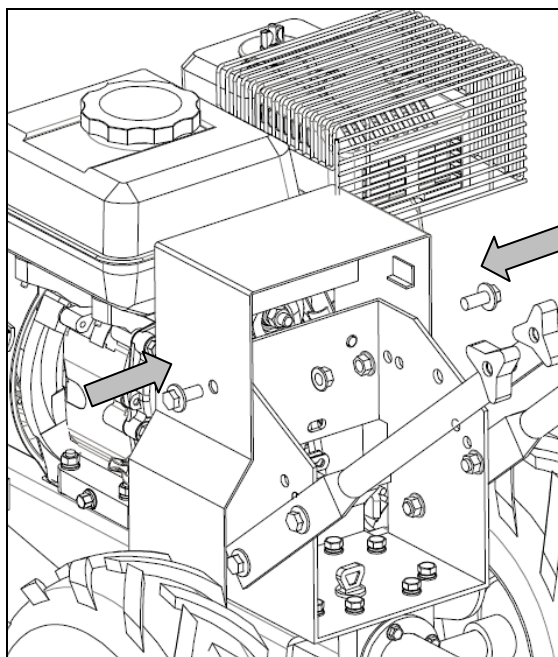


Fig.15

12. Remove the tension belt from the clutch lever with a knife (Fig.16).

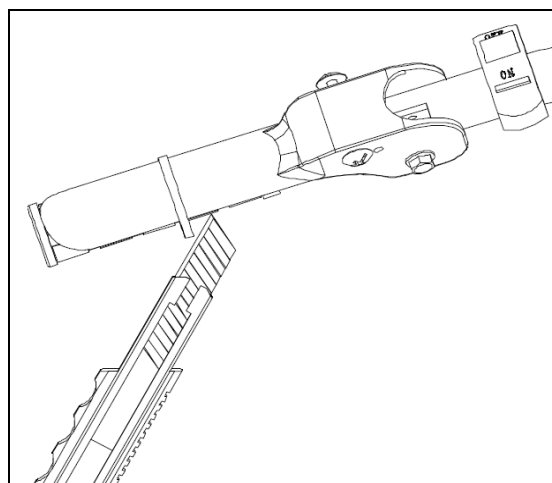


Fig.16

## STEP10 Fill Engine Crankcase oil

### IMPORTANT

**Engine is delivered WITHOUT oil.**

**WARNING!** All the operations described below must be carried out with the engine switched off. Use a quality, highly detergent oil for 4T engines, classified under API categories SG or SF. "SAE 10W-40" oil is suitable for all working temperatures, but it is always best to choose the oil type on the basis of the table and average temperatures of the area.

Oil information:

Temperature for use	Degree of oil viscosity
From -10 C to 0 C	SAE 10W or 10W-30,10W-40
From -0 C to 25 C	SAE 20W or 10W-30,10W-40
From -25 C to 35 C	SAE 30W or 10W-30,10W-40
From -35 C to 45 C	SAE 40W

Engine oil must be added before starting engine.

1. Use clean, high quality detergent oils. Do not mix oil with gasoline. When reach "A" zone (Fig.17) that will be ok.
3. Always check oil level dipstick ① (Fig.17) before starting engine. Refer to engine manual for capacity and type of oil to use.

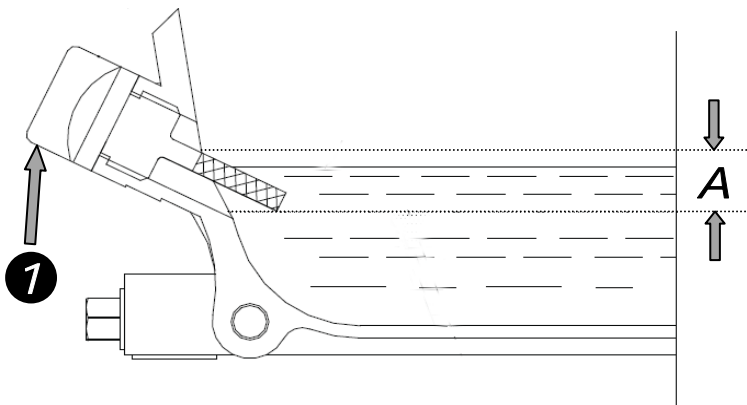


Fig.17

### STEP11 Fill Engine gearbox oil

Gearbox is delivered without oil and must be added the recommended oil.

1. Draw out the dipstick from the transmission cover plate.
2. Add the oil to the gearbox.

Capacity: 0.8L

Oil type: SAE 75-90W

**Note:** when you add the oil, please make the case of driving the tire (front part of the transmission) higher than the case of driving the tine (rear part of the transmission), which will make the oil run into the case of driving the tine completely. You may press down the handle bar and tilt the tiller backward a little.

After filling the oil, put the dipstick ① (Fig.19) back into the transmission cover plate. Fix it to the right position ②.

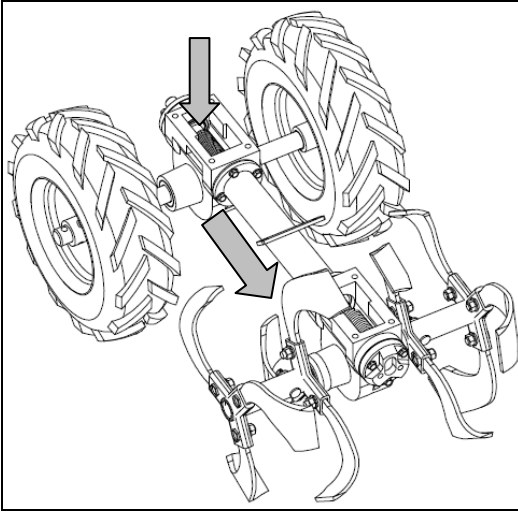


Fig.18

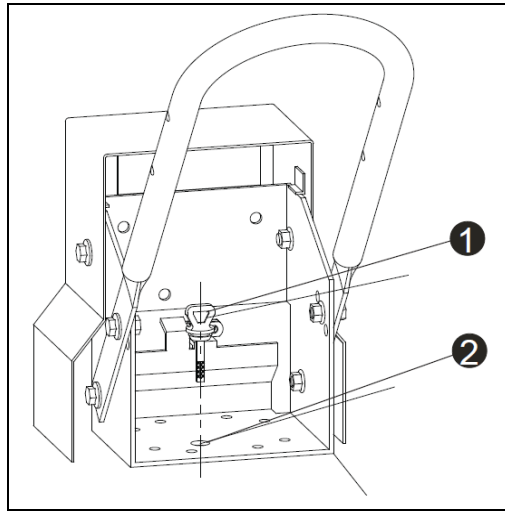


Fig.19

### STEP12 Add fuel



**WARNING! This product is not supplied with fuel! Before operating this product it is essential to fill it with fuel!**



1. Always use clean, fresh unleaded petrol. Purchase fuel in quantities that can be used within 30 days.
2. Never mix oil with petrol. Avoid getting dirt, dust or water into the fuel tank.
3. Unscrew and remove the fuel tank cap
4. Do not overfill. Add fuel until the fuel level remains a minimum 5mm of space between top of the fuel and the inside edge of the tank to allow for expansion spacing.

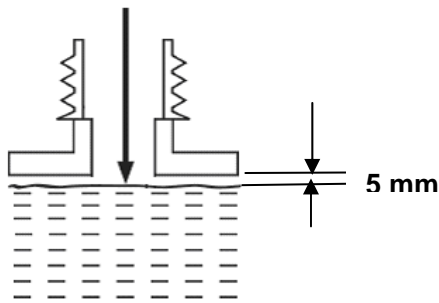


Fig.20



**NOTE: Petrol deteriorates over time. It may be difficult to start the engine if you use petrol which has been kept for more than 30 days.**

**Towards the end of the season, it is advisable to put only as much fuel in the tank as you need for each use, since it should be completely used up before storing the product. Empty remaining fuel from the tank when storing the product for over 30 days.**

5. Wipe any spilled fuel with a soft cloth and reattach the fuel tank cap

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## Adjustments

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### To place wheels in tilling position:

1. Remove the lock-pin. Align the hole in axle with the hole in the wheel hub.
2. Insert the lock-pin through the holes, fold lock-pin ring to secure pin to the axle.
3. The wheel and axle should be firmly locked together before tilling.
4. Repeat for the other wheel.

To place the wheel in free-wheel position:

1. Remove the lock-pin. Slide the wheel inward toward the machine.
2. Insert the pin in the axle inly.
3. The wheel should turn freely on the axle.

### IMPORTANT:

NOTE: Always have both wheel locknuts in or out. Do not operate tiller with only one wheel locked.

Please find more details in the chapter of assembling, Part1

### Handlebar Height Adjustment

Adjust handlebar height. The ideal height of the handlebar varies with operator height and the depth of tilling.

To adjust the height of handlebar:

1. Unscrew the nuts and remove top the bolt on each side until the handlebar moves freely up and down.
2. Align handlebar to the desired hole on the transmission cover.
3. Install the bolts and nuts and retighten.

### Depth Regulator

Tilling depth is controlled by the height of the depth regulator.

To adjust tilling depth:

1. Remove depth regulator pin.
2. Raise the depth regulator to position the tines at the chosen tilling depth.
3. Align hole in the depth regulator with the hole in the depth Regulator bracket and replace depth regulator pin.

Depth Regulator Down = Shallower tilling.

Place the depth regulator pin in the top hole of the depth regulator for the shallowest tilling.

Depth Regulator Up = Deeper tilling.

Place the depth regulator pin in the bottom hole of the depth regulator for deepest tilling.

### Belt Tension Adjustment

Proper belt tension is critical to good performance.

After 1/2 hour of operation, all cables may have to be adjusted due to initial stretch.

Thereafter, check tension after every 2 hours of operation.

To increase belt tension:

1. Loosen the upper jam nut ① or ③(Fig.21).
2. Turn nut ② or ④ (Fig.21), down the cable in 1/8" increments.
3. Check adjustment. If ok, tighten the up jam nut ① or ③(Fig.21).



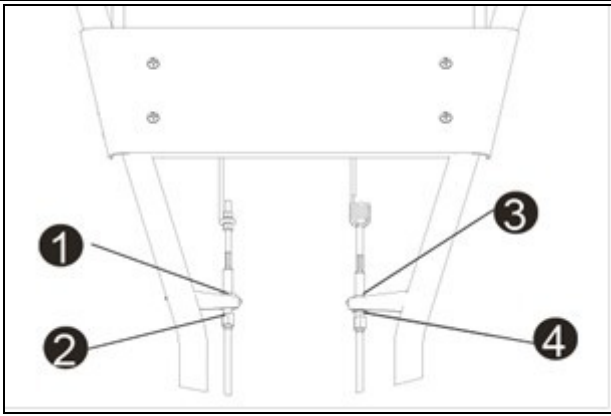


Fig.21

This procedure can be repeated until the conduit adjustment bolts have no more adjustment left. If no more adjustment can be made, the belt may have to be replaced.

## Operation

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### Pre-Start Inspection

1. Make sure all safety guards are in place and all nuts and bolts are secure.
2. Check oil level in engine crankcase. See your engine manual for procedure and specifications.
3. Check the fuel supply. Fill the fuel tank no closer than inch from top of tank to provide space for expansion. See your engine manual for fuel recommendations.
4. Inspect the air cleaner for cleanliness. See your engine manual for procedure.
5. Make sure spark plug wire is attached and the spark plug is tightened securely.
6. Check position of wheels and wheel lockouts.



**WARNING:**

Never start engine or operate tiller with wheels in free-wheel position.



**WARNING:**

Always set the depth regulator pin in the highest hole of the depth regulator before starting engine.



**CAUTION:**

Do not start the tiller until you have read the Manual that came with your engine, and this manual. If you have read these, follow the steps to start the .Always perform the pre-start checklist before starting the engine.

### START-UP



**WARNING:**

Carbon monoxide gas is toxic. Breathing it can cause unconsciousness and even kill you. Avoid any areas or actions that expose you to carbon monoxide.

This product has a presetting on the throttle, User only need to adjust the “Choke” and “Fuel switch” lever.

Set “Fuel switch” to the right end position to open the connection from fuel tank to the engine. If you will not use machine for a period more than 15 days, we strongly recommend you move the “Fuel switch” to the close position

(left end position).

### Cold Starts

1. Move the choke lever to full choke position (to the left end position) (Fig.22)

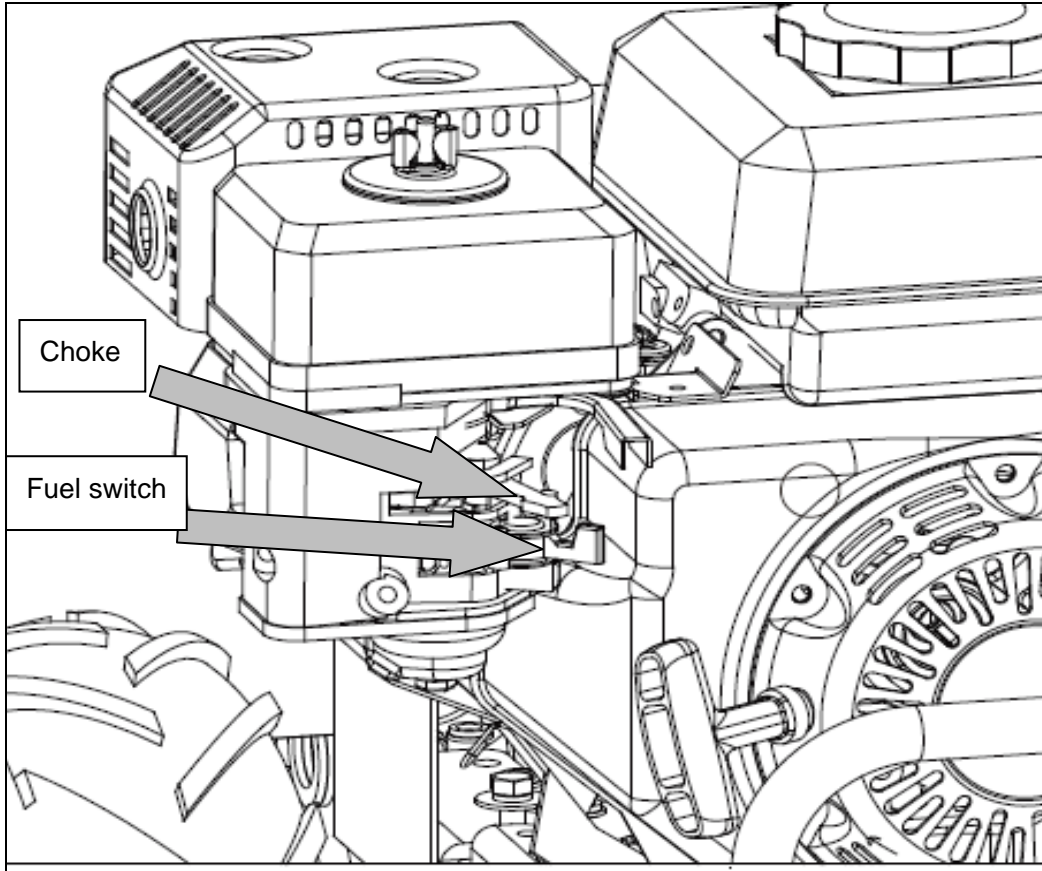


Fig.22

4. Move the switch-on to the "ON" position. (Fig.23)

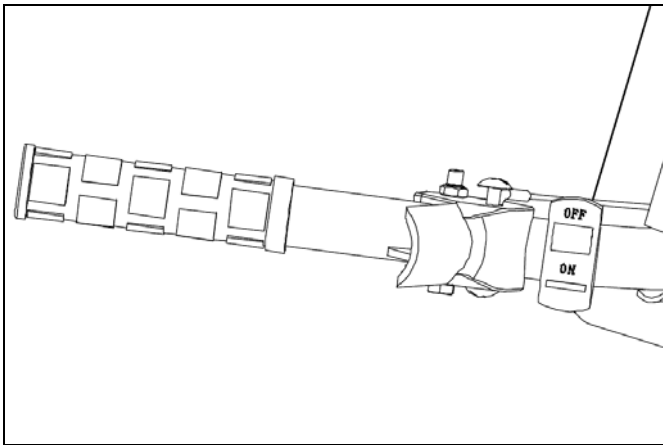


Fig.23

4. Pull the starting rope out slowly, until you feel resistance, then pull briskly; if the engine fails to start, repeat start process. When the engine starts, return the starter rope normally.

5. When the engine starts, let the product run idle for about 15 seconds gradually move the choke lever to the "no choke" position (to the right end position).

#### **NOTE:** Clearing a flooded engine

If the engine won't start after you have operated the starter several times, the engine may be flood with excess

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fuel. Please remove the spark plug, dry it and reinstall it.

**NOTE!** Install the spark plug carefully by hand, to avoid cross-threading. After the plug is seated, tighten 1/8 to 1/4 turn with socket spanner of spark plug to compress the washer.

### Restarting a Warm Engine

Restarting an engine that is already warm from previous running does not normally require use of the choke.

1. Keep the Switch-ON lever to the "ON" position.
2. Keep the choke to the right end position.
3. Pull the starting rope out rapidly until the engine starts. Allow the rope to return normally.

### Idle Speed

In the delivery status, this machine has been set at the right speed. No need of speed adjustment.

### Operating the tiller

#### Move forward (Fig.24)

1. Push the forward lock-off knob to the right.
2. Press down forward driving level on **LEFT HANDLE** and hold it in position for operation.

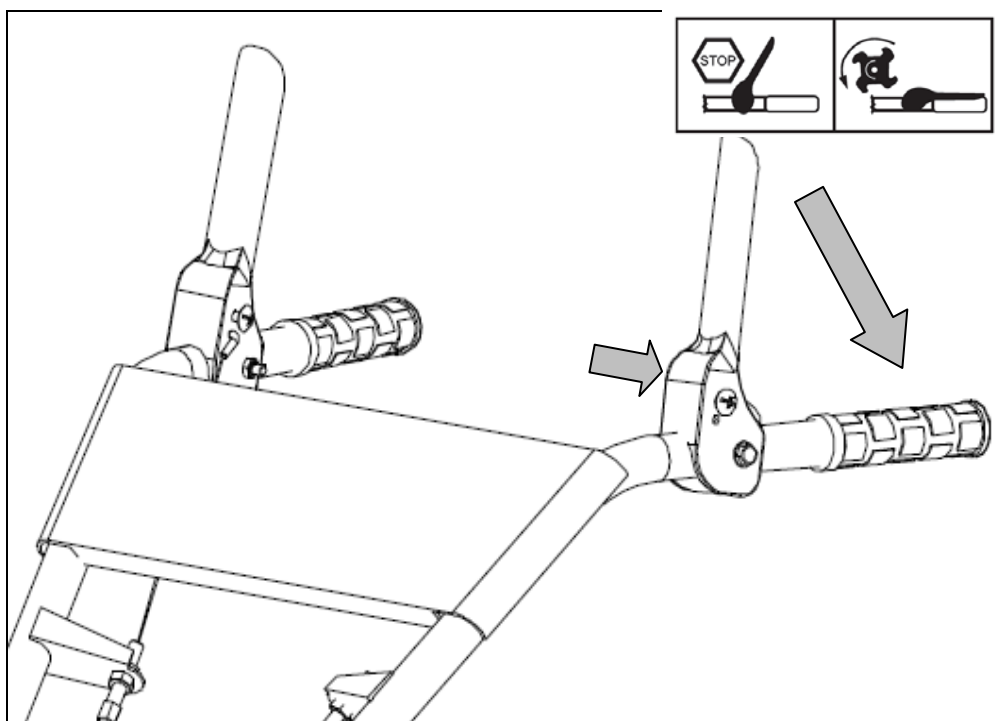


Fig.24

#### Move backward (Fig.25)

1. When you want to reverse; push the reverse lock-off knob to the left (**on RIGHT handle**).
2. Press down reverse driving level, the tiller will reverse walk.

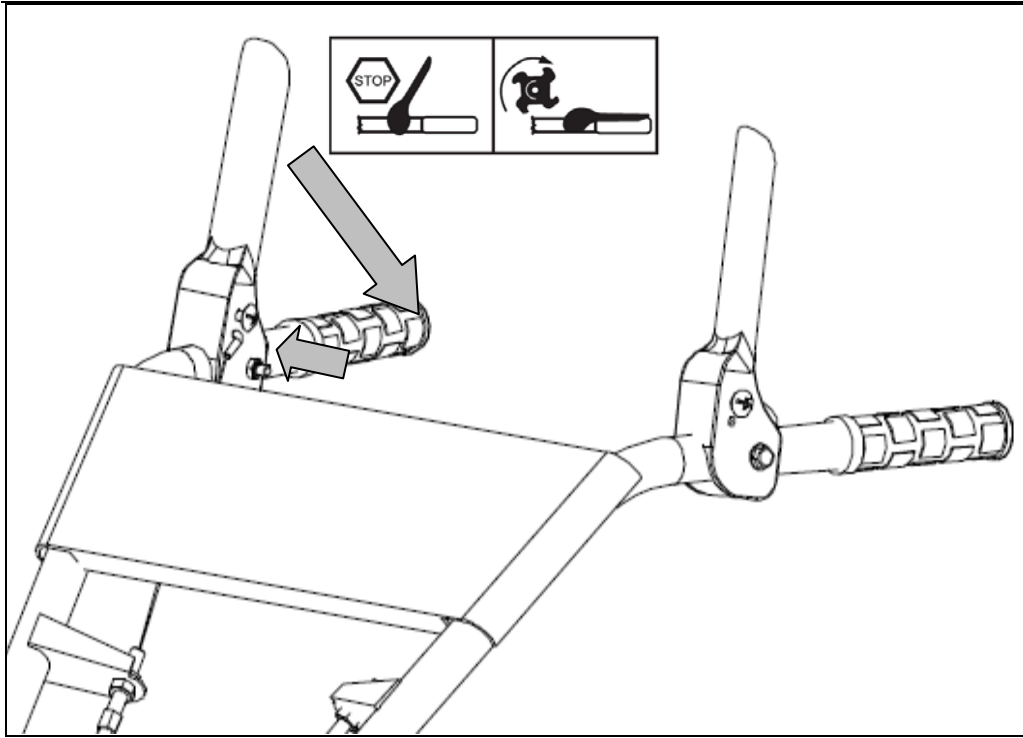


Fig.25



**CAUTION!**

**Never operate the forward driving lever and the reverse lever at the same time!**

**Stopping (Fig.26)**

1. Release the start/stop lever.
2. Press the switch to "OFF"

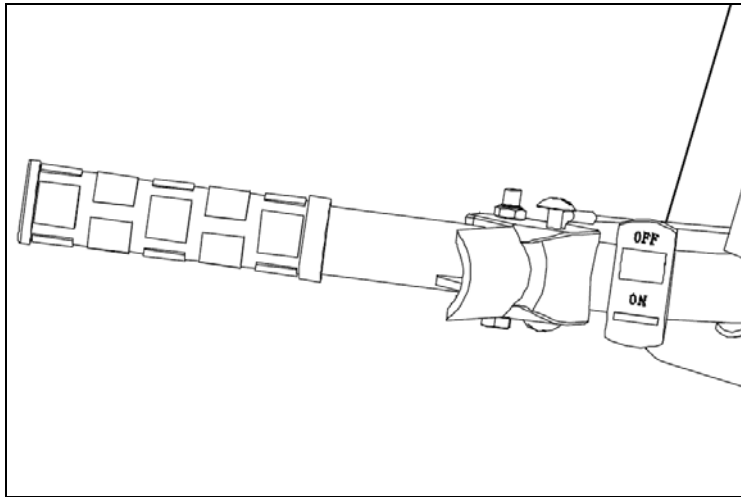


Fig.26

**Tilling**

1. Make sure that the working area is clear of stones, sticks, wire or other objects that could damage the product or its engine.
2. Do not till very wet soil because it tends to stick to the working tool preventing the proper rotation, and it could also cause you to slip and fall.

3. Always maintain a firm grip on the product. For better guidance apply light pressure to the handles so that the skid moves into the ground.
4. Do not try to till too deeply or force the product into soil that is extremely hard or resistant.
5. Walk the product through the soil at a normal pace and in as straight a line as possible.
6. Till in slight overlapping rows. The most effective pattern for tilling soils is moving the product up and down in verticals lines, then move the product in horizontal lines from left to right. This will keep the rows even and ensures that all the ground is tilled without missing any spots. (Fig.27)

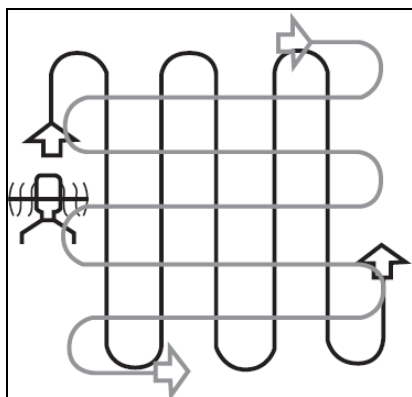


Fig.27



**WARNING!** If the product strikes a foreign object stop the engine! Disconnect the spark plug connector, let the product cool down and thoroughly inspect the product for damage. Have any damage repaired before restarting!



Extensive vibration of the product during operation is an indication of damage! The product should be promptly inspected and repaired!

## After use

1. Switch the product off, disconnect the spark plug connector and let it cool down.
2. Check, clean and store the product as described below.
3. Move the fuel switch to the left position to disconnect the fuel supply to the engine. (Fig.22)

## Care and maintenance



**WARNING!** Always switch the product off, disconnect the spark plug connector and let the product cool down before performing inspection, maintenance and cleaning work!



1. Keep the product clean. Remove debris from it after each use and before storage.
2. Regular and proper cleaning will help ensure safe use and prolong the life of the product.
3. Inspect the product before each use for worn and damaged parts. Do not operate it if you find broken and worn parts.



**WARNING! Only perform repairs and maintenance work according to these instructions! All further works must be performed by a qualified specialist!**

## General cleaning

1. Clean the product with a slightly damp cloth and mild soap. Use a brush for areas that are hard to reach.
2. In particular clean the air vents after every use with a cloth and brush.
3. Remove stubborn dirt with high pressure air (max.3 bar).



**NOTE: Do not use chemical, alkaline, abrasive or other aggressive detergents or disinfectants to clean this product as they might be harmful to its surfaces.**

4. Check for any damage and wear. Repair damages in accordance with this instruction manual or take it to an authorized service centre before using the product again.

## Maintenance table

Part	To do	Before/after each use	10 hours	25 hours	50 hours / half year	100 hours / once a year
Spark plug	check			x		
Spark plug	clean			x		
Spark plug	replace	whenever necessary				
Air filter	check	x				
Air filter	clean		x			
Air filter	replace	whenever necessary				

## Air filter

Inspect the air filter regularly. Replace it with a new one if necessary.

1. Loosen the fixation screw anticlockwise and open the cover (Fig. 28).
2. Remove the filter and tap it on a solid surface to remove dust. Use compressed air (max. 3bar) to remove stubborn dust.
3. Apply a small amount of air filter oil on the filter to increase the performance of the filter. Wring out surplus oil and put the filter into the case.
4. Close the cover and tighten the fixation screw clockwise.

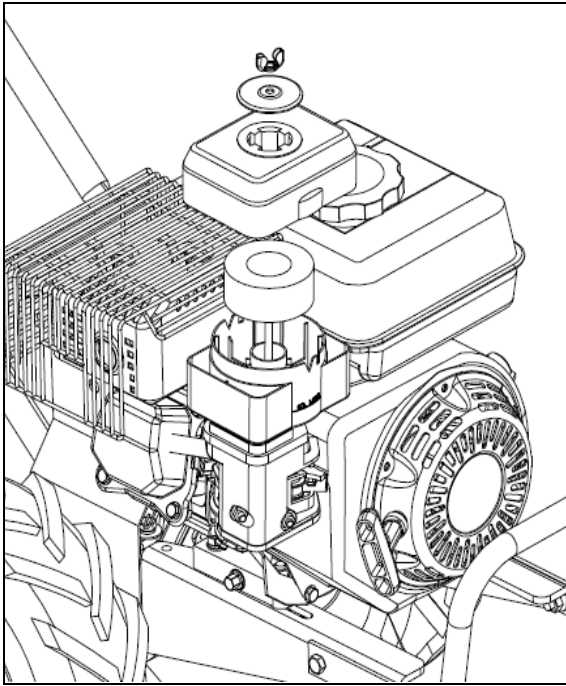


Fig. 28

## Spark plug

Inspect the spark plug every 25 hours or prior to long-term storage over 30 days if the use has not been this high. Clean or replace with a new spark plug if necessary.

1. Disconnect the spark plug connector (Fig. 29).
2. Use a spark plug wrench (not supplied) to loosen and remove the spark plug (Fig. 30).
3. Check the spark plug for damage and wear. The color of the electrode should be light-brown colored.

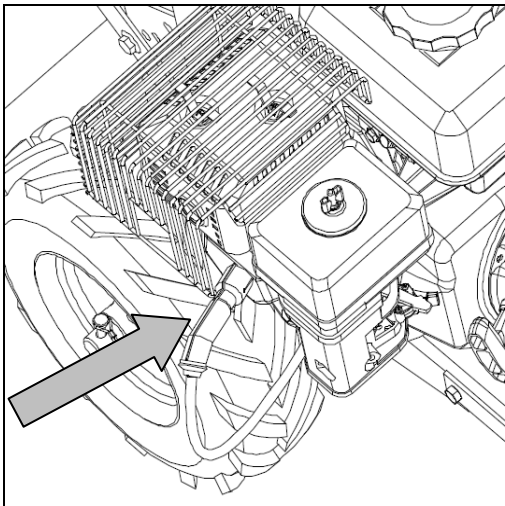


Fig.29

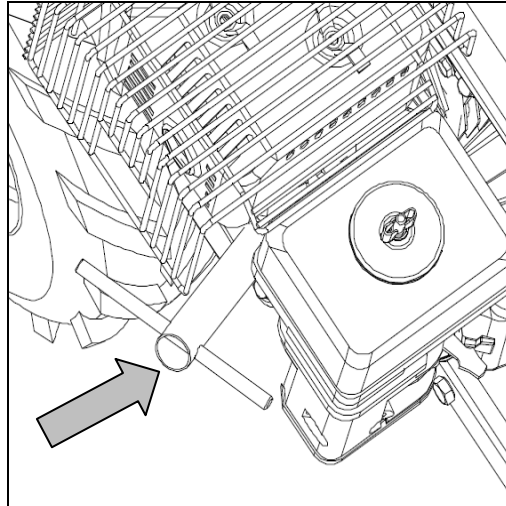


Fig.30

4. Remove debris from the electrode with a soft wired brush; avoid heavy cleaning of the electrode.
5. Dry the spark plug with a soft cloth if it is wet from fuel.
6. Check the spark plug gap. It should be 0.7~0.8 mm (Fig. 31).

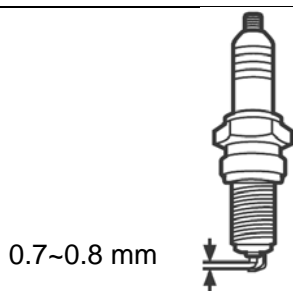


Fig. 11

7. Replace with a new spark plug if either the electrode or the insulation is damaged.
8. When replacing the spark plug, first screw it in hand tight and then lightly tighten it with the spark plug wrench.



**WARNING! Do not over-tighten the spark plug to avoid any damage!**

## Fuel tank

1. Empty the fuel tank when storing the product over 30 days to prevent the fuel deteriorating.
2. Unscrew and remove the fuel tank cap (Fig.32) and use a proper fuel pump to empty the fuel into a suitable container.

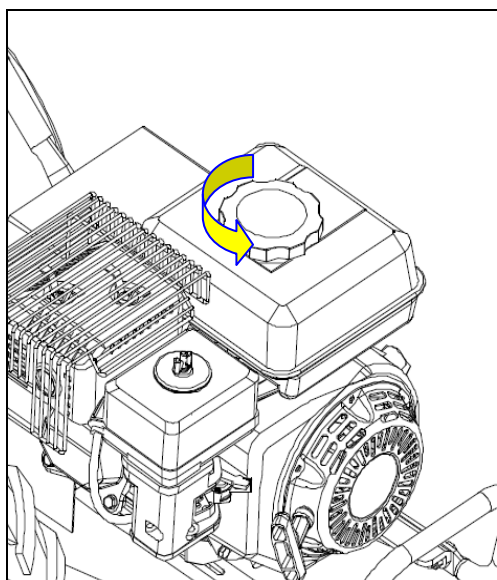


Fig.32

## Engine oil



**NOTE: Check the oil level and quality before each use and after every five hours of operation to be sure correct oil level is maintained.**

### Check

1. Unscrew the oil tank cap.
2. Wipe the oil dipstick clean; refit and tighten the filler cap and then remove it again. The oil level must be between the “**max**” and “**min**” markings.
3. Refill if the oil level is too low.
4. Drain oil if the oil level is too high.



- 
5. The oil should be clear and thick. If the oil is sticky or contains dirt particles the oil must be changed.

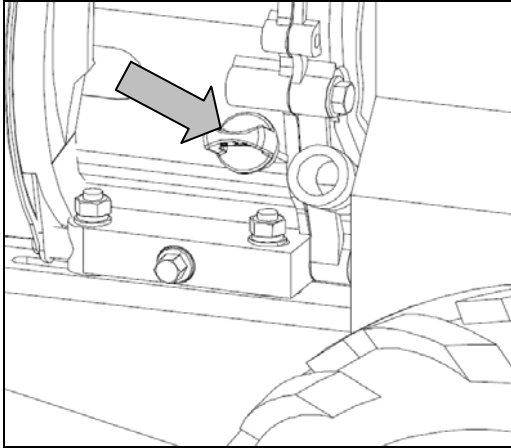


Fig.33

### Change

1. Place a suitable container under oil drain screw to collect drained oil.
2. Unscrew the oil drain screw and let the oil run into the container (Fig. 35).

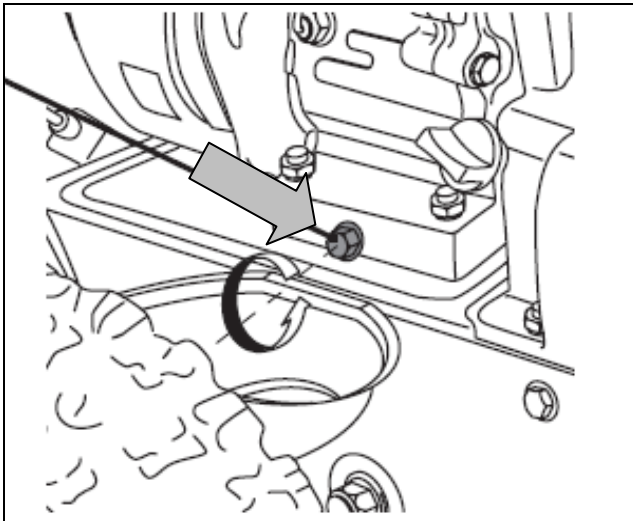


Fig. 34

3. Screw the oil drain screw back in.
4. Wipe spilled oil up.
5. Refill the oil tank as described in section "***Before you start - Fuel and engine oil – Engine oil***".

### Valve play

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Have a qualified specialist check and adjust the valve play. Details for the specialist: IN = 0.08 – 0.12mm, EX = 0.13 – 0.17 mm

### Carburetor

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The carburetor is pre-set by the manufacturer. Should it be necessary to make any changes please contact an authorized service centre or a similarly qualified person. Do not attempt to make any adjustments by yourself.

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## Muffler

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If it be necessary to modify or replace the muffler, please contact an authorized service centre or a similarly qualified person.

## Repair

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This product does not contain any parts that can be repaired by the consumer. Contact an authorized service centre or a similarly qualified person to have it checked and repaired.

## Storage

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1. Clean the product as described above.
2. Store the product and its accessories in a dry, frost-free place.
3. Always store the product in a place that is inaccessible to children. The ideal storage temperature is between 10 and 30°C.
4. We recommend using the original package for storage or covering the product with a suitable cloth or enclosure to protect it against dust.
5. Empty the tank(s) if you are not going to use the product for an extended period of time (more than 3 months) and before storing it for the winter.

## Transportation

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1. Switch the product off and disconnect the spark plug connector before transporting it anywhere.
2. Adjust wheel lock pin to P2 position.
3. Always carry the product on its handles. Do not tilt the machine more than 20° .
4. Protect the product from any heavy impact or strong vibrations which may occur during transportation in vehicles.
5. Secure the product to prevent it from slipping or falling over, loss of fuel, damage and injury.

## Trouble shooting

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Suspected malfunctions are often due to causes that the users can fix themselves. Therefore check the product using this section. In most cases the problem can be solved quickly.



**WARNING! Only perform the steps described within these instructions! All further inspection, maintenance and repair work must be performed by an authorised service centre or a similarly qualified specialist if you cannot solve the problem yourself!**

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
1. Engine does not start	1.1. Not enough fuel in fuel tank	1.1. Add fuel
	1.2. Spark plug is wet	1.2. Dry spark plug
	1.3. Spark plug is damaged	1.3. Replace spark plug
	1.4. Spark plug connector loose	1.4. Attach properly
2. Engine stops	2.1. Not enough fuel in fuel tank	2.1. Add fuel

	2.2. Working tool is blocked	2.2. Remove blockage
3. Unsatisfactory result	1.1 Working tool dull	1.1 Sharpen or replace the Working tool
4. Excessive vibration/noise or exhaust	4.1. Working tool is dull/damaged	4.1. Replace with a new one
	4.2. Bolts/nuts are loosen	4.2. Tighten bolts/nuts
	4.3. Petrol/oil is incorrect	4.3. Empty out unused petrol/oil and refill with the correct petrol/oil

## Recycling and disposal

1. Old products are potentially recyclable and do not, therefore, belong in your household rubbish. You are requested to assist us and our contribution to saving resources and protecting the environment by handing in this appliance at an equipped collection centre (if there is one available).
2. Petrol, oil, used oil, mixtures of oil and petrol and objects contaminated with oil, e.g. cleaning cloths; do not belong with household waste. Dispose of oil-contaminated items in accordance with the local guidelines and hand them in at recycling centre.
3. The product comes in a package that protects it against damages during shipping. Keep the package until you are sure that all parts have been delivered and the product is function properly. Recycle the package afterwards.



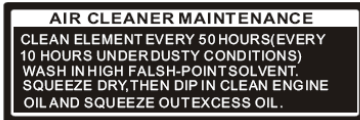
Warning! No oil in the gearbox. Please add oil before using. Capacity: 0.8L Oil type: SAE 75-90W



No oil in Unit. Put oil before starting.



Check for spilled fuel. Stop engine before refueling.



Air cleaner maintenance

Clean element every 50 hours (every 10 hours under dusty conditions) wash in high flash-point solvent. Squeeze dry. Then dip in clean engine oil and squeeze out excess oil.

## Garantee

### Warranty

Maxeda DIY BV within the warranty guarantees that the product is free from defects in material and workmanship under normal use, if installation and maintenance instructions are followed, and normal storage (storage means the condition where the product is not used for the intended purpose).

The warranty period begins on the date of retail purchase by the original end-use buyer. For different products and components of products are subject to different warranty periods. On (the pack) you purchased the product can be found in the applicable guarantee.

### exclusions

This warranty does not cover:

- (a) wear, corrosion, discoloration and deterioration due to normal use and storage,
- (b) damage due to incorrect and / or improper maintenance,
- (c) damage caused to the product external causes such as fire, water (vapor, liquid, ice), misapplication, fall, neglect, misuse (including but not limited to use in violation of the Maxeda DIY Ltd instructions) or abuse,
- (d) supplies and replaceable parts including batteries (one year warranty) and batteries.

When invoking the guarantee, the product (or part) and the original purchase receipt must be submitted.