



## ORIGINAL INSTRUCTIONS

### PETROL TILLER

#### RAC50PTIL



**READ THE INSTRUCTIONS BEFORE USE THE TOOL!**

BUILDER SAS

32, rue Aristide Bergès - ZI 31270 Cugnaux – France

Made in PRC - 2020





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## 1. SAFETY WARNINGS

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- The machine shall always be used in accordance with these manufacturer's instructions the instruction handbook
- The engine shall be stopped when carrying out maintenance and cleaning operations, when changing tools and when being transported by means other than under its own power;
- Some hazards can be met when working on slopes; work slowly by holding firmly the tool. Do not transport the tool on slopes. The hazards can rise when working on difficult soil (stony, hard, etc.). There is a risk to hit some objects, sliding, lose control for the machine which will gives damages. Always inspect the working area before working, and always watch what you are doing.
- The adjustable part of the protective device shall be adjusted to the working depth of the tool so that only that part of the working tool that cuts into the soil remains uncovered. This does not apply to motor hoes.
- The machine should only be operated by suitably trained persons.
- During the operation of the machine safety shoes should be worn.
- Always start up the machine under normal conditions

### **1) Training**

- a) Read the instructions carefully. Be familiar with the controls and the proper use of the equipment;
- b) Never allow children or people unfamiliar with these instructions to use the machine. Local regulations can restrict the age of the operator;



- c) Never work while people, especially 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.

## **2) Preparation**

- a) While working, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals;
- b) Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown up by the machine;
- c) **WARNING** – Petrol is highly flammable:
  - Store fuel in containers specifically designed for this purpose;
  - Refuel outdoors only and do not smoke while refuelling;
  - 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 machine 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;
- d) Replace faulty silencers;
- e) 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.

## **3) Operation**

- a) Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect;
- b) Work only in daylight or in good artificial light;

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- c) Always be sure of your footing on slopes;
  - d) Walk, never run with the machine;
  - e) For wheeled rotary machines, work across the slopes, never up and down;
  - f) Exercise extreme caution when changing direction on slopes;
  - g) Do not work on excessively steep slopes;
  - h) Use extreme caution when reversing or pulling the machine towards you;
  - i) Do not change the engine governor settings or over speed the engine;
  - j) Start the engine carefully according to manufacturer instructions and with feet well away from the tool(s);
  - k) Do not put your hands or feet near or under rotating parts;
  - l) Never pick up or carry a machine while the engine is running;
  - m) Stop the engine:
    - Whenever you leave the machine;
    - Before refueling;
  - n) 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;

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

- a) Keep all nuts, bolts and screws tight to ensure the equipment is in safe working condition;
- b) Never store the equipment with petrol 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, silencer and petrol 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 shall be done outdoors.

**Thrown Object Hazard**

Objects hit by the rotating tines can be thrown from the tiller with great force and may cause severe injury.

1. Before tilling, clear the tilling area of sticks, large stones, wire, glass etc.
2. Pieces thrown from worn or damaged-tines can cause serious injury. Always inspect the tines before using the tiller.

**Fire and Burn Hazard**

Gasoline is extremely flammable and gasoline vapor can explode.

Use extreme care when handling gasoline. Keep gasoline out of reach of children.

1. Refuel in a well-ventilated area with the engine stopped.
2. Allow the engine to cool before refueling. Fuel vapor or spilled fuel may be ignited.
3. The engine and exhaust system becomes very hot during operation and remains hot after stopping. Touching them can cause burn injuries or some materials burn.
4. Avoid touching a hot engine or exhaust system.
5. Allow the engine to cool before performing maintenance or storing the tiller indoors.

**Carbon Monoxide Poisoning Hazard**

Exhaust contains poisonous carbon monoxide a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

**Operation on Slope**

1. When tilling on slopes, keep the fuel tank with less than half oil to minimize fuel spillage.
2. When the tiller walks across the slope, put your effort evenly while walking up and down the slope.

3. Be very careful when changing the direction of the tiller on a slope.
4. Do not use the tiller on a slope of more than 10°.
5. The maximum safe grade angle shown is for reference only and the details should depend on the type of the tool. Before starting the engine, check that the tiller is not damaged and in good condition. For your safety or safety of others, pay special attention when using the tiller up or down hill.

## Symbols



Read the instruction manual before use



Caution: rotating working tool



The part is extremely hot! Do not touch!



Wear protective equipment: helmet, hearing and ocular protection



Keep bystanders away



Risk of projections



Wear protective gloves



Wear safety shoes



Guarantee noise level



Hot surface



No naked flames



Be sure the machine is in stability when leaving!!!

Be sure the machine is in stability when leaving



Do not use cutting blades

## Intended use

This device is to be used only as an electric hoe for aerating lawns and grassy areas in private home gardens and pleasure gardens. It is not intended for use in public spaces, parks, sports fields, agriculture or forestry. Use of this device for any other purpose is considered incorrect and unapproved. The manufacturer will not be responsible for any damage or injury resulting from such use. The user is fully responsible for all related risks.

## 2. PART VIEW

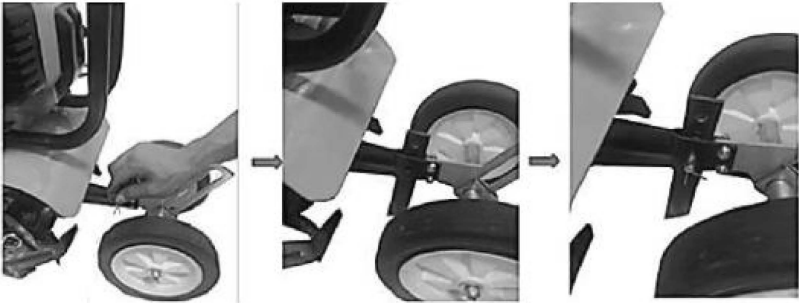


- |                           |                 |
|---------------------------|-----------------|
| 1. ON/OFF switch          | 4. Starter cord |
| 2. Handle                 | 5. Fuel tank    |
| 3. Throttle control lever | 6. Tines        |

### 3. ASSEMBLY

#### a. Adjust depth skid assembly

Remove the pin; change the position of the depth skid. Then add the pin to fix the depth skid

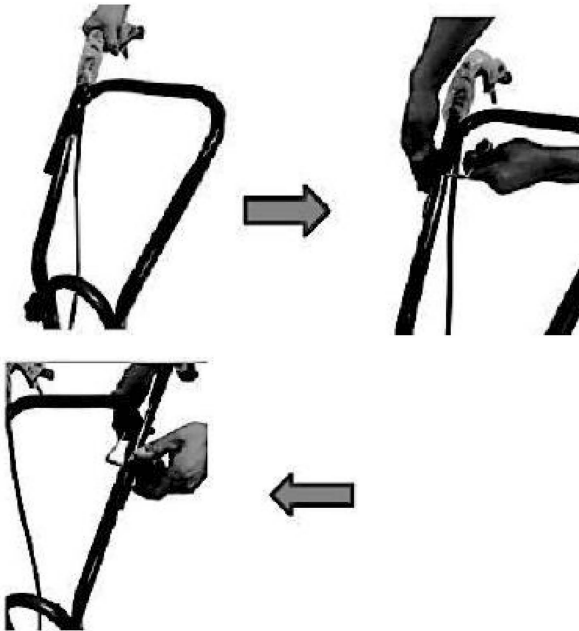


#### b. Mounting Bracket

Place the lower bar on the tool. Fix the bar with screws and wing nuts.

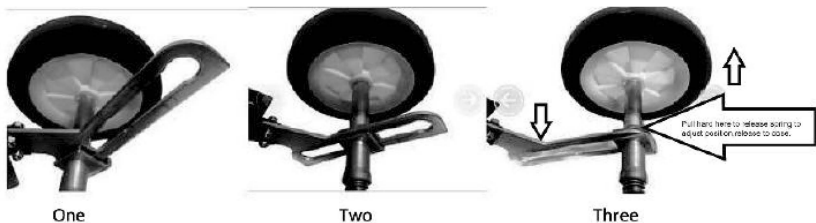
Place on each side the lateral bar, and screw them with screws and wing nuts.





### c. Depth Adjustment

There are three grooves in the connector plate. Place the wheels in the highest groove when working. Position the wheels in the middle or bottom groove when not using (depending on operator's height)





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## 4. ADDING FUEL

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Use 2-stroke oil, regular unleaded petrol.

Do not use pure petrol or the fuel/oil mixture rate above 25:1.

**⚠** **WARNING!** Adding fuel must be carried out carefully away from heat sources and naked flames. Do not smoke when adding fuel.

**NOTE: Dispose of the old fuel/oil mix in accordance to local regulations.**

- Mix thoroughly oil and fuel in a bottle.
- Open the fuel tank. Fill the tank. Avoid spillage.
- Close the fuel tank. Wipe any spillage.



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## 5. OPERATION

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**WARNING I To prevent serious injury, never pick-up or carry the tiller while the engine is running. Always switch off before each use and before moving to another area.**

### a) **Cold starting**

- Set the STOP/START (O/I) switch on the right handlebar to the START position.
- Set the choke lever to cold start position (OFF position).
- Press Primer bulb 6 times until you see the fuel flow through the transparent hose from the fuel tank to the carburetor.
- Pull the starter rope briskly! Repeat if necessary until started.
- Move the choke lever to the RUN position (ON position).
- Pull the starter again until the engine running.

### b) **Hot starting**

- Exactly the same process as from cold except keep the choke in the run position. With the engine running and the tines off the ground, pull up the throttle control lever to increase the engine speed.

### d. **Use**

- Hold both handlebar grips firmly, slowly lower the cultivator until the tines make contact with the ground, As the tines rotate on the soil, begin to pull back on the tiller so that the tines can penetrate the ground. Once the ground has been broken, continue at a moderate pace until you are familiar with the controls and the handling of the cultivator.
- Pull the machine backwards to improve the depth of cultivation and reduce your effort

## 6. MAINTENANCE AND STORAGE

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### TRANSPORTING THE MACHINE

1. Never transport the tiller inside an enclosed space or vehicle. Fuel or fuel vapour may ignite causing serious injury.
2. If fuel is present in the fuel tank, transport on an open vehicle in an upright position.
3. If an enclosed vehicle must be used, then remove the fuel into an approved fuel container. **DO NOT siphon by mouth.**
4. Run engine to use up the fuel in the carburetor and fuel tank. Always run engine in well ventilated areas.
5. Wipe away any spilled fuel. Allow to dry.
6. Ensure the fuel cap is fitted tightly before transportation.

### GENERAL CLEANING

1. Turn off the engine and disconnect the spark plug prior to maintenance operations.
2. Allow the engine and exhaust system to cool to avoid burns from contacting with hot parts.
3. It is important to keep safety gloves in the event that you need to manipulate the blades.
4. Wipe the dirt things on the machine.
5. Remove the fuel from tiller if this is to be stored for longer than a month.
6. It is appropriate to check that all bolts and nuts have not been loosened after each session.
7. The guard should be fixed after assembling and it should not be removed or adjusted during use and maintenance.

### MAINTENANCE AND REPAIR INSTRUCTIONS

#### MAINTENANCE SCHEDULE

Perform these required maintenance procedures at the frequency stated in the table. These procedures should also be a part of any seasonal tune-up.

FREQUENCY	MAINTENANCE REQUIRED
Every 10 hours	Clear and re-oil air filter
Every 25 hours	Check spark plug condition and gap

### BODY MAINTENANCE:

1. Every one or two hours, or after oil has been added, check and ensure all screws are tight.
2. Every 2ohrs add lubricating oil to the gear box.



Unscrew the screw



Add the Gear lubricating oil

3. If the tines gets damaged, then replace or repair immediately.

**⚠ WARNING:** To prevent serious injury, never perform maintenance or repairs to a hot engine.

## CLEANING THE AIR FILTER

**Clean and re-oil the air filter every ten hours of operation.**

**It is vitally important item to maintain.**

Remove the sponge filter from inside.

Wash the filter in detergent and water (Fig. 10). Rinse the filter thoroughly. Squeeze out excess water and allow it to dry completely.

Apply enough SAE 3D oil to lightly coat the filter (rig. 11).

Squeeze the filter to spread and remove extra oil (Fig. 11).

Replace the air filter and cover and securing screw.

NOTE: Operating the machine without the air filter and cover assembly will VOID the warranty.

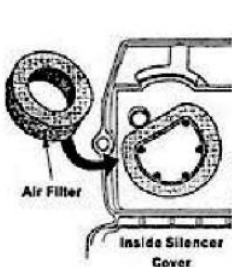


Figure 10

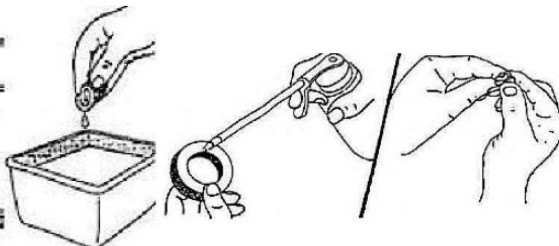


Figure 11

## ADJUSTING IDLE SPEED

After checking and cleaning the air filter if necessary, start the engine and let it run for 2-3 minutes to warm up.

Release the throttle lever and allow the engine to idle. If the engine cuts out (will not idle), turn the adjuster clockwise 1/8th of a turn at a time until the engine idles smoothly.

**NOTE:** Tines must not be rotating on idle. If they do, turn the adjustment screw anti-clockwise a tiny amount.

### **Replacing the Spark Plug**

- a) Use a champion RDJ7Y spark plug (or equivalent). The correct air gap is 0.020in (0.5mm). Remove the plug after every 25 hours of operation to check its condition.
- b) Stop the engine and allow it to cool. Grasp the plug cap firmly and pull the cap from the spark plug. Clean dirt from around the spark plug. Remove the spark plug from the cylinder head by turnings 5/8" socket (supplied) counter-clockwise.
- c) Set the gap at 0.020 in (0.5mm) using a feeler gauge.
- d) Clean and replace the spark plug finger-tight and take care not to cross the thread in the cylinder head.
- e) Tighten using the wrench taking care not to over-tighten.
- f) On no account allow dirt to enter the cylinder when the spark plug is removed. We suggest filling the plughole using a small piece of clean rag. Do not use tissue as this may tear and enter the cylinder.

### **STORAGE**

Allow the engine to cool before storing. To be stored in a well-ventilated and dry area that out of the reach of children.

### **Long Term Storage**

- a) Drain any fuel left in the tank into a container and dispose of considering local bylaws.

- b) Start and run the engine until it stalls. This ensures all fuel has been used from the carburetor.
- c) Allow the engine to cool and remove the spark plug.
- d) Put 30ml of high quality motor oil into the cylinder. Slowly pull the starter to distribute the oil.
- e) Re-install the spark plug.

**NOTE:**

When re-starting after prolonged storage, be sure to drain all the oil out from the cylinder first!

**7. SPECIFICATIONS**

Model: RAC50PTIL

Engine: 2-stroke combustion engine

Type: 2HP

Displacement: 52 cm<sup>3</sup>

Rated output power: 1.45 kW

Speed: 7500/min

Max speed: 8500/min

Fuel tank: 1.25 L

working width: 25 cm

Working depth: 120 mm

Cutter thickness: 1.6 mm

Weight: 15,5kg

External dimensions: 1500x580x850

Sound pressure level (LpA): 71.6 dB (A) K = 2,07 dB(A)

Sound power level (LWA): 90.5 dB (A) K = 2,52 dB(A)

Guarantee sound power level: 93 dB (A)

Vibration: left handle / right handle: 7.102 m/s<sup>2</sup>, K = 1.5 m/s<sup>2</sup>

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## 8. DECLARATION OF CONFORMITY

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### **BUILDER SAS**

ZI, 32, rue Aristide Bergès – 31270 Cugnaux – France

Declare that the machine designated below:

### **PETROL TILLER**

**RAC50PTIL**

Serial number: 20200714413-20200714482

Complies with the provisions of the "machine" directive  
2006/42/EC and the national regulations transposing it;  
Also complies with the provisions of the following European  
directives:

EMC Directive 2014/30 /EU

Emission Directive (EU) 2016/1628 and 2018/989/EU

To the noise emission directive 2000/14/EC and 2005/88/EC

Also complies with European standards, national standards  
and the following technical provisions:

EN 709: 1997 + A4: 2009

EN ISO 14982: 2009

EN12100: 2010

EN14910: 2007 + A1: 2009

Cugnaux, 15/05/2020



Philippe MARIE / PDG





## 9. WARRANTY



### WARRANTY

The manufacturer guarantees the product against defects in material and workmanship for a period of 2 years from the date of the original purchase. The warranty only applies if the product is for household use. The warranty does not cover breakdowns due to normal wear and tear.

The manufacturer agrees to replace parts identified as defective by the designated distributor. The manufacturer does not accept responsibility for the replacement of the machine, in whole or in part, and/or ensuing damage.

**The warranty does not cover breakdowns due to:**

- insufficient maintenance.
- abnormal assembly, adjustment or operations of the product.
- parts subject to normal wear and tear.

**The warranty does not extend to:**

- shipping and packaging costs.
- using the tool for a purpose other than that for which it was designed.
- the use and maintenance of the machine done in a manner not described in the user manual.

Due to our policy of continuous product improvement, we reserve the right to alter or change specifications without notice. Consequently, the product may be different from the information contained therein, but a modification will be undertaken without notice if it is recognized as an improvement of the preceding characteristic.

**READ THE MANUAL CAREFULLY BEFORE USING THE MACHINE.**

When ordering spare parts, please indicate the part number or code, you can find this in the spare parts list in this manual. Keep the purchase receipt; without it, the warranty is invalid. To help you with your product, we invite you to contact us by phone or via our website:

- **+33 (0)9.70.75.30.30**
- **<https://services.swap-europe.com/contact>**

You must create a "ticket" via the web platform.

- Register or create your account.
- Indicate the reference of the tool.
- Choose the subject of your request.
- Describe your problem.
- Attach these files: invoice or sales receipt, photo of the identification plate (serial number), photo of the part you need (for example: pins on the transformer plug which are broken).



# 10. PRODUCT FAILURE

## WHAT TO DO IF MY MACHINE BREAKS DOWN?

### If you bought your product in a store:

- a) Empty the fuel tank.
- b) Make sure that your machine is complete with all accessories supplied, and clean! If this is not the case, the repairer will refuse the machine.

Go to the store with the complete machine and with the receipt or invoice.

### If you bought your product on a website:

- a) Empty the fuel tank.
- b) Make sure that your machine is complete with all accessories supplied, and clean! If this is not the case, the repairer will refuse the machine.
- c) Create a SWAP-Europe service ticket on the site: <https://services.swap-europe.com> When making the request on SWAP-Europe, you must attach the invoice and the photo of the nameplate (serial number).
- d) Contact the repair station to make sure it is available before dropping off the machine.

Go to the repair station with the complete machine packed, accompanied by the purchase invoice and the station support sheet downloadable after the service request is completed on the SWAP-Europe site

For machines with engine failure from manufacturers BRIGGS & STRATTON, HONDA and RATO, please refer to the following instructions.

Repairs will be done by approved engine manufacturers of these manufacturers, see their site:

- <http://www.briggsandstratton.com/eu/fr>
- <http://www.honda-engines-eu.com/fr/service-network-page;jsessionid=5EE8456CF39CD572AA2AEEDFD290CDAE>
- <https://www.rato-europe.com/it/service-network>

**Please keep your original packaging to allow for after-sales service returns or pack your machine with a similar cardboard box of the same dimensions.**

**For any question concerning our after-sales service you can make a request on our website <https://services.swap-europe.com>**

**Our hotline remains available at +33 (9) 70 75 30 30.**



# 11. WARRANTY EXCLUSIONS

## THE WARRANTY DOES NOT COVER:

- Start-up and setting up of the product.
- Damage resulting from normal wear and tear of the product.
- Damage resulting from improper use of the product.
- Damage resulting from assembly or start-up not in accordance with the user manual.
- Breakdowns related to carburetion beyond 90 days and fouling of carburetors.
- Periodic and standard maintenance events.
- Actions of modification and dismantling that directly void the warranty.
- Products whose original authentication marking (brand, serial number) has been degraded, altered or withdrawn.
- Replacement of consumables.
- The use of non-original parts.
- Breakage of parts following impacts or projections.
- Accessories breakdowns.
- Defects and their consequences linked to any external cause.
- Loss of components and loss due to insufficient screwing.
- Cutting components and any damage related to the loosening of parts.
- Overload or overheating.
- Poor power supply quality: faulty voltage, voltage error, etc.
- Damages resulting from the deprivation of enjoyment of the product during the time necessary for repairs and more generally the costs related to the immobilization of the product.
- The costs of a second opinion established by a third party following an estimate by a SWAP-Europe repair station
- The use of a product which would show a defect or a breakage which was not the subject of an immediate report and/or repair with the services of SWAP-Europe.
- Deterioration linked to transport and storage\*.
- Launchers beyond 90 days.
- Oil, petrol, grease.
- Damages related to the use of non-compliant fuels or lubricants.

\* In accordance with transport legislation, damage related to transport must be declared to carriers within 48 hours maximum after observation by registered letter with acknowledgement of receipt.

This document is a supplement to your notice, a non-exhaustive list.

**Attention:** all orders must be checked in the presence of the delivery person. In case of refusal by the delivery person, it you must simply refuse the delivery and notify your refusal.

**Reminder:** the reserves do not exclude the notification by registered letter with acknowledgement within 72 hours.

### Information:

Thermal devices must be wintered each season (service available on the SWAP-Europe site). Batteries must be charged before being stored.

