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# CULTIVATOR 173CC

## POWXG7214

### 1 INTENDED USE

The petrol cultivator is suitable for cultivating the sandy and clayey soil of a canopied vegetables base and dry land. For weedy and deep plots, remove the weeds before using the cultivator to cultivate the land. Not suitable for professional use.



**WARNING! For your own safety, read this manual and the general safety instructions carefully before using the appliance. Your power tool should only be given to other users together with these instructions.**

### 2 DESCRIPTION

- |                            |                      |
|----------------------------|----------------------|
| 1. Clutch – levers-forward | 11. Choke            |
| 2. Reverse lever           | 12. Fender           |
| 3. Handle bar              | 13. Recoil Starter   |
| 4. Locking button          | 14. Depth regulator  |
| 5. Cable clamp             | 15. Blades           |
| 6. Silencer                | 16. On/off switch    |
| 7. Air filter              | 17. Wheel            |
| 8. Fuel tank               | 18. Oil fill cap     |
| 9. Fuel cap                | 19. Protective plate |
| 10. Fuel Locking knob      | 20. Spark plug       |

### 3 PACKAGE CONTENT LIST

- Remove all packaging materials.
- Remove remaining packaging and packing inserts (if included).
- Check that the package contents are complete.
- Check the appliance, the power cord, the power plug and all accessories for transportation damage.
- Keep the packaging materials as far as possible until the end of the warranty period. Then take it to your local waste disposal system.



**WARNING Packaging materials are not toys! Children must not play with plastic bags! There is a danger of suffocation!**













- 1 x Cultivator
- 1 x Spark plug wrench
- 1 x Instruction Manual



**If any parts are missing or damaged, please contact your dealer.**

## 4 SYMBOLS

The following symbols are used in this manual and/or on the machine:

	Denotes risk of personal injury or damage to the tool.		Wear gloves
	Read manual before use		In accordance with essential safety standards of applicable European directives
	Wear noise protection		No naked flame
	Wear eye protection		No smoking
	Wearing of protective shoes advised		Cutting danger
	Keep bystanders away		Warning! Flying objects

## 5 ADDITIONAL SAFETY RULES FOR CULTIVATORS

For your safety and the safety of others, please pay special attention to these precautions

- This cultivator is designed to give safe and dependable service if operated according to instructions.
- Read and understand the owner's manual before operating the cultivator. Failure to do so could result in personal injury or equipment damage.
- Exhaust gas contains poisonous carbon monoxide.
- Never run the cultivator in an enclosed area.
- Be sure to provide adequate ventilation.
- If a ventilation system is installed, ensure you follow the applicable safety rules.
- The rotating parts are sharp and they turn at high speed. Accidental contact can cause serious injury.
- Keep your hands and feet away from the parts while engine is running.
- Stop the engine and disengage the tines clutch before inspection or maintenance of tines.
- Disconnect the spark plug cap to prevent any possibility of accidental starting. Wear heavy gloves to protect your hands when clearing the tines or when inspecting or replacing the tines.

### 5.1 To ensure safe operation

#### 5.1.1 Operator responsibility

- Keep the cultivator in good operating condition. Operating a cultivator in poor or questionable condition could result in serious injury.
- Be sure all safety devices are in working order and warning labels are in place. These items are installed for your safety.
- Be sure the safety covers (fan cover, recoil starter cover) are in place.

- Know how to stop the engine and tines quickly in case of emergency. Understand the use of all controls.
- Keep a firm hold on the handlebars. They may tend to lift during clutch engagement
- Allowing anyone to operate this cultivator without proper training may result in injury.
- Wear sturdy, full-coverage footwear, operating this cultivator barefoot or with open toe shoes or sandals increases your risk of injury.
- Dress sensibly. Loose clothing may get caught in moving parts, increasing your risk of injury.
- Be alert! Operating this cultivator when you are tired, ill or under the influence of alcohol or drugs may result in serious injury.
- Keep all persons and pets away from the tilling area.
- Be sure drag bar is in place and properly adjusted.

#### 5.1.2 Child safety

- Keep children indoors and supervised at all times while any outdoor power equipment is being used nearby. Young children move quickly and are attracted especially by the tines and tilling activity.
- Never assume children will remain where you last saw them, be alert and turn the cultivator off if children enter the area.
- Children should never be allowed to operate the cultivator, even under adult supervision.

#### 5.1.3 Thrown object hazard

- Objects hit by the rotating tines can be thrown from the cultivator with great force, and may cause severe injury.
- Before tilling, clear the tilling area of sticks, large stones, wire, glass, etc. Till only in daylight.
- Pieces thrown from worn or damaged tines can cause serious injury. Always inspect the tines before using the cultivator.

#### 5.1.4 Fire and burn hazard

- Petrol is extremely inflammable, and petrol vapour can explode.
- Use extreme care when handling petrol. Keep petrol out of reach of children.
- Refuel in a well-ventilated area with the engine stopped.
- Allow the engine to cool before refuelling. Fuel vapour or spilled fuel may be ignited.
- The engine and exhaust system become very hot during operation and remain hot for a while after stopping. Contact with hot engine components can cause burn injuries and can ignite some materials.
- Avoid touching a hot engine or exhaust system.
- Allow the engine to cool before performing maintenance or storing the cultivator indoors.

#### 5.1.5 Carbon monoxide poisoning hazard

- Exhaust fumes contain poisonous carbon monoxide, a colourless and odourless gas. Breathing in exhaust fumes can cause loss of consciousness and may lead to death
- If you run the engine in an area that is confined or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

#### 5.1.6 Operation on slope

- When tilling on slopes, keep the fuel tank less than half full to minimize fuel spillage.
- Till across the slope (at equally spaced intervals) rather than up and down it.
- Be very careful when changing the direction of the cultivator on a slope.

- Do not use the cultivator on a slope of more than 10°. The maximum angle for safe working (as shown) is for reference purposes only and should be determined according to the type of tool.
- Before starting the engine, check that the cultivator is not damaged and is in good condition. For your safety and the safety of others, exercise extreme care when using the cultivator up or down a hill.

## **6 PETROL SAFETY WARNINGS**



**WARNING: Use extra care in handling fuels. They are inflammable and the vapours are explosive. The following points must be observed.**

- Use only an approved container.
- Never remove the fuel cap or add fuel with the power source running. Allow engine exhaust components to cool before refueling.
- Do not smoke.
- Never refuel the machine indoors.
- Never store the machine or fuel containers inside where there is an open flame, such as a water heater.
- If fuel is spilled, do not attempt to start the power source, but move the machine away from the area of spillage before starting.
- Always replace and securely tighten the fuel cap after refueling.
- If the tank is drained, this should be done outdoors.

## **7 ASSEMBLY INSTRUCTIONS**

### **7.1 Blade assembly**

- Connect the right blade assembly (Fig. 2A-2D)
- Fix the blade assembly with the bolt and fix pin (Fig. 2E-2G)
- Assemble the left blade in the same way

### **7.2 Protective plate assembly**

- Insert the protective plate into the blade assembly and fix it with the bolt and the pin (Fig. 3A-3D)
- Assemble the right plate in the same way
- Insert the blade assembly into the transmission shaft with the bolt and fix pin (Fig 3E-3I)

### **7.3 Depth regulator assembly**

- Loosen the locking knob and then remove the depth regulator from the machine (Fig. 4A)
- Insert the depth regulator into the hole of the machine from bottom to top as shown (Fig. 4B)
- Tighten the locking knob (Fig. 4C)

### **7.4 Adjusting the depth regulator**

- Loosen the locking knob
- Align the hole on the regulator and adjust the depth.
- Lock the knob

### **7.5 Wheel assembly**

- Insert the drivepipe into the hole of front wheel (Fig. 5A/B)
- Fix the front wheel on to the wheel support with bolt and nut (Fig. 5C-5E)

### **7.6 Fender assembly**

- Fix the fender on to the unit body with screws (Fig. 6A-B)
- Fix the other fender in the same way.



**7.7 Handle assembly**

- Fix the handle panel with screw and washer (Fig. 7A-B)
- Fix the handle on to the unit body with screws, nut and bolt (Fig. 7C-7F)



**7.8 Adjusting the handle height**

- Move the handle up or down. There are 3 adjustment heights.
- Fix the handle with the bolt and locking knob (Fig. 8A-8C)
- And attach the cable clamp to the handle (Fig. 8D-8E)

**8 CONTROLS****8.1 Engine switch**

- The engine switch must be in the  position when starting the engine.
- Press the switch to the  position to stop the engine. (Fig. 9)

**8.2 Choke throttle lever**

- When starting cool engine, turn throttle choke lever to  position.
- When starting warm engine and operating, turn throttle chock lever to  position. (Fig. 10)

**9 BEFORE OPERATION****9.1 Add or check oil level**

Remove the oil filter cap/dipstick and wipe it clean.

Insert the oil filler cap/dipstick into the oil filler neck, but do not screw it in, then remove it to check the oil level.

If the oil level is near or below the lower limit mark on the dipstick, fill with 4-stroke automotive detergent oil SAE10W-30 to the upper limit mark. Do not overfill.

Reinstall the oil filler cap/dipstick.

**9.2 Add fuel to fuel tank**

Remove the fuel tank cap

Use unleaded gasoline or E10 fuel

Use a suitable funnel to fill in the fuel to the engines fuel tank . Do not spill any fuel or overfill the tank.

## 10 OPERATING INSTRUCTIONS





### 10.1 Pre- First - Start Inspection



**IMPORTANT! Engine is shipped from factory without oil. Engine oil must be added before starting engine. SAE10W-30.**

- Make sure all safety guards are in place and all nuts and bolts are secure.
- Check oil level in engine crankcase.
- Inspect air filter for cleanliness.
- Check the fuel supply. Do not fill petrol tank completely, allow space for fuel to expand.
- Be sure spark plug wire is attached and spark plug is tightened securely.
- Check depth regulator lever position.
- Examine underneath and around engine for signs of oil or fuel leaks.
- Inspect fuel hoses for tightness and fuel.
- Look for signs of engine damage.
- Remove excessive debris from silencer area and recoil starter

#### 10.1.1 Starting the engine

- Open the fuel locking knob to the  position. (Fig. 11A)
- When starting cool engine, turn throttle choke lever to “” position,
- When starting warm engine and operating, turn throttle choke lever to “” position. (Fig. 11C)
- Standing behind the unit, pull the starter rope lightly until you feel resistance then pull briskly.
- Return the starter rope gently.
- When you finish the job of mowing each time, please turn the fuel cock to the  position. (Fig. 11B)

### 10.2 Tilling

- Pull the front wheel support downward and move to the slot. (Fig.12B/15C)
- Start the engine as above. Let the engine run a few minutes to warm before use.
- Press the lock button (1) and meanwhile press down the clutch handle (2) and keep it in grasp, the blade will rotating and the machine will move forward. (Fig. 12A)
- Release the clutch handle to stop the machine.
- Press the lock button (1) and Press down the reverse handle (2) and keep it in grasp, the blade will reverse rotating and the machine will reverse automatically. (Fig. 12D)
- Release the reverse handle to stop the machine.



**Do not operate both “forward” and “reverse” clutch levers at the same time.**

## 11 MAINTENANCE



Engine should be off before adjusting any controls.

### 11.1 Maintenance schedule

Keeping your cultivator in top running condition will prolong its life, and help you obtain optimum performance.

Please read this normal care schedule, and note the recommended care operating intervals to extend the life of your unit.

Maintenance Operation		Each Use	First 5 hours	Every 8 hours or daily	Every 25 hours or annually	Every 50 hours or annually	Every year
Engine oil	Check level	√		√			
	Change		√			√	
Air filter	Check	√					
	Clean				√		
	Replace						√
Fuel filter	Check	√					
	Replace						√
Spark plug	Check					√	
	Replace						√

1) Service more frequently when used in dusty areas.

## 12 STORAGE

### 12.1 Prepare for storage



Follow the steps below to prepare your cultivator for storage.

- Protect wheels and axles from rust.
- Drain fuel system completely, start the engine and let it run until it stops due to lack of fuel, or add fuel stabilizer to prevent fuel from becoming unusable during extended storage period.
- While engine is still warm, drain the oil from the engine. Refill with fresh oil of the recommended grade.
- Clean external surfaces, engine and cooling fan.
- Remove sparking plug, pour ca. 30ml of SAE 30 oil into sparking plug hole.
- Pull starter cord slowly a couple of times to distribute oil evenly in cylinder head area.
- Reinstall sparking plug.

- Transport unit to a suitable storage location. If you have chosen to use a fuel stabilizer and have not drained the fuel system, follow all safety instructions and storage precautions in this manual to prevent the possibility of fire due to the ignition of petrol fumes. Remember, petrol fumes can travel to distant sources of ignition and ignite, causing explosions and fire.
- If there is any possibility of unauthorized use or tampering, remove the sparking plug and store it in a safe place before storing the cultivator unit. Be sure to plug the sparking plug hole to prevent foreign material from entering.

**13 TROUBLESHOOTING AND REPAIR**

While normal care and routine maintenance will extend the life of your cultivator, prolonged or constant use may eventually require it to be serviced in order to allow it to continue to operate properly. The troubleshooting guide below lists the most common problems, causes and remedies.

<b>PROBLEM</b>	<b>REMEDY/ACTION</b>
Engine will not start	Add fuel to fuel tank. Connect sparking plug wire to sparking plug Throttle must be positioned at choke for a cold start
Engine runs rough	Clean or replace air cleaner
Engine is hard to start	Drain old fuel and replace with fresh. Use fuel stabilizer at end of season Make sure sparking plug wire is securely attached to sparking plug   The engine switch must be in the “  ” position.
Engine misses or lacks power	Raise the tines for shallow tilling by lowering the depth regulator lever Clean or replace air cleaner Incorrect carburetor adjustment, take to authorized engine service center Replace sparking plug and adjust gap Drain and refill petrol tank and carburetor
Cultivator is difficult to control when tilling (machine jumps or lurches forward)	Lock wheels in tilling position Raise the tines for shallower tilling by lowering the depth regulator lever
Tines turn, cultivator does not move	Lower the tines for deeper tilling by raising the depth regulator lever
Excessive heat builds up in transmission/tine area during tilling	Remove vegetation by following instructions in Clean Tine Axle Shaft of Normal Care section. FOLLOW ALL SAFETY INSTRUCTIONS Check transmission fluid and fill if needed

**14 TECHNICAL DATA**

Engine displacement	173cc
Weight	46,7kg
Max. rotational speed	max3600 min <sup>-1</sup>
Cutting width	600mm
Blade thickness	3.8mm
Motor Power	3,6kW
Oil Tank Capacity	600ml
Fuel tank capacity	1800ml

**15 NOISE**

Noise emission values measured according to relevant standard. (K=3)

Acoustic pressure level LpA	80 dB(A)
Acoustic power level LwA	97 dB(A)



**ATTENTION! Wear hearing protection when sound pressure is over 85 dB(A).**

aw (Vibration)	3,9 m/s <sup>2</sup>	K = 1,5 m/s <sup>2</sup>
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**16 SERVICE DEPARTMENT**

Damaged switches must be replaced by our after-sales service department.

If the connecting cable (or mains plug) is damaged, it must be replaced by a special connecting cable which is available from our service department. Replacement of the connecting cable should be carried out only by our service department (see last page) or by a qualified specialist (qualified electrician).

## **17 WARRANTY**

- This product is warranted for a 36-month period effective from the date of purchase by the first user.
- This warranty covers all material or production flaws excluding : batteries, chargers, defective parts subject to normal wear & tear such as bearings, brushes, cables, and plugs, or accessories such as drills, drill bits, saw blades, etc. ; damage or defects resulting from maltreatment, accidents or alterations; nor the cost of transportation.
- Damage and/or defects resulting from inappropriate use also do not fall under the warranty provisions.
- We also disclaim all liability for any bodily injury resulting from inappropriate use of the tool.
- Repairs may only be carried out by an authorised customer service centre for Powerplus tools.
- You can always obtain more information at the number 00 32 3 292 92 90.
- Any transportation costs shall always be borne by the customer, unless agreed otherwise in writing.
- At the same time, no claim can be made on the warranty if the damage of the device is the result of negligent maintenance or overload.
- Definitely excluded from the warranty is damage resulting from fluid permeation, excessive dust penetration, intentional damage (on purpose or by gross carelessness), inappropriate usage (use for purposes for which the device is not suitable), incompetent usage (e.g. not following the instructions given in the manual), inexpert assembly, lightning strike, erroneous net voltage. This list is not exhaustive.
- Acceptance of claims under warranty can never lead to the prolongation of the warranty period nor commencement of a new warranty period in case of a device replacement.
- Devices or parts which are replaced under the warranty therefore remain the property of Varo NV.
- We reserve the right to reject a claim whenever the purchase cannot be verified or when it is clear that the product has not been properly maintained. (Clean ventilation slots, carbon brushes serviced regularly, etc.).
- Your purchase receipt must be kept as proof of date of purchase.
- Your appliance must be returned undismantled to your dealer in an acceptably clean state, (in its original blow-moulded case if applicable to the unit), accompanied by proof of purchase.

## **18 ENVIRONMENT**

Should your appliance need replacement after extended use, do not dispose of it with the household refuse, but in an environmentally safe way.

Please dispose of used motor oil in a manner that protects the environment. We suggest you take it in a sealed container to your local service station for recycling. Do not throw it into the refuse or pour it on the ground.

**19 DECLARATION OF CONFORMITY**



**VARO – VIC. VAN ROMPUY N.V.** - Joseph Van Instraat 9 - BE2500 Lier - BELGIUM,  
declares that

product: Cultivator  
trade mark: POWERplus  
model: POWXG7214

is in conformity with the essential requirements and other relevant provisions of the applicable European Directives, based on the application of European harmonized standards. Any unauthorized modification of the apparatus voids this declaration.

European Directives (including, if applicable, their amendments up to the date of signature);

2006/42/EC

2014/30/EU

2000/14/EC

Annex V

LwA

Measured

94dB(A)

Guaranteed

97dB(A)

European harmonized standards (including, if applicable, their amendments up to the date of signature);

EN709 : 1997 – A4

EN ISO 14982 : 2009

Keeper of the Technical Documentation : Philippe Vankerkhove, VARO – Vic. Van Rompuy N.V.

The undersigned acts on behalf of the company CEO,

Philippe Vankerkhove  
Certification Manager  
11/08/20