



GT-395



GT-390



Instruction manual

Petrol Powered cultivator

GT- 390 GT- 395

Dear Customer,

Thank you for choosing the „GAMA GARDEN” petrol cultivator.

Purpose

Prior to starting to use the petrol powered cultivator, please read this instruction manual carefully and get acquainted with the controls in order to ensure proper and safe operation.

Cultivator application:

- soil cultivating and tilling in gardens (with the safety engineering instructions included in the instruction manual observed and the technical characteristics taken into consideration).
 - as a power train for work performance with various adapters (according to the purpose of the adapters);
- The cultivator is designed for household application.

Main technical characteristics:

Model	GT-390	GT-395
Engine		
Type	Rato R210, 212cc* Petrol powered, four-stroke, OHV air-cooled	
Working cylinder volume (cm ³)	212	
Sound power level dB (LwA)	94 dBA	
Sound pressure level dB (LpA)	82 dBA. / K=1,5	
Vibration value:	3 m/s ² / K=1,5	
Fuel tank volume, litre	3,6	
Engine case volume, litre	0,6	
Air filter	Foam	
Ignition system		
Type	Electronic, without contact	
Controls		
Starter	Manual, with automatic return of cord	
Butterfly valve control	On the handlebar **	
Operating characteristics		
Number of speeds	2 forward / 1 backward	1 forward / 1 backward
Maximum tilling width, cm	35 / 55 / 75	
Blade diameter, cm	37	
Blades rotary speed, rev./min.	60/120/40	120/40
Weight (without packaging), kg	62	60
	64	62

* It can be supplied with other motor type as well.

** It can be supplied without butterfly valve control as well.

List of units for transportation

№	Description	Quantity
1	Cultivator	1 piece
2	Instruction manual	1 piece
3	Fastening set	1 set
4	Engine instruction manual (for model with Briggs&Stratton engine).	1 piece
5.	Packaging	1 set

For your safety

Use the cultivator properly.

Improper use of the cultivator means failure to observe the instructions of the manual.

The manufacturer will not assume any responsibility for injuries resulting from the improper use of the cultivator. In this case the user will bear all responsibilities.

The manufacturer will not bear any responsibility for faults which occurred because the user made modifications arbitrarily in the structure of the cultivator.

Principal safety engineering rules

- Prior to the first use of the cultivator, read the instruction manual carefully.
- Other users must also be informed of those included in the instruction manual.
- The instruction manual must be kept during the whole period of use of the cultivator.
- In case of owner change, the instruction manual must be handed over to the new owner together with the cultivator.
- The cultivator must not be used by persons who are under the influence of alcohol, drug or medicine.
- Persons below 16 years of age must not use the cultivator.
- Make sure that all unauthorised persons, including children and domestic animals, are staying outside the efficient range of the cultivator.

- During work performance wear protective clothing, secure footwear, goggles and gloves.
- Do not refill the cultivator fuel tank while operating. Petrol is allowed to be refilled only outdoors.
- Perform the work far away from open flames and sparks and avoid smoking.
- Do not touch the rotary blades of the cultivator by your hand, foot or even your clothing. The cultivator motor, exhaust silencer and reducer will warm up during the work performance and cool down continually.
- The engine can be stopped in the following cases:
 - When the work performance with the cultivator is finished;
 - During maintenance and adjustment operations;
 - When the cultivator is relocated from a working site to another
- Store the cultivator and the petrol in a place unreachable for children and at a safe distance from sparks, fire and radiators.
- Prior to locating the cultivator in a closed room for permanent storage, wait for the motor to cool down entirely.
- The parts must be in compliance with the manufacturer's specifications. Use only original parts.
- The cultivator may be repaired only by an authorised service repair shop.

Safety engineering devices

Safety engineering devices protect the user from injuries possibly occurring during the work performance therefore they should always be in operable condition.

Do not change or block the operation of the safety engineering devices in any way.

Clutch lever

When the clutch lever is released, the cultivator rotary blades will stop.

Starter switch

If the starter switch is turned "OFF" ("turned off") position then the engine will stop.

Guard

It will protect the user from injuries caused by pieces of soil flying out from under the cultivator rotary blades.

Handlebar cross-tube




It will ensure the distance between the user and the cultivator rotary blades.

Belt transmission guard

It covers the V-belt during the operation of the cultivator.






Information on the cultivator

For ensuring safe operation and maintenance of the cultivator, each symbol can be seen on the device in the form of die stamped or projected picture.

	Place of fuel refilling. Location: on the fuel tank cover.
OHV	Indication of engine of top valve arrangement. Location: on the cover of the valve mechanism
OHC	Indication of engine of top shaft arrangement Elhelyezés: on the cover of the valve mechanism.
	ATTENTION: Hot surface! Location: on the cover of the exhaust silencer.
	Location: on the handle of the pull cord.

Stickers of operations to be done by the controls

Depending on the engine model, stickers and their arrangement may differ from those included in the instruction manual.

	Air valve control To the left –“Fully closed” To the right –“Fully open”
	Fuel cock To the right –“Open”. To the left –“Closed”. Location: on the carburettor case
RH F 1 F 2	Speed changer speeds RH – reverse. 1, 2 – first/second speed. F – coast. Location: on the speed changer
I / ON O / OFF	Starter switch Location: on the engine case.
	Butterfly valve control. “Rabbit”/  - Max revolution. “Turtle”/  - Min revolution. Location: on the engine case.


Warning symbols


There is a sticker containing warning symbols on the cultivator guard. Prior to starting the operation, get acquainted with these warnings and apply them during your work.

	Prior to starting to use the cultivator, read the instruction manual, but mainly the section "For your safety".
	Risk of injury by the rotary blades Keep your hand and feet away at a safe distance from the rotary blades.
	Risk of injury or risk of damaging the objects found nearby. Make sure that all unauthorised persons, including children and domestic animals are staying out of the efficiency range of the cultivator.
	Risk of injury by objects flying out from under the cultivator. DO NOT WORK WITHOUT THE GUARD BEING INSTALLED.
	Prior to performing the cultivator maintenance, remove the cap of the high voltage line from the spark-plug of the motor.

Symbols found in the instruction manual

The following symbols are found in the instruction manual:

 **Danger!** It draws the user's attention to such sources of danger which may cause injury to the user during the work performance with the cultivator.

 **Warning!**

It draws the attention to such sources of danger which may cause damage to the cultivator in case of improper use.

Arrangement of main parts of the cultivator

GT-390



1 – Throttle control, 2 - Throttle cable, 3 - Handle bar bracket, 4 – Handle, 5 - Clutch lever, 6 - Clutch cable, 7 – Speed changer, 8- Deflector, 9 – Tine, 10 – Front handle, 11 – Engine

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Figure 1

1 – Throttle control, 2 - Throttle cable, 3 – Reverse clutch lever, 4 – Handle bar bracket, 5 - Handle, 6 - Clutch lever, 7 – Clutch cable, 8- Handle bar bracket, 9 – Deflector, 10 – Wheels, 11 – Tine, 12 – Front handle, 13 - Engine

Assembly

⚠ Warning!

When unpacking the machine, be especially careful not to damage the clutch cable.

Assemble the cultivator in accordance with the figures found in the instruction manual.

1. Assembly of the handlebar

The handlebar consists of the following:

- Cross-tube (Figure 2, Item 1)
- Clutch switch (Figure 2, Item 2)
- Switching the reverse gear for the model T 395 (Figure 2, Item 3)
- Handlebar fastener (Figure 2, Item 4)
- Handlebar fastening bracket (Figure 2, Item 5)
- Handlebar fastening clamps (Figure 2, Item 6)

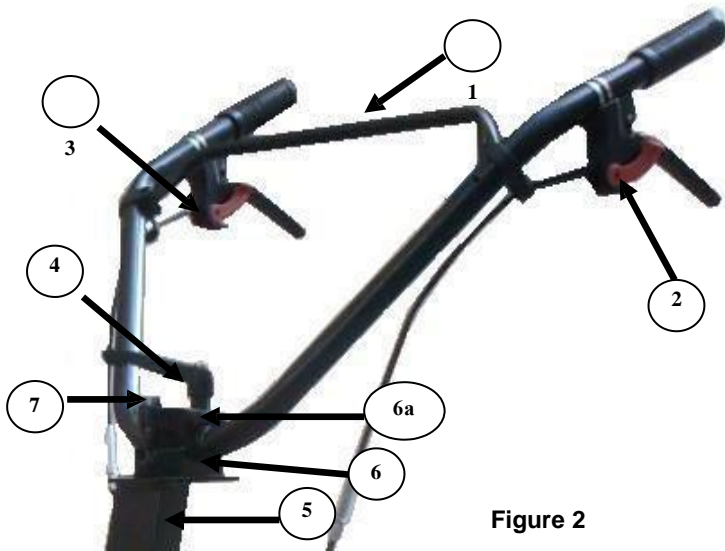


Figure 2

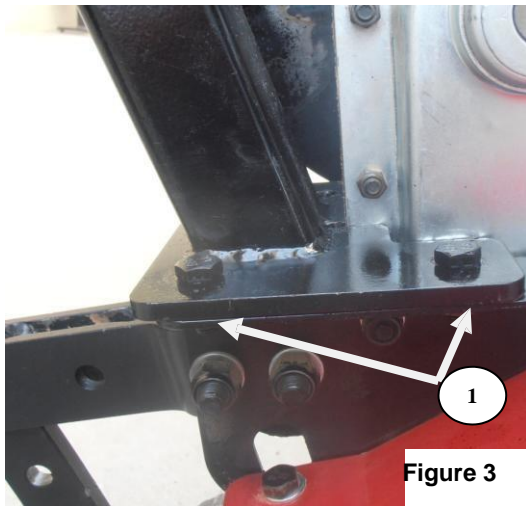


Figure 3

Note: handlebar fastening clamp consists of two parts: upper (Figure 2, Item 6a) and lower (Figure 2, Item 6).

1. Fit the holes of handlebar bracket together with the holes of the cultivator frame (Figure 3, Item 1).
2. Take out 4 bolts, 4 nuts, 4 washers and 4 retaining washer from the fastening set.
3. By the help of bolts, nuts, washers and retaining washers, fasten the handlebar bracket to the cultivator frame.
4. Fit the hole found in the lower part of the handlebar fastening clamp together with the hole of the handlebar bracket (Figure 2, Item 6).
5. Take out the handlebar fastener from the fastening set (Figure 2, Item 4), a bolt (Figure 2, Item 7), fixing screw and a

washer.

6. Install the handlebar in the hole of the lower part of the handlebar fastening clamp (round hole without teeth), and from the top place the upper part of the handlebar fastening clamp on it (Figure 2, Item 6a), fitting the bracket holes in the lower and upper part of the handlebar fastening clamp.

7. Place the bolt in the holes fitted together (Figure 2, Item 7), with the washer put on it previously by means of a key (it should be purchased separately) and tighten it.

8. Place the bolt having a rectangular part under the head in the other hole of the handlebar fastening clamp, put the flat washer on it and fix it with the handlebar fastener (Figure 2, Item 4).

2. Adjusting the clutch cable

The clutch cable must be adjusted in the following cases:

- In order that the clutch lever can be pressed to the handlebar without special effort;
- In order that the clutch cable is not loose

2.1 Order of adjustment (for the following model: GT 390)

1. Put the clutch lever in "1", "2" or "RH" position (Figure 4).
2. Press the clutch lever out to 1/3 of the free escapement (Figure 5).
3. With the lever held in this position, draw the starter cord slowly 2 or 3 times. The cultivator blades should start moving.



Figure 4



Figure 5

If the blades do not rotate:

Screw off the retaining nut of the adjusting sleeve (Figure 6, Item 1).

While turning the sleeve (Figure 6, Item 2) as compared to the body (Figure 6, Item 3), determine the play of the cable as compared to the wiring. Screw in the retaining nut.

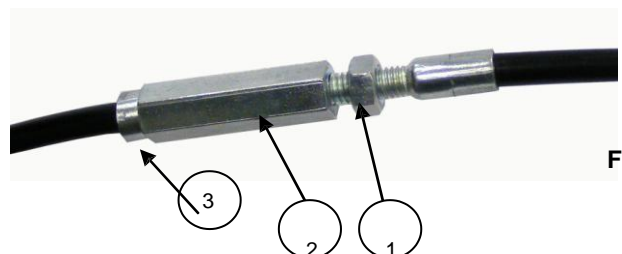


Figure 6

2.2 Order of adjustment (for the following model: GT 395)

1. Press clutch lever out to 1/3 of the free escapement (Figure 6).
2. With the lever held in this position, draw the starter cord slowly 2 or 3 times. The cultivator blades should start moving.

Screw off retaining nut of adjusting sleeve (Figure 6, Item 1).

While turning the sleeve (Figure 6, Item 2) as compared to the body (Figure 6, Item 3), determine the play of the cable as compared to the wiring. Screw in the retaining nut.

Order of adjustment (reverse)

1. Press out and fix the reverse lever (for the following model: T 395 OHV 7.0, T 395 BS 7.5).
2. Press clutch lever out to 1/3 of free escapement (Figure 5).

3. With the lever held in this position, draw the starter cord slowly 2 or 3 times. The cultivator blades should start moving. If the blades do not rotate:

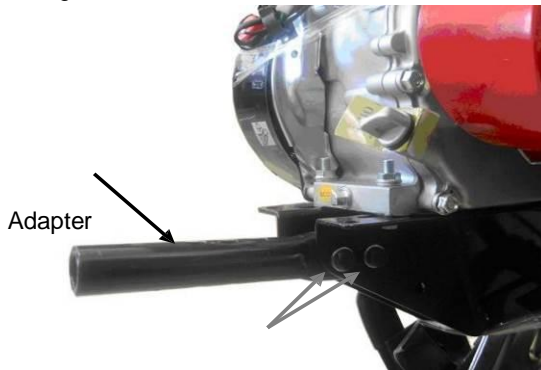
Screw off retaining nut of adjusting sleeve (Figure 6, Item 1).

While turning the sleeve (Figure 6, Item 2) as compared to the body (Figure 6, Item 3), determine the play of the cable as compared to the wiring. Screw in the retaining nut

3. Assembly of the adapter

1. In the front part of the cultivator, with a 13-mm key (purchased separately), screw off the M8 nut, remove the flat washer, retaining washer, and after removing the M8x65 screw, take out the adapter from transportation position.

2. Install the adapter with its flat part in the internal part of left side of frame (Figure 7) and fit the fixing holes of adapter and frame together.



Bolts
Figure 7

3. From one side of the frame, insert the M8x65 bolt in the holes fitted together, while from the other side of the frame insert the flat washers, the retaining washers on the bolts, and screw the M8 nut with 13-mm key.

4. Assembly of the plough iron bracket

1. Tilt the cultivator, leaning the adapter against a solid surface.
2. Screw off two M10 nuts in the rear part of the frame with 17-mm key (purchased separately), take off flat washer, retaining washers, and after removing M10x75 bolts, take off plough iron bracket together with plough iron (Figure 8).
3. Place a flat washer each on the M10x75 bolts.
4. Insert the plough iron bracket at the half of the engine frame, and fit together the fixing holes found on the bracket and the frame. Insert the bolts with washers in the holes.
5. Put the flat washers, retaining washers on the bolts, and screw in the M10 nuts. Screw in the nut with a 17-mm key.

Assembly of the plough iron:

1. Set the plough iron (Figure 8) and the plough iron bracket with wheels upwards.
2. In order to adjust the tilling depth, fit the holes on the plough iron bracket with one hole of the plough iron, put in the fastener, and fix it with cotter pin.

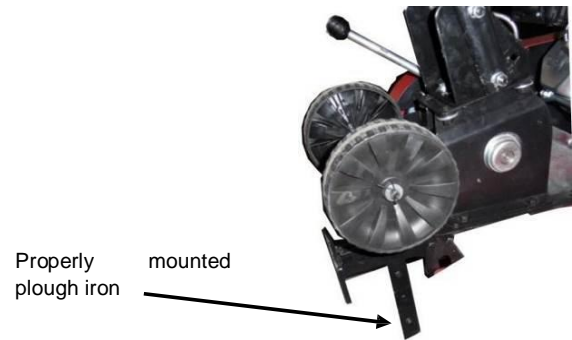


Figure 8

Note: For efficient work performance, make sure that the plough iron is properly located as compared to the plough iron bracket (Figure 8).

5. Assembly of blades

Mount the blades on the external, central and internal blade holders by means of M8x25 bolts, M8 retaining nut and M8 nut (Figure 9). This component is installed from the right in the direction of travel. When installing the component, make sure that cutting edge of blades are set in accordance with the cultivator's direction of travel. If the component is properly assembled, then the curve of the blade nearer to the reducer will show from the reducer to the driver.

The left side element must be assembled in the same way, in opposite-hand view.

Note: on the blades of the component, embossed letters (L), (R) are found, meaning L- left-side blade, R-right-side blade.

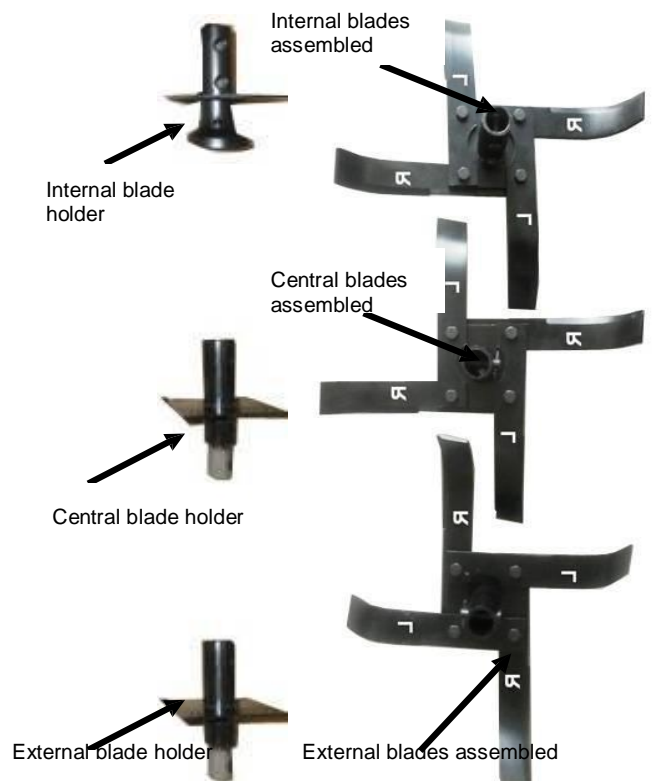
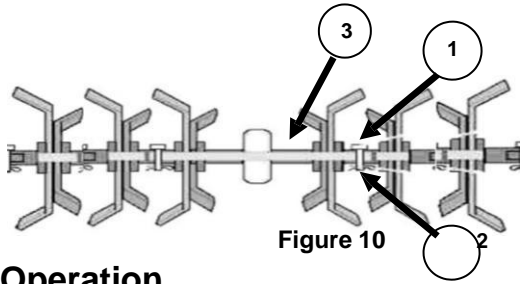


Figure 9

6. Installation of blades

1. Put the internal blade holders (with blades installed) on the reducer shaft (Figure 10, Item 3) from both sides, fit the holes of the reducer shaft and the blade holders together, and fix them with fasteners and cotter pins (Figure 10, Item 1, Item 2).

- Place the central blade holders (with blades installed) on the internal blade holders from both sides.
- Place the external blade holders (with blades installed) on the central blade holders from both sides, fit the holes together, and fix them with fasteners and cotter pins.



Operation

PRIOR TO THE FIRST USE

Warning!

CHECK THE TIGHTNESS OF ALL THREADED CONNECTIONS ON THE CULTIVATOR, INCLUDING THE FIXATION OF THE ENGINE.

1. Filling up the engine case with oil

Warning!

THE CULTIVATOR ENGINE CASE IS DELIVERED WITHOUT OIL!

Prior to the first start of the engine, fill up the case with oil of proper amount and viscosity.

Choose the oil viscosity in accordance with the ambient temperature, using the diagram below (Figure 11).

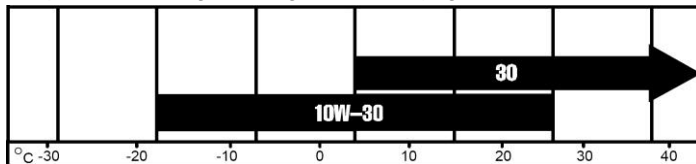


Figure 11

Under normal operating conditions and in normal temperature ranges, we recommend the following oil viscosity: SAE 10W-30 or SAE 30.

The following codes must be found on the oil can API: "SF" and higher.

(„API“ qualification: American Petroleum Institute which determines the operating characteristics, SAE – oil viscosity).

Warning!

Insufficient oil level may cause serious failure to the engine. Prior to each engine start, make sure of the proper oil level. The oil level check is done with cold engine not operating. Place the cultivator on a straight, horizontal surface, supported on the blades and the wheels.

Order of checking the oil level:

- Place the cultivator on a straight, horizontal surface, supported on the blades and the wheels.
- Screw OFF the oil filler cover.
- Check the oil level and fill it up if necessary.
- Place back and screw in the oil filler cover.

Engines without bayonet gauge:

The oil level should reach the lower level in the oil filling outlet, that is the oil should be filled until it flows over the oil filling outlet (see: Figure 12).

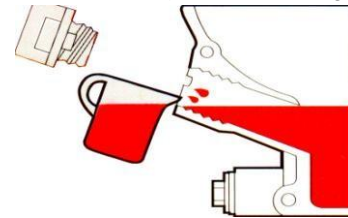


Figure 12

Engines with bayonet gauge:

The oil level should be between the signs "H"/FULL and "L"/ADD on the bayonet gauge.

Order of checking the oil level (for the following model: Briggs&Stratton engine):

In case of models with Briggs&Stratton engine, see the engine instruction manual attached.

2. Filling up the fuel tank with petrol. Filling-up of fuel tank with petrol is done prior to starting the engine. Do not open the fuel tank cover if the engine is hot or operating. Prior to filling up with petrol, place the cultivator in a place where it is not subjected to the action of fire or spark. Place the cultivator on a straight, horizontal surface, supported on the blades and the wheels.

Safety engineering rules during operations with petrol

Danger!

Petrol and its vapour may easily flame up and explode! Prior to filling up, stop the engine and wait until it cools down entirely.

Wipe through all parts of the cultivator on which petrol dropped during the filling-up.

Prior to starting the engine, make sure that the fuel tank is properly fastened and its cover is screwed tight.

The fuel tank may be filled up only outdoors.

- DO NOT SMOKE WHILE FILLING UP THE ENGINE WITH FUEL.**

Start the engine far away from the place where the filling-up was made and where the petrol flew out on the earth.

For the prevention of fire, clean the cultivator components including the engine surface, the exhaust silencer and the fuel tank from grass.

The engine should be filled up with clean, fresh and non ethylated petrol of octane number at least 90 (e.g.: AI-92).

Fill up the petrol in such a way that its level does not exceed 1 cm distance from the upper edge of the mesh filter.

Note: In order to avoid unstable operation of the engine, always fill up the petrol in due time.

Engine start-up and stop

Danger!

Carbon monoxide poisoning will occur if you inhale the exhaust gases. DO NOT start the engine in closed premises.

Keep unauthorised persons and mainly children and domestic animals away in a safe distance from the operating cultivator. Prior to the engine start, stand the cultivator in a stable position. The engine may be started only outdoors.


1. Engine start-up

Prior to the engine start-up:

- Check whether there is petrol in the fuel tank, and check the oil level in the engine case and the speed changer.
- Make sure whether the clutch lever is pressed on (whether it is blocked in pressed-on condition).
- **Order of start-up:**
- 1. Set the switch to the right in the "ON" position ("Turned on") (Figure 13).



Figure 13

2. Set the fuel feed lever to the right "ON" ("turned on") position (see: Figure 15).
3. Tightly fit the cap of the high-voltage cable on the spark-plug.
4. Set the butterfly valve on the handlebar (see: Figure 15), if mounted, or on the engine control (see: Figure 14), in "rabbit" position. 

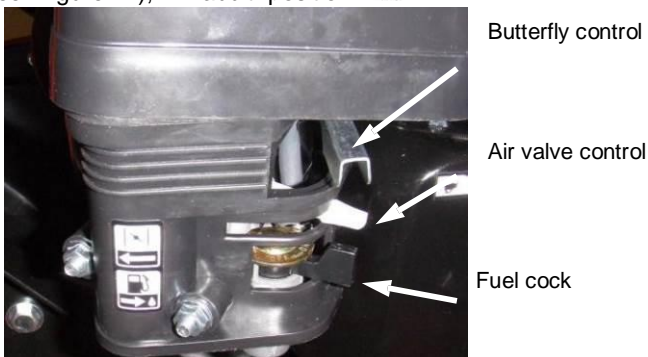


Figure 14



Figure 15

5. When starting the cold engine, set the carburettor air valve control to the left in the "Fully closed" position.
6. Pull slowly the pull handle until you feel opposition. After that, pull out the starter cord in its full length, negotiating the compression. Let the pull handle back in the starting position while holding it.

Warning!

Failure to comply with this requirement may result in mechanical damage of the starter.

7. If the engine does not start, repeat those included in Point 6.
8. In proportion of the engine's warming up, set the air valve control to the right in the "Fully open" position.

Note: Work can be performed only with the air valve open.



Order of start-up (for the following model: with Briggs&Stratton engine):

For models with Briggs&Stratton engine, see the engine instruction manual attached.

2. Engine stop

Order of stop

1. Release the clutch lever.
2. Set the starter switch in "OFF" ("Turned off") position.
3. Put the feed cock in "OFF" ("closed") position.



Order of stop (for the following model: Briggs&Stratton)

For models with Briggs&Stratton engine, see the engine instruction manual attached.

Cultivator use



Danger!

Keep unauthorised persons and mainly children and domestic animals away in a safe distance from the operating cultivator.

- Use only a cultivator absolutely free from any defect.
- Make sure that the shield is mounted properly and safely.
- Check the area where you wish to use the cultivator. Remove any subject which may get underneath the blades and fly out from under the cultivator.
- Use the cultivator only daylight or with proper artificial lighting.

Do not use the cultivator for tilling such soil where there can be found great stones, soil heaps, or ditches nearby.



Warning!

Danger: the cultivator may get damaged.

- **DO NOT USE THE CULTIVATOR WITH CLUTCH LEVEL NOT FULLY PRESSED IN SINCE IT WILL RESULT IN THE EARLY WEARING OF THE DRIVE-BELT.**
- During the work performance, avoid blocking of the blades while the engine is running and the clutch is pressed in because it may cause damage to the cultivator.



Danger!

Danger: fire may occur.

- Avoid open flame, spark sources and smoking during the use of the cultivator.

Prepare for the work:

1. Start the engine.
2. Select the desired direction of travel by means of the switch.
3. Press the clutch lever on.

1. Change of direction of travel

For advancement:

1. Disengage the clutch lever.

For reverse (for the following model: GT 395):

1. Disengage the reverse lever.
2. Disengage the clutch lever.

Note: The Reverse function is designed only for a short time travel.

Prepare for the work:

1. Start the engine.
2. Select the desired direction of travel by means of the switch (see: Figure 12, Item 1).
3. Depress the clutch lever.

1.1 Change of direction of travel and speed (for the following model: GT 390):

The equipment is equipped with two speeds, with the opportunity to change direction of travel.

Order of speed shift:

1. Disengage the clutch lever.
2. Select the direction of level and speed:
 - For reverse, set the speed changer in "RH" position (Figure 4).
 - For advancement, set the speed changer in "1" or "2" position.
4. Disengage the clutch lever.

Warning!

Do not exert too much force when changing the speed.

Since the speed changer does not have any synchronizer, you can slightly disengage the cultivator clutch lever out in order to facilitate speed change while the engine is operating.

Note: The reverse speed may be used only for a short time.

2. Cultivation

Warning!

Danger: the cultivator or other objects may get damaged.

1. Start up the engine.
 2. Press the clutch lever to the handlebar, and keep it in pressed position in order to start the cultivator blades.
- **DO NOT USE THE CULTIVATOR IN A PLACE WHERE GAS CONDUITS, ELECTRICITY SUPPLY CABLES OR OTHER UNDERGROUND COMMUNICATION CABLES CAN BE FOUND.**
 - Do not use the cultivator next to trees, since the root of the trees may become damaged and the cultivator blades may get blocked.
 - It is not recommended to work in damp soil.
 - Great, hard soil pieces may cause failure to the blades.
 - If foreign objects are caught under the blades (stones, bars, wires, etc.), then stop the engine and see whether the cultivator has got damaged.
 - The best result can be achieved with cultivation several times in higher and higher depths. It will allow the smooth spreading of the soil previously ploughed. Soil fertility will improve if plant residues are ploughed in the soil.
 - Go through the area to be cultivated in straight angle (Figure 16).

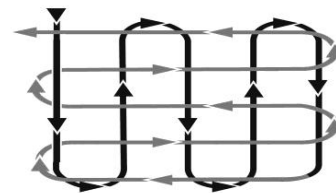


Figure
16

- Adjust the tilling depth in accordance with the soil condition. Cultivate the hard soil several times.

3. Tilling

For tilling operation, adjust smaller tilling depth in order to avoid damage of plant roots.

4. Work performance on slopes

Danger!

Injury may occur as a result of the cultivator's turning over.

- Apply special care during the change of direction. The cultivator can be moved transversely on a slope. Do not move the operating cultivator up and down the slope.
- Remove foreign objects from the area to be cultivated. Do not use the cultivator next to large stones.
- Do not use the cultivator on a slope exceeding 20%.

5. Use of ancillary devices

In the rear part of the cultivator, there is a welded plate with holes on the plough iron bracket: the matching plate.

The matching plate is used for fixing the ancillary device.

In the front part of the cultivator, there can be found the adapter on which various ancillary devices can be mounted.

Technical maintenance

For maintaining the high level technical characteristics of the cultivator, perform periodical maintenance operation. Periodical maintenance will help increase engine life and ensure trouble-free operation.

From the maintenance operations defined in hours or calendar periods, perform the one which becomes due earlier. In case of work performance under unfavourable circumstances, carry out the maintenance more frequently.

Danger!

Risk of injury in case of accidental start of engine!

Risk of burning since the engine and the exhaust silences will warm up during operation.

Prior to the maintenance of the cultivator:

- Stop the engine and wait until the blades fully stop.
- Remove the cap of the high-voltage cable from the spark plug.
- Wait for the engine to cool down entirely.

Before each use:

- Check the oil level in the engine case. Fill up the oil until the proper level is reached, if necessary.
- Check the threaded connections for safe tightness. Tighten them if necessary. Check the condition of safety engineering devices.

After each 5 hours' use:

- Check the oil level in the engine case.

Once in each season: It is recommended to perform service of cultivator in a specialized service repair shop.

Periodical maintenance:

List of operations to be performed	After each use	Each 25 hour	Each 50 hours	Once in a season or each 100 hours	If necessary
Clean the guard and the blades	X				
Clean the air filter (**)			X		
Change the air filter					X
Change the oil in the engine case (*, **)		X			
Change the oil in the speed changer				X	
Perform lubrication of blade-reducer shaft				X	
Check and clean the spark plug (***)		X			
Change the spark plug				X	
Clean the engine	X				X
Adjust the clutch cable					X
Change the drive belt					X
Change the blades					X
Change the cover of the fuel tank					X
Change the exhaust silencer					X
Check the tightness of threaded connections. Tighten them if necessary.	X				

(*)The first oil change in the engine must be done **after two hours following the first work performance**.

(**)If the engine works with higher load or under contaminated circumstances, the maintenance should be done more frequently.

(***)The spark plug electrodes must not be scraped or polished with sand.

Maintenance operations

1. Cleaning the cultivator

⚠ Danger! Risk of injury during maintenance of blades! It is recommended to wear protective gloves during maintenance of blades.

- Clean the guard and the blades after each use, then wash them with water and wipe them with a cloth.
- Clean the engine using a brush and a cloth.

2. Oil change in the engine case

Note: The oil draining can be made in an engine previously warmed up.

Order of the oil change:

1. Screw off the oil filler cover (Figure 17).
2. Screw off the cover of the oil drain and let out the used oil.
3. Replace the oil drain cover and screw it carefully.
4. Fill oil in the engine in the necessary amount and check the oil level (see the section: «Filing up the engine with oil»).
5. Replace and screw up the oil filler cover.



📖 Order of the oil change (for the following model: Briggs&Stratton engine):
For models equipped with „Briggs&Stratton” engine, see the engine instruction manual attached.

3. Maintenance of the air filter

⚠ Warning!

Do not start the engine without the air filter installed.

Order of checking the air filter

1. Screw off the nut holding the air filter cover.
2. Remove the air filter cover and take out the foam filter (Figure 18).



3. Check the filter for the level of contamination and possible foreign objects. Inspect it carefully for integrity, existence of holes and other injuries. Replace it if necessary.

4. Wash the filter through in warm soap solution and dry it. Soak it in one spoon (~ 10 ml) of clean engine oil. Twist it in order for the oil to spread more evenly on the surface of the filter and there is no surplus.

⚠ Danger!

It is strictly forbidden to use petrol or low temperature solvent for cleaning the filter. It may result in fire or explosion.

5. Replace the filter and the air filter cover in reverse order then tighten the retaining nut strongly.



Order of checking the air filter (for the

following model: Briggs&Stratton engine):

For models equipped with „Briggs&Stratton” engine, see the engine instruction manual attached.

4. Checking the spark plugs

For the normal operation of the spark plugs, ensure the necessary free distance between the electrodes and in addition clean the spark plug from residue of combustion.

The free distance between the electrodes is 0.7-0.8 mm; for the Briggs&Stratton engine, see the engine instruction manual attached.

Order of checking:

1. Remove the cap of the high voltage cable from the spark plug and screw out the spark plug by means of a spark plug key.

2. Inspect the spark plug visually.

3. Clean the spark plug with a brush, if you wish to use it in the future.

4. Measure the free distance between the electrodes by means of a special sound (it should be purchased separately). Adjust the free distance if necessary, by gently bending the side electrode.

5. Check the skirt and threaded part of the plug.

6. Change the spark plug if it seems to be worn out or there is any crack on the insulator.

7. Replace the plug by hand force, then tighten it with plug key.

⚠ Warning!

Tighten the spark plug thoroughly!

In case of failing to comply with this requirement, the spark plug will strongly warm up during operation and it will result in failure of the engine.

5. Change of the drive belt

It is recommended to perform the change of the drive belt in a special service repair shop.

6. Maintenance of the reducer

The lubricating oil in the reducer need not be changed during the whole life of the cultivator.

Transportation

Transportation in short distances

For transporting the cultivator from an area to be cultivated to another, use the wheels found on the plough iron.

1. Insert the plough iron in the bracket in such a way that the wheels are below (Figure 1).

2. Press the handlebar down in such a way that the blades do not touch the soil.

3. Relocate the cultivator carefully.

Transportation in longer distances

⚠ Warning!

Do not carry the cultivator when turned over or turned on its side. Stand the cultivator on the blades and the wheels.

Prior to starting the transportation:

- Stop the engine.
- Remove the cap of the high-voltage cable from the spark plug.
- Wait for the engine to cool down entirely.

In case of transportation in a truck or a trailer, fix the cultivator in order to avoid injuries.

Storage

⚠ Danger!

Danger: Accidental flashing of the petrol vapours may result in explosion.

If you wish to withdraw the cultivator from use for a longer period, the following actions are to be taken:

- If any fuel remained in the fuel tank, screw off the drain bolt of the carburettor chamber and drain the fuel from the carburettor (Figure 19).
 - Relocate the washer and the drain bolt of the carburettor.
 - Change the oil in the engine case.
 - Screw off the spark plug. Pour ca. 15 gram engine oil in the burning chamber through the plug hole. By means of the starter cord handle, turn over the engine several times in order for the oil to spread more evenly. Replace the spark plug, but do not connect the high-voltage cable to the spark plug.
- Clean the cultivator.

Store the cultivator in a clean, dry room.

Drain bolt of carburettor chamber

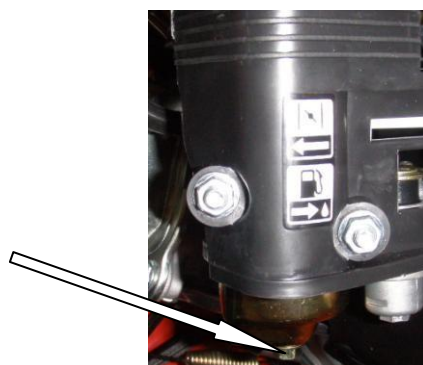




Figure 19

Possible operating failures and method of repair

In case of any possible failure, use the information found in the table for repair:

Failure	Cause	Method of repair
The engine cannot be started.	There is no petrol in the fuel tank.	Fill the fuel tank up with clean fresh, lead-free petrol.
	The petrol is old.	Drain the old petrol from the fuel tank and fill it with clean fresh, lead-free petrol.
	The engine is cold. The control of the carburettor air valve is in "Fully open" position.	Put the air valve control in "Fully closed" position.
	The fuel cock lever is in "Closed" position.	Put the fuel cock lever in the "Open" position.
	The butterfly valve control is in "turtle" position  .	Set the butterfly valve control in "rabbit" position  .
	The cap of the high-voltage cable is not attached on the spark plug.	Fasten the cap of the high-voltage cable on the spark plug.
	The spark plug has become contaminated or failed; the free distance between the electrodes is not properly adjusted.	Clean and replace the spark plug if necessary. Check the free distance between the electrodes.
The engine does not smoothly operate.	The air valve control is set in the wrong position.	Set the air valve control in ("Fully open") position if the engine has already been operating for 2-5 minutes (has warmed up) or in «fully closed» position, if it has just been started.
	There is an improper contact between the spark plug and cap of the high-voltage	Attach thoroughly the cap of the high-voltage cable onto the spark plug.
	Old petrol. There is water and dirt in the fuel system.	Drain the old petrol from the fuel tank and fill it up with clean, fresh, lead-free petrol.
	Contaminated air filter.	Clean or replace the air filter.
A Blades do not rotate	Blades are blocked by stones or larger soil pieces.	Stop the engine and remove cap of the high-voltage cable from the spark plug. Clean the blades.
	The V-belt has worn out or torn.	Contact a repair shop for the replacement of the V-belt.
	The clutch cable is wrongly adjusted.	Adjust the clutch cable.
High level of vibration	Fixation of blades has loosened or blades have got damaged.	Stop the engine immediately and remove the cap of the high-voltage cable from the spark plug. Replace failed components.
	Fixing screws have come loose.	Stop the engine immediately and remove the cap of the high-voltage cable from the spark plug. Tighten or replace the bolts.

ATTENTION: FOR THE CLEARING OF FAULTS NOT TREATED ABOVE, CONTACT THE AUTHORISED SERVICE REPAIR SHOP.

The manufacturer reserves the right to modify the cultivator structure without previous notification for the improvement of consumer characteristics.

Terms of guarantee

Please keep carefully the letter of guarantee completed by the seller, or the certificate of purchase. The GAMA GARDEN will provide 12 months' guarantee from the date of purchase. This guarantee is in compliance with the technological condition and the purpose of use / field of application. The following guarantee instructions will not influence customer's statutory rights.

Preconditions of the 12 months' guarantee:

The device is used exclusively for private purposes.

The guarantee period will be reduced to half if the machine is used in the commercial sector and in the field of leasing business.

- Our guarantee is provided under the condition that the machine is handled properly and the instructions given in the instruction manual are observed.
- The maintenance intervals determined are observed.
- It is forbidden to change the design without permission.

- Original GAMA GARDEN replacement parts / accessories are to be installed.
- The completed letter of guarantee and/or certificate of purchase are to be presented.

This guarantee will not cover the normal wear and breakage of the blades, blade holding components and friction disks, rotating wheels/tyres, air filters, spark plugs and spark plug connectors. In case of performing any repair without permission, the whole guarantee will lose effect. Any damage occurred during the transportation must be reported to the carrier, otherwise all claims for compensation towards the carrier will lose effect.



This symbol found on the device or the packaging means that the product should not be put in the household waste. Please take your waste to the disposal site assigned for electrical and electronic devices. Through the proper handling of devices you will protect the environment and human health from damage caused by improper handling of waste. Recycling of materials will help preserve the natural resources. For further information on waste management, contact the competent authorities, the local waste disposal company or the shop where you purchased the product.

Information on the packaging

The used packaging must be placed in the proper waste collection container.

GAMA Garden Kft., 4900 Fehérgyarmat, Szatmári Street, 11, declares that the device has CE marking (that is the device meets the requirements of the relevant international standards), and that it is in compliance with the data included in the Instruction manual and the data table. This statement is based on TÜV certification.