

GASOLINE CHAIN SAW Instruction manual GCS40 / GCS45 / GCS52





□ About the warning signs

Congratulations on your purchase of the GAMA GARDEN gasoline chain saw!

! Safety first

Precautions in the instruction and warning label of "!" on the machine refer to the important matters that may result in human injury. Please read carefully and follow close.

! Warning

It indicates that failing to obey the dos and don'ts may lead to heavy causalities.

Important

It indicates that failing to obey the dos and don'ts may lead to machine damage or breakdown.

Complementary

It indicates other necessary additional remarks for use.

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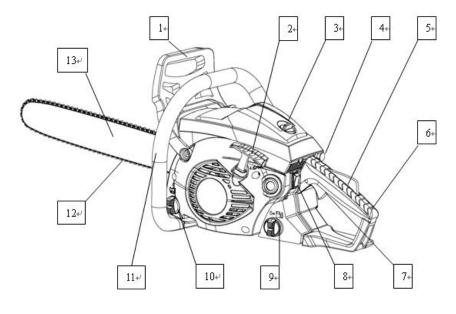


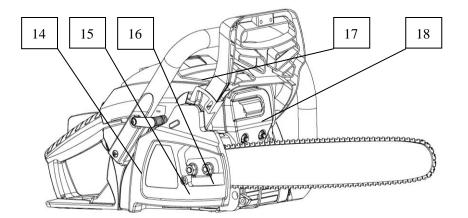
1. Name of the Parts

- 1. Head Board
- 2. Handlebar
- 3. Air Filter Cover
- 4. Choker Rod
- 5. Trigger Control Arm
- 6. Back Hand Shank

- 7. Accelerator Trigger
- 8. Flameout Switch
- 9. Fuel Tank Lock
- 10. Engine Oil Tank Lock
- 11. Front Hand Shank
- 12. Chain

- 13. Guide Plate
- 14. Offside Cover
- 15. Adjusting Screw
- 16. M8 Nut
- 17. Upper Main Case
- 18. Silencer







2. Warning Label and Identification



(1) Read the operating instruction.



(2) Wear helmet, dust spectacles and earplug.

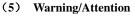


(3) Please use chain saw manually.



(4) Warning! Recoil is langerous.





Important

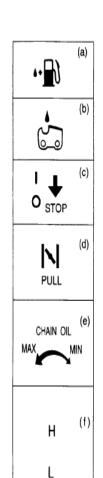
Please read carefully the operating instruction before use.

! Warning

Transforming the machine can be very dangerous, and please don't transform it.

Please notice that arbitrary transformation and otherwise application beyond the operating instruction will not be covered by the warranty provided by the

company.



Т

For convenient operation and maintenance, operating devices are indicated with signs. Please operate as per the signs in case of fault.

(a) It indicates the fuel used is "blended gasoline".

Indicated position of the sign: fuel tank

(b) It indicates the lube is "chain oil"

Indicated position of the sign: Chain lube tank

(c) flameout switch OI

Switch to the direction of "O"(STOP) to stop the machine.

Indicated position of the sign:

Left rear of the machine

 $(d) \quad \text{choke valve OI} \\$

Pull the choker rod handle to close the choke valve

Indicated position of the sign: Right rear of the machine

(e) chain lube adjusting screw OI

"MIN" direction—decrease the lube flow

"MAX" direction—increase the lube flow

Indicated position of the sign: lower middle part of the machine

(f) H—pin indicates high-speed metering pin valve

L-pin indicates low-speed metering pin valve

T—idling adjusting bolt indicates idling control valve

Indicated position of the sign: upright part of the left side of the machine

Please pay attention to the above signs.



4. Notice for Correct Use



Before using the chain saw

a. Please carefully read the OI before use and be clearly informed of the performance and notices for use.



b. The product is equipped with chain rotating in high-speed and therefore can be very dangerous in case of improper operation. Please avoid using the machine when feeling fatigue, physically uncomfortable or after taking medicines or drinking wine which may reduce the capability of judgment.



c. Carbon monoxide will be emitted and harm human body. Therefore avoid using the machine indoors and in greenhouses or tunnels where with poor ventilation.

d. Please don't use the machine in the following circumstances:

- 1. Floor is too slippery to stand still.
- Smog or darkness makes it hard to confirm the safety conditions surrounding the operating site.
- Bad weather (rainy, windy and thunder, etc.).

e. Before the first operation, please make sure to consult experienced users first.

4. Notice for Correct Use

- f. Over fatigue can be distractive and cause incidents. Avoid making work schedule too tight. The consecutive work time shall not exceed 10 minutes and take a rest for 10-20 minutes. Working hours per day should be within 2 hours.
- g. Please keep the OI properly and refer to it when necessary.
- h. When assigning or lending the machine to others, attach the OI.
- People failing to understand the OI and children are not allowed to use the machine.

Costumes and equipments needed when using.

- a. The following equipments are needed when using the machine.1. operation cap (helmet is needed)
 - when working on slope)dust spectacles or facial shield
 - 3. well-knit gloves
 - 4. stable and well-made shoes
 - 5. earplugs (especially for long-time work)

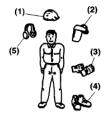
b. Moreover, make sure to bring the following objects:

1. Auxiliary tools to the machine and steel file

- 2. Fuel and chain lube in separate containers.
- 3. Tools signing working area (rope, board)
- 4. Whistle (use for joint operation or in emergency)
- 5. Chopper, arm saw (use for wiping out obstacles)
- C. Please don't work in too loose trousers, barefoot, sandal or straw sandals.

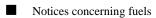






4. Notice for Correct Use

a.





- The "blended fuel oil" used by the machine is inflammable. Please don't fuel or store fuel tank near furnace, pulverizing jet, bonfire, range, electric spark and welding spark.
- b. No smoking during operation or fueling.
- c. To refuel during operation, make sure the engine has stopped and the surrounding has been checked for flames.
- Clear the spilled fuel oil, if any, before starting the engine.
- e. Seal up the fuel tank after refueling and start the engine 3 meters away from the fuel tank.
- f. In Notices Before Starting the Engine
 - . Check the work site, cutting object and cutting direction.
 - . Only after having confirmed the working area and retreating route before the branches fall down can you start sawing.
 - . Set up warning sign 2.5 m² around the cutting object to prevent intrusion of onlookers and animals.
 - Check the machine for any damage, loose or breakdown. Please don't use damaged, unadjusted or incompletely assembled machine.
 When using throttle control equipments, you should first check if the chain has stopped rotating.

4. Notice for Correct Use

- Notices for starting the engine
- When the engine is operating, tightly hold the handlebar with two hands.
- When the engine is operating, please don't get close to the machine.
- c. When starting the engine, make sure the chain have no contact with any objects or floor.
- Notices of operation
- Keep the handlebar dry and clean without being stained by oil or other inflammable materials.
- Please don't touch the silencer, spark plug and other metal parts in case of burn or electric shock.
- Please be careful when cutting small bushes or saplings.
 Because tender materials may hook the chain and produce impulsions to unbalance you.
- d. Please be careful not to be hurt by tight branches.
- e. Please pay attention to possible fallen branches.
- f. Be sure to turn off the chain saw when putting it down.

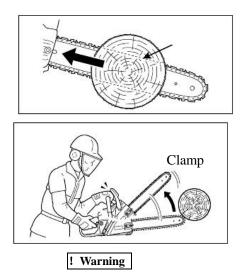






4. Notice for Correct Use

Precautions of Rebound (For chain saw users)



. When the front end of the guide plate touches objects or when a timber clamps the cutting chain, the machine may rebound and rapidly push the guide plate back to the operator, which will make it out of control and cause severe physical injury.

. Don't rely too much on the safety devices installed on the chain saw. Please operate as per the OI to prevent any accidents or injuries.

(1)Understanding the principle of rebound can reduce or avoid consternation which may result in accidents.

(2) When the engine is operating, grab the chain saw tightly with right hand holding the back handlebar and left hand front handlebar, which can help lighten the rebound and control the chain saw.

(3) Make sure there are no obstacles in your work area. Avoid the front end of the guide plate touching branches or other possible obstacles that may be hit down when operating the chain saw.

(4) Cut when the engine is operating in high speed.

(5) Please don't cut at a position of your shoulders or above.

(6) Please polish and maintain the saw teeth in accordance with the instruction.

(7) Only the guide plates and chain accessories specified by the manufacturer or its equivalents can be used.

4. Notice for Correct Use

Maintenance

. Please carry out regular maintenance and overhauling in accordance with the manual for normal operation.

. Please be sure to turn off the engine before maintenance or overhauling.



The metal parts can still be in

heat after turning off the engine

for a while.

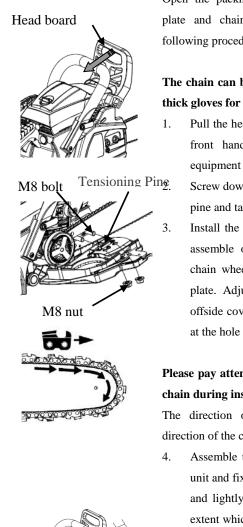
. Please turn to the service center for maintaining projects beyond the manual.

Transport

. Please be sure to turn off the engine when transporting the machine and cover the guide plate for protection. When the machine is in heat, please don't touch it.

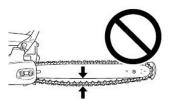


5. Install Guide Plate and chain





Tensioning nut



Open the packing box and install the guide plate and chain in the power unit in the following procedures.

! Warning

The chain can be very sharp, so please wear thick gloves for security.

Pull the head board to the direction of front handlebar to confirm the lequipment hasn't been locked.



Screw down M8 nut, loose the tensioning pine and take down the offside cover.

Install the guide plate to the M8 nut and assemble one side of the chain to the chain wheel and other side to the guide plate. Adjust the tensioning nut on the offside cover and aim the tensioning pine at the hole on the guide plate.

Attention

Please pay attention to the orientation of the chain during installation.

The direction of the arrow is the motion direction of the chain.

- Assemble the offside cover to the power unit and fix the two M8 nuts into the bolts and lightly press the offside cover to an extent which will not affect the later chain tensioning adjustment.
 - Grab the top of the guide plate and turn the tensioning nut to adjust the tension of the chain. Judging the tension of the chain: lift the chain on the middle guide plate and a height of 5-8 mm is appropriate; pull the chain and it show be flexible.
- 6. Tighten the two M8 nuts $(12\sim15N.r)$ Pull the chain to check its flexibility and then recheck the tension. If necessary, you can screw off the M8 nut and readjust from the step 5, or take off the offside cover and repeat the procedures.

ATTENTION

New chain may extend during initial use. Check regularly to adjust the tension. Loose chain is subject to derail, which may lead to fast worn of itself and the guide plate or even personnel danger. www.gamagarden.eu

6.Fuel and Chain Oil

Fuel

Mixture of 93# or above gasoline (no lead, no alcohol) and two-stroke FC grade special engine oil

Proportion for reference

Condition Gasoline : 2-stroke engine oil for use within 20h 25: 1 for use over 20h 40: 1 (Use the scale mark on the proportion pot to prepare) 40: 1 preparation table

Gasoline L 1 2 3 4 5 Engine oil ML 25 50 75 100 125

! Warning

No open fire in areas with fuels.

Please don't prepare or store fuels in places beyond the permitted gasoline storeroom.

Attention

Most engine faults are directly or indirectly caused by improper fuel used.

Please pay special attention to not using 4-stroke engine oil for preparation.

Chain oil

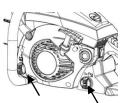
SAE#10W-10 for the whole year or SAE#10W-30 in summer and SAE#10W -10 in winter.

Attention

10W-30

Please don't use waste engine or reclaimed oil which may cause damage to the oil pump.

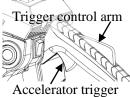




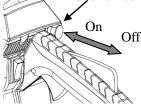
Chain oil tank Fuel tank

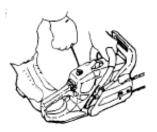
Flameout switch





Choker rod





start the engine

1. Fill the fuel tank and chain lube tank with right fuels and chain oil and tighten the cover.

2. Turn the flameout switch to position of "1".

3. Press the trigger control arm, pull and release the accelerator trigger to the startup position.

4. Pull the choker rod to the "off" position.

Attention

Please place the choke valve handlebar to the "on" position to restart the engine.

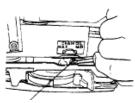
5. After ensuring the chain saw has been placed safely on the floor, step the lower flat surface of the back handlebar with your feet, press the front handlebar with the left hand and quickly lift the starter with your right hand.

! Warning

Strictly prohibit hanging the chain saw to start the engine, which may touch your body and can be extremely dangerous.







Fuelleveladjusting screw

6. After hearing the sound of engine ignition, immediately push back the choker rod and pull the starter again to start the engine. After starting the engine, slowly turn the accelerator trigger to accelerate and warm the engine (it may take 10-30s).

Check oil supply for the chain

After starting the engine, make the chain move in a medium speed and check if the oil can spray as the picture shows for normal operation.

Chain oil

The flow of chain oil can be adjusted by adjusting the oil flow adjusting screw at the bottom of the engine---the flow should be depend on the normal lubrication of the chain.

Attention

When the fuel oil is used out, so is the engine oil. Make sure to fill the engine oil tank when refueling for the chain saw.



7. Operating Engine

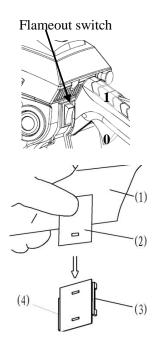
■ Anti-freezing mechanism of carburetor

When the chain saw is operated in 0-5 $^{\circ}$ C, the low temperature may cause the carburetor freeze and thus lower the output power or even failed operation of the engine.

Therefore, a vent is designed at the inner side of the upper main case for providing warm air to the engine to prevent freezing.

Use the product under normal atmospheric environment and operational mode. The normal operational mode refers to the mode set before selling. However, when it is freezing, please set it as anti-freezing mode before use.

7. Operating Engine



■ How to change the operational mode

- 1. Turn the flameout switch to the "0" position and shut the engine.
- 2. Take off the upper shell and the anti-freezing board at its side.
- 3. Face the opening of the anti-freezing board to the right and install it to the upper main case.
 - (1) Upper Main Case
- $(2) \ \text{Anti-Freezing Board} \\$
- (3) Anti-Freezing Mode

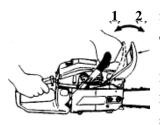
(4) Normal Operational Mode

Attention

When the ambient temperature has increased to a normal state while the machine is still in anti-freezing mode, it may lead to failed start-up or operation of the engine. Therefore, please be sure to restore it to the normal operational mode when there is no freezing.



Brake Mechanism



Turn the head board to the front and down to brake the chain saw.

Pull back the head board till hearing the sound of "kappa" to release the brake mechanism.

- (1) brake state
- (2) un-brake state

Attention

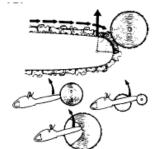
Please check the operation and reliability of the brake mechanism on a daily basis.

If the brake mechanism doesn't work, please go for the distributor for check and repair.

The frequent brake in high rotation state can make the clutch heat and lead to breakdown.

■ Turn off the engine

- Release the trigger and let the engine run for 2-5 minutes.
- Turn the flameout switch to the "0" (stop) position.



7. Operating Engine

8. Sawing

! Warning

Please be sure having read the "Notice for Correct Use" before operation. You can start with timbers that can be easily sawed during which you can get familiar with the machine.

Please follow the safety requirements. The chain saw can only be used for sawing timbers and cannot be used for other materials with different vibrations and rebound which may cause dangers.

Please don't use the chain as leverage for lifting, moving or splitting objects.

Please don't lock it to fixed clamps.

Please don't disobey the requirements of the manufacturer and hang materials on the machine.

When the engine is working, you can press the chain into the notch lightly.

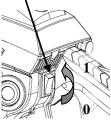
Don't try to pull out the chain when it is clamped in the notch but with a wedge or leverage to enlarge the notch.

Machine Rebound Protection

Check the brake mechanism each time before use. The chain should be sharp to ensure the rebound safety of the chain saw.

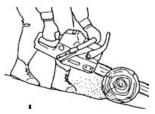
Disassembling the safety devices, improper maintenance and incorrectly changing the guide plate or the chain can increase the rebound of the chain saw and lead to severe physical injury.

Flameout switch



(3) (1) 1 (2) (2) (2) (2) (2) (2)

Direction of 45°



■ Pushing over the trunk

Take the wind direction, the inclination of the trunk, the position of the heavy branches, the convenience of operation area and others into consideration to push over the trunk.

- Settle down the foothold and retreat route when clearing the area near the trunk.
- Cut a V shape notch on the side of pushing-over direction.
- Saw at the opposite direction of the notch.

! Warning

Remind the workers around the dangers when pushing over the trunk.

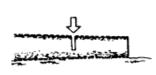
! Warning

Be sure of your foothold and don't stand on logs.

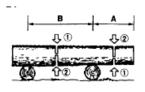
Be alert to the rolling log. Stand on the upper side of the log when working on a slope.

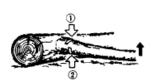
Please obey the "Notice for Correct Use" and avoid rebound of the chain.

Please check the bending force direction of the log before working and be sure to stop sawing at the opposite direction in case of clamping the guide plate.



8. Sawmilling





■ log on the ground

Saw for half and roll the log to saw from the other side.

■lifted log

In area A, start sawing for 1/3 from the downside and the rest from the upside. In area B, start sawing for 1/3 from the upside and the rest from the downside.

■ sawing the big branches of the pushed over trunk

Firstly check the direction of curve, then start sawing from the curving side and finish at the opposite side.

! Warning

Please be alert to the rebound of the sawed branches.

■ Sawing the erected branches

Start from the downside and finish at the upside.

! Warning

Please don't stand on unstable footholds or ladders for operation.

Don't saw from a long distance.

Don't saw objects higher than your shoulders' position.

Hold the handlebar tightly with your two hands.



9. Overhauling

Spark plug cover

Air filter

9. Overhauling

! Warning

Before clean, check or repair the chain, be sure the engine has been shut off and cooled down and remove the spark plug cover to prevent any accidents.

Overhauling after each use

1. Air filter

The dust on the surface of the air filter can be removed by tapping it on a hard surface; divide the filter into two parts and wash in gasoline to remove the deposits in the mesh; blow from the inside to outside with compressed air.

When restoring the divided air filter, check if the guide slots are matching.

2. engine oil-out

Remove the guide plate and check if the oil-out is blocked.

3. Guide plate

Remove the guide plate and clear away the saw-dust on the guide slots and engine oil inlet.

Fill grease in the grease inlet at the end of the guide plate to lubricate the chain wheel.

4. Others

Check for any fuel and engine oil leakage, loose bolts, damaged parts, especially at the joint positions of the front handlebar and the guide plate. Repair it, if any, before use.



■ Points for periodic maintenance

1. Cylinder cooling fin

The dust in cylinder cooling fin can cause overheat in the engine. Remove the air filter and the upper main case to regularly clean the cylinder cooling fin. When installing the upper main case, be sure the positions of the switching circuit and screws are correct.

Attention

uel strainer

Fuel tank lock

Engine oil strainer

Engine oil tank lock

Be sure to cover the air inlet when cleaning saw-dust.

2. Fuel strainer

(a) Take out the strainer with a metal wire from the fuel tank.

(b) Wash the taken-off strainer with gasoline; change a new one when necessary.

Attention

After taking off the strainer, clamp the end of the pipeline.

When installing the strainer, be careful not to let fibers of the strainer or dust go into the pipeline.

3. Engine Oil Tank

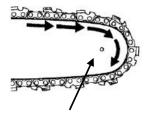
Take out the strainer with a metal wire from the lube tank and wash the taken-off strainer with gasoline. Place the strainer at the right-front position of the engine oil tank and then clear away the oil stains and dusts in the tank.







Guide plate

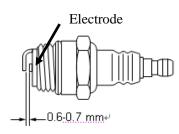


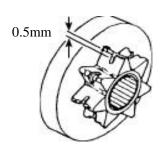
Grease Inlet



10. Overhauling of Chain and Guide Plate

9. Overhauling





Spark plug

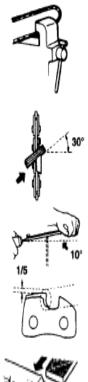
Brush the electrode with metal brushes and readjust the ignition gap to required 0.6 -0.7 mm.

5. Chain wheel

Check for any cracks or over abrasion that may hinder the drive of the chain wheel. If the abrasion is over 0.5mm, Please change a new one. Please don't match a new chain with an over abraded chain wheel, or vice versa.

6. Top and bottom rubber shock pad

If the conglutination has dropped or the rubber has cracks, please replace with a new one.



(1)































chain

! Warning

Keeping the knife sharp is very important for safe operation.

You need to sharpen your cutter in the following situations:

- 1. The saw-dust has been powders.
- 2. You need to be harder for sawing.
- 3. The sawing direction is not straight.
- 4. The vibration is becoming more.
- 5. The fuel consumption is higher.



Be sure to wear safety gloves.

Make sure the chain is installed firmly before cutter sharpening.

Be sure the engine is stopped.

Use proper round file to rasp the chain.

Standard round file : 3/16in (4.76mm)

Place the round file at the cutting edge and push forward straightly as the picture shows.

After filing check the depth of the gear cuttings. The depth should be as the picture shows.



Please be sure to file the front cutting edge sharp to reduce the possibility of rebound or chain crack.

(1). Proper saw cutting depth checking device

- (2) . Round the cutting edge
- (3) . Saw cutting depth standard

As the pictures shows, be sure to make the saw cutting depth of all cutter teeth and the edge angle is the same.

- (4) . Length of the saw teeth
- (5) . Cutter sharpening angle
- (6) . Side blade angle
- (7) . Cutting angle of top blade









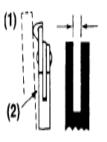


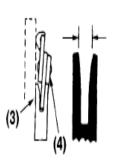




10. Overhauling of Chain and Guide Plate

Guide Plate





Regularly turn over the guide plate for use in case of concentrated wear.

The slide way of the guide plate should be square. Please check the abrasion of the slide way. Place a ruler at the outboard of the guide plate and the cutter teeth, if there is any gap, then the slide way should be normal; otherwise it indicates an abrasion. Please repair the worn guide plate or replace with a new one.

- (1) Ruler
- (2) Gap
- (**3**) No gap
- (4) Inclined chain

12.Troubleshooting

Change for

proper fuel.

5-10

Remove and dry the spark plug close the ventilation door

and slowly pull the starter for

and

then

times

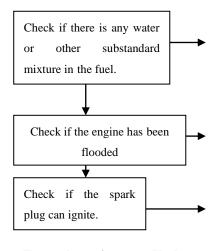
reassemble the spark plug.

Replace with a new

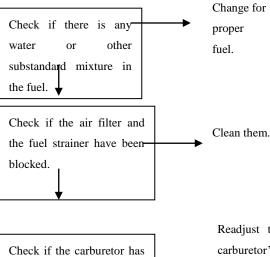
spark plug.

capacity/ineffective

Example 1: Failing to start-up



Example 2 : Under acceleration/serious idling



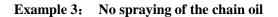
been adjusted improperly.

Readjust the carburetor's revolving speed needle.



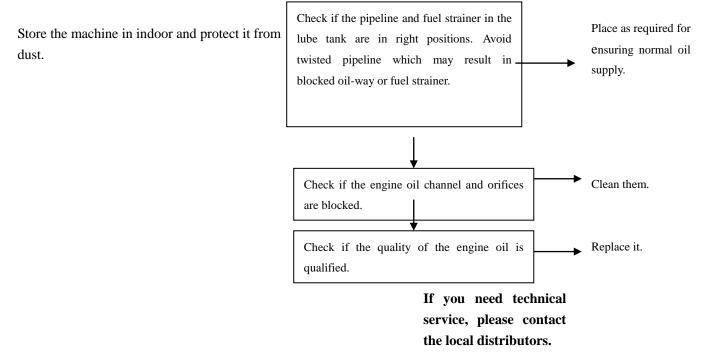
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11. Storage



•

Before storage, please clear out the blended oil in the fuel tank, and run the machine to use out the blended oil in carburetor and pipeline.



13. Specifications

Items	Unit	Туре			
		GCS40	GCS45	GCS52	
Overall Dimensions: Length ×Width ×Height	mm	400×250×280	420×250×280		
Net Weight (excluding guide plate, chain and no oil in fuel tank) :	kg	4.5		4.9	
Volume:			·		
Fuel Oil Tank	ml	510	530		
Engine Oil Tank	ml	180	260		
Fuel Ratio		40 : 1 ; 93#or above gasoline; Special F-Grade Engine Oil for 2-Troke			
		Travel			
Chain Oil		Special Chain Oil or Motorcycle Lube (SAE 10w-10)			
Effective Cutting Length of	mm/inch	350/14"	400/16″	450/18 [″]	
Guide Plate		550/14	400/10		
Chain:					
Pitch	mm/inch	9.525⁄0.375			



Acquaer Kft.	
H-4900, Fehérgyarmat, Szatmári utca 11	

Thickness of the Middle Guiding Teeth	mm/inch	1.27/0.05			
Specification of Guide Plate		0.375/0.050/52	0.375⁄0.050/57 (16″)	0.375/0.050/64	
Specification of Plate		、 ,		(18")	
Engine Oil Lubricating System		Adjustable Automated Oil Pump			
Chain Wheel:					
Specification Number of		3/8″6	3/8″-7		
Teeth					
Maximum Chain Speed:	m/s	20.8			
Drive:					
Туре		Single Cylinder, Air Cooling, Two-Stroke			
Carburetor		Membrane Type			
Magneto		Cdi			
Starter		Self-Return and Manual Start-Up			
Displacement	cm ³	44.3	45	49.3	
Maximum Non-Load Speed	R/M	11500			
Idling	R/M	3000±200			
Fuel Consumption Rate	g/kw.h	580		600	
Noise: (GB/T5390)	dB(A)	105			
Brake :(GB 19726.1)	S	0.12			
Vibration :(GB/T5395)	m/s ²	12.5			
The specifications, product d	escription and illu	strations in the table ar	e just for your refere	ence and are subject to	
change without prior notice;					
The manual covers optional e	quipment and acc	cessories but not all stan	ndard equipment.		

Guarantee terms

Please carefully retain the guarantee card completed by the seller, or the proof of purchase.

The company **Acquaer** guarantee for 12 months from the date of purchase This guarantee is in accordance with the relevant state of technology and the utilization purpose / area of application. The consumer 's statutory rights are not affected by the following guarantee guidelines

Pre-conditions for the 12-month guarantee entitlement:

- Deployment of the device solely for private use.

-The guarantee is reduced to 6 months in the commercial sector or leasing business

- Proper handling and observance of all information given in the operating manual, which forms part of our guarantee terms.

-Observance of the prescribed maintenance intervals

-No unauthorised alteration of the design.

-Installation of original GAMA GARDEN replacement parts/accessories.

-Presentation of the completed guarantee card and/or proof of purchase.



This symbol on the device or the packaging indicates that the product shall not be managed as household

waste. Please dispose of it at the collecting place assigned for the collection of electrical and electronic devices. By proper management of superseded products you can help prevent the environment and human health from damage which would occur if you do not follow the proper way of waste disposal. The recycling of the materials helps in the preservation of the natural resources. For further information on the recycling of the product, please turn to the competent authorities, the local waste collecting service provider or the shop where this product was bought.

Information concerning the packaging materials

The used packaging materials must be thrown into the relevant waste collector.

In case of the need of any parts, questions or service instructions please contact:

- szerviz@gamagarden.eu
- +36 30 508-6563

Acquaer Ltd., 4900 Fehérgyarmat, Szatmári u. 11 certifies CE conformity of the above-mentioned product and that it complies with the technical data specified in the data plate and the "Operating instructions".

You can get detailed information about the CE declarations at: www.gamagarden.eu



