Before commissioning the machine, read operating instructions and observe warnings and safety instructions.

Operating Instructions No. 998 748 09.98
Symbols, Name Plate

Please complete:

Machine Type No. ........................
ID/Machine No. ...................................................
Engine Type: .............................
Engine No. ......................................
Date of Purchase: ..........................

Symbols

⚠️  Warning – Danger
ℹ️  Important information
Fuel

⚠️  Choke

Fast

Slow

Knife shaft drive

For name plate, refer to p3/fig. A/2.
For engine type and number, refer to p3/fig. B/6.
Please state these data when ordering spare parts to avoid wrong deliveries.

Only use original agria spare parts!

Specifications, figures and dimensions stated in these instructions are not binding. No claims can be derived from them. We reserve the right for improvements without changing these instructions.
Designation of Parts

A

B
Designation of Parts

Figure A

1 Knife shaft housing
2 Name plate / ID No.
3 Work depth adjusting threaded rod
4 Engine
5 Top part of steering handle
6 Speed control lever and engine dead stop
7 Knife shaft drive engagement handle
8 Fast height-adjustment grip
9 Cable set screws
10 Bottom part of steering handle
11 Collection bag (accessory item)
12 Rear flap
13 Rear wheel
14 Belt guard (V-belt clutch)
15 Front wheel

Figure B

1 Starter rope handle
2 Fan grille
3 Air filter / carburetor
4 Choke
5 Exhaust with guard
6 Engine type no.
7 Fuel tank cap
8 Engine oil filling plug (oil dip-stick)
9 Engine oil drain plug
10 Fuel tank
11 Fuel filter
12 Spark plug / spark plug connector
13 Fuel line
Index

Recommendations
Lubricants, Anti-Corrosive Agents .... 6
Fuel .................................................. 6
Maintenance and Repair .............. 6

Designation of Parts ........... 3, 38

Amount of Delivery, Assembly ....................... 7

1. Safety Instructions ...... 8–11

2. Specifications
Dimensions ............................................. 12
Verticutter ........................................ 12
Engine .................................................. 12
Noise Level .......................................... 12
Vibration Acceleration Value .......... 12
Operation on Slopes .................. 12

3. Devices and Operating Elements
Engine .................................................. 13
Speed Control / Dead Stop .......... 13
Choke .................................................. 14
Knife Shaft Drive .................. 14
Setting the Slitting Depth .......... 15
Fast Height Adjustment ........ 15
Steering Handle .................. 16
Collection System ........... 17

4. Commissioning and Operation
Commissioning the Machine .......... 18
Starting the Engine ..................... 19
Shutting off the Engine .............. 20
Verticutter Operation ........... 21
General Comments on
Verticutter Turf Care .......... 21

5. Maintenance
Engine .................................................. 23–27
Wheels .............................................. 28
Knife Shaft Drive ................. 29
Idler pulley bearing ............... 30
General ............................................... 31
Cleaning ............................................. 31
Storage ................................................ 32
Lubricants, Varnishes, Wear Parts .... 33

6. Troubleshooting .... 34, 35

7. Inspection and Maintenance Chart .... 36

Conformity Declaration .... 39

Note fold-out pages!

Figs. A and B ......................... 5
Figs. C and D ......................... 5
Recommendations

Lubricants and Anti-Corrosive Agents:

Use the specified lubricants for engine and gearbox (see “Specifications”).
We recommend using Bio-lubricating oil or Bio-lubricating grease for “open” lubricating points or nipples (as specified in the operating instructions).
We recommend using Bio-slushing oil for preservation of machines and implements (do not apply on painted external covers). Oil can be brushed or sprayed on.
Anti-corrosive agents are environmentally friendly and degrade fast.
Using ecologically safe Bio-lubricants and Bio-anti-corrosives, you contribute to environmental protection and to the wellbeing of humans, animals and plants.

Fuel:

This engine runs smoothly on commercial unleaded regular and supergrade petrol as well as on leaded supergrade petrol.
Do not add oil to petrol.

If, for environmental reasons, you use unleaded petrol, make sure the fuel is drained completely when shutting down the engine for more than 30 days. This is to prevent resin residue from depositing in the caburetor, fuel filter, and tank. Or add a fuel stabilizing liquid to the fuel.
When storing the mower at the end of the season, also drain leaded fuel completely or add a fuel stabilizing liquid.
For further instructions refer to “Engine Preservation”.

Maintenance and Repair:

The trained mechanics of your agria workshop carry out expert maintenance and repair.
You should only carry out major maintenance work and repairs on your own, if you have the proper tools and knowledge of machines and internal combustion engines.
Do not hammer against the flywheel with a hard object or metal tools as it might crack and shatter in operation causing injuries and damage. Only use suitable tools for pulling the flywheel.
Amount of Delivery and Assembly

- Open the box top.
- Cut all corners open and fold down the sides.
- Attach the bottom part of the steering handle (3) to the knife shaft housing, using the bolts and nuts (5 and 6) supplied. There are three holes (A, B, C) in the base plates (4) to accommodate the handle bars. Initially, attach each bar to hole B in each plate (do not tighten the bolts as yet).
- Attach the top part of the steering handle (2) to the bottom unit with bolts, washers, and nuts (7-9) supplied.
- Check whether steering handle height is correct. To adjust the height, re-attach the bottom handle (3) to either hole A or C in each plate respectively.
- Tighten all nuts and bolts.
- Tie the cables to the bottom unit using tie straps (10). Ensure that all cables are routed properly and are not twisted or jammed.

**Starting-up**
See instructions on page 18.

---

**Items supplied with the machine:**

1. Base machine
2. Top part of steering handle
3. Bottom part of steering handle
4. Base plate
5. Hex head bolt
6. Hex nut
7. Hex head bolt
8. Oval washer
9. Knurled nut
10. Cable tie

Tool kit
Manual

Edition 09.98
Verticutter 8200-V4
1. Safety Instructions

Before starting the engine, read the operating instructions and note:

Warning

This symbol marks all paragraphs which affect your safety. Pass all safety instructions on to other users and operators.

Due Use

The verticutter has exclusively been designed for all common applications and tasks in grass maintenance (due use).

Any other type of use is considered undue. The manufacturer is not liable for any damages resulting from undue use, for which the risk lies with the user alone.

For reasons of safety do not use the verticutter to drive other tools or attachments. The verticutter (equipped with wheel drive) is not suited for pulling lawn sweepers and spreaders. The same applies for attaching trailers to ride on or transport clippings. The only attachment allowed on the verticutter is the grass collecting box provided by the manufacturer.

Due use includes compliance with manufacturer’s instructions on operation, service and maintenance.

Any unauthorized modifications to the verticutter render manufacturer liability null and void.

General Instructions on Safety and Accident Prevention

Basic Rule:

The standard accident prevention regulations must be adhered to, as well as all other generally accepted rules governing operational safety, occupational health and road traffic regulations.

Check the verticutter for operational safety each time you take up operation.

Only persons familiar with the verticutter and instructed on the hazards of operation are allowed to use, service and maintain the machine.

Teenagers younger than 16 years are not allowed to operate the verticutter!

Only work in good light and visibility.

Operator’s clothes should fit tight. Avoid wearing loose fitting clothes. Wear solid shoes.

Note the warning and instruction signs on the verticutter for safe operation. Comply for your own safety.

When transporting the verticutter on vehicles or trailers outside the area to be cultivated, ensure that the engine is turned off.

Careful with rotating tools – keep at a safe distance!

The knives may coast due to flywheel mass on the engine. Keep at a safe distance while the shaft is coasting. Before you service or maintain the verticutter, wait until the shaft has come to a complete stop and remove the spark plug.

Beware of coasting tools. Before you start working on them wait until they have come to a complete stop.
1. Safety Instructions

Do not change engine governor settings. High engine speed increases risk of accidents.

Working Area and Hazardous Area

The user is liable to third parties working within the machine’s working range. Staying in hazardous area is not permitted.

Check the immediate surroundings of the machine before you start it. Watch out for children and animals.

Before you start work, clear the area from any foreign object. During operation, always watch out for further objects and remove them in time.

For operation in enclosed areas, ensure that a safe distance is kept to enclosures to prevent damage to tools.

Watch out during slitting operation to prevent the knives from hitting obstacles such as border stones, kerbstones, roots, etc.

Shut off the engine before you transport the verticutter outside the area of operation.

Operation and Guards

Before you start the engine

Become familiar with all guards and controls and their functions. Above all, learn how to turn the engine off quickly and safely in an emergency.

Ensure that all guards are fitted and positioned to provide protection.

Starting the engine

Do not start engine in closed rooms. The carbon monoxide contained in the exhaust fume is extremely toxic when inhaled.

Careful when starting the verticutter and during operation. Keep your hands and feet off the rotating knives!

Do not upend or tilt the verticutter when you start the engine.

Do not step in front of the verticutter to start it.

When starting the verticutter, ensure the wheel drive (if equipped) is not engaged.

Do not use assist-starting liquids when using electrical assist-starting devices (jumper cable). Danger of explosion.

Operation

Never leave the operator’s position at the steering handle while the machine is at work.

Never adjust the handles during work – danger!

The operator always has to keep at a safe distance from the rotor housing as set by the steering handle. This applies in particular for turning the verticutter.

Do not pull but push the verticutter when making a turn.

If blockages occur, turn off the engine and clean the machine with an appropriate tool.

In case of damage to the verticutter, immediately turn off the engine and have it repaired.

If steering causes problems, immediately bring the verticutter to a halt and turn it off. Have the malfunction removed without delay.
1. Safety Instructions

To prevent the machine from slipping in hillside operation, make sure it is secured by another person who uses a bar or a rope to hold the machine. This person has to walk further up the slope and at a safe distance from the knife shaft housing.

If possible, always work across the slope.

End of Operation

Never leave the verticutter unattended with the engine running.

Before you leave the verticutter, turn off the engine.

Secure the verticutter against unauthorized use. If the machine is equipped with an ignition key, remove the key. For all other versions, remove the spark plug connector to secure the machine.

Grass Collection System

If the grass collection system is not removed/attached properly, stray stones or wood may be thrown out by the rotating knives and injure the operator.

Before you remove the grass collection system or adjust the slitting depth, shut off the engine and wait until the knife shaft has come to a stop.

Maintenance

Never carry out any maintenance or cleaning with the engine running.

In addition, always remove spark plug connector before you work on the engine.

Regularly check all guards and tools exposed to wear and tear and replace them, if necessary.

Replace damaged knives.

Always wear safety gloves and use proper tools when exchanging knives.

Do not carry out repairs like welding, grinding, drilling, etc. on structural and safety-relevant parts!

Keep the verticutter clean to avoid risk of fire.

Check nuts and bolts regularly for tight fit and re-tighten them, if necessary.

Ensure that you re-install all guards and adjust them properly after maintenance and cleaning.

Only use original agria spare parts. All other conventional spare parts must correspond to quality and technical requirements specified by agria.

Storage

It is not allowed to store the verticutter in rooms with open heating.

Never park the verticutter in closed rooms with fuel left in tank. Fuel vapours are hazardous.
1. Safety Instructions

**Engine, Fuel, and Oil**

Never let the engine run in closed rooms. Extreme danger of intoxication!

Careful when dealing with fuel. Great danger of fire!

Never refill fuel close to open fire, inflammable sparks or hot engine parts. Do not refill fuel in closed rooms. Do not smoke when refilling!

Refill only with the engine switched off and cooled down.

Do not spill any fuel, use a proper filling device.

In case of fuel-spillage, push the verticutter away from the spillage before you start the engine.

Ensure the fuel is of required quality.

Store fuel in approved cans only.

Store anti-corrosive agents and stabilizing liquids out of reach of children. If sickness and vomiting occur, see a doctor. If fuel has contacted eyes, rinse them thoroughly, avoid inhaling of vapours.

Read and observe enclosed instructions.

Before you dispose of opened and seemingly empty pressurised tins (e.g. of assist-starting liquids) make sure they are completely empty. Empty them in ventilated places safe from spark formation or flames. If necessary, dispose of tins in hazardous waste deposits.

Be careful when draining hot oil – danger of burns.

Ensure the oil is of required quality. Storage is in approved cans only.

Dispose of oil, greases, and filters separately and properly.

**Electrical System**

Persons having a pacemaker must not touch live parts of the ignition system when the engine is running.

**Explanation of Warning Symbols**

- Before doing any cleaning, maintenance and repair work, shut off the engine and remove spark plug connector.

- Keep off the knives while the engine is running!

- Do not touch rotating machine parts. Wait until they have come to a complete stop.

- Do not operate the machine without guards! Move guards in place before you take up operation.
2. Specifications

Engine Manufacturer: Honda
Type: GC 135 QHE3
Version: Fan-air-cooled 1 cylinder-
4-stroke OHC engine (petrol)
Bore: 64 mm
Stroke: 42 mm
Piston displacement: 135 ccm
Compression: 8.5:1
Output: 2.9 kW at 3,600 rpm
Torque: max 8.6 Nm at 2,500 rpm
Spark plug: NGK BPR 6ES
Bosch WR 7 DC
Spark plug gap: 0.7–0.8 mm

Valve lash (engine cold)
Intake: 0.15 ± 0.04 mm
Outlet: 0.20 ± 0.04 mm

Start system: Recoil starter

Fuel tank capacity: 1.7 l
Fuel: Conventional petrol
Octane number min. 85 RON
(refer to fuel recommendations in this manual)

Air filter: Dry element filter
Carburetor: Float carburetor
Throttle valve type
Mixture control screw: opened by approx. 2 turns in base setting

Top no-load speed: 3,850 rpm
Idling speed: 1,250–1,550 rpm

Engine oil:
Filling quantity approx. 0.58 l
Multi-grade oil SAE 10 W-40
SG, SF or higher quality grade

Working width: 40 cm
No. of knives: 13
Slitting circumference 183mm Ø
Shaft speed: 2,500 rpm
Rotational direction of knife shaft: forward
Height adjustment: Centrally and steplessly via crank bolt; fast height adjustment
Discharge: To the rear
Collection system: bag
Accessory item no. 5229 821

Wheels:
Front wheels 230mm Ø
Rear wheels 230mm Ø
with plastic bearings

Steering handle: foldable

Noise level:
In accordance with German 3rd Ordinance on machine-safety law:
Noise level at operator's ear 81 dBA
(in accordance with regulations of German Agricultural Association)

Vibration acceleration value:
on handlebar grip: \( a_{\text{hwz}} = 5.6 \text{ m/s}^2 \)
in accordance with ISO 5349 standard at 85% of rated engine speed with tools at work.

Operability on Slopes:
As long as the operator is able to walk and to operate the verticutter on slopes without problems, the engine performance is satisfactory (engine oil level at “max” = upper filling mark).

Weight: approx. 39 kg

Dimensions:
Length 1,370 mm
Width 580 mm
Height 1,000 mm
3. Devices and Operating Elements

The verticutter agria type 8200-V4 is suited for usual operation in horticulture and turf care.

**Engine**

The four-stroke petrol engine runs on commercial petrol (refer to fuel recommendations).

During the first 20 operating hours (break-in period) do not operate the engine at maximum speed.

**Even after the break-in period** never operate the engine at higher speed than is necessary for the work in hand.

- **High engine speed is harmful to any engine and considerably affects its longevity.**

  *This applies especially for no load operation. Any overspeed (have the engine roar) can result in immediate damage.*

**Cooling System**

The engine is fan-cooled. Therefore keep the grille on the recoil starter and the cooling fins on the cylinder clean and free from sucked-in plant trash.

Always ensure that idling-speed is adjusted correctly. At low speeds and with the speed control lever set to idle, the engine is supposed to run smoothly and without run-out.

**Air Filter**

The air filter purifies the air intake. A clogged filter reduces engine output.

---

**Ignition System**

The engine is equipped with a maintenance-free, contactless electronic ignition system. We recommend to have necessary check-ups done by an expert only.

**Speed control lever (Dead stop lever)**

The speed control lever (A/6) on the steering handle provides stepless selection of engine speed from min. = idling speed to max. = full throttle. In addition, it operates the engine shut-off switch. The individual positions are indicated below.

---

The speed control lever also serves as **engine dead stop**. In an emergency move the lever to position "STOP" to shut off the engine instantly.
3. Devices and Operating Elements

**Choke**

Use the CHOKE to start the engine at cold temperatures and when the engine is cold. To do this, pull the CHOKE rod (B/4) out to position “closed”.

Once the engine is started and warmed up, push the CHOKE rod back in to position “open”.

Do not use the CHOKE at hot temperatures or when the engine is warm.

CHOKE position “open” = operating position.

**Knife Shaft Drive**

The machine is equipped with a V-belt clutch with pulley fitted between engine and knife. Actuation is via the handle (A/7).

0 = Handle is moved to the rear
1 = Handle is pressed forward towards the handlebar (knife shaft is rotating)

Do not actuate the handle at high engine speed because this will quickly ruin the V-belt. Ensure the V-belt is adjusted properly.

**Knife Shaft**

13 knives are arranged around the shaft.
3. Devices and Operating Elements

Setting the Slitting Depth

Ensure the engine is shut off and the shaft has stopped.

- Park the verticutter on level ground and turn the knob (A/13 on the knife shaft housing) to set the slitting depth in such a way that the knives just touch the ground.
- Turn the knob (A/3) to set the desired slitting depth – one turn corresponds to about 1mm depth adjustment
- The proper slitting depth is 2mm–3mm

Fast Height Adjustment

Ensure the engine is shut off and the shaft has stopped.

Use the fast height adjustment system to bring the verticutter in transport position in order to prevent the knives from being damaged when transporting the verticutter on paved paths or concrete tiles.

Transport Position:

- Pull the cable grip (A/8) all the way out to a stop.
- Press on the steering handle.
- Release the grip and press on the steering handle until the height adjustment mechanism locks into transport position.

Working Position:

- Pull the grip (A/8) all the way out to a stop.
- Push up the steering handle.
- Release the grip and continue pushing up the steering handle until fast height adjustment system locks into working position.
3. Devices and Operating Elements

Steering handle

To reduce machine dimensions for storage, fold the top part of the steering handle over the base machine.
- Loosen the knurled nuts (2) by about 8 turns.
- Fold over the top part of the steering handle (1).

Reverse this order to fold the handle back up into operating position. Then tighten the knurled nuts.

Steering handle height adjustment

To adjust the handle height, attach the bottom part of the steering handle to the plates on the base machine which provides a choice of three settings (for instructions see page 7).
3. Devices and Operating Elements

Collection System

A collection bag is available as accessory item (no. 5229 821) for the verticutter.

Attach the angle bar (2) to the rear flap (1) using the U-bolt (3) and the bolts supplied (6–8). See illustration for assembly instructions.

Never remove/attach the collection bag with knives still rotating.

Attaching the bag

- Open the rear flap (1)
- Take the bag (2) and attach its hook to the cross brace (3)
- Place the rear flap onto the bag

Removing the bag

To remove the bag reverse the above order.

Collection bag

Only a clean bag which permits ventilation will give adequate performance. To this end, clean the bag’s texture with a brush or spray it with water from time to time.
Commissioning the Machine

Please note that durability and operational safety of the engine depend to a large extent on its breaking-in. Always allow a cold engine to warm up for some minutes and never run it at full throttle at the beginning. Make sure the air filter is serviced regularly and to use clean fuel.

Please note: for the first 20 hours of operation (break-in period) do not use the engine at full power.

**Note:** For reasons of transport, the machine is not filled with engine oil!

Before you operate the engine the first time, fill in engine oil!

For this purpose, park the machine in such a way that the engine is in a horizontal position. For oil filling quantity and quality refer to “Specifications”.

Check the oil level after filling.

**Each time you take up operation**

- Check the engine oil level:
- Remove the oil fill plug (B/8).
- Clean the oil dip-stick with a clean rag, insert it again but do not screw it in.
- Remove the dip-stick and read the oil level. If necessary, fill engine oil up to the level mark “max”.

Ensure the oil fill plug is tightly screwed into the filler neck during engine operation.

- Do not fill the fuel tank to the point of spillage. Instead, top up fuel to the top level mark to allow the fuel to expand.

Be careful when dealing with fuel.

- Fuel is easily inflammable and explosive in certain conditions!
- Never refill close to open fire, inflammable sparks or hot engine parts.
- Do not refill in closed rooms.
- Before each fuel fill, shut off the engine and wait until it has cooled off.

- Do not smoke during filling and keep away from open fire and sparks.
- Do not spill any fuel, use a proper filling device. If fuel is spilled on the ground, ensure the area is absolutely dry and the vapours have evaporated before you start the engine.
4. Commissioning and Operation

⚠️ Do not start engine in closed rooms! Exhaust fumes contain carbon monoxide which acts toxic when inhaled.
Keep your feet clear off the knife shaft housing.

Starting the Engine

- Move the CHOKE rod (B/4) to position “closed”; do not use the CHOKE at high temperatures or when the engine is warm.

- Move the speed control lever to “1/3” speed position

Caution: Do not operate the knife shaft engagement handle as you start the engine!

- From the steering handle, pull the starter rope slowly on its handle (P) until the starter engages. Then pull the rope hard and fast; do not let the handle snap back.
- After the engine is started, set the speed control lever to the desired engine speed

- If the CHOKE was operated, move it back to “open” position as soon as the engine is warm and running smoothly.
Shutting off the Engine

- Move the knife engagement handle to “0”

- Move the speed control lever to “min.” (IDLING SPEED) and let the engine idle for a short time.

- Move the speed control lever to “STOP” (engine is shut off)
  - Caution! The engine continues running on account of its flywheel mass.

The speed control lever also serves as engine dead stop lever to shut off the engine in an emergency. When necessary, move the speed control lever to STOP to stop the engine immediately.
Verticutter Operation

- Before slitting can be carried out, ensure the turf is cut as short as possible and is swept.
- Do not operate the verticutter on wet lawns and in rainy weather.

⚠️ **Before you start operation remove any obstacles from the area to be slitted. Watch out for obstacles during work.**

- Set the slitting depth
- Start the engine (as described in “Starting Engine”)
- Engage the knife shaft drive by pressing shortly on the steering handle to tilt the machine for the knives to rotate freely. This is to allow the knife shaft to pick up full speed (V-belt slip)

⚠️ **Before moving off check the immediate surroundings for children and animals.**
4. Commissioning and Operation

General Comments on Turf Care using a Verticutter

The effects of verticutter treatment

The verticutter is used to remove moss, low growing weeds and matted thatch from the turf to allow air, water, and nutrients to reach the delicate roots.

Why is this treatment necessary?

Lawns suffer in winter and during dry and sunny periods. Sun-burnt grass and moss will seal the surface so that supply of nutrients, water and air to the root zone is no longer sufficient. This will result in short and delicate roots, weak haulms and a pale green. The lawn will loose its groomed appearance. This, however, can be restored by the slitting action of a verticutter.

Verticutter treatment

On extremely thatched areas it is best to give the lawn two passes at right angles. Slitting should be done twice a year, preferably in spring when the ground is no longer frozen and in late summer – but not later than September to preserve the lawn’s resistance to a possibly cold winter.

It is self-explanatory that the material discharged is swept up and removed. After this treatment the lawn should not be left exposed to heat, drought and sun for long because it would suffer sun-burns along the cuts. If necessary, irrigate the lawn for 4–5 days to keep it wet. Even the surface should not dry during this period.
5. Maintenance

Apart from adhering to operating instructions for verticutters, it is also important to observe the following maintenance instructions.

⚠️ Warning: Only do maintenance work with the engine shut off.

Always remove spark plug connector from spark plug, to avoid accidentally starting the engine while working on the machine or on the engine.

Always wear safety gloves, when working near verticutter knives.

The verticutter will operate reliably at all times, if it receives proper servicing. After each operation clean the verticutter and, especially, the verticutter knives.

Engine

Checking Oil Level

- Each time you take up operation and after every 5 operating hours.
- Check only with engine switched off and machine in horizontal position.
- Clean oil dip stick (B/8) and surrounding parts.
- Unscrew the oil dip stick, clean the dipstick with a clean rag, re-insert it all the way and screw it in.
- Unscrew the oil dip stick and read the oil level.
- Refill oil, if the oil level is below the lower dip-stick mark. Refill engine oil (see “Specifications”) up to upper level mark on dip-stick; do not overfill!
- Screw oil dip stick back in and tighten.

Changing Engine Oil

The first oil change is after 5 operating hours. Subsequent oil changes are after 50 operating hours or once a year, depending on which period is completed first. At extreme strain and high temperatures, change oil after 25 operating hours.

- Open the drain plug (2) and drain the oil into a suitable container or use a suction pump to remove the oil through the filler neck.
- Ensure the waste oil is disposed of properly!
- Before you re-tighten the drain plug (2) inspect the condition of the sealing ring (3). Replace it if necessary.
- Unscrew oil dip stick (1) and fill fresh engine oil. Refer to Specifications for oil quantity and quality. Use a funnel or a similar device to fill the oil reservoir.
- Screw oil dip stick back in and tighten.

Only change oil while the engine is still warm, but not hot – danger of burns!
5. Maintenance

Air Filter

Clean the air filter insert at **3-month intervals** but not later than **25** operating hours (earlier in very dusty conditions). To do this, proceed as follows:

- Clean the air filter and its surrounding area.
- Open the snap mechanism (2), fold down the filter cover (1) and remove it.
- Remove the paper element (3).
- Tap the element against a smooth surface or blow compressed air against the inside of the filter.

**Never brush the filter because this would press the dirt into the fibres.**

- Replace the filter element if it is extremely dirty.
- Inspect the filter element carefully for holes or other damage and replace it if necessary.
- Replace the filter element
- Attach the cover and snap the latches (4) into place.

**Do not wash the paper element (tap it or blow it out)**
5. Maintenance

Fuel System

- Each time you maintain the machine, check fuel hoses, fuel tank, and carburetor for leakages and repair, if necessary. Immediately replace leaking or porous fuel hoses.
- Replace fuel hoses after every 2 years.
- Clean the fuel tank at 100-hour intervals.

For this purpose, contact your professional agria workshop.

- Replace the fuel filter (B/11) at 100 operating hour intervals.

To do this, drain all fuel into a suitable container.

Remove the fuel hoses on both sides of the filter and reverse the above order to attach the new filter.

For this purpose, contact your professional agria workshop.

Excessive Fuel Supply

- After excessive fuel supply to the engine, remove the spark plug, clean and dry it. Then crank the engine with the recoil starter a number of times. Afterwards screw the spark plug in and move the speed control lever to "FULL THROTTLE". Then start the engine via the recoil starter.
5. Maintenance

Spark plug

- After 50 operating hours, clean the spark plug and re-adjust the electrode gap to 0.7–0.8 mm. Only clean the spark plug using a wire brush and wash it out with a commercial cleaning agent.

- Replace the spark plug at 100-hour intervals or when it shows significant wear or if the insulator is damaged.

Correct spark plug assembly:
Screw the spark plug into the cylinder head by hand. Then continue with a spark plug wrench. Turn wrench at 90° or at a torque of 20…30 Nm.

Cleaning the cooling fan grille

After prolonged operation, the cooling system may become clogged by dirt etc. To avoid any overheating and damage to the engine, regularly clean the cooling fan grille (B/2).
Check before each operation!

Air cooling system

1) Clean the rotating strainer at 50-hour intervals as a minimum (earlier in very dusty and trashy conditions). To do this, remove the recoil starter. See the illustration below.

2) Clean the internal cooling fins and surfaces at 100-hour intervals as a minimum (earlier in very dusty and trashy conditions).

For this purpose, contact your professional agria workshop.
5. Maintenance

Governor

For smooth engine performance keep governor linkages, springs and actuating devices clean and free from dust and dirt. Do not bend or twist parts. (Governor linkages on carburetor B/3).

Exhaust system

Regularly clean the area around the exhaust (B/5) from grass, dirt, and inflammable deposits.

– Risk of fire!
Check before each operation.

Speed Control

All engine speed actuating devices must be adjusted correctly to start, operate and shut off the engine at correct speed rates.

For this adjustment, contact your professional agria workshop!

Carburetor settings

To compensate for fuel, temperature, height or load variations, a slight carburetor re-adjustment may become necessary. Only let the engine run with the air filter and air filter cover mounted.

For any adjustments of the carburetor, contact your professional agria workshop!
5. Maintenance

Wheels

The wheels have plastic bearings and need no particular maintenance.

If the wheels do rotate with difficulty, remove them and apply some Gleitmo paste to the bearings’ axles. If you spot corrosion on the axle, polish the axle to remove the rust before you apply the paste.

Removing the Wheels

Remove the hubs, then remove the locking washers from the axle with a screwdriver. Then pull the wheel from the axle.

Attaching the Wheels

To attach the wheels reverse the above order.
5. Maintenance

Knife Shaft Drive

Clutch
The knife shaft is driven by a V-belt clutch. Check the belt tension after 3–5 operating hours and then at 25 hour intervals.

Belt inspection
- Remove three attachment bolts on the belt guard (A/14) and remove the guard.
- Move the shaft drive engagement handle (A/7) to “I” and hold it.
- V-belt tension (C/4) is correct if the belt flexes 15 mm. If this is not possible, adjust belt tension.

Adjustment
- Move the shaft drive engagement handle (A/7) to “I” and hold it.
- Undo the locking nut (2)
- Adjust the cable set screws by turning the hex nuts until belt tension is right
- Tighten the locking nut (2).
- Attach the belt guard

V-belt Guides
It is necessary that the belt guides (C/2; 3 and 8) are adjusted properly, if the V-belt clutch is to come to a stop when it is disengaged. The proper position of the V-belt when disengaged is illustrated in figure D.

When the clutch is engaged (fig. C), the V-belt must not touch the guides (C/2; 3 and 8)!

For this purpose, contact your professional agria workshop.

Replacing the V-belt
- Undo the nuts on the belt guides (C/8) inside the knife shaft housing and pivot both guides downwards.
- Replace the V-belt.
- Pivot the guides up again until there is about a 1 mm gap between guide and belt (fig. C).
- Check belt tension and adjust the tension if necessary.

Do not use conventional V-belts but special agria clutch belts!

Pulleys
Ensure the pulleys are exactly aligned. If they are not, remove both grub screws (C/10 with hexagon socket) from the pulley that drives the crank shaft (C/1). Then align this pulley axially with the pulley that drives the knife shaft (C/7). Retighten the grub screws!
5. Maintenance

Idler pulley bearing

Inspect the idler pulley bearing (C/6) for smooth operation at least **once a year** or after cleaning the machine with a pressure washer.

If the bearing operates with difficulty, remove the bearing bolts (1) and apply some Gleitmo paste to the bearing bushes (4).

If you spot corrosion on the bearing bush (4), polish it to remove the rust before you apply the paste. Then replace the tensioning lever, bearing bush and hex head bolt.

Knife shaft assembly

1. Verticutter knives
2. Distancer tube
3. Knife shaft
4. Pressure spring
5. Washer 21 x 37 x 3
6. Roll pin 4 x 32
7. Knife shaft housing
8. Cover plate
9. Ball bearing 6004 2RS
10. Bearing seat
11. Allen screw M8 x 16
12. Washer 20 x 28 x 0.2
13. Adjustment washer 20 x 29.5 x 0.2
14. Locking ring 20a x 1.2
15. V-belt
16. Pulley
17. Roll pin 6 x 36
18. Roll pin 3.5 x 36
5. Maintenance

Knife Shaft Bearing
The knife shaft is located in 2 pivoting special ball bearings that are permanently lubricated and thus maintenance-free.

Verticutter Knives
The shaft is studded with 13 knives.
- These need exchanging when worn or damaged.

For this purpose, contact your professional agria workshop.

General
- Watch out for fuel and oil leaks and remove them, if necessary.
- Regularly check nuts and bolts for tight fit and retighten them, if necessary.
- Slightly grease all gliding and moving parts (e.g. speed control lever, hand lever bearing, etc.) with Bio-lubrication grease and Bio-lubrication oil.

Cleaning
After each cleaning (washing with water, especially with pressure washer) lubricate all lubrication points, oil the machine, and let the verticutter run for a short time to press the water out.

Apply grease generously and leave a grease ring around the bearings to prevent water, plant sap, and dirt from penetrating.

Clean the engine only with a cloth. Avoid spraying with strong jets of water because water might leak into ignition and fuel system, causing malfunctions.
5. Maintenance

Storage

For longer periods of no operation prepare the verticutter for storage. Proceed as follows:

a) Clean thoroughly

Repair paint coat, lubricate lubrication points and operate verticutter for a short time. Then spray all shining parts, in particular verticutter knives, with Bio-slushing oil.

b) Engine preservation

- Drain fuel completely and let the engine run until it comes to stop due to lack of fuel or add fuel stabilizer (agria No. 673 50).

Method: Fill fuel tank, add anti-corrosive and stabilizing liquid (amount “ON” stabilizes 4l of fuel). Let engine run for approx. 1 minute. *(Observe enclosed instructions).*

- Change engine oil
- Fill a tea-spoon (approx. 0.03l) of engine oil into spark plug opening. Slowly crank the engine.
- Set the piston to compression with the recoil starter to keep the valves closed.
- Cover engine with cloth or a similar cover.
- Slowly crank the engine every 2–3 weeks (spark-plug connector is removed). Then set the piston to compression again.

⚠️ Warning! Keep anti-corrosive and stabilizer out of reach of children at all times. Do not inhale vapours! In case of sickness and vomiting see a doctor immediately! In case of eye contact with liquids, rinse eyes thoroughly.

Parking and storing the verticutter

- Do not tilt the verticutter forward, backward, or to the side to park, transport, or store it. This is to prevent engine oil from getting into the cylinder and the combustion chamber. This may result in starting problems and carbonization.
- Only store the verticutter with the knife drive disengaged (position “0”) because this will result in clutch problems due to V-belt deformation.
- Do not store the verticutter in wet rooms, in rooms where fertiliser is stored, in stables and adjacent rooms as heavy corrosion may be the consequence.
Lubricants, Varnishes, Wear Parts

agria Order No.

Lubricants and Anti-Corrosive Agents

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>690 35</td>
<td>Bio-lubrication grease</td>
<td>cartridge 400g</td>
</tr>
<tr>
<td>671 20</td>
<td>Gleitmo paste</td>
<td>tube 50g</td>
</tr>
<tr>
<td>690 36</td>
<td>Bio-Slushing oil</td>
<td>bottle 500ml</td>
</tr>
<tr>
<td>673 50</td>
<td>Fuel stabilizer</td>
<td>bottle 125ml</td>
</tr>
</tbody>
</table>

⚠️ Please read and observe enclosed instructions!

Varnishes

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>181 03</td>
<td>Spray varnish birch-green</td>
<td>spray tin 400ml</td>
</tr>
<tr>
<td>712 98</td>
<td>Spray varnish red, RAL 2002</td>
<td>spray tin 400ml</td>
</tr>
<tr>
<td>509 68</td>
<td>Spray varnish black, RAL 9005</td>
<td>spray tin 400ml</td>
</tr>
</tbody>
</table>

Wear Parts

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>759 98</td>
<td>Air filter element</td>
</tr>
<tr>
<td>759 99</td>
<td>Spark plug Bosch WR7 DC ; NGK BPR GES</td>
</tr>
<tr>
<td>670 82</td>
<td>Verticutter knife</td>
</tr>
<tr>
<td>200 74</td>
<td>V-belt for knife shaft drive</td>
</tr>
</tbody>
</table>

⚠️ Only use special agria V-belts. Do not use conventional V-belts

Spare Parts

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>997 080</td>
<td>Verticutter 5200/8200</td>
</tr>
</tbody>
</table>
### 6. Troubleshooting

Observe safety instructions! Have all serious malfunctions on the machine or engine repaired by your agria workshop. They have the proper tools. Improper repairs can only add to the damage.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine does not start</td>
<td>- Spark plug connector not connected</td>
<td>Connect spark plug connector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Choke lever is not actuated</td>
<td>Actuate Choke lever</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>- Fuel tank empty or poor fuel</td>
<td>Fill fresh fuel</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>- Fuel line clogged</td>
<td>Clean fuel line</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Defective spark plug</td>
<td>Clean, adjust or exchange spark plug</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Engine too much fuel (&quot;flooded engine&quot;)</td>
<td>Dry and adjust spark plug and start at FULL THROTTLE</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>- Inleaked air due to loose caburetor and suction line</td>
<td>Tighten attachment bolts</td>
<td></td>
</tr>
<tr>
<td>Misfirings in engine</td>
<td>- Loose ignition cable</td>
<td>Fit connector tightly on spark plug</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Clogged fuel line or poor fuel</td>
<td>Fix ignition cable retaining device</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Vent opening in fuel tank cap clogged</td>
<td>Clean fuel line, fil fresh fuel</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>- Water or dirt in fuel system</td>
<td>Exchange fuel tank cap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Drain fuel and fill fresh fuel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Clean or exchange air filter</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re-adjust carburetor</td>
<td>27</td>
</tr>
<tr>
<td>Engine overheats</td>
<td>- Low engine oil level</td>
<td>Refill oil</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>- Impaired cooling</td>
<td>Clean oil fan grille, clean internal cooling fins</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>27</td>
</tr>
<tr>
<td>Misfirings in engine at high speeds</td>
<td>- Short firing intervals</td>
<td>Adjust spark plug</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Incorrect idle speed mix</td>
<td>Adjust carburetor</td>
<td>27</td>
</tr>
<tr>
<td>Engine frequently stalls in idle</td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>- Firing interval too long, defective spark plug</td>
<td>Adjust or replace spark plug</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>27</td>
</tr>
<tr>
<td>Engine does not run smoothly</td>
<td>- Speed control linkage is clogged or jammed</td>
<td>Clean speed control linkage</td>
<td>27</td>
</tr>
<tr>
<td>Engine does not stop in stop position</td>
<td>- Integrated short-circuiting switch is defective</td>
<td>Check short-circuiting switch and reset it, if necessary</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>- Speed control cable is misadjusted</td>
<td>Adjust the cable</td>
<td>27</td>
</tr>
</tbody>
</table>
### 6. Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine output too low</td>
<td>Air filter clogged</td>
<td>Clean air filter</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Loose cylinder head or damaged gasket</td>
<td>Tighten cylinder head, exchange gasket</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Poor compression</td>
<td>Have engine checked</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knife shaft housing is blocked</td>
<td>Clean the housing</td>
<td></td>
</tr>
<tr>
<td>No knife shaft drive</td>
<td>V-belt clutch slips</td>
<td>Adjust the V-belt clutch</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Idler pulley bearing is sluggish</td>
<td>Lubricate idler pulley bearing</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Worn V-belt</td>
<td>Replace V-belt</td>
<td>27</td>
</tr>
<tr>
<td>Slitting depth too shallow</td>
<td>Slitting depth is not set properly</td>
<td>Readjust the slitting depth</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Worn knives</td>
<td>Replace knives</td>
<td>31</td>
</tr>
<tr>
<td>Verticutter does not run</td>
<td>Wheel arc is dirty</td>
<td>Clean the wheel arc</td>
<td>28</td>
</tr>
<tr>
<td>smoothly</td>
<td>Wheel axle is not lubricated</td>
<td>Clean and lubricate the wheel axle</td>
<td>28</td>
</tr>
</tbody>
</table>

* = For this purpose contact your agria workshop.
## 7. Inspection and Maintenance Chart

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>After Operating Hours</th>
<th>min. after every 3 months</th>
<th>min. yearly</th>
<th>B</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean engine,</td>
<td>A</td>
<td>5 8 25 50 100 250</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>check bolts and nuts</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Check engine oil level, refill, if necessary</td>
<td>K K</td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>First engine oil change, W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>subsequent oil changes</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Check air filter</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Clean air filter insert</td>
<td>W</td>
<td>W</td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Replace air filter insert - earlier, if required</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Replace fuel hoses</td>
<td>W*</td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Clean ventilation grille</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Clean guide plates, cooling fins - earlier, if required</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Clean spark plug, set electrode gap</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Replace spark plug</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Clean fuel tank</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Clean fuel filter</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Replace fuel filter</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Lubricate wheel axle</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Check idler pulley bearing</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Check V-belt tension</td>
<td>E W</td>
<td></td>
<td></td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Lubricate all gliding parts</td>
<td>K K</td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

**A = Each time before you take up operation**

**B = After each cleaning**

**E = One-time maintenance to be executed by professional workshop**

**K = Checks and maintenance to be executed by operator**

**W = Maintenance to be executed by professional workshop**

* = after 2 years
Designation of Parts

1. Engine pulley
2. Belt guide
3. Belt guide
4. V-belt
5. Idler pulley
6. Idler pulley bearing
7. Pulley driving the knife shaft
8. Belt guide
9. Dowel pin
10. Grub screw M 6 x 8 (2 pieces)
EC Conformity Declaration
in accordance with the EC directive machinery 98/37/EC

We, agria-Werke, GmbH
D-74215 Möckmühl/Württ.

herewith declare in sole responsibility that the product
Verticutter, Type 8200-V4
to which this declaration refers, corresponds to
the standard fundamental safety and health requirements
as stipulated in EC directive machinery 98/37/EC
and EMC directive 89/336/EC.

Möckmühl, 28th October 1998

on behalf of Gregor Czaja
Head, Quality Control

Dipl. Ing. Thomas Ilchmann
Head, Research and Development
The winning team

Power hoe | One-wheel hoe | Hobby two-wheeler

AllShredd | Cutterbar mower

Lawn mower | Verticutter | All-purpose machine

Contact your authorised agria dealer for service and prompt delivery of spare parts