Operating Instructions

for agria® Mounted Twin Sickle
Mower 5556 111

for agria types 3400 and 5500

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

| Machine Item No.: ....................... |
| ID/Machine No.: .......................... |
| Date of Purchase: ...................... |

Nameplate on knife box at right rear.
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 bind-
ing. No claims can be derived from them.
We reserve the right to improvements
without changing these instructions.

This delivery comprises:
- Operating instructions
- Mounted sickle mower
- Safety shifting lever for knife brake with
  bearing shells

Symbols

⚠️ Warning – Danger

ℹ️ Important information
1. Safety Instructions

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

Warning

This symbol marks all paragraphs in these operating instructions which concern your safety. Pass all safety instructions to other users and operators.

Also read and observe the safety regulations in the operating instructions for the base machine.

Due Use

The mounted sickle mower has exclusively been designed for all common applications and tasks in forestry and grass and park maintenance (due use).

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

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

Any unauthorized changes to the sickle mower 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.

For drives on public roads, the latest traffic code applies.

Accordingly, check the sickle mower for road and operational safety each time you take up operation.

Only persons familiar with the sickle mower and instructed on the hazards of operation are allowed to use, maintain and repair the sickle mower.

Young persons of 16 years or younger are not permitted to operate the power mower!

Only work in good light and visibility.

Operator’s clothes should fit tightly. Avoid wearing loosely fitting clothes. Wear solid shoes.

Note the warning and instruction signs on the sickle mower for safe operation. Compliance is for your own safety.

When transporting the sickle mower on vehicles or trailers outside the area to be cultivated, ensure that the engine is shut off.

Careful with rotating tools – keep at a safe distance!
1. Safety Instructions

Due to its centrifugal mass, the sickle knife can follow up. During that time, do not stay too close to the mower housing. Only when the sickle knife is completely standing still and the spark plug connector has been withdrawn, works on the mower are permitted.

Foreign powered parts shear and squeeze!

Riding on the attachment during operation is not permitted.

Implements and weights influence the driving, steering, braking, and tip-over characteristics of the sickle mower. Therefore, ensure steering and braking functions are sufficient. Match operating speed to conditions.

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

Working Area and Danger Zone

The user is liable to third parties working within the sickle mower’s working range.

Staying in the danger zone is not permitted.

Check the immediate surroundings of the mower 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 safety distance is kept to enclosures to prevent damage to tools.

Be careful when mowing; ensure that the sickle knife does not seize obstacles such as border stones, enclosures, roots etc.

Operation and Safety Devices

Before you start the engine

Become familiar with the devices and operating elements and their functions. Above all, learn how to shut off the engine quickly and safely in an emergency situation.

Ensure that all protective devices are mounted and positioned to provide protection.

With no implement mounted, make sure PTO-shaft is covered with the protective cap.

Starting the engine

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

Before you start the engine set all operating elements to neutral or idling position.

Be careful upon starting and during mowing; do not come directly close to the sickle mower with your hands or feet.

When starting, it is not permitted to bring the mower into an upright position or to tilt it.

For starting the engine, do not step in front of the sickle mower and the implement.

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

Operation

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

Never adjust the operating handles during work – danger!

For all works with the sickle mower, in particular for turning, the machine operator must keep the distance to the machine given by the steering handles.

Riding on the implement during operation or in transport is not permitted.

If clogging occurs in the implement or in the mower, shut off the engine and clean the implement or the mower with an appropriate tool.

In case of damage to the sickle mower, immediately shut off the engine and have it repaired.

If steering causes problems, immediately bring the sickle mower to a halt and shut it off. Have the malfunction eliminated without delay.

To prevent the sickle mower from sliding on slopes make sure it is secured by another person using a bar or a rope. This person must stay at a higher position than the vehicle and at a safe distance from the attachment at work.

If possible, always work across the slope.

End of Operation

Never leave the mower unattended with the engine running.

Before you leave the mower, shut off the engine and the mowing drive. Then close fuel taps.

Secure mower against unauthorized use. If equipped with ignition key, remove the key. For all other versions, remove the spark plug connector.

Implements

Only mount implements with the engine and the implement drive shut off.

Always use appropriate tools and wear gloves when changing implements and parts thereof.

For mounting and dismounting implements bring stand into proper position and ensure stability.

Secure base machine and implements against rolling off (parking brake, wheel chocks).

Beware of injuries while coupling implements. Work with particular care.

Hitch implements as specified and only couple at specified points.

Secure power mower against unauthorized use and rolling off when you leave the machine. If necessary, install transport or security devices and secure.
1. Safety Instructions

Cleaning and Maintenance

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

Before you work on the engine or on the mower, always remove spark plug connector (only for petrol engines).

Check regularly and, if necessary, replace all protecting devices and tools subject to wear and tear.

Replace damaged cutting knives.

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

Keep sickle mower and implement clean to avoid risk of fire.

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

Ensure that you re-install all safety and protective devices and bring them into their protective position after maintenance and cleaning.

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.

Be careful when draining hot oil, danger of burns.

Make sure oil used is of specified quality. Storage is in approved cans only.

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

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

Storage

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

Never park the mower in closed rooms with fuel left in tank. Fuel vapours are hazardous.

Explanation of Warning Signs

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

With engine running, keep at a safe distance from cutting knives.

Do not touch moving machinery parts. Wait until they have come to a complete stop.

With engine running, keep at a safe distance.
2. Specifications

Twin Sickle Mower

to be mounted
to agria type 3400 and 5500

Cutting width: ..................................... 96 cm
Lateral discharge: ..................................... left
Cutting height adjustment: .............. 3–10 cm
Transmission: .................. toothed angular gear
Transmission oil: .............................. SAE 90
Filling volume: ................................. abt. 0.6 l
Connection ..................................................
via agria quick-coupling system

The sickle mower is equipped with a knife brake
max. delay ........................................ 5 sec.
The system is operated with a second safety
lever above the safety lever (dead stop) of
the base machine.

Weight .............................................. 113 kg

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Fig. A

1 Knife housing
2 Roller for lateral stop
3 Wheel
4 Scraper
5 Plug for wheel stabilizer
6 Grass splash guard
7 Belt cover right
8 Adjusting spindle for height adjustment front
9 Angular gear
10 Adjusting spindle for height adjustment rear
11 Connection flange
12 Catch hook
13 Shifting lever
14 Sensing roller for ground irregularities
15 Belt cover left
16 Bearing clips for safety lever
17 Safety lever for engine brake.

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Noise level:
According to the 3rd Ordinance on machinesafety law:
Noise level at the ear of the operator: .............. 83 dB(A)
Acoustic capacity level: .......................... 100 dB(A)
at engine speed ............................... 3050 min-1

Vibration acceleration value:
see base machine

⚠️ If the sickle mower is to be mounted to a base machine without safety circuit (dead stop), the base machine must previously be re-fitted with the suitable safety circuit!

Operation with two-wheel tractor type 3400 only with braking system!

Recommendation: Wear ear protection during operation!
First Mounting

For operating the knife brake, a second safety lever must be mounted above the safety lever of the base machine.

To facilitate the implement change, the safety lever for the knife brake can be quickly mounted and removed with a socket pin.

Upon first mounting, however, the bearing clips must be mounted to the left steering handle and can then remain mounted when changing the implement.

Mounting

- Mount bearing clips (1+2) with the fastening screws (5–7) and on the top with counter-bearing angles (8) to the left steering handle in front of the safety lever – see illustration.
- Insert the 2 bearing shells (3) for steering tubes of Ø 25 (agria Type 3400).
- Pass the electrical line (4) through the free space between steering tube and fastening screw and make sure that the electrical line is not caught and damaged.
- Mount safety lever for the knife brake (9) to the bearing butt straps as described on page 9.
- Displace bearing clips, until the correct position of the safety shifting lever to the safety lever of the base machine is reached (see page 9)
- Tighten hexagon nuts (7).
3. Devices and Operating Elements

Mounting to the Base Machine

Mounting and dismantling of the sickle mower is only permitted with the engine and the sickle knives standing still. Secure implements against rolling off and pay attention to squeezing points during mounting.

Perform mounting and dismantling on solid ground.

The sickle mower is a front-driven implement.

agria 3400

Turn steering handle by 180° so that the engine is at the rear seen in driving direction (see operating instructions for the base machine).

Tool Carrier agria 5500

The steering handle is already in the correct position.

agria 3400 and 5500

Mounting and dismantling to/from the agria base machines Type 3400 or 5500 is made with the agria quick-coupling system as described in the operating instructions for the base machines.

Mount safety shifting lever (9) for the knife brake with bolt (12) and R-clip (13) to the pre-assembled bearing clip (First mounting, page 8).

Introduce adjusting screw (11) of the bowden cable into the counter-bearing angle and tighten hexagon nut (10).

Check adjustment.

With the safety lever completely pressed down (operating position), the knife brake must be released.

With the safety lever released (stop position), the knife brake must be in braking position.

If necessary, re-adjust with adjusting screw (11).
3. Devices and Operating Elements

Adjusting the Cutting Height

Only with engine and sickle knife standing still!

- Fold crank handle (a) of the front adjusting spindle upwards and turn the crank, until the desired cutting height "X" is reached.

- Set the sickle mower housing parallel to the ground: fold crank handle (b) of the rear adjusting spindle upwards and turn crank, until measure Y (clearance to the ground, rear) is identical to measure X (clearance to the ground, front).

- Fold both crank handles downwards again; no automatic height adjustment during mowing.

For an intended change of the cut point, at the same time, the parallel adjustment must be corrected as otherwise no straight cut (clear cutting pattern) is achieved.
3. Devices and Operating Elements

To facilitate steering and turning of the mower, set the front wheel to the floating position.

**Floating Position**
- Withdraw R-clip (2)
- Draw connector (1) upwards and introduce R-clip (2) into the cross hole at the connector.

**To improve the lateral guidance on slopes, set the front wheel to the rigid position.**

**Rigid Position:**
- Withdraw R-clip (2)
- Introduce connector (1) downwards into the fixing hole at the wheel fork (connector in 90°position) and introduce R-clip (2) into the cross hole at the connector

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**Wheel Scraper**

The wheel scraper (1) at the front wheels avoids winding up of soil or plants; therefore, place the wheel scraper as close as possible to the wheel contact surfaces. Do the following:
- Slightly loosen hexagon nut (2)
- Accordingly adjust wheel scraper
- Tighten hexagon nut (2) again

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Edition 06.97  Mounted Twin Sickle Mower 5556 111
4. Commissioning and Operation

Mowing

⚠️ In the working area, the user is responsible towards third parties.

Without splash guard, the sickle mower is not permitted to be operated. Risk of injuries!

During starting and mowing, putting the base machine into an upright position or tilting it with mounted sickle mower is prohibited.

Be careful during starting and mowing: Do not bring hands or feet into the direct operating area of the sickle knife or under the mower casing.

It is prohibited to stay in the hazardous area of the mower.

Prior to starting driving, check the surrounding area, in particular for children and animals!

Always wear solid shoes when working with the sickle mower.

Be careful during mowing that the rotating sickle knife does not seize obstacles such as border stones, curbs, roots etc.

When the combined unit with mounted sickle mower is lifted over hedges or when gravel walks and similar are used, for reasons of safety, the engine must be shut down and the standstill of the cutting system waited for.

The safety distance determined by the guide bar must always be observed. During mowing at slopes and on descending ground, particular care is necessary. If there should be the danger of tilting, the base machine must be secured with a rope with the aid of a second person.

When leaving the machine and during working breaks, shut down the engine. Base machine and sickle mower must absolutely be secured against unauthorized use and rolling off.

- Check adjustment of the knife brake (see page 9)
- Start engine as described in the operating instructions for the base machine
- Shift to 1st or 2nd gear
- Set F/R-gearshifting to forward
- Connect PTO
- Move safety lever to operating position.

- Slightly pull clutch hand lever, disengage locking handle, slowly release and simultaneously accelerate. The sickle knife rotates and the mower moves forwards.

If possible, do not mow, when the grass is wet as, otherwise, grass lumps can catch at the bottom side of the housing which optically disturb the grass when falling down.

If possible, mow high grass in several operations to avoid clogging of the sickle mower. In the hot season, the grass should never be cut too short; otherwise the soil could dry out and the grass become damaged.
4. Commissioning and Operation

After completion of the mowing work or in case of cloggings:

- Set F/R-gearshift to idle speed; the mower is stopped, the sickle knife, however, continues rotating; in this way, clogging is eliminated.
- Pull clutch hand lever and engage locking handle
- Disconnect mowing drive at the shifting lever.
- Shut down engine

⚠️ If during the works cleaning should become necessary, for reasons of safety, shut down the engine; withdraw ignition plug connector and wait until the cutting system has come to a standstill.

When having touched obstacles, check the sickle knife.
5. Maintenance

Prior to every maintenance, care and cleaning measure, shut down engine and withdraw ignition plug connector or ignition key. During works at the brush and at the cutting wheel, wear protective gloves.

- After about ½ hour of working, re-tighten the cap nut at the PTO-connection.

Bevel Transmission

- Always after 1000 operating hours, change transmission oil in the reversing gear:
  Transmission oil ....................... SAE 90
  Filling volume ....................... abt. 0.6 l
  Have transmission oil change performed by a specialized agria workshop.

Sickle Knife

- Always after 10 operating hours, tighten the attachment bolts (2) of the sickle knife; tightening torque: 76 Nm.

- To achieve a clean cut, the sickle knife (1) must be sharpened from time to time; this is done best with a grinding machine and prior to the start of the season.

- The sickle knife must only be re-sharpened by a specialized workshop.

- For dismantling the sickle knife (1), unscrew bolts (4).

- When installing the sickle knife, ensure the correct position of the blades (see picture); use new retaining discs (3), screw in bolts (4) and tighten them, tightening torque 76 Nm.

  Wear protective goggles and protective gloves.

The original grinding angle must be maintained.

The material reduction must be identical for both knives, otherwise unbalance!

If the knife should be heavily deformed or damaged by foreign bodies (in particular steel), absolutely replace them by new one.

Only use original agria sickle knives.
5. Maintenance

Floating Bearing and Universal Joint

Always after 50 operating hours or at least once per year and after every cleaning with a high-pressure cleaner, lubricate with Bio grease at the grease nipple (1+2).

1 Grease nipple for floating bearing
2 Grease nipple for universal joint

V-belt

Always after 50 operating hours, check the V-belt tension. To that end, unscrew the two cover plates (A/6+15). The V-belts must permit pressing in by about 15 mm at a maximum.

Tensioning V-belts

- Remove protective hood (1)
- Slightly loosen 4 hexagon screws (4).
- Displace transmission block forwards (direction of arrow).
- Tighten hexagon screws (4) and mount hood again.

1 Protective hood
2 Washer
3 Hexagon screw
4 Hexagon screw
5. Maintenance

General

- Observe leaking oil and remove it, if necessary.
- Regularly check screws and nuts for tight seating; re-tighten, if necessary.
- Slightly lubricate all sliding or movable parts with Bio grease or Bio lube oil.

Cleaning

After every mowing procedure, without delay and thoroughly clean the sickle mower with water.

After cleaning with a high-pressure cleaner, immediately lubricate the lubricating points and shortly operate the mowing system to press out the entered water. At the bearing point, a grease collar shall form protecting the bearing point against the entrance of dirt, plant saps and water.

Storage

If the sickle mower is not used for a longer time, do the following:

a) Thoroughly clean, repair painting, lubricate lubricating points and shortly operate the machine; then spray sickle knife with Bio anti-corrosive.

b) Do not store sickle mower in moist rooms where artificial manure is stored, in stables or adjacent rooms as here heavy corrosion is caused.

c) Cover sickle mower with a cloth or similar.
Lubricants, Varnishes, Wear Parts

agria Order No.

Lubricants
- 690 34 Bio lubrication oil bottle 500ml
- 690 35 Bio lubrication grease cartridge 400g
- 690 36 Bio anti-corrosive oil bottle 500ml

Varnishes
- 181 03 Spray varnish birch-green spray tin 400ml
- 712 98 Spray varnish red, RAL 2002 spray tin 400ml
- 509 68 Spray varnish black spray tin 400ml

Wear Parts
- 755 57 Sickle knife
- 736 49 Hexagon bolt M12x1.25 x 35 (attachment bolt for sickle knife)

Emergency Tyre Repair:
- 713 13 Tyre repair gel Terra-S bottle 1l

Lists of Spare Parts
- 997 083 Implements for 3400, 5500

Recommendations: 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.

Recommendations: Lubricants and Anti-Corrosive Agents
Use the specified lubricants for engine and transmission (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 anti-corrosive 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 kind to the environment 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.
6. Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive vibration</td>
<td>- Attachment bolts loosened</td>
<td>Tighten attachment bolts</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>- Sickle knife loosened, warped or incorrectly adjusted</td>
<td>Immediately turn off engine!</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check sickle knife bolt and all nuts for tightness, exchange damaged parts</td>
<td></td>
</tr>
<tr>
<td>Uneven cut</td>
<td>- Dull sickle knife</td>
<td>Re-sharpen sickle knife</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>- Parallel position not properly adjusted</td>
<td>Adjust parallel position</td>
<td>10</td>
</tr>
</tbody>
</table>

**Inspection and Maintenance Chart**

<table>
<thead>
<tr>
<th>Check bolts and nuts</th>
<th>K</th>
<th>K</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickle knife attachment</td>
<td>K</td>
<td>K</td>
<td>14</td>
</tr>
<tr>
<td>Lubricate floating bearing</td>
<td>K</td>
<td>K</td>
<td>15</td>
</tr>
<tr>
<td>Lubricate universal joint</td>
<td>K</td>
<td>K</td>
<td>15</td>
</tr>
<tr>
<td>Bevel transmission oil change</td>
<td>W</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Re-sharpen sickle knife, earlier if required</td>
<td>W</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

A = Each time before you take up operation
B = After every cleaning with a high-pressure cleaner
K = Checks and maintenance to be executed by operator
W = Maintenance to be executed by professional workshop
Conformity Declaration

EC Conformity Declaration
in accordance with the EC directive

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

herewith declare in sole responsibility that the product
Mounted Twin Sickle Mower, Type 5556 111
to which this declaration refers, corresponds to
the standard fundamental safety and health requirements
as stipulated in EC directive 98/37/EC.

Möckmühl, 10th March 1997

Gregor Czaja
Head, Quality Control

Thomas Ilchmann
Head, Research and Development
THE WINNING TEAM

Power Hoe | One-Wheel Hoe | Hobby Two-Wheeler

AllShredd | Cutterbar Mower

Lawn Mower | Verticutter | Multi-Purpose Machine

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