Operating Instructions
Translation of the original operating instructions

Grassland Mower
5300

- Honda Engine
- Robin Engine

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

<table>
<thead>
<tr>
<th>Machine Type No.: ......................</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification No.: ..........................</td>
</tr>
<tr>
<td>Engine Type:..............................</td>
</tr>
<tr>
<td>Engine No.:.............................</td>
</tr>
<tr>
<td>Date of Purchase: .......................</td>
</tr>
</tbody>
</table>

For name plate, refer to p3/fig. A/7.
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.

**This delivery comprises:**
- Operating instructions
- Engine operating instructions
- Grassland mower – basic machine
- Handlebar with knob screw
- 1 pair of drive-wheels *
- Cutter bar *
- Tool kit

* = depending on machine version

**Symbols**

- !: Warning – Danger
- !: Important information
- !: Choke
- !: Fuel
- !: Oil
- !: Engine Start
- !: Motordrehzahl
- !: Engine Stop
- !: Air filter
- !: Visual check
- !: Clutch
- !: Mowing drive
- !: Wheel drive
- !: Forward
- !: Reverse
- !: Slow
- !: Open (unlocked)
- !: Closed (locked)
- !: see engine operating instructions

Please observe that only those activities of the engine are described here which are required for operating the Grassland Mower. All other information on the engine may be taken from the enclosed engine operating instructions!
Designation of Parts

A

1 2 3 4 5 6 7 8

10 11 12 13 14 15 16 17

1

Robin Engine

B

Honda Engine
Designation of Parts

Figure A
1. Cutter bar
2. Running bases
3. Knife driver
4. Lubrication nipple for cutter bar carrier pin
5. Lubrication nipple for crank roll
6. Mowing drive hood
7. Name plate/Machine identification no.
8. Engine
9. Handlebar
10. Pulley and belt guard (V-belt clutch)
11. Interlocking bolt for cutter bar
12. Lubrication nipple for interlocking bolt
13. Transmission oil filler plug/control screw
14. Cap of transmission housing/Transmission oil drain opening
15. Drive-wheel
16. Detent spring for drive-wheel

Figure B
1. Air filter
2. Carburetor
3. Fuel tank cap
4. Fuel tank
5. Choke lever
6. Engine type no.
7. Starter handle
8. Cooling-air screen
9. Exhaust with exhaust guard
10. Spark plug, spark plug connector
11. Engine oil filler plug – control opening
12. Engine oil drain screw
13. Fuel tap
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Note fold-out pages!

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Recommendations

Lubricants and Anti-Corrosive Agents:

Use the lubricants specified for engine and gearbox (see “Specifications”).

We recommend using Bio-lubricating oil or Bio-lubricating grease for “open” lubrication points or nipples (as specified in the operating instructions).

We recommend using Bio-slushing oil to preserve machines and attachments (do not apply on painted covers). You can brush or spray the oil.

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 (including E10).

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 carburetor, fuel filter, and tank. Or add a fuel stabilizer to the fuel.

For further instructions refer to “Engine Preservation”.

Maintenance and Repair:

The trained mechanics of your agria workshop expertly carry out any maintenance and repair work.

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 to pull off the flywheel.
1. Open the box top.
- Cut the two rear corners open and fold down the box sides.

2. Fold the steering handle upwards.
- Remove the hex head bolt (3) and hex nut (4).
- Pivot the steering handle (2) upwards, insert the hex head bolt (3) into the appropriate holes, attach the hex nut (4) and tighten it.

3. Move the wheel drive engagement lever (6) to position 0 and lock it to disengage the wheel drive. This is to push the undriven machine.
- Pull the machine rearwards to remove it from the box.

4. Attach the cutter bar (5),

5. Carry out the start-up procedure
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 to other users and operators.

**Due Use**

The grassland mower is constructed solely for the cutting of grass and similar plants as well as thin non-wooded scrub in land & forest management, green spaces, and other such areas and may also be used as a snow-clearing machine after it has been fitted with a suitable rake blade (due use).

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

When the grassland mower is used on public roads, the local national road traffic rules must be observed, e.g. reflectors, lights.

The grassland mower is not intended for use with a trailer on public roads or as a tractive machine.

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

Any unauthorized changes to the mower render manufacturer liability null and void.

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**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 national traffic code applies.

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

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

Teenagers of 16 years or younger may not operate the grassland mower!

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 mower for safe operation. Compliance is for your own safety.

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

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

Beware of coasting tools. Before you start any maintenance or repair on them, wait until tools have come to a complete stop.

Foreign powered parts shear and crush!

Riding on the attachment during operation is not permitted.

 Implements and their weight affect the driving, steering, braking, and tip-over characteristics of the 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 mower’s working range. Staying in 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.

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 turn the engine off quickly and safely in an emergency.

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.

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

Operation

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

Never adjust the operating handles during work – danger!
1. Safety Instructions

During operation the operator must keep at a distance as defined by the steering handle, especially when turning the machine.

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

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

In case of damage to the grassland mower or to the implement, immediately turn off the engine and have it repaired.

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

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

If possible, always work horizontally on the slope.

End of Operation

Never leave the mower unattended with the engine running.

Before you leave the grassland mower, turn off the engine.

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

Implements

Only mount implements with the engine and PTO switched off.

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

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

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

Beware of injuries while coupling implements.

Mount implements as specified and only couple at specified points.

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

Mowing Attachment

Handle with care! Sharp blades of the cutter bar may cause injuries! Remove knife guards only for mowing and refit immediately after work has finished.

For transport and storage always mount the knife guards. Secure finger bars additionally with tension springs.

Do not transport the dismounted cutter bar without knife guards.
1. Safety Instructions

Before mounting and dismounting the cutter bar, make sure all blades are protected by the knife guard.

To exchange the mowing knife and to mount/dismount the knife driver, make sure that you turn screws away from cutting edges.

For grinding the mowing knives, always wear safety goggles and gloves.

Weights

Always fit weights onto appropriate weight mounting devices.

Snow Clearing

Ensure snow dozer is mounted correctly! Wear slip-proof shoes.

When swivelling the snow dozer watch out for crush and shear points. Adjust working speed to conditions. Operator may be injured when the mache comes in contact with solid objects.

Maintenance

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

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

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

Replace damaged cutting tools.

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

Do not carry out repairs like welding, grinding, drilling, etc. on structural and safety-relevant parts (e.g. coupling devices)!

Keep mower and implement clean to avoid risk of fire.

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

After maintenance and cleaning, ensure that you re-install all safety and protective devices and adjust them 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.
1. Safety Instructions

Engine, Fuel, and Oil

Never let the engine run in closed rooms. Extreme danger of intoxication! For the same reason, also replace damaged exhaust parts immediately.

Caution with hot engine parts!

The exhaust and other engine parts become very hot, if the engine runs and immediately after turning off. Hold for sufficient distance from hot surfaces and keep children away from the running engine.

Be 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, pull the grassland mower away from the spillage before you start the engine.

Make sure fuel is of specified quality.

Store fuel in approved cans only.

For safety reasons the petrol tank and fuel cap should be replaced regularly.

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.

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

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

Tyres and Tyre Air Pressure

When working on tyres, make sure grassland mower is parked properly and secured against rolling off.

Any repairs are to be carried out by trained mechanics only and with the appropriate tools.

Regularly check tyre air pressure. Excessive pressure may cause bursts.

Use appropriate tyre air pressure when mounting weights or implements.

Re-tighten attachment bolts of drive-wheels or check tightness when doing maintenance work.

Electrical System and Battery

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

Explanation of Warning Signs

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

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

Signs

When working with the machine, wear individual protective ear plugs.

Wear protective gloves.

Wear solid shoes.
2. Specifications

Grassland Mower

**Clutch:**
V-belt clutch with idler pulleys between engine and transmission
Friction clutch for reverse

**Only use original agria V-belts! (see list of wear parts p47)**

**Transmission:** 
Worm gear with engageable wheel-drive
Transmission oil SAE 90-API GL5
Filling quantity .......... approx. 0.6 l

**Travelling speed:**
forward .................. 3.0 km/h
reverse .................. 2.3 km/h

**Mowing drive:**
Central crank drive,
Shaft speed .................. 920 rpm
Stroke, dyn .............. approx 56 mm

**Steering handle:**
Vibration dampened,
height-adjustable,
side-adjustable without tools

**Weight:**
without cutter bar .................. 70 kg
with cutter bar 105 cm ........... 84 kg
with cutter bar 122 cm .......... 89.5 kg

**Tyres:** ............... 3.50 - 6 (field tyre)

**Tyre air pressure:** ............ 0.8 bar

**Noise level:**
In accordance with EN 12733 and EN 1553:
Noise level at operator’s ear ...................
............................................ \( L_p = 83.3 \, \text{dB (A)} \)
Sound level: .......... \( L_W = 103.3 \, \text{dB(A)} \)

**Vibration acceleration value:**
In accordance with EN 12733 and EN 1033:
on handlebar grip: ....... \( a_{hw} = 9.6 \, m/s^2 \)
### 2. Specifications

#### Engine

**Version:** Fan-air cooled 1-cylinder, 4-stroke petrol ohv engine  
**Manufacturer:** Honda

<table>
<thead>
<tr>
<th>Mower type:</th>
<th>5300 441</th>
<th>5300 531</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine type:</strong></td>
<td>GX 160 K1 QPU</td>
<td>GX 200 QHQ4</td>
</tr>
<tr>
<td><strong>Bore:</strong></td>
<td>65 mm</td>
<td>68 mm</td>
</tr>
<tr>
<td><strong>Stroke:</strong></td>
<td>45 mm</td>
<td>54 mm</td>
</tr>
<tr>
<td><strong>Cubic capacity:</strong></td>
<td>163 ccm</td>
<td>196 ccm</td>
</tr>
<tr>
<td><strong>Compression ratio:</strong></td>
<td>8.5 : 1</td>
<td>8.5 : 1</td>
</tr>
<tr>
<td><strong>Output:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 3,600 rpm</td>
<td>4.0 kW</td>
<td>4.8 kW</td>
</tr>
<tr>
<td><strong>Max. torque:</strong></td>
<td>10.8 Nm</td>
<td>13.2 Nm</td>
</tr>
</tbody>
</table>

- **Spark plug:** NGK BPR6 ES  
- **Spark plug gap:** 0.7–0.8 mm  
- **Ignition system:** Contactless solenoid ignition, ignition point is pre-set, radio remote screened according to VDE 0879  
- **Valve lash** (engine cold):  
  - Intake: 0.15 mm ± 0.02 mm  
  - Outlet: 0.20 mm ± 0.02 mm  
- **Starter:** Soft-pull recoil starter with mechanical decompression facility

#### Fuel tank capacity: 3.6 l

**Fuel:** unleaded petrol, octane number at least 91 RON (also E10)  
refer to fuel recommendations

**Air filter:** Dry element filter with foamed preliminary filter

**Carburetor:** Throttle valve type

**Mixture control screw:** 
opened approx. 2 1/8 turns in base setting

**Rated speed:** 2,900–3,000 rpm  
**Top no-load speed:** 3,000 rpm  
**Idling speed:** 1,250–1,600 rpm

**Engine oil:**  
Filling quantity: approx. 0.6 l  
Multi-grade oil SAE 10 W-40  
SG, SF or higher quality grade

**Operability on Slopes:**  
max 30° (58 %)  
(with oil level at “max”= upper level mark)
2. Specifications

Engine

Version: ..................... Fan-air cooled 1-cylinder, 4-stroke petrol ohc engine
Manufacturer: ...................... Robin

Mower type: 5300 611
Engine type: EX21

Bore: 67 mm
Stroke: 60 mm
Cubic capacity: 211 ccm
Output:
at 3,600 rpm 4.8 kW
Max. torque:
at 2,500 rpm 13.9 Nm

Spark plug: .................... NGK BR6 HS
Spark plug gap: .............. 0.6–0.7 mm

Ignition system:
Contactless solenoid ignition, ignition point is pre-set, radio remote screened according to VDE 0879

Valve lash (engine cold):
Intake: ................... 0.15 mm ±- 0.02 mm
Outlet: ................... 0.20 mm ± 0.02 mm

Starter:
Soft-pull recoil starter with mechanical decompression facility

Fuel tank capacity: ................. 3.6 l
Fuel: ........................... unleaded petrol, refer to fuel recommendations

Air filter: .................... Dry element filter with foamed preliminary filter (DUAL-ELEMENT)

Carburetor: .............. Throttle valve type

Rated speed: .......... 2,900...3,000 rpm
Top no-load speed: ............ 3,000 rpm
Idling speed: ............. 1,250–1,600 rpm

Engine oil:
Filling quantity .................... approx. 0.6 l
Multi-grade oil SAE 10 W-40 SG, SF or higher quality grade

Operability on Slopes:
max .................................... 30° (58 %)
(with oil level at “max”= upper level mark)
3. Devices and Operating Elements

The grassland mower agria 5100 is suited for agricultural and forestal operations, green spaces and for winter service operation. The following cutter bars are available:

- Universal SC cutter bar
  105 cm (agria Item no. 5347 751)
  122 cm (agria Item no. 5347 661)
- Municipal cutter bar
  105 cm (agria Item no. 5347 451)

Available attachment for winter service operation:

- Snow dozer
  100 cm (agria Item no. 5396 012)

Engine

The four-stroke petrol engine runs on commercial petrol (refer to fuel recommendations p6).

During the first 20 operating hours (break-in period) do not use engine to maximum power.

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

High engine speed is harmful to any engine and considerably affects its durability. This applies especially for no load operation. Any overspeed (have the engine roar) can result in immediate damage.

Cooling System

The cooling system is fan-cooled. Therefore keep screen at recoil starter and cooling fins of cylinder clean and free from sucked-in plant trash.

Idle running speed

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

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.

Choke

The choke lever (B/5) is on the carburetor.

<table>
<thead>
<tr>
<th>Close the choke for cold starts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open the choke for warm starts and operation.</td>
</tr>
</tbody>
</table>

Fuel tap

The fuel tap (B/13) is on the carburetor.
3. Devices and Operating Elements

**Speed Control Lever**

The speed control lever (C/9) on the steering handle is for stepless setting of engine speed from min. = idle to max. = full throttle.

**Engine Shut-off Switch**

On pressing the electric shut-off switch (C/3), the ignition is turned on or off.

Position “I” = Operation

Position “0” = Engine off

The engine shut-off switch also serves to shut off the engine in an emergency situation. Set the switch to “0” for fast shut-off.

**Safety Circuit**

1. **Stop position:** When releasing the lever (C/4), the ignition system is turned off (engine is shut off). Beware – engine keeps running due to centrifugal mass.

2. **Start position:** (for starting the engine and for short breaks) Press down the safety circuit lever, pull the clutch lever (C/5) and lock with pawl (C/6).

3. **Operating position:** To operate the machine press safety circuit lever (C/4).

**Do not fasten safety circuit lever.**

Release the safety circuit lever in an emergency situation, the lever automatically goes to STOP position.
3. Devices and Operating Elements

Travelling Drive

Forward – Reverse

The grassland mower is equipped with a clutch-integrated FR-gearshift, which is operated via the hand clutch lever (C/5).

**Travelling drive reverse speed:**
Pull hand clutch lever (C/5) all the way up.

**Travelling drive idling speed:**
Pull hand clutch lever (C/5) approx. half way – lock pawl.

**Travelling drive forward speed:**
Move hand clutch lever downwards (C/5) – unlock pawl.

Pawl (C/6) is for fastening the hand clutch lever in neutral position (“0”).

Clutch

Watch for the correct clutch play (X) to avoid clutch slipping away during operation.

**Note:** Always park mower with hand clutch lever pulled (“0” – pawl locked), otherwise clutch problems may arise due to deformation of V-belt.
### 3. Devices and Operating Elements

#### Wheel-drive

**engaged:**
Move hand lever for wheel-drive (C/11) down – pawl (C/10) is locked.

**disengaged:**
Pull hand lever for wheel-drive (C/11) upwards – pawl is unlocked.

With engine running, engage wheel-drive as follows:
- Pull hand clutch lever (C/5) half way (neutral) and hold.
- Unlock pawl (C/10).
- Move hand lever for wheel-drive (C/11) downwards.
- Slowly release hand clutch lever (C/5) while pressing the throttle.

In case wheel-drive cannot be engaged, couple and decouple. Then engage wheel-drive.

#### Mowing Drive

The mowing drive is crank driven.
The mowing drive is engaged and dis-engaged via the gear lever (C/7).
Only engage mowing drive when the machine is decoupled (in neutral).
3. Devices and Operating Elements

Steering Handle

Steering handle height adjustment

- Unscrew hexagonal screw (2) from squared clamping piece (3) and remove from steering bar joint.
- Adjust the steering handle to desired height and fit into proper boring of steering bar joint.
- Insert hexagonal screw, screw into squared clamping piece (3) and tighten.(Ensure that peg of clamping piece (3) locks into long hole of location in steering bar joint).

Steering handle side adjustment

- Loosen knob screw (1) until all notches are free.
- Swivel the steering handle to the desired position and fit into proper toothing.
- Re-tighten knob screw.
3. Devices and Operating Elements

Drive-Wheels

⚠️ Only mount and dismount drive-wheels with engine turned off.

The drive-wheels are equipped with a detent spring (1) and can be mounted and adjusted without tools.

The detent spring engages into a ring groove on the wheel-shaft to hold the drive-wheel.

On both sides of the wheel-shaft there are 2 ring grooves respectively. With detent spring engaging into outer ring groove, the drive-wheel turns in neutral on wheel-shaft. With detent spring engaging into inner ring groove, the drive-wheel engages with a toothed wheel on the wheel-shaft to be driven by the same.

Mounting drive-wheels

ℹ️ For full tractive power, mount field tyres with the tread profile pointing in travel direction (seen from above).

- Lift detent spring (1) slightly and place into assembly position (fig. J) (front ring groove on hub).
- Mount drive-wheels onto wheel-shaft, with the side for the detent spring pointing outwards.
- Let detent spring engage in a ring groove again (fig. K and L).
- Brush Bio-lubricating grease onto both ends of wheel-shaft (small diameter of wheel-shaft).

For dismounting drive-wheels, proceed accordingly but in reverse order.
3. Devices and Operating Elements

Engagements of Drive-Wheels

- **Rigid drive:** Push both drive-wheels inwards to a stop, engage detent springs into inner ring grooves (fig. K). If detent springs do not engage, turn drive-wheels slightly and push them axially inwards until you feel toothed clutch wheel engage.

- **Neutral:** Push both drive-wheels outwards and lock detent springs into outer ring groove (fig. L).

- **Drive with differential effect:** Engage one drive-wheel into inner ring groove (fig. K), engage the second drive-wheel into outer ring groove (fig. L) – neutral.
3. Devices and Operating Elements

Anti-Winding Tubes

On both sides of the wheel-shaft, anti-winding tubes are mounted between transmission housing and drive-wheel. Generally, these tubes prevent grass from winding onto shaft. Remove wound-on grass by simply dismounting drive-wheels and anti-winding tubes without tools.

Twin-Wheels

- Dismount single drive-wheels.
- Mount twin-wheels onto wheel-shaft (as described in “Mounting Drive-Wheels”).
- Fit special anti-winding tubes onto wheel-shaft of twin-wheels – ensure that valves fit into reliefs.
- Mount single drive-wheels onto full dog points of twin drive-wheels.

Cage Drive-Wheels

- Dismount drive-wheels.
- Mount cage drive-wheels onto wheel-shaft (as described in “Mounting Drive-Wheels”).
  
  Rigid drive, neutral, drive with differential effect are also available with twin and cage drive-wheels mounted.
3. Devices and Operating Elements

**Mounting Cutter Bar**

The following accessory cutter bars are available to fit requirements:

- **Universal SC cutter bar**
  105 cm (agria Item no. 5347 651)
  122 cm (agria Item no. 5347 661)

- **Municipal cutter bar**
  105 cm (agria Item no. 5347 451)

⚠️ For mounting and dismounting cutter bar, mount knife guard (10) and wear safety gloves!

**Mounting cutter bar**

- Open interlocking bolt for cutter bar (4). For this purpose, turn hexagonal bolt with open-end wrench WS 13 until mark “A” is in top position.
- Grease carrier pin (2) with Bio-lubricating grease.
- Turn eccentric disc to bring crank roll (7) into bottom position.
- Align the knife driver on cutter bar centrally with the carrier pin.
- Insert carrier pin (2) into location boring (3) of mowing drive housing and push in to a stop.
- Close bolt (4). For this purpose, turn hexagonal bolt with open-end wrench WS 13 until mark “Z” is in top position.

**Dismounting cutter bar**

- Fit knife guard (10).
- Open bolt (4). For this purpose, turn hexagonal bolt with open-end wrench WS13 until mark “A” is in top position.
- Pull cutter bar out towards the front.

---

**N**

1. Cutter bar
2. Carrier pin
3. Location hole for cutter bar
4. Interlocking bolt for cutter bar
7. Crank roll
8. Knife driver
9. Attachment bolts for knife driver
10. Knife guard
11. Lubrication nipple
3. Devices and Operating Elements

Running Bases on Cutter Bar

The cutter bar is equipped with sliding skids, which are mounted under the cutter bar. For a higher cut, 2 height-adjustable running bases can be mounted onto the cutter bar.

(Optional pair of running bases = agria Item no. 713 22)

On cutter bar version S, re-fit the gliding skid in such a way that the convex face points upwards (see fig. O).

For height adjustment, proceed as follows:

Loosen hexagonal nut (O/1). Move running base (O/2) to required position. Retighten hexagonal nuts.

For a clean cut, make sure both running bases are adjusted to same height.
4. Commissioning and Operation

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.

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

Make sure you check and maintain air filters regularly and use clean fuel. Only use branded petrol.

Only use fresh, clean fuel (not older than 3 months) and approved fuel cans to be purchased in special shops. Rusty sheet metal cans or fuel cans not suited for petrol are not permitted.

For the first commissioning or after longer periods of no operation, fill fuel tank to maximum to avoid starting problems.

⚠️ Be careful when dealing with fuel.

⚠️ Fuel is easily inflammable and explosive in certain conditions!

- Do not refill in closed rooms.
- Before each fuel fill, shut off the engine and wait until it has cooled off.
- Never refill close to open fire, inflammable sparks or hot engine parts.
- Do not smoke during filling!
- Do not spill any fuel, use a proper filling device.

Do not cause fuel tank to overflow, but leave a 5 mm margin for the fuel to expand.

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

Please observe the references of the engine operating instructions!
4. Commissioning and Operation

Starting the Engine

Do not start engine in closed rooms! Exhaust fumes contain carbon monoxide which acts toxic when inhaled. Keep feet away from coupled attachment.

Protective covers mounted? Attachments attached correctly?

1. Check engine oil level.
2. Mount spark plug connector.
3. Air filter clean?
4. Fuel quantity in tank sufficient?
5. Open the fuel tap.
6. Cold engine:
   Move the choke lever to position "CHOKE"

Warm engine:
Do not use the CHOKE (operating position)

7. Pull the clutch lever and safety circuit shift lever in start position.

8. Flick the engine shut-off switch to "I".

9. Move the speed control lever to a central position (between idling speed and full throttle).

10. Start engine from a position outside the hazardous area.

Pull the starter rope on the handle until the starter clutch engages. Then pull hard and fast to pull the rope all the way out. After the start, let the rope glide back. Do not let it snap back.

CHOKE to operation position.

Caution with hot engine parts!
The exhaust and other engine parts become very hot, if the engine runs and immediately after turning off. Hold for sufficient distance from hot surfaces and keep children away from the running engine.
4. Commissioning and Operation

### Shutting off the Engine

1. Move the speed control lever to idling position and let the engine run idle for about half a minute.

2. Flick the engine shut-off switch to position "0".

3. Close the fuel tap.

4. Withdraw spark plug connector - protection against unauthorised use!

- **Have the engine cooled down before parking the power hoe in closed rooms.**
- **Do not move the choke lever to CHOKE position to shut off the engine – danger of fire!**

To down the machine for a long period of time, do not press the engine shut-off switch to stop the engine. Instead, close the fuel tap and operate the engine until it comes to a stop by lack of fuel. This is to ensure the carburetor is empty and to avoid resin deposits.

The speed control lever also serves to **shut off the engine in an emergency situation**. If necessary, move this lever to position “STOP” to shut off the engine.
4. Commissioning and Operation

Mowing

1. Remove knife guard.
2. Grease the cutter bar.
3. Start the engine.
4. Comissioning
   Check safety circuit function
   - Only operate the machine if safety circuit works!
5. Wear individual protective ear plugs and solid shoes.
7. Engage mowing gear.
8. Move travelling drive to forward speed, slightly pull the clutch lever while pulling the speed control lever.

After mowing or in case of clogging:

1. Wheel-drive to “0”, the mower comes to a stop but not the knives, thus freeing the cutter bar from grass.
2. Disengage mowing gear.
4. Re-fit knife guard.

Direction change from forward to reverse:

1. Engine to idle speed.
2. Pull hand clutch lever to “R” and maintain.
3. while you are pressing the throttle.

Re-tighten all nuts and screws of the mowing drive and the cutter bar after commissioning and when changing the knife after about **15 - 30 operating minutes** and than every **4 operating hours** (particularly of the cutter bar carrier, the knife driver and the mower mounted flange).
4. Commissioning and Operation

**Danger zone**

⚠️ Keep out of the mower’s danger zone during starts and operation.

**Mowing on slopes**

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

For operation on banks, always turn machine towards the slope!

**Starting the engine on slopes**

1. Keep the mowing drive and the wheel-drive in engaged mode; braking effect.
2. Move the hand clutch lever and emergency-off-switch into "Start" position.
3. Start the engine.
5. Maintenance

Apart from adhering to operating instructions for grassland mowers, 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 grassland mower or on the engine.

Always wear safety gloves, when working near mowing 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 filler plug (B/11) and surrounding parts.
- Unscrew oil filler plug.
- Oil level must reach the filling opening, refill oil, if oil level is lower than described (see “Specifications”) – Do not overfill!
- Screw oil filler plug 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 (1) and the filling 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 retighten the drain plug (1) inspect the condition of the sealing ring (3). Replace it if necessary.
- Fill fresh engine oil into the oil filling opening. Refer to Specifications for oil quantity and quality. Use a funnel or a similar device to fill the oil reservoir.
- Replace the oil filler plug (2) and tighten it.

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

Cleaning the Cooling Screen
After long operation, dirt can clog the cooling system. To avoid overheating and damage to the engine:

- Regularly clean cooling screen (B/8). Check each time before you take up operation!

Air-Cooling System
Clean internal cooling fins and surfaces at least every 100 operating hours (earlier in very dusty conditions).

Careful, do not touch the muffler! This is very hot after engine operation.

Exhaust
Regularly clean surrounding parts of muffler (B/9). Free from grass, dirt and inflammable deposits.

- Danger of fire!

Check each time before you take up operation.

Speed Actuating Devices
Devices for actuating engine speed must be adjusted correctly to start, operate and switch off the engine at correct speed rates.

All other maintenance of the engine
5. Maintenance

Machine

Worm Gear

- Check transmission oil level before you take up operation and after every 25 operating hours.
- Park machine horizontally on the ground (fig. V) and unscrew oil filler plug (1).
- Oil level must reach filling opening. Refill transmission oil, if necessary.
- Screw oil filler plug back in and tighten.

Exchange transmission oil once per year while the engine is still warm from operation.

- To drain old oil remove cap from transmission housing (3) (unscrew two internal hexagonal screws).
- Collect old oil in proper container and dispose of properly.
- Check gasket (2). Exchange gasket and clean sealing surfaces, if necessary. Re-fit cap.

Drive-Wheels

- Position machine horizontally and unscrew oil filler plug (1).
- Fill fresh transmission oil until oil level reaches control opening (fig. V).(For proper oil quality, refer to chapter “Specifications”).
- Screw oil filler plug in again and tighten.

- Check tyre air pressure (0.8 bar) regularly. For smooth driving, make sure that there is the same air pressure in front and rear tyres respectively.
- For full tractive power, mount wheels with pointed parts of lugs showing in travel direction (wheels seen from above).
- Constantly check wheel-shaft for wound-on grass, remove by dismounting drive-wheels, if necessary.
- Lubricate with Bio-lubricating grease wheel-shaft ends (small shaft diameter) each time before you mount drive-wheels, once a year, and after cleaning with air-compressed water jets.
5. Maintenance

Mowing Attachment

The cutter bar is exposed to extreme strain. Therefore, it evidently must be maintained and adjusted with special care.

- **Each time before you take up operation** and after every 8 operating hours, lubricate all gliding parts with Bio-lubricating grease or Bio-lubricating oil.

- Approximately after every 30 minutes of operation, re-tighten all screws and nuts on mowing drive and cutter bar (especially on knife driver).

  When exchanging attachment bolts on knife driver, only use original agria bolts. Otherwise knives may break.

Cleaning

**After each mowing**, clean cutter bar thoroughly with water. Above all, remove dirt collected between knife blades. For this purpose, dismount mowing knife. After cleaning, apply Bio-lubricating oil or Bio-lubricating grease to all gliding parts.

For longer storage, spray cutter bar with Bio-slushing oil.

Crank roll only machines to ID/Machine No. 53035153

The crank roll bearing is filled with a lasting grease depot.

Lubricate lubrication nipple (1) on bearing **first time** after 25 operating hours and then after every 25 operating hours. Proceed carefully to not damage sealing rings on bearing. Use Bio-lubricating grease.

**Cutter bar carrier pin**

Lubricate lubrication nipple (2) on bearing of carrier pin with Bio-lubricating grease after every 25 operating hours, each time the cutter bar is mounted, and after cleaning with air-compressed water jets.

**Interlocking bolt for cutter bar**

Lubricate lubrication nipple (3) of interlocking bolt with Bio-lubricating grease **once a year** and after each cleaning with air-compressed water jets.
5. Maintenance

**Universal-SC Cutter Bar**

Stop the engine, remove spark plug connector and wear safety gloves.

**Knife Removal**
- Rocker arm mower: Loosen clamping screw (c) and fold up the knife holders (h)
- Pull out the knife together with the knife driver
- Clean the cutter bar and oil it slightly with Bio-lubrication oil

Always attach the knife guard (j) before you lay the mowing knife aside.

**Knife Attachment**
- Push the mowing knife from the front onto the link pin by aligning the link pin in the knife driver’s hole.
- Fold down the knife holders and tighten the clamping screws (c) very well (70 Nm) while you simultaneously move the knife holders (h) in the direction indicated by the arrow (f) using a long ring spanner
- Check whether it is necessary to adjust knife guide and adjust it if necessary.

---

**Setting the Knife Guide**

To adjust blade protrusion (d) and play (g)
- Loosen clamping screws (c) and attachment bolts (e)
- Move the knife guides accordingly. Ensure the individual guide parts are parallel.
- First tighten the attachment bolts (e) and then the clamping screws (c) very well (70 Nm) while you simultaneously press the knife holders (h) in the direction indicated by the arrow (f) using a long ring spanner.
5. Maintenance

Municipal Cutter Bar

⚠️ Stop the engine and remove spark plug connector.

 Wear safety gloves.

Knife Removal

- Lift the pivot arm with the lever which is supplied with the cutter bar off the driver pin (4) and pivot it to the side and away from the knife
- Pull the knife out to the front
- Clean the cutter bar and oil it with Bio-lubrication oil

Always attach the knife guard before you lay the mowing knife aside.

Knife Attachment

- To attach the knife reverse the above order

Maintenance

- Lubricate the nipple (11) with Bio-lubrication grease after each operation and after washing the mower, but after 8 operating hours as a minimum.
- Additionally, lubricate new pivot arm guides once after approx. 1 operating hour.
- Apply some Bio-lubrication grease to the driver pins (4) on the knife each time you have replaced the knife and after 8 operating hours.

Adjustment of Knife Guiding Devices

- At intervals of 25 operating hours check the pressure of the pivot arms (approx. 150 N), using a conventional spring balance
- To increase or adjust the pressure of the pivot arms:
  - Loosen the 2 attachment bolts (7) on the bearing parts
  - Adjust the pressure to approx. 150 N by turning the set screws (8). Then reattach the 2 adjustment bolts (7).
  - Each time you have loosened the bolts (7) ensure that the bearing part (9) is at right angles to the cutter bar (5).
  - Ensure also that the tips of the knife blades protrude 4mm to 5mm from the blades of the cutter bar in middle position.
- Replace the driver pin (4) or its sleeve (3), if the play between these two parts is greater than 2mm or if the sleeve (3) touches the pin rest (2).
- When fitting new clamping sleeves (10) ensure that the slots point outwards.

---

**Municipal Cutter Bar**

1. Cutter bar blade
2. Pin rest
3. Pin sleeve
4. Driver pin
5. Cutter bar back
6. Attachment bolt
7. Set screw
8. Bearing part
9. Clamping sleeve
10. Lubrication nipple
11. Lubrication nipple
5. Maintenance

Re-grinding the Mowing Knives

Wear safety goggles and gloves!

After 4–20 operating hours, depending on the strain the mowing knives are exposed to, they become blunted and regrinding is necessary.

For this purpose, we recommend to use a hand grinder of 15,000 to 20,000 rpm with a pot-shaped grinding pin of 25 mm in diameter and approx. 35 mm in length or a special grinding tool.

Grinding of mowing knives is essential for clean and smooth mowing.

- For grinding, use front of grinding pin and slide it from knife back to blade tip.
- Blades must not heat up. They are destroyed when they turn blue (glowed out and soft).
- Do not round-off the tips of the blades (P).
- Do not grind the blades in a bow (P).
- Remove any burr with a hand grinding stone.

Bottom knife
ESM universal-municipal-cutter bar

Top knife

35–40°

80–90°

35–40°

Wrong grinding

Correct grinding
5. Maintenance

Safety circuit
Check safety circuit for proper function each time you take up operation and each time you do maintenance work on the machine.
- When you release lever (C/4) and engaged clutch the engine must automatically come to a stop.
- Check electric conductors and connections for good condition, exchange, if necessary. \text{agria - Service}

Engine Shut-off Switch
Check engine shut-off switch each time you take up operation and each time you do maintenance work on the machine.
- The engine shut-off switch in position „0“, the engine must come to a stop.
- Check electric lines and connections for good condition, exchange, if necessary. \text{agria - Service}

Adjustments on Hand Lever for Clutch and Wheel-Drive
Check play or adjustments each time before you operate the machine. If necessary, re-adjust (especially after commissioning the machine during break-in period, and after exchanging clutch V-belt).

1. Remove retaining spring (2).
2. Remove cable end (3) and adjusting pin (4) out of bracket in hand lever.
3. Screw adjusting pin (4) in or out to a play of X or idle is present in position 0.
4. 1. Place cable end and adjusting pin back into bracket
2. Fit retaining spring (2).

Hand lever for wheel-drive: \( X = 3–5 \text{ mm} \)
Hand lever for clutch: \( X = 2.5–4 \text{ mm} \),
the basic setting is adjusted in neutral position. In neutral, the gap between rubber pulley “II” and pulley “I” must be 2–3 mm (see “Adjusting V-Belt Tension”).
5. Maintenance

Adjusting V-Belt Tension

Tension of V-belt requires re-adjustment, when hand clutch lever play is less than 1.5 mm with forward speed engaged.

1. Remove pulley and belt guard (D/8). For this purpose, unscrew counternuts (D/10).

2. Remove V-belt guide plate (D/7).

3. Move hand clutch lever (C/5) to neutral/Leerlauf (pawl (C/6) is locked).

4. Screw pulley and rubber pulley “II” into wall until V-belt tension is normal for reverse speed.

5. Prepare rubber pulley “II” for reverse speed by adjusting Bowden cable in hand clutch lever (fig. X) in such a way that the space between the outside diameter of pulley “I” and the outside diameter of rubber pulley “II” is 5 mm.

6. Engage hand clutch lever for forward speed.

7. Turn idler pulley “III” into arrow direction, until play in hand clutch lever (in forward position) is 2.5–4 mm.

8. Re-mount V-belt guide (D/7) (see fig. D).

9. Mount pulley and belt guard (D/8). For this purpose, the clutch lever must be in position “forward”.

⚠️ Do not use commercial V-belts. Only use original agria V-belts!

Only operate the machine with all protective devices mounted and adjusted to provide protection.
5. Maintenance

General Maintenance

1. Watch out for fuel and oil leakage, repair if necessary.

2. Regularly check screws and nuts for tight fit, re-tighten, if necessary.

3. Lubricate all gliding and moving parts (e.g. speed control lever, bearings of hand levers) with Bio-lubricating grease or Bio-lubricating oil.

Cleaning

Machine

After cleaning with air-compressed water jets immediately lubricate lubrication points on the machine and operate mowing drive for a short time to press out penetrated water.

Apply grease generously to leave a grease neck around bearing to prevent water, plant sap and dirt from penetrating.

Engine

Clean engine only with a cloth. Avoid spraying with water jets, as water might penetrate into ignition and fuel system and cause malfunctions.
5. Maintenance

Storage

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

a) Clean thoroughly
Repair paint coat

b) Spray all shining parts and cutter bar with Bio-slushing oil.

c) Engine preservation

- Drain the fuel completely from the system,

see

Petrol is an extremely inflammable and sometimes even explosive fuel. Do not smoke within the machine’s operating range and keep away fire and sparks.

Or fill fuel tank and add fuel stabilizer (agria No. 799 09).

- Observe instructions.

Operate the engine for approx. 1 minute.

- Change the engine oil
- Fill a tea-spoon of engine oil (approx. 0.03l) into the spark plug opening. Slowly crank the engine.
- Reinstall the spark plug and pull the starter rope until you feel resistance. Pull a bit further. This closes the intake and outlet valves to improve the engine’s protection from internal corrosion.
- Crank the engine slowly at 2–3 week intervals (spark plug connector is removed).

d) Drive-wheels

Support drive-wheels in such a way that tyres have no ground contact. Pneumatic tyres are quickly destroyed, if left standing under load and un-inflated.

e) Clutch

Always park mower with hand clutch lever pulled (“0” – pawl locked in place). Otherwise, clutch problems may result due to corrosion.

f) Storing the machine

To avoid severe corrosion:
- to preserve the machine from atmospheric influences

Do not park the machine in:
- humid rooms
- in rooms where fertilizer is stored
- in stables or adjacent rooms.

g) Protect machine

with cloth or a similar cover.
# 6. Troubleshooting

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

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<td>- Spark plug connector not connected</td>
<td>Connect spark plug connector</td>
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<td>- Choke is not in position CHOKÉ</td>
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<td>- Fuel line clogged</td>
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<tr>
<td></td>
<td>- Defective spark plug</td>
<td>Clean, adjust or exchange spark plug</td>
<td>BM</td>
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<tr>
<td></td>
<td>- Engine too much fuel (“flooded engine”)</td>
<td>Dry and clean spark plug and start at full throttle</td>
<td>BM</td>
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<tr>
<td></td>
<td>- Inleaked air due to loose caburetor and suction line</td>
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<td>- Loose ignition cable</td>
<td>Firmly connect spark plug connector to spark plug, fix ignition cable retaining device, firmly connect connector to ignition cable</td>
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<td>- Clogged fuel line or poor fuel</td>
<td>Clean fuel line, fill fresh fuel</td>
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<td>- Vent opening in fuel tank cap clogged</td>
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<td>- Water or dirt in fuel system</td>
<td>Drain fuel and fill fresh fuel</td>
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<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter or exchange</td>
<td>BM</td>
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<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
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<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
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<td>- Incorrect idle mixture</td>
<td>Adjust carburetor</td>
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<tr>
<td>Engine frequently stalls in idle</td>
<td>- Firing interval too long, defective spark plug</td>
<td>Adjust or replace spark plug</td>
<td>BM</td>
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<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
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<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
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<tr>
<td>Engine does not run smoothly</td>
<td>- governor linkages clogged or jammed</td>
<td>Clean governor linkages</td>
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## 6. Troubleshooting

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<td>- Air filter clogged</td>
<td>Clean air filter</td>
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<td></td>
<td>- Loose cylinder head or damaged sealing</td>
<td>Tighten cylinder head, exchange sealing</td>
<td></td>
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<tr>
<td></td>
<td>- Poor compression</td>
<td>Have engine checked</td>
<td></td>
</tr>
<tr>
<td>Travelling drive or mowing drive does not stop with clutch pulled</td>
<td>- Incorrect hand clutch lever adjustment</td>
<td>Adjust hand clutch lever</td>
<td>39</td>
</tr>
<tr>
<td>Excessive vibration</td>
<td>- Attachment bolts loosened</td>
<td>Tighten attachment bolts</td>
<td>35, 38</td>
</tr>
<tr>
<td></td>
<td>- Mowing knife loosened, warped or incorrectly adjusted</td>
<td>Immediately turn off engine!</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check cutter bar carrier, knife driver, all screws and nuts for tightness, exchange damaged parts, adjust knife guiding devices.</td>
<td></td>
</tr>
<tr>
<td>Uneven cut/plant trash gets caught between knives</td>
<td>- Dull mowing knives</td>
<td>Re-grind mowing knives</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>- Knife guiding devices not properly adjusted</td>
<td>Adjust knife guiding devices</td>
<td>35 - 37</td>
</tr>
<tr>
<td></td>
<td>- Knives not straight</td>
<td>Have knives re-aligned or exchanged</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blades are not aligned</td>
<td>Have blades re-aligned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blades are not on top of each other</td>
<td>Have cutter bar re-aligned</td>
<td></td>
</tr>
<tr>
<td>Blade tips of bottom knife work into blades of top knife</td>
<td>- Top knife protrudes too far over bottom knife</td>
<td>Adjust knife guides and wear plates</td>
<td>35 - 37</td>
</tr>
</tbody>
</table>

★ = For this purpose contact your agria workshop.

BM = Engine operating instructions
**Electrical Wiring, Lubrication Chart**

### Electrical Wiring

1. Engine
2. Magnet ignition system
3. Engine-off-switch (on speed control lever next to engine)
4. Switch in safety circuit lever
5. Switch in clutch lever

**Legend:**
- *bl* = blue
- *br* = brown

### Lubrication Chart

1. Engine oil (page 32)
2. Transmission oil (page 34)
3. Mowing knife (page 35)
4. Cutter bar drive (page 35)
5. Lever bearing (page 41)
Varnishes, Wear Parts

agria Order No.

**Fuel Stabilizer:**
799 09  Fuel stabilizer pouch 5 g

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

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

**Wear Parts:**
305 65  Gasket for housing cap (worm gear)
481 75  V-belt for clutch
481 74  V-belt for reverse drive

⚠️ **Note:** Only use original agria V-belts!

Honda engine
761 99  Air filter element set
759 99  Spark plug NGK BPR6 ES; Bosch WR7DC

Robin engine
400 220  Air filter element set
681 87  Spark plug NGK BR6 HS; Bosch WR7AC

**Spare Parts:**
997 021  Grassland mower 5300
997 145  Honda Engines
997 077  Robin Engines
# Inspection and Maintenance Chart

<table>
<thead>
<tr>
<th>Task</th>
<th>A</th>
<th>5</th>
<th>8</th>
<th>25</th>
<th>50</th>
<th>100</th>
<th>200</th>
<th>min. every 3 months</th>
<th>min. yearly</th>
<th>B</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check safety circuit function</td>
<td>K</td>
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<td>39</td>
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<tr>
<td>Check free play of hand levers</td>
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<td>39</td>
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<tr>
<td>Check air filter</td>
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<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Clean cooling-screen</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>32</td>
</tr>
<tr>
<td>Check engine oil level, refill, if necessary</td>
<td>K</td>
<td>K</td>
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<td>32</td>
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<tr>
<td>Clean surrounding parts of exhaust</td>
<td>K</td>
<td>K</td>
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<td></td>
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<td>33</td>
</tr>
<tr>
<td>Cutter bar: Lubricate all gliding parts, also, each time you change knives</td>
<td>K</td>
<td>K</td>
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<tr>
<td>First engine oil change</td>
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<td>32</td>
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<tr>
<td>Subsequent engine oil changes</td>
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<td>32</td>
</tr>
<tr>
<td>Cutter bar: Check play of wear plates, also, each time you change knives</td>
<td>K</td>
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<td>36, 37</td>
</tr>
<tr>
<td>Lubricate crank roll</td>
<td>K</td>
<td>K</td>
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<td>35</td>
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<tr>
<td>Cleaning</td>
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<tr>
<td>Check bolts and nuts</td>
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<tr>
<td>Check transmission oil level</td>
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<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Lubricate cutter bar carrier pin, also, each time you change knives</td>
<td>K</td>
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<tr>
<td>Clean air filter insert</td>
<td>W</td>
<td>W</td>
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<tr>
<td>Clean fuel strainer</td>
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<td>BM</td>
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<tr>
<td>Replace air filter insert, earlier, if required</td>
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<td>BM</td>
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<tr>
<td>Clean spark plug, adjust gap</td>
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<tr>
<td>Clean guide plates, cooling fins – earlier, if required</td>
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<tr>
<td>Replace spark plug</td>
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<tr>
<td>Grease wheel-shaft ends</td>
<td>K</td>
<td>K</td>
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<tr>
<td>Lubricate interlocking bolt for cutter bar</td>
<td>K</td>
<td>K</td>
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<td>35</td>
</tr>
<tr>
<td>Lubricate all gliding parts</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>41</td>
</tr>
<tr>
<td>Change transmission oil</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td>34</td>
</tr>
<tr>
<td>Replace fuel hoses</td>
<td>W</td>
<td>W</td>
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<td>BM</td>
</tr>
</tbody>
</table>

*A* = Each time before you take up operation  
*B* = After each cleaning  
*BM* = see engine operating instructions  
*K* = Checks and maintenance to be executed by operator  
*W* = Maintenance to be executed by professional workshop  
* = after 2 years
Designation of Parts

Figure C
1 Gear lever for mowing drive
2 Knob screw for steering handle side adjustment
3 Engine-off-switch
4 Safety circuit lever
5 Hand clutch lever and forward/reverse change
6 Pawl for hand clutch lever
7 Cutterbar drive engagement lever
8 Toolbox
9 Speed control lever
10 Pawl for wheel-drive engagement lever
11 Hand lever for wheel-drive engagement

Figure D
1 Idler pulley
2 Drive belt for forward speed (clutch)
3 Vibration dampener
4 Threaded stem for pulley and belt guard
5 Location holes for guard carrier
6 Driving pulley (on crankshaft)
7 Belt guide plate
8 Pulley and belt guard
9 Spring washer
10 Counternut
11 Rubber pulley for reverse
12 Drive belt for reverse
13 Driving pulley (on gearshaft)
Conformity Declaration

EG-Konformitätserklärung
EC Declaration of Conformity

D
Wir erklären, dass das Produkt
motormäher
mit allen einschlägigen Bestimmungen der EG-Maschinenrichtlinie 2006/42/EG in Übereinstimmung ist.

F
Nous déclarons que le produit
motofaucheuse
est conforme à toutes les exigences respectives aux machines 2006/42/CE.

GB
We herewith declare that the product
motor mower
conforms to all relevant specifications of the Directive on Machinery 2006/42/EC.

N
Vi erklærer herved at produktet
motorslåmaskin
er i overensstemmelse med retningslinjene fra EH-maskindirektivet 2006/42/EG.

5300 441, -531, -611


Les normes harmonisées (ou extraits de celles ci) ou les spécifications techniques suivantes ont été appliquées:

Following harmonized standards (or parts of it) or technical specifications have been applied:

Følgende tilpassede standarder (eller deler av dem) eller tekniske spesifikasjoner ble anvendt


Möckmühl, den 20.01.2010

Siegfried Arndt
Geschäftsführer

Rudolf Tigges
Leiter Entwicklung & Konstruktion

Managing Director

Herr Tigges ist bevollmächtigt die technischen Unterlagen zusammenzustellen.
Monsieur Tigges est habilité à agencer la documentation technique.
Mr. Tigges is authorized to assort the technical documents.
Herr Tigges er autorisert til å sammenfatte de tekniske underlagene.

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