Operating Instructions for AGRIA® Power Mower 54000

with
- Planetary Mowing Drive
- Rocker Arm Mowing Drive

and Engine Versions:
- 4-Stroke, Robin EH 25
- 2-Stroke, Rotax 232

Before commissioning the engine, read operating instructions and observe warnings and safety instructions.
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Symbols, Name Plate

Please complete:

<table>
<thead>
<tr>
<th>Machine Type No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID/Machine No.:</td>
</tr>
<tr>
<td>----------------------------------------</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 p5/fig. A/12; p9/fig. C/12.
For engine type and number, refer to p58/fig. E/5; p62/fig. F/9.
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
- Power mower
- Tool kit
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.

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.

Fuel

The 4-stroke-engine runs on commercial unleaded regular and supergrade petrol as well as on leaded supergrade petrol.

Do not add oil to petrol.

The 2-stroke-engine runs on commercial oil-petrol mixtures (for the specified stoichiometric ratio refer to “Specifications”). For the fuel mixture unleaded regular and supergrade petrol as well as leaded supergrade petrol can be used. However, only use self-mixing special 2-stroke-engine oil (refer to “Specifications”).

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 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”.

Recommendations
Designation of Parts

Figure A (with planetary mowing drive)

Figure B (Handlebars)
Designation of Parts

Figure A

with planetary mowing drive

1 Grass distributor/lubrication nipple for crank stone
2 Mowing drive hood
3 Eyelet for assist cord
4 Tool kit
5 Steering handle
6 Cutter bar
7 Planetary mowing drive
8 Mowing drive lubrication drain plug
9 Mowing drive lubrication filler plug, dip-stick
10 Transmission oil filler plug, oil dip-stick
11 Wheel flange
12 Hexagonal nut for wheel flange fastening (on both sides)
13 Transmission – oil drain plug
14 Name plate/ID no.
15 Engine

Figure B

Handlebars

1 Engine-off-switch
2 Safety lever
3 Clutch hand lever
4 Pawl for clutch hand lever
5 Clamping screw for handlebars height-adjustment
6 Gearshifter 1st and 2nd gear
7 Central brake
8 Shifter for mowing drive ON–OFF/EIN–AUS
9 Speed control lever
10 Pawl for F-R change
11 Hand lever for F-R change
Designation of Parts

**Figure C** (with rocker arm mowing drive)

**Figure B** (Handlebars)
Figure A

with rocker arm mowing drive

1 Protective hood
2 Mowing drive hood
3 Eyelet for assist cord
4 Tool kit
5 Steering handle
6 Cutter bar
7 Rocker arm mowing drive
8 Transmission oil filler plug, oil dip-stick
9 Wheel flange
10 Hexagonal nut for wheel flange fastening (on both sides)
11 Transmission – oil drain plug
12 Name plate/ID no.
13 Engine

Figure B

Handlebars

1 Engine-off-switch
2 Safety lever
3 Clutch hand lever
4 Pawl for clutch hand lever
5 Clamping screw for handlebars height-adjustment
6 Gearshifter 1st and 2nd gear
7 Central brake
8 Shifter for mowing drive ON–OFF/EIN–AUS
9 Speed control lever
10 Pawl for F-R change
11 Hand lever for F-R change
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 power mower has exclusively been designed for all common applications and tasks in forestry, grass and park maintenance, and winter service (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.

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.

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 power 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 power 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 Hazardous Area

The user is liable to third parties working within the mower’s working range. Staying in hazardous area 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.

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 mower is at work.

Never adjust the operating handles during work – danger!

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

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 power 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 cord. 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 power mower, turn off the engine.
Secure power 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 protective knife strips only for mowing and refit immediately after work has finished.
For transport and storage always mount the protective knife strips. Secure finger bars additionally with tension springs.
Do not transport the dismounted cutter bar without protective strips.
Before mounting and dismounting the cutter bar, make sure all blades are protected by the protective strip.
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.
1. Safety Instructions

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.

Engine, Fuel, and Oil
Never let the engine run in closed rooms. Extreme danger of intoxication! For the same reason, also replace damaged exhaust pipe immediately.
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 power mower away from the spillage before you start the engine.
Make sure fuel is of specified 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.
1. Safety Instructions

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 separately and properly.

**Tyres and Tyre Air Pressure**

When working on tyres, make sure power 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.

**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.
2. Specifications

**Type:** ........................................ 5400

**Tyres:** .......................... 4.00-8 (field tyre)
optional .......................... 5.0-10 (field tyre)

**Tyre air pressure:** ............... 1.5 bar

**Weight:** ............ 4-stroke-engine 94 kg
2-stroke-engine 92 kg
(without cutter bar)

**Clutch:** ....................... Dry bevel clutch

**Gearbox:** ... Mechanical gearbox, F-R
reversing gear
2 forward and 2 reverse speeds
Central brake (optional)

**Transmission oil**
filling quantity: ............ approx. 2.0 l
Transmission oil SAE 90-API GL5
(e.g. Energear Hypo)

**Travel Speeds (km/h):**

<table>
<thead>
<tr>
<th>Gear for tyres</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>for tyres</td>
<td>4.00-8</td>
<td>5.0-10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>km/h forward</td>
<td>2.20</td>
<td>3.40</td>
<td>2.60</td>
<td>4.00</td>
</tr>
<tr>
<td>km/h reverse</td>
<td>2.20</td>
<td>3.40</td>
<td>2.60</td>
<td>4.00</td>
</tr>
</tbody>
</table>

**Steering handle:** .... Rubber mounted, height-adjustable.

**Vibration acceleration values:**
on handlebars grip
Version
4-stroke-engine ........... $a_{nwy} = 12.4 \text{ m/s}^2$
2-stroke-engine .......... $a_{nwy} = 10.4 \text{ m/s}^2$
in accordance with ISO 5349 at 85% of rated engine speed with tools at work

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**Dimensions [mm]**

- $a = 910$
- $b = 710$
- $e = 540$
- $h = \text{approx. } 920$
- $l = 1480$
- $m = 1330–1580$ (depending on work width)

$S = \} \text{see track width plan}$

**Mowing drive**

- **Centrally driven planetary mowing drive**
  for Universal, Municipal and finger cutter bar

  Stroke: ......................... 76 mm

  Mowing drive grease
  filling quantity: ............ approx. 0.5 kg
  transmission flow grease
  (e.g. BP Energrease LS-EP00)

- **Centrally driven rocker arm mowing drive**
  for Universal, Municipal and finger cutter bar

  Stroke: ......................... 85 mm
### 2. Specifications

#### Track Width Plan [mm]

<table>
<thead>
<tr>
<th>Tyres</th>
<th>A</th>
<th>S</th>
<th>i</th>
<th>A (twin-wheel)</th>
<th>A (strake wheel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00-8</td>
<td>525</td>
<td>414</td>
<td>305</td>
<td>975</td>
<td>890</td>
</tr>
<tr>
<td>5.0-10</td>
<td>570</td>
<td>430</td>
<td>290</td>
<td>1020</td>
<td>995</td>
</tr>
<tr>
<td>16x6,50-8</td>
<td>631</td>
<td>466</td>
<td>301</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Specifications

4-Stroke-Engine

Manufacturer: ......................... Robin
Type: ................................. EH 25 D
Version: ...... Fan-air-cooled 1-cylinder-4-stroke engine (petrol)
Bore: ................................. 75 mm
Stroke: .................................. 57 mm
Cubic capacity: ................. 251 ccm
Output: .............. 5.9 kW at 3600 rpm
Torque: ...... max 16.7 Nm at 2400 rpm
Spark plug: ............... Bosch WR7AC
NGK BR 6 HS
Electrode gap: .......... 0.7 mm–0.8 mm
Ignition system:
Contactless electronic magnet ignition, ignition point is pre-set, radio remote screened according to VDE 0879
Valve lash (engine cold):
Intake: ............... 0.08 mm–0.11 mm
Outlet: ............... 0.08 mm–0.11 mm
Starter: .................. Recoil starter

Fuel tank capacity: ........... approx. 8 l
Fuel: ............................. Commercial petrol octane number min. 90 RON (refer to fuel recommendations)
Air filter: .................. Dry filter element with foamed preliminary filter
Carburetor: Horizontal float carburetor
Mixture control screw:
in basic setting approx. 1/4 revs. open
main jet ......................... 102.5
idling jet ......................... 50
Rated speed: ................. 3000 rpm
Top no-load speed: ............ 3200 rpm
Idling speed: ................. 1200 rpm
Engine oil:
Filling quantity .......... approx. 0.65 l
Multi-grade oil .. SAE 10 W-40 API-SC or higher quality
Operability on Slopes:
Engine is suited for use on slopes (with oil level at “max” = upper level mark)
Continuous operation possible up to ................. 45° inclination (100%)
Noise level:
In accordance with German 3rd Ordinance on machine-safety law:
Noise level at operator’s ear .......... 84.5 dBA
(in accordance with regulations of German Agricultural Association)
2. Specifications

2-Stroke-Engine, 232

Manufacturer: ......................... Rotax
Type: .............................................. 232
Version: ..... Fan-air-cooled 1-cylinder-2-stroke engine (petrol)
Bore: ..................................... 69.5 mm
Stroke: ..................................... 61 mm
Cubic capacity: ................. 229 ccm
Compression: ...................... 8.5
Output: .................. 5.2 kW at 3000 rpm
Torque: ..... max 16.6 Nm at 2800 rpm
Spark plug: ................... Bosch W8AL
Electrode gap: ..................... 0.5 mm

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

Starter: ..................... Recoil starter

Fuel tank capacity: ....... approx. 4.5 l
Fuel: ........................................ Commercial petrol/oil mixture 1:50
          octane number min. 90 RON
          and self-mixing supergrade 2-stroke engine oil,
          e.g. Shell: Super T, Super TX;
          Esso: Exxon Special 2T Engine oil;
          BP: 2T Special
          (refer to fuel recommendations)

Air filter: ................... Oil bath air filter
Engine oil filling quantity ................ 0.2 l

Carburetor: ...... Throttle carburetor Bing 8/22S110

Air control screw:
in basic setting approx. 1/2 rev. open
main jet ........................................ 105
idling jet ........................................ 60

Rated speed: .................. 3000 rpm
Top no-load speed: ............ 3400 rpm
Idling speed: ....................... 1200 rpm
Governor: ...................... mechanical, centrifugal governor

Operability on Slopes:
Engine is suited for use on slopes
Continuous operation possible
up to ...................... 45° inclination (100%)

Noise level:
In accordance with German 3rd Ordinance on machine-safety law:
Noise level
at operator's ear ....................... 87 dBA
Sound level .......................... 99 dBA
(in accordance with regulations of German Agricultural Association)
3. Devices and Operating Elements

The power mower AGRIA 5400 is suited for common horticultural, agricultural, and forestal operations, for grass and park maintenance and for winter service operation.

The following attachments are available:
- Cutter bars in various versions and for various work widths
- Snow dozers
- A range of accessories, e.g. strake wheels; refer to price list

Engine

- The four-stroke petrol engine runs on commercial petrol.
- The two-stroke-petrol engine Rotax 232 runs on commercial petrol/oil mixture of a stoichoimetric ratio 1:50.

Note! Only use self-mixing special 2-stroke engine oil (“see Specifications”).

Also, refer to “Fuel Recommendations”, p4.

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

Cooling system is fan-cooled. Therefore keep grille at recoil starter and cooling ribs of 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

The speed control lever (B/9) on the steering handle is for stepless setting of engine speed from min. = idle to max. = full throttle.
### 3. Devices and Operating Elements

**Engine-off-switch**

The power mower is equipped with an electric off-switch (B/1). On pressing the switch, the ignition is turned off (engine is switched off).

Position "I" = Operation  
Position "0" = Engine off

The engine-off-switch also serves as emergency-off-switch. Set the switch to "0" for fast switch-off.

**Safety Circuit**

The power mower is equipped with a safety switch (lever B/2). When releasing the lever, the ignition system is turned off (engine is off).

**Stop position**: When releasing the lever, the ignition system is switched off (engine is off). Beware – engine keeps running due to centrifugal mass.

**Start position**: For starting the engine and for short breaks, pull the clutch hand lever (B/3) and fasten with pawl.

**Operating position**: To operate the machine press safety lever (B/2).

⚠️ **Do not fasten safety lever.**

The safety lever also serves to switch off in an emergency.

Release the safety lever for fast engine switch-off. The lever automatically goes to STOP position.

**Clutch**

The mower is equipped with a dry bevel clutch. Operation is via the clutch hand lever (B/3).

The machine is decoupled when you pull the clutch hand lever. Now, the engine stops driving the mower. The pulled clutch hand lever can be locked with pawl (B/4).

To avoid clutch slipping away during operation, a clutch play of 3–5 mm is factory-set on the hand lever (refer to “Maintenance”).

After the first operating hour, the clutch play has to be checked and, if necessary, re-adjusted (refer to “Maintenance”).

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

FR-Change
The mower is equipped with a 2-gear reversing transmission. In both gears F/R drive is possible.

- Move F/R-hand lever (B/11) down (pawl (B/10) is unlocked) – the power mower travels forward.
- Move hand lever up – the mower travels reverse.
- In centre position (pawl is locked) the machine is in neutral.

Only actuate F/R change with transmission decoupled and machine at a halt!

The machine can be pushed in F/R neutral.

Gear-Change
Change gears 1 – 2 via shifter (B/6).
1st gear = shifter pushed forward
2nd gear = shifter pulled backward
There is no neutral position between 1st and 2nd gear.

Engaging Mowing Drive
The mowing knife drive is engaged via the shifter (B/8).
Move shifter forward to engage mowing knife drive. Pull shifter backward to disengage mowing knife drive.
3. Devices and Operating Elements

Central Brake (optional)
To slow down or park power mower on hilly ground, use the combined central hand brake.

Steering Handle Height Adjustment
- Loosen both lock nuts and hex head bolts (A) until notches (B) are free.
- Adjust left and right steering handles to desired height and lock into appropriate notch.
- Tighten lock nuts and hex head bolts.

- Central Brake
Clockwise swivel eccentric lever (B/7) backwards – brakes act on both drive-wheels.
Release eccentric lever and the lever swivels back to original position – brake is released.

- Hand Brake
Clockwise swivel eccentric lever (B/7) backwards beyond the dead centre. Eccentric lever automatically comes to a stop – both drive-wheels are blocked. To release hand brake, swivel eccentric lever back to original position – brake is released.
Planetary Mowing Attachment

Centrally driven planetary mowing drive

Stroke: ................................. 76 mm

Required cutter bar:
Item no. 2447 061-3447 961 (depending on version)

Accessories for cutter bar:
Grass distributor, etc. (see page 63)
Planetary Mowing Drive

Mounting Cutter Bar – Universal, Municipal and Finger cutter bar

Switch off engine, remove spark plug connector! Wear safety gloves!

- Unscrew 4 flat collar nuts (H/4) on cutter bar, insert wedge washers (D/5).
- When using rubber drive-wheels 4.00-8, the thick side of the wedge washer must point in travel direction (fig. H/4).
- When using rubber drive-wheels 5.00-10, the thin side of the wedge washer must point in travel direction (fig. H/5).
- Place the mower onto the 4 cutter bar bolts. Ensure that crank stone on the mower is positioned into jaw of knife driver (if necessary, move mowing knife or turn knife crank to fit crank stone into place). The lubrication nipple on crank stone must be at the top.
- Evenly screw down 4 flat collar nuts and tighten well.
- Attach the grass distributor (H/2) to the knife driver.
- Attach swath boards (if available) onto cutter bar. Attach counternuts until they are even with threaded bolts outside.

Dismounting the cutter bar is in reverse order.

Exchanging Mowing Knives – Universal, Municipal and Finger cutter bar

Switch off engine, remove spark plug connector! Wear safety gloves!

- Remove knife driver and grass distributor.
- Remove mowing knife. Push out sideways. Do not push with hands (risk of injuries), but use a suitable object (e.g. helve of hammer).

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

- Clean cutter bar and slightly oil with Bio-lubrication oil.
- To mount new mowing knife, proceed likewise but in reverse order (also refer to adjustments).
3. Devices and Operating Elements

**Rocker Arm Mowing Attachment**

**Centrally driven rocker arm mower**

Stroke: ......................... 85 cm

Overload clutch

For accessories see page 59.

**Available cutter bars**

**Universal SC**

- 125 cm ....................... 5547 861
- 145 cm ....................... 5547 871

**Municipal**

- 125 cm ....................... 5547 461
- 145 cm ....................... 5547 471

**Finger middle-cut**

- 130 cm ....................... 5547 061
- 145 cm ....................... 5547 071

**Finger rotary cut**

- 165 cm ....................... 5547 181

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**Figure J**

1. Knife guard
2. Cutter bar
3. Running base
4. Knife driver
5. Protective hood
6. Mower hood
7. Cutter bar carrier
8. Rocker arm
3. Devices and Operating Elements

Rocker Arm Mowing Attachment

Cutter Bar Assembly

⚠️ Wear safety gloves when commissioning the cutter bar

- Attach the knife driver (2) to the mowing knives (1) using bolts (4) and spring washers (3) (torque = 23 Nm);
Remove plug (5).

- Attach the running bases (4) to the back of the cutter bar using bolt (5), washer (2) and nut (3).

- On the municipal cutter bar attach the outer shoes (2) to both ends of the cutter bar on the back using bolt (5), washer (4) and nut (3).
Then attach the skids (7) with bolts (8) and nuts (6). The peg at the front end of the running base snugs in the recess between the shoe and the back of the cutter bar.

- For adjustment of the running bases, see instructions on page 30.
3. Devices and Operating Elements

Rocker Arm Mowing Attachment

Cutter Bar Attachment

⚠️ Stop the engine, remove spark plug connector! Wear safety gloves!

- Loosen clamping screw (K/5) so the link pin can move up and down.
- Attach the cutter bar to the cutter bar carrier by aligning the link pin (K/2) in the knife driver’s (K/1) hole.
- Attach the cutter bar to the cutter bar carrier using 4 hex head bolts (K/4) and 4 ball spring rings (K/3).
- Tighten all 4 bolts evenly at 70 Nm.
- For Universal-SC cutter bar attachment, additionally lock the attachment bolts (K/4) with hex nuts (K/9) under the cutter bar’s bottom.

Tighten the clamping screw which holds the link pin (K/5) at 100 Nm.

For cutter bar removal reverse this order. As a first step, loosen the clamping screw which holds the link pin so this can move up and down.

For cutter bar accessories see page 63.
3. Devices and Operating Elements

Rocker Arm Mowing Attachment

Mowing Knife Attachment/Removal

Stop the engine, remove spark plug connector! Wear safety gloves!

Removal

- Loosen the clamping screw (K/5) which holds the link pin.
- Open the individual knife guiding devices on the various cutter bar versions or remove the knife driver (for instructions see pages 50–53).
- Pull the mowing knife out to the front or to the side, as required by the individual cutter bar version (for instructions see pages 50–53).

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

Attachment

- Loosen clamping screw (K/5) so the link pin can move up and down.
- Open the individual knife guiding devices on the various cutter bar versions (for instructions see pages 50–53).
- Attach the mower knife to the link pin by aligning the pin in the knife driver’s hole.
  - Finger cutter bar version: Attach the mowing knife from the side by inserting it into the knife guiding devices and then attaching the knife driver (for instructions see page 52).
- Tighten the clamping screw (K/5) which holds the link pin (100 Nm).
3. Devices and Operating Elements

Cutter Bar Running Bases

There are height-adjustable running bases to prevent the cutter bar from being damaged by stones, etc. during operation. This specification depends on the cutter bar version or is optional equipment.

**Height adjustment:**
- Loosen hex nut (1)
- Lift the cutter bar off the ground and adjust the running base (2) to the desired height
- Retighten hex nut
- Set all running bases to the same height

**Extra weights for cutter bars**

If the cutter bar is not heavy enough for slope operation (this applies in particular to the Universal cutter bar), it is possible to replace the outer skids by extra weights (item no. 5547 931).

In addition, a second pair of extra weights can be attached in place of the running bases. This takes a long hex head bolt M 8 x 45.
3. Devices and Operating Elements

Wheel Attachment Bolts

For version B, screw short threaded end of double end studs tightly into hub adapter, if possible, glue with LOCTITE 270 or UHU-Plus.

Drive-Wheels

For full tractive power, mount wheels with pointed parts of lugs showing in travel direction (wheels seen from above). Fit the countersunk side of spring-lock washer into countersink-type holes of disk wheel (see fig. “Wheel Attachment Bolts”).

Extra Wide Drive-Wheels

Item No. 5490 611:
16 x 6.50 - 8 Terra Grip
Usage: Mowing on soft (boggy) ground.

Strake Wheels

Item 5417 511 for drive-wheels 4.00-8
Item 5517 521 for drive wheels 5.0-10
• For use of strake wheels, wheel attachment bolts version B must be fit.
• Fit drive-wheels, spring-lock washers (between drive-wheel and flange), flanges (3), spring lock washers (under hexagonal nut) and tighten with hexagonal nut.
• Fit strake wheels (5) on hexagonal full dog points and tighten with tommy screws (6).
• Make sure that wheel carriers point to machine, when looked into travel direction (see fig.).

Snow Chains

When working with snow chains fitted on wheels, observe manufacturer’s instructions, make sure there is sufficient clearance between chains and machine parts.
3. Devices and Operating Elements

**Twin Wheels**
We recommend using twin wheels, wheel centres or strake wheels for operation on **extremely steep slopes**.

**Differential Hubs with Anti-winding Tubes**
Item no. 5519 011 (without wheels)
Use the wheel attachment bolts, version B (page 31) to fit the differential hubs to the machine’s hub adapter.

- Fit ball spring ring between drive wheel and differential hub!

**Differential Hubs**
The machine is supplied with differential hubs being set to give differential action.

It is, however, possible to attach the hubs rigidly:
- Remove snap ring (7) with a pair of pliers
- Remove the washer (6)
- Pull the wheel flange (5) a bit out and twist it until the tang nocken is positioned between both tang pins
- Push the wheel flange all the way on the differential hub, fit the washer and the snap ring.

**Lubrication**
- Lubricate the wheel flange lube nipple (8) at intervals of 50 operating hours or after cleaning with a pressure washer. Use a grease gun (Bio lubrication grease).
Commissioning

Please note that durability and operational safety of the engine depend to a large extent on its break-in. Always allow a cold engine to warm up for some minutes and never run it at full throttle at the beginning.

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.

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

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.

Refill only with the engine switched off and cooled down.

Do not smoke when refilling!

Do not spill any fuel, use a proper filling device.
Before taking up operation, i.e. before you start the engine, check whether

- fuel tank contains enough fuel,
- **4-stroke-engine**: engine oil level is between max and min mark on dip-stick (E/4). (Check with machine parked in horizontal position).

- **2-stroke-engine 232**: engine oil level reaches mark in oil bath air filter pot. Engine oil filling quantity approx. 0.2l.

- transmission oil level in wheel drive is between min and max marks on oil dipstick (A/10). (Check with machine parked in horizontal position). Lower notch shows minimum oil quantity, upper notch maximum quantity.

- **planetary mowing drive version**: sufficient transmission flow grease is filled according to marks on oil dip-stick (1).

Only operate attachments with all protective devices mounted and adjusted to provide protection.

Careful when starting the engine in closed rooms!

Ensure good ventilation and fast escape of exhaust fumes.

Do not touch the hot engine – danger of burns!

Do not touch the ignition cable and do not touch or remove spark plug connector while the engine is running.
4. Commissioning and Operation

Starting 4-Stroke Petrol Engine

- Open fuel tap (D/4).

- **Cold engine:** pull CHOKE knob (D/2).
- **Warm engine:** leave CHOKE knob in normal operating position or pull out half way.

- Set ON-OFF switch (B/1) to operating position.

- Set speed control lever (B/9) to 1/3 throttle.

- Pull clutch hand lever (B/3) and lock pawl (B/4).

- Pull starting-cord on handle (D/10) until you feel starter clutch engage. Then **pull hard and fast** to start the engine. After the start, carefully let cord glide back. Do not let snap.
- Once the engine has started, let it warm up for some time. Slowly push choke back into operating position, if necessary.
4. Commissioning and Operation

Starting
2-Stroke Petrol Engine

- Open both fuel taps (G/14)
- **Engine cold:**
  Swivel Choke lever (F/8) to position "slashes".

- Press tickler (G/2 or H/7) on carburetor until fuel overflows.
- **Engine warm:** Leave Choke knob in original position (operation position)

- Move engine-off-switch (B/1) to operating position "I".

- Move speed control lever (B/9) to approx. 1/3 – 1/2 throttle.

- Pull clutch hand lever (B/3) and lock with pawl (B/4) (start position).

- Pull starting-cord on handle (G/15) until you feel starter clutch engage. Then pull hard and fast to start the engine. After the start, let cord glide back. Do not let snap.
- Once the engine has started, slowly move speed control lever to centre position and let engine warm up for some time.
- Move Choke slowly back to operating position (if it was actuated).
Switching off Petrol Engine

- Move speed control lever to idling gas position and let engine run idle for approx. 1/2 minute.

- Move engine-off-switch to position “0”.

- Close fuel tap (both fuel taps for 2-stroke-engine).

**Note:** The engine-off-switch (B/1) also serves as emergency off-switch. If necessary, bring switch into position “0” to turn engine off.

For longer periods of no operation, do not switch off engine with engine-off-switch, but close fuel tap (both fuel taps for 2-stroke-engine) and let engine run until it slowly comes to a complete stop due to lack of fuel. This ensures that carburetor is empty and no resin residue can deposit.

Secure mower against unauthorized use – disconnect spark-plug connector.
4. Commissioning and Operation

**Mowing**

- Generously oil all gliding parts of the cutter bar with Bio-lubricating oil.
- Start engine as described in “Commissioning”.
- Engage 1st or 2nd gear as required – shifter (B/6).
- Engage mowing drive, move shifter (B/8) forward (in travel direction).
- Move right hand lever (B/11) down to forward position.
- Press down safety lever (B/2).
- If necessary, release central brake (B/7).
- Slowly release clutch hand lever (B/3) (pawl unlocks) while pressing the throttle.

**For direction change from forward to reverse, proceed as follows:**

- Move speed control lever to idling gas position.
- Pull clutch hand lever (B/3) and hold.
- Pull hand lever for F/R (B/11) up (reverse is engaged) and hold with right hand.
- Slowly release clutch hand lever while pressing the throttle.

**Note for Mowing**

After mowing or in case of grass clogging:

- Move F/R hand lever to “neutral” (pawl (B/10) is locked). The mower comes to a stop but not the knives, thus freeing the cutter bar from grass.

⚠️ If cleaning becomes necessary during operation, the engine must be switched off and the spark plug connector removed for safety reasons.
4. Commissioning and Operation

After commissioning the machine and after changing knives, re-tighten all screws and nuts on mowing drive and cutter bar after approx. **15–30 operating minutes** and subsequently after every **4 operating hours** (especially cutter bar attachment bolts and screws on knife driver and mowing drive coupling).

**Starting the Engine on Slopes**

If the engine comes to a halt during operation and re-start becomes necessary, proceed as follows:

- Leave mowing drive and wheel drive switched on. The drives act like brakes.
- Engage hand brake (if available).
- Pull clutch hand lever and lock pawl.
- Move safety switch to operating position.
- Re-start engine.

---

Mowing on flat areas

Mowing on slopes
5. Maintenance: 4-Stroke-Engine

Apart from observing all operating instructions, it is also important to pay attention to the following maintenance instructions.

Please note:

⚠️ Only do all maintenance work with the engine switched off and spark plug connector disconnected. When working on mowing knives and hoeing tines, wear safety gloves.

Engine

Check oil – each time you take up operation and after every 8 operating hours
- only with engine switched off and mower in horizontal position.
- Clean oil filler plug (E/4) and surrounding parts.
- Remove oil filler plug, clean dip-stick with a clean cloth and dip back into oil tank (do not screw in), take out dip-stick and read oil level.
- In case oil level is below lower mark, refill engine oil (refer to “Specifications”) until oil level reaches rim of oil filler neck.

Changing Engine Oil

The first oil change is after 25 operating hours. Following oil changes are after 50 operating hours. Change oil while engine is still warm, but not hot – danger of burns!
- Clean drain plug (1) and surrounding parts.
- Loosen drain plug. Collect oil in proper container and dispose of properly.
- Tighten drain plug well (check sealing washer for good condition and exchange, if necessary).
- Fill fresh oil (refer to chapter “Specifications”) until level reaches rim of oil filler neck (2) (Filling mark “max.”).
- Re-tighten oil filler plug.
5. Maintenance: 4-Stroke-Engine

Air Filter

Clean air filter (D/1) after a maximum of 25 operating hours or at least after 3 months (in case of heavy dust occurrence even earlier).

- Clean air filter and outside surrounding parts, take off air filter cap.
- Carefully remove foamed preliminary filter.
- Loosen wing screws, remove paper filter and slightly tap the element on a smooth surface.

Do not use compressed air to blow out dust. Do not treat with oil.

- Wash foamed preliminary filter in detergent and water (do not use petrol), squeeze like a sponge (wrap in a cloth) and dry thoroughly.
- Reposition paper filter element, fasten with wing screw. Re-attach foamed preliminary filter and close with air filter cap.

Please note:
Do not wash paper filter element (only tap out dust) and replace it after every 50 operating hours or at least once a year.

Cleaning the Cooling System

After a longer period of operation, clogging due to plant trash and dust may occur in the cooling system. Sustained operation with the cooling system clogged lets the engine heat up and causes damage.

- Always check cooling-air grille (E/8) and remove dirt and plants sucked in.
- Take off fan case at least once per year, preferably before start of season. Clean cooling ribs on both, cylinder and cylinder head, clean guiding plates and cooling-air grille, both serving for good air circulation. For this purpose, contact your professional AGRIA workshop.

Exhaust System

Constantly check exhaust system (C/5) for plant trash and clean, if necessary. Otherwise

⚠️ Danger of fire!
5. Maintenance: 4-Stroke-Engine

Cleaning the Spark Plug and Setting the Spark Plug Gap

After every 50 operating hours

- Remove soot deposits from spark plug electrodes with a steel brush.
- Check spark plug gap and, if necessary, re-adjust to 0.6–0.7 mm.

Exchange spark plugs after approx. 100 operating hours.

Fuel Hoses

Exchange after every 2 years. Exchange leaking fuel hoses immediately.

Cleaning the Fuel Strainer

Check the strainer of the fuel tap (D/4) at least after 50 operating hours for water or other impurities. For this purpose, close fuel tap, remove fuel strainer and remove impurities. Then rinse strainer container in fuel, check fuel strainer and exchange, if damaged. Then screw back on correctly, to avoid fuel leakage.
5. Maintenance: 4-Stroke-Engine

Cleaning Cylinder Head
After every 400 hours of operation take off cylinder head and remove carbon deposits on cylinder, cylinder head, piston crown and valves with a steel brush. Afterwards, clean with soft brush. Renew head gasket and reassemble to cylinder head. Tighten cylinder head screws in turn. Tighten with a torque of 26 Nm. For this purpose, contact your professional AGRIA workshop.

Re-adjusting Valve Lash
After every 400 hours of operation, re-adjust valve lash. Intake and outlet valve are at 0.1mm when the engine is cold. For this purpose, contact your professional AGRIA workshop.

Idling Speed
Always ensure that idling engine speed is adjusted correctly. At low speeds and with the speed control lever at stop in neutral, the engine is supposed to run smoothly and without run-out.
Adjust the engine speed while the engine is still warm from operation. For this purpose, re-adjust the speed control screw (2) and the mix control screw (1) for idling speed. Then turn the attachment or adjusting screw to adjust the throttle cable for no play. (For idling speeds refer to “Specifications”).
We recommend to have the necessary adjustments done by your AGRIA workshop.

Governor
For correct functioning of the governor on the engine and for adjustment of upper idle speed ranges, the governor spring must be in the appropriate place, see fig.

Any changes to the position of the spring cause warranty and type approval to become void.

Keep governor spring, speed control lever and linkages free from dirt and plant trash at all times.
Apart from adhering to operating instructions for power mowers, it is also important to observe the following maintenance instructions.

**Warning:** Only do maintenance work with the engine turned off and spark plug connector removed. Always wear safety gloves, when working near mowing knives.

### 2-Stroke-Engine

The oil contained in the fuel mixture lubricates the 2-stroke-engine. Therefore, there is no engine oil filling opening.

**Oil Bath Air Filter, Rotax 232**

Change oil in oil bath air filter (F/10) after every 25 operating hours or at least after 3 months (in case of heavy dust occurrence after a few hours) – check for proper condition frequently.

- Clean air filter and outside surrounding parts.
- Open closing bow and remove oil pot.
- Remove old oil (dispose of properly) and clean oil pot.
- Fill oil pot with engine oil up to oil level mark (not higher) and re-fit oil pot onto filter – ensure pot fits tight.

### Cleaning Cylinder Head

After every 400 hours of operation take off cylinder head and remove carbon deposits on cylinder head and exhaust tunnel with a steel brush. Afterwards, clean with soft brush. Exchange head gasket and reassemble to cylinder head. Tighten cylinder head screws in turn at 22 Nm. For this purpose, contact your professional AGRIA workshop.

### Cleaning the Cooling System

After mowing for an extended period of time, clogging of plants and dust may occur in the cooling system. Sustained operation with the cooling system clogged lets the engine heat up and causes damage.

- Always check cooling-air grille (G/18) and remove dirt and plant trash sucked in.
- Remove fan case at least once per year, preferably before the season starts, and clean cooling ribs on cylinder and cylinder head, clean guiding plates and cooling-air grille, both serving for good air circulation. For this purpose, contact your professional AGRIA workshop.

### Exhaust System

- Constantly check exhaust system (G/16) for plant trash and clean, if necessary. Otherwise danger of fire.
- Check exhaust after every 200 operating hours for oil carbon and, if necessary, clean or burn out.

For this purpose, contact your professional AGRIA workshop.
5. Maintenance: 2-Stroke-Engine

Cleaning Spark Plug and Adjusting Spark Plug Gap

After every 50 operating hours
- remove soot from spark plug electrodes with a steel brush,
- check electrode gap and set to 0.5 mm.
Exchange spark plug after approx. 100 hours of operation.

![Image of spark plug gap set to 0.5 mm]

Fuel System

- Each time you maintain the machine, check fuel hose, fuel tank, and carburetor for leakages. Repair, if necessary.
- Replace fuel hoses after every 2 years, immediately exchange leaking hoses.
- Always fill correct stoichioimetric ratio of fuel.
- If engine received too much fuel (flooded), move speed control lever to “max” and crank engine with recoil starter until engine starts. Or remove spark plug and clean and dry. With spark plug removed, crank engine a few times with recoil starter. Screw spark plug back in and re-start engine.

Idling Speed

Always ensure that idling engine speed is adjusted correctly. At low speeds, the engine is supposed to continue running smoothly, with speed control lever in idling gas position at stop.

Adjust engine speed while the engine is still warm from operation. Fine-tune engine speed by adjusting the idling speed control screw (F/3) and air control screw (G/5). (For basic settings refer to “Specifications”). Then adjust throttle control cable free of play with clamping or adjusting screw. (For idling speed rates refer to “Specifications”).

We recommend to have the necessary adjustments done by your AGRIA workshop.

Governor

For proper function of governor on engine, keep governor spring, lever and linkages clean from dust and plant trash.
5. Maintenance

Machine

Gearbox: Basic Machine

Check oil level in gearbox each time before you take the machine into operation and after every 8 operating hours (oil dip-stick and filling opening (A/10 or C/10). With the mower parked in horizontal position, the oil level is between the notches “max” and “min”.

- Screw out oil dip-stick, clean with clean cloth and screw back in.
- Take dip-stick out again and read oil level, refill transmission oil, if necessary.

Always carry out transmission oil change in due time:

- Keep the oil filler plug (A/10 and C/10), the drain plug (A/13 and C/13) and the surrounding area extremely clean to avoid dirt getting into the transmission.
- Carry out transmission oil change after the first 50 operating hours and then at intervals of 200 operating hours. Ensure the engine has operating temperature.
- Inspect all seals and replace them, if necessary.
- For oil filling quantity and oil quality, see “Specifications”.

Drive-Wheels

- When commissioning the mower and each time you change wheels, check and tighten wheel screws and nuts after the first 2 operating hours with 100 Nm (10 kpm). Proceed likewise when doing maintenance work.
- Check tyre air pressure regularly. For smooth driving, make sure that there is the same pressure in front and rear tyres respectively.
- After the first 2 operating hours, tighten fastening nuts (A/12 or C/12) on hub adapters with a torque of 100 Nm.
5. Maintenance

Steering Handle Pendulum Stop

This steering handle bearing provides optimum dampening, when the two stop buffers are adjusted to a play of \( A = 0.5 \text{ mm} \) (in position zero, with no load on steering handle) between stop plate and buffers.

However, the pendulum stop can also be set to provide a rigid steering handle (without play).

Adjustment:

- Loosen hexagonal nuts (2).
- Adjust stop buffer (1) by turning it to the above stated play.
- Re-tighten hexagonal nut (lock).

Steering Handle Central Mounting

Re-tighten adjustment nut (3) with 20 Nm after the first 4 operating hours, then after every 50 operating hours.

![Diagram](image)

1 Lock nut for stop buffer
2 Stop buffer
3 Adjustment nut for steering handle central mounting
5. Maintenance

Adjustments on Hand Levers
Check clutch play or clutch settings each time you operate the machine. If necessary, re-adjust (especially after commissioning the machine during break-in period, and after exchanging clutch linings and brake pads).

● Remove retaining spring (2) with screw driver or similar tool.

● Use set pin (4) to press cable end (3) out of bracket in hand lever.

● Adjust the set pin (4) to a play of X. Screw set pin in to reduce play, screw out to increase play.

● Use set pin to place cable end back into bracket and check.

● Fit retaining spring (2).

Clutch hand lever: 
X = 3–5 mm (clutch play)

Hand lever for forward/reverse change: Adjust Bowden cable in such a way that transmission is set to neutral when pawl is locked (B/10) (play X does not have to be adjusted).

Safety Circuit
Check safety circuit for proper function each time you maintain the machine.

● With clutch engaged and upon release of safety lever (B/2) the engine must automatically come to a stop.

● Check electric lines and connections for proper condition and exchange, if necessary.

For this purpose, contact your AGRIA workshop.
5. Maintenance

Planetary Mowing Drive

Check lubrication (transmission flow grease) each time you operate the mower and after every 8 operating hours (oil dip-stick 1) – machine is in operating position. Refill, if necessary.

Exchange transmission flow grease once per year. We recommend to do this before the season starts and when you change engine and transmission oil.

Remove old grease by rinsing with paraffine or diesel oil (drain plug 2). It is advisable to have this work done by your AGRIA workshop and to take the cutter bar along for maintenance. This ensures a properly working mowing attachment during the mowing season.

Lubricate lubrication nipple on crank stone before each operation and after every 8 operating hours. Use Bio-lubricating grease.

Lubricate gliding parts on mowing knife before each operation and after every 8 operating hours. Use Bio-lubricating oil.

Knife Driver with Exchangeable Distance Plates

(AGRIA no. 63220)

On new machines, the play between crank stone and knife driver is set to max 0.3 mm. When the play is 0.5 mm, replace one distance plate. If the problem re-occurs, also exchange distance plate on opposite side. The attachment bolts (M 6x16) must not project inwards.
5. Maintenance

Rocker Arm Mowing Drive

- **Note:** After operating the machine for about 1/2–1 hour and then at intervals of 4 operating hours check all bolts and nuts on the mower and cutter bar for tight fit and retighten if necessary (in particular the cutter bar attachment bolts, bolts on the knife drivers and on the coupling point)

- Lubricate the machine as specified in the following table:

<table>
<thead>
<tr>
<th>Lubrication Intervals</th>
<th>Lube Point</th>
<th>Type of Lubrication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interval (operating hours)</td>
<td>Lube Point</td>
<td>Type of Lubrication</td>
</tr>
<tr>
<td>8</td>
<td>1,2,3</td>
<td>Bio lubrication grease</td>
</tr>
<tr>
<td>50</td>
<td>4</td>
<td>Bio lubrication grease</td>
</tr>
</tbody>
</table>

![Diagram of Rocker Arm Mowing Drive]

Ensure the grease is clean! Remove excess grease but leave a collar on the bearings to protect them from penetration of water and plant sap.

Cutter Bar

After starting up and operating the machine for 1/2-1 operating hour and then at intervals of 25 operating hours do the following maintenance work on the Municipal cutter bar:

- Check the pressure (approx. 150 N) of the cutter bar’s pivot arms and adjust it, if necessary (use conventional spring balance for this, see “Checking pressure, page 46)

Each time you change knives and at intervals of 8 operating hours lubricate all gliding parts on the cutter bar with Bio-lubrication oil or Bio-lubrication grease. On the Municipal cutter bar apply some grease on the knife’s driver pins (underneath the pivot arms).
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

- Rocker arm mower version:
  Loosen clamping screw (K/5, page 28) so the link pin can move up and down.
- 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
- On rocker arm mower version:
  Tighten the clamping screw (K/5) which holds the link pin at 100 Nm.
- Check wether 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

Finger Cutter Bar

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

Knife Removal
- On the rocker arm mower: Loosen the clamping screw (K/5, page 28).
- Remove the knife driver
- Pull the knife out to the side - use a suitable tool such as a wooden stick
- 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
- On the rocker arm mower:
  As a first step, loosen the clamping screw (K/5, page 28) which holds the link pin and tighten it after the attachment (100 Nm)
- Check whether it is necessary to adjust the knife guiding devices and adjust them if necessary

Correct Adjustment
- There is no play between the guide bar (2) and the knife holder (3). The guide bar touches 1/3 of the knife holder's front end.
- The chamfered gliding faces of the friction plate (4) and the guide bar (2) are parallel to each other and have a play (x) of 0.2mm to 1mm.
- The distance (Y) between the blades (1) sticking out to the rear and the friction plate (4) is 1mm to 2mm.
- The knife is easy to move sideways by hand.

Setting the knife guiding devices
In the course of operation cutting quality declines as a result of uneven wear on the knife guiding parts. Readjustment of these parts will restore the cutting quality.
- Remove a play between knife holder (3) and guide bar (2) by turning the set screw (7).
- To remove excessive play (x), loosen the 2 attachment bolts (6) to move the friction plate (4) to the desired position. Then retighten both attachment bolts (6).
- These adjustments may lead to excessive play between the knife holder (3) and guide bar (2). Remove this by turning the set screw (7).
- To correct the distance (Y), add or remove a number of distance plates (5). This becomes only necessary, if too many or too few distance plates (5) were placed under the friction plate (4) when the cutter bar was assembled.
5. Maintenance

Municipal Cutter Bar

Stop the engine, remove spark plug connector and 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
- On the rocker arm mower:
  As a first step, loosen the clamping screw (C/5) which holds the link pin and retighten it after the attachment (100 Nm, see page 28)

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 diagram]

<table>
<thead>
<tr>
<th>Municipal Cutter Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cutter bar blade</td>
</tr>
<tr>
<td>2 Pin rest</td>
</tr>
<tr>
<td>3 Pin sleeve</td>
</tr>
<tr>
<td>4 Driver pin</td>
</tr>
<tr>
<td>5 Cutter bar back</td>
</tr>
<tr>
<td>7 Attachment bolt</td>
</tr>
<tr>
<td>8 Set screw</td>
</tr>
<tr>
<td>9 Bearing part</td>
</tr>
<tr>
<td>10 Clamping sleeve</td>
</tr>
<tr>
<td>11 Lubrication nipple</td>
</tr>
</tbody>
</table>
5. Maintenance

Cutter Bar

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.

---

[Diagram showing proper and incorrect grinding angles for top and bottom knives]
5. Maintenance

General Maintenance

- Watch out for fuel and oil leakage, repair if necessary.
- Regularly check bolts and nuts for tight fit, re-tighten, if necessary.
- Lubricate all gliding and moving parts (e.g. speed control lever, bearings of hand levers) with Bio-lubricating grease or Bio-lubricating oil.

Engine

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

Cleaning

Cutter Bar

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

Mowing Drive and Machine

After cleaning with pressure washer immediately lubricate rocker arm bearing on mowing drive and 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.
5. Maintenance

Storage

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

a) Clean thoroughly

Repair paint coat, lubricate machine and mowing drive and operate for a short time. Then spray all shining parts, in particular hoeing tools, with Bio-slushing oil.

b) Engine preservation

- Drain fuel completely or add 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 (only 4-stroke-engine)
- Fill a tea-spoon (approx. 0.03l) of engine oil into spark plug opening. Slowly crank engine. Fill in fresh engine oil (only 4-stroke-engine). Slowly crank engine after every 2–3 weeks (spark plug connector disconnected).

**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.

c) Drive-wheels

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

d) Pull clutch

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

e) Storing the machine

Do not park the machine in humid rooms, in rooms where fertilizer is stored, in stables or adjacent rooms because of severe corrosion.

f) Protecting the machine

Protect machine with cloth or a similar cover.
### Lubricants, Varnishes and Wear Parts

#### AGRIA Order No.

#### Lubricants and Anti-Corrosives

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>118 24</td>
<td>Engine oil 10 W-40</td>
<td>tin</td>
<td>1l</td>
</tr>
<tr>
<td>609 25</td>
<td>Transmission oil SAE 90 – API GL 5</td>
<td>bottle</td>
<td>500ml</td>
</tr>
<tr>
<td>718 98</td>
<td>Transmission flow grease, BP Energrease LS-EP00</td>
<td>tube</td>
<td>500g</td>
</tr>
<tr>
<td>690 34</td>
<td>Bio-Lubricating oil</td>
<td>bottle</td>
<td>500ml</td>
</tr>
<tr>
<td>690 35</td>
<td>Bio-Lubrication grease</td>
<td>cartridge</td>
<td>400g</td>
</tr>
<tr>
<td>608 94</td>
<td>High-Temperature paste LM 508 ASC</td>
<td>tube</td>
<td>100g</td>
</tr>
<tr>
<td>695 73</td>
<td>Special hot bearing grease</td>
<td>tube</td>
<td>45ml</td>
</tr>
<tr>
<td>695 74</td>
<td>Special hot bearing grease – water resistant</td>
<td>tube</td>
<td>225ml</td>
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<tr>
<td>604 80</td>
<td>Special purpose grease</td>
<td>cartridge</td>
<td>400g</td>
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<tr>
<td>671 20</td>
<td>Gleitmo paste</td>
<td>tube</td>
<td>50g</td>
</tr>
<tr>
<td>690 36</td>
<td>Bio-slushing oil</td>
<td>bottle</td>
<td>500ml</td>
</tr>
<tr>
<td>673 50</td>
<td>Fuel stabilizer</td>
<td>bottle</td>
<td>125ml</td>
</tr>
</tbody>
</table>

#### Glues (for screw fastening), Surface Sealing

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>559 94</td>
<td>Glue (medium) LOCTITE 242</td>
<td>bottle</td>
<td>50ml</td>
</tr>
<tr>
<td>559 95</td>
<td>Glue (strong) LOCTITE 270</td>
<td>bottle</td>
<td>50ml</td>
</tr>
<tr>
<td>559 96</td>
<td>Glue (ultra strong) LOCTITE 638</td>
<td>bottle</td>
<td>50ml</td>
</tr>
<tr>
<td>509 85</td>
<td>Surface sealing (liquid) LOCTITE 573</td>
<td>tube</td>
<td>50ml</td>
</tr>
<tr>
<td>559 97</td>
<td>Surface sealing (liquid) LOCTITE 573</td>
<td>tube</td>
<td>250ml</td>
</tr>
</tbody>
</table>

#### Varnishes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>181 03</td>
<td>Spray varnish birch-green</td>
<td>spray tin</td>
<td>400ml</td>
</tr>
<tr>
<td>181 04</td>
<td>Spray varnish blood orange</td>
<td>spray tin</td>
<td>400ml</td>
</tr>
<tr>
<td>509 67</td>
<td>Spray varnish orange</td>
<td>spray tin</td>
<td>400ml</td>
</tr>
<tr>
<td>509 68</td>
<td>Spray varnish black</td>
<td>spray tin</td>
<td>400ml</td>
</tr>
</tbody>
</table>

#### Wear Parts

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>707 91</td>
<td>Air filter set (paper element + preliminary filter) for 4-stroke-engine, Robin EH 25</td>
</tr>
<tr>
<td>671 87</td>
<td>Spark plug Bosch WR7AC, for 4-stroke-engine, Robin EH 25</td>
</tr>
<tr>
<td>426 43</td>
<td>Spark plug Bosch W8AC, for 2-stroke-engine, Rotax 232</td>
</tr>
<tr>
<td>009 05</td>
<td>Sealing washer 14 x 20 x 1.5 (Engine oil drain plug) for 4-stroke-engine, Robin EH 25</td>
</tr>
<tr>
<td>684 16</td>
<td>Sealing washer (Engine oil dip-stick), for 4-stroke-engine, Robin EH 25</td>
</tr>
<tr>
<td>009 16</td>
<td>Sealing washer, 16 x 22 x 1.5 (Transmission housing drain screw/oil dip-stick)</td>
</tr>
<tr>
<td>604 79</td>
<td>Spring balance</td>
</tr>
</tbody>
</table>

#### Lists of Spare Parts

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>997 022</td>
<td>Power Mower 5400</td>
</tr>
<tr>
<td>997 077</td>
<td>Robin engines</td>
</tr>
<tr>
<td>997 142</td>
<td>Rotax engines</td>
</tr>
<tr>
<td>997 062</td>
<td>Cutter bars</td>
</tr>
</tbody>
</table>
Electric Circuit, Lubrication Plan

Electric Circuit Diagram

1 Engine
2 Magnet ignition system
3 Engine-off-switch
4 Switch in clutch lever
5 Switch in safety lever
bl = blue
br = brown
rt = red

Lubrication Plan

with planetary mowing drive

with rocker arm mowing drive
**Accessories for Cutter Bar**

**Pair of running bases**
5547 961
- height-adjustable, ecological
- cutting height 3–12 cm

**Pair of running bases**
5547 951
- rigid, ecological
  - cutting height approx. 9 cm

**Pair of running bases**
713 22
- adjustable,
  - cutting height up to approx. 5 cm

**Pair of extra weights**
5547 931
Designation of Parts

4-Stroke-Petrol-Engine, Robin EH 25

Figure D
1 Air filter
2 Choke pull-out knob
3 Carburetor
4 Fuel tap

Figure E
1 Fuel tank cap
2 Fuel tank
3 Exhaust with exhaust guard
4 Engine oil filler plug with dip-stick
5 Engine type and number
6 Engine drain plug
7 Engine protection base
8 Cooling-air grille
9 Recoil starter
10 Starter handle
11 Spark plug and spark plug connector
6. Troubleshooting

Observe safety instructions! Have all serious malfunctions on the machine or engine repaired by your AGRI 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 is not in position “CHOKE”</td>
<td>Set Choke-lever to position “CHOKE”</td>
<td>38, 36</td>
</tr>
<tr>
<td></td>
<td>- Engine-off-switch is set to “0”</td>
<td>Set engine-off-switch to “I”</td>
<td>35, 36</td>
</tr>
<tr>
<td></td>
<td>- Safety circuit is not set to start position</td>
<td>Set safety circuit to start position</td>
<td>35, 36</td>
</tr>
<tr>
<td></td>
<td>- Fuel tank empty or poor fuel</td>
<td>Fill fresh fuel</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>- Fuel line clogged</td>
<td>Clean fuel line</td>
<td>42, 45</td>
</tr>
<tr>
<td></td>
<td>- Defective spark plug</td>
<td>Clean, adjust or exchange spark plug</td>
<td>42, 45</td>
</tr>
<tr>
<td></td>
<td>- Engine too much fuel (“flooded engine”)</td>
<td>Dry and adjust spark plug and start at full throttle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Engine-off-line defective</td>
<td>Check line and connections</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>- Inleaked air due to loose carburetor and suction line</td>
<td>Tighten attachment bolts</td>
<td></td>
</tr>
<tr>
<td>Misfirings in engine</td>
<td>- Engine running in CHOKE range</td>
<td>Set CHOKE-lever to operating position “BETRIEB”</td>
<td>35, 36</td>
</tr>
<tr>
<td></td>
<td>- Loose ignition cable</td>
<td>Firmly connect spark plug connector to spark plug, fix ignition cable retaining device</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Clogged fuel line or poor fuel</td>
<td>Clean fuel line, fill fresh fuel</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>- Vent opening in fuel tank cap clogged</td>
<td>Exchange fuel tank cap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Water or dirt in fuel system</td>
<td>Drain fuel and fill fresh fuel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter or exchange</td>
<td>41, 44</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 43, 46</td>
</tr>
<tr>
<td>Excessive temperature in engine</td>
<td>- Low engine oil level (4-stroke-engine)</td>
<td>Refill oil immediately</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>- Impaired cooling</td>
<td>Clean cooling-air grille, clean internal cooling fins</td>
<td>41, 44</td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>41, 44</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 43, 46</td>
</tr>
<tr>
<td>Misfirings in engine at high speeds</td>
<td>- Short firing intervals</td>
<td>Adjust spark plug</td>
<td>42, 45</td>
</tr>
<tr>
<td></td>
<td>- Incorrect idle mixture</td>
<td>Adjust carburetor</td>
<td>* 43, 46</td>
</tr>
<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>42, 45</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 43, 46</td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>41, 44</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>Petrol Engine does not run smoothly</td>
<td>Speed control linkages clogged or jammed</td>
<td>Clean speed control linkages</td>
<td>43, 46</td>
</tr>
<tr>
<td></td>
<td>Defective engine-stop-line, earth missing</td>
<td>Check line and connection, check earth contact</td>
<td></td>
</tr>
<tr>
<td>Petrol Engine does not stop when set to stop</td>
<td>Loose cylinder head or damaged sealing</td>
<td>Tighten cylinder head, exchange sealing</td>
<td>43, 46</td>
</tr>
<tr>
<td></td>
<td>Damaged sealing</td>
<td>Have engine checked</td>
<td></td>
</tr>
<tr>
<td>Petrol Engine output too low</td>
<td>Clutch hand lever misadjusted</td>
<td>Adjust clutch free play</td>
<td>48</td>
</tr>
<tr>
<td>Clutch does not decouple</td>
<td>Looseened screws</td>
<td>Tighten attachment bolts</td>
<td>55</td>
</tr>
<tr>
<td>Excessive vibration</td>
<td>Dull knives</td>
<td>Exchange or re-grind knives, remove burr</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Dull knives</td>
<td>with hand grinding stone.</td>
<td></td>
</tr>
<tr>
<td>Mowing output suddenly declines</td>
<td>Dull knives</td>
<td>Exchange or re-grind knives</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Knives not straight</td>
<td>Remove knives and re-align</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blades not aligned</td>
<td>Re-align blades</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bottom pivot arms warped</td>
<td>Re-align arms</td>
<td></td>
</tr>
<tr>
<td>Plant trash gets caught between knives</td>
<td>Top knife protrudes too far over bottom knife</td>
<td>Adjust knife holders and wear plates</td>
<td>51–53</td>
</tr>
<tr>
<td></td>
<td>Bent blades or knives, twisted knife back</td>
<td>Check whether knives are straight, re-align, if necessary, until blades align as well.</td>
<td></td>
</tr>
</tbody>
</table>

* = For this purpose contact your AGRIA workshop.
Designation of Parts

2-Stroke-Petrol-Engine
Rotax 232

Figure F
1 Spark plug, spark plug connector
2 Fan housing
3 Idling speed control screw
4 Idling speed jet
5 Air control screw
6 Carburetor
7 Tickler on carburetor
8 Choke lever
9 Engine type plate
10 Oil bath air filter

Figure G
12 Fuel tank cap
13 Fuel tank
14 Fuel taps (2)
15 Starter handle
16 Exhaust with exhaust guard
17 Recoil starter
18 Cooling-air grille
## Inspection and Maintenance Chart

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>A</th>
<th>½-1</th>
<th>4</th>
<th>8</th>
<th>25</th>
<th>50</th>
<th>200</th>
<th>400</th>
<th>3months</th>
<th>yearly</th>
<th>B</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean engine, check bolts and nuts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Check engine oil level, refill, if necessary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>First engine oil change, subsequent oil changes</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check air filter</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41,45</td>
</tr>
<tr>
<td>Clean air filter foamed preliminary filter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Replace air filter insert, earlier, if required</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Oil bath air filter, change oil</td>
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<td></td>
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<td></td>
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<td>Clean fuel strainer</td>
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<td>Replace fuel hoses</td>
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<td>Clean cylinder head</td>
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<td>Clean cooling grille, guide plates, cooling fins</td>
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<td>Clean carburetor and adjust</td>
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<td>Adjust valve lash</td>
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<td>Clean spark plug, Adjust gap</td>
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<td>Check transmission oil level</td>
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<td>First transmission oil change, subsequent oil changes</td>
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<td>Re-tighten wheel bolts and nuts</td>
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<td>Check engine-off-switch function</td>
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<td>Check free play of hand lever</td>
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<td>Check handlebar pendulum stop</td>
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<td>Re-tighten handlebar central mounting</td>
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<td>Lubricate differential hubs of twin wheels</td>
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<td>Planetary mowing drive: check transmission flow grease</td>
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<td>Planetary mowing drive: change transmission flow grease</td>
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<td>Planetary mowing drive: Lubricate crank stone</td>
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<td>Rocker Arm Mowing Drive: Lubricate nipple as specified in lubrication chart</td>
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<td>Cutter bar: Lubricate all gliding parts, also, each time you change knives</td>
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<td>Cutter bar: Check play of guiding devices, also, each time you change knife</td>
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<td>Municipal cutter bar: Check pressure of pivot arms onto mowing knives</td>
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<td>Municipal cutter bar: Lubricate pivot arm guides</td>
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<tr>
<td>Municipal cutter bar: Lubricate carrier pin, also, each time you change knives</td>
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<td>Re-grind mowing knife, earlier if required</td>
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<td>General lubrication points</td>
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</tbody>
</table>

- = only for 4-stroke-engine

- = only for 2-stroke-engine

S = location in lubrication plan

A = Each time before you take up operation

B = After each cleaning

K = Checks and maintenance to be executed by operator

W = Maintenance to be executed by professional workshop

F = Maintenance should be carried out by your AGRIA workshop

* = after 2 years
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
Power Mower, Type 5400
to which this declaration refers, corresponds to
the standard fundamental safety and health requirements
as stipulated in EC directive 89/392/EEC
and EMC directive 89/336/EEC.

Möckmühl, 10th February 1997

Gregor Czaja
Head, Quality Control

Dipl. Ing. Thomas Ilchmann
Head, Research and Development
All you need to succeed

AGRIA® – a tradition of quality

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

AGRIA-Werke GmbH, D-74215 Möckmühl, Phone 0049 62 98/39-0, Fax 0049 62 98/39-111