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**Note fold-out pages!**

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Please complete:

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

For name plate, refer to p5/fig. A/12.
For engine type and number, refer to
p48/fig. D/8 or D/12.
Please state these data when ordering
spare parts to avoid wrong deliveries.

**Only use original AGRIA spare parts!**
Specifications, figures and dimensions
stated in these instructions are not bind-
ing. No claims can be derived from them.
We reserve the right for improvements
without changing these instructions.

This delivery comprises:
- Operating instructions
- Power mower
- Tool kit
- Knife driver
- 2 Hex head bolts M 8
- 2 Screw retentions 8

Symbols:
- Warning – Danger
- Important information
- Choke
- Fuel
- Oil
- Mowing drive
- Wheel drive
- Forward
- Reverse
- Brake
- Open (unlocked)
- Closed (locked)
Lubricants and Anti-Corrosive Agents

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

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

We recommend using bio-slushing oil for preservation of machines and implements (do not apply on painted external covers). Oil can be brushed or sprayed on.

Anti-corrosive agents are environmentally friendly and degrade fast.

Using ecologically safe bio-lubricants and bio-anti-corrosives, you contribute to environmental protection and to the wellbeing of humans, animals and plants.

Fuel

This engine runs smoothly on commercial unleded regular and supergrade petrol as well as on leaded supergrade petrol.

Do not add oil to petrol.

If, for environmental reasons, you use unleaded petrol, make sure the fuel is drained completely when shutting down the engine for more than 30 days. This is to prevent resin residue from depositing in the carburetor, fuel filter, and tank. Or add a fuel stabilizing liquid.

When storing the power mower at the end of the season, also drain leaded fuel completely or add a fuel stabilizing liquid.

For further instructions refer to “Engine Preservation”.

Maintenance and Repair

The trained mechanics of your AGRIA workshop carry out expert maintenance and repair.

You should only carry out major maintenance work and repairs on your own, if you have the proper tools and knowledge of machines and internal combustion engines.

Do not hammer against the flywheel with a hard object or metal tools as it might crack and shatter in operation causing injuries and damage. Only use suitable tools for pulling the flywheel.
Designation of Parts

A

B
Designation of Parts

Figure A
1 Mowing drive hood
2 Steering handle
3 Cutter bar
4 Mowing drive
5 Oil drain plug for mowing drive
6 Oil filler plug for mowing drive
7 Gearbox of basic machine
8 Hub with anti-winding tube
9 Transmission oil drain plug of basic machine
10 Transmission oil filling opening and dip-stick of basic machine
11 Name plate (in travel direction, right)
12 Engine

Figure B
1 Eccentric lever for remote control of interlocking bolt
2 Shifter for attachment drive (mowing drive)
3 Locking lever for steering handle height adjustment
4 Shifter for wheel drive (gear shifter)
5 Hand clutch lever
6 Hand lever for engine stop (dead man’s switch)
7 Pawl for hand clutch lever
8 Starter handle
9 Speed control lever
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!
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 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 fit implements with the engine and PTO switched off.

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

For fitting 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.

Fit 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 fit the protective knife strips. Secure finger bars additionally with tension springs.

Do not transport the dismounted cutter bar without protective strips.
1. Safety Instructions

Before fitting and dismounting the cutter bar, make sure all blades are protected by the protective strip.

To exchange the mowing knife and to fit/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 fitting 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 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.

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 fitting weights or implements.

Re-tighten attachment bolts of drivewheels 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.
2. Specifications

**Dimensions [mm]**

\[
a = 910 \\
b = 570 \\
e = 510 \\
h = \text{ca. } 990 \\
l = 1780 \\
m = 1170 \\
S = \text{refers to track width plan} \\
A = \text{refers to track width plan}
\]

**Track Width Plan [mm]**

<table>
<thead>
<tr>
<th>Tyre</th>
<th>A</th>
<th>S</th>
<th>i</th>
<th>A (twin-wheels)</th>
<th>A (strake wheel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00-8</td>
<td>510</td>
<td>400</td>
<td>290</td>
<td>900</td>
<td>880</td>
</tr>
</tbody>
</table>
2. Specifications

**Type:** .............................. 3600 BM

**Tyre:** ............................. 4.00-8 (field tyre)

**Tyre air pressure:** ................. 1.2 bar

**Weight:** .......................... approx. 99 kg
(without cutter bar)

**Clutch:** ............ Double disc dry clutch

**Gearbox:** ............. Mechanical gearbox
3 forward speeds and 1 reverse

**Mowing drive**

- **Centrally driven oil bath rocker arm mowing drive**
  for universal and municipal cutter bar

  **Stroke:** 76 mm
  **Stroke speed:** 943 rpm

  **Transmission oil for mowing drive:** ... SAE 90-API GL5

  Filling quantity ..................... approx. 0.5 l

**Transmission oil**

**Filling quantity:** ............ approx. 2.0 l

Transmission oil SAE 90 - API GL5
(e.g. BP Energear Hypo)

**Travel Speeds:**

<table>
<thead>
<tr>
<th>Gear with tyre</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>km/h forward</td>
<td>1.80</td>
<td>2.80</td>
<td>3.80</td>
<td>3.20</td>
</tr>
</tbody>
</table>

**Clutch:** ............ Double disc dry clutch

**Transmission oil**

**Filling quantity:** ............. approx. 2.0 l

Transmission oil SAE 90 - API GL5
(e.g. BP Energear Hypo)

**Transmission oil for mowing drive:** ... SAE 90-API GL5

Filling quantity ..................... approx. 0.5 l

**Travel Speeds:**

<table>
<thead>
<tr>
<th>Gear with tyre</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>km/h forward</td>
<td>1.80</td>
<td>2.80</td>
<td>3.80</td>
<td>3.20</td>
</tr>
</tbody>
</table>

**Steering handle:** ........ rubber mounted height adjustable without tools

**Vibration acceleration value:**

on handlebar grip: ...... $a_{hwy} = 12.3 \text{ m/s}^2$

in accordance with ISO 5349 at 85% of rated engine speed with tools working.
## Engine

**Manufacturer:** Robin

**Type:** EH 17 D

**Version:** Fan-cooled 1-cylinder-4-stroke engine (petrol)

**Bore:** 67 mm

**Stroke:** 49 mm

**Cubic capacity:** 172 ccm

**Output:** 4.0 kW at 3600 rpm

**Torque:** max 11 Nm at 2600 rpm

**Spark plug:** Bosch WR7AC NGK BR 6 HS,

**Electrode gap:** 0.6–0.7 mm

**Ignition system:**

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

**Valve lash (engine cold)**

**Intake:** 0.08–0.11 mm

**Outlet:** 0.08–0.11 mm

**Starter:** Recoil starter

---

**Fuel tank capacity:** approx. 3.6 l

**Fuel:** Commercial petrol octane number min. 90 RON (refer to fuel recommendations)

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

**Carburetor:** Horizontal throttle float carburetor

**Mixture Control Screw:**

Base setting approx. 1 3/8 revs. open

**Main jet:** 105

**Idle jet:** 50

**Rated speed:** 3600 rpm

**Top no-load speed:** 3800 rpm

**Idling speed:** 1200 rpm

**Engine oil:**

Filling quantity approx. 0.65 l

Multi-grade oil SAE 10W-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)
3. Devices and Operating Elements

The power mower AGRIA 3600 BM is suited for horticultural, agricultural, forestal operations, as well as for grass and park maintenance and for winter service operation.

Available attachments:

- Cutter bars in different versions and work widths.
- Attachments for snow clearing.

For a choice of further attachments refer to our price-list.

Engine

- The four-stroke petrol engine runs on commercial petrol – refer to fuel recommendations p4.

Ignition System

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 fins 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 taken in. A clogged filter affects engine output.

Speed Control Lever

The speed control lever (B/9) on the steering handle is for stepless control of engine speed from min = IDLING GAS to max = FULL THROTTLE to fit requirements.
3. Devices and Operating Elements

Safety Circuit

The power mower is equipped with a safety lever (lever B/6).

- **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, press the safety lever (B/6), pull the the clutch lever (B/5) and lock with pawl (B/7).
- **Operating position**: To operate the machine, press safety lever (B/6).

*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 double disc dry clutch which is operated via the hand clutch lever (B/5).

With hand clutch lever pulled, the clutch is decoupled, i.e. the engine stops driving the power mower.

The pulled hand clutch lever can be locked with pawl (B/7).

To avoid clutch slipping away during operation, the clutch play at the hand lever is set to 5–6 mm.

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

*With the engine running,* do not park the power mower for an extended period of time while the clutch is pulled because this may result in damage to the clutch release bearing.

*With the engine stopped,* always park the power mower with the hand lever pulled (pawl is locked into place), otherwise clutch problems may occur due to corrosion.
3. Devices and Operating Elements

Gearbox

The power mower is equipped with a mechanical gearbox with 3 forward speeds and 1 reverse speed. The shift gate prevents accidental change from fast forward speed (3rd gear) to reverse. Only change gears when the machine is stopped (decoupled)!

Changing Gears

- Gear change 1–2–3 and R is via gear shifter (B/4).
- Gears are changed via neutral position in the shift gate.
- The position of the shift lever in the shift gate indicates the gear engaged (fig. E).

Mowing Drive

(PTO driven)

The mowing knives are driven by rocker arm drive via PTO on basic machine.

PTO Speed Change

Shifter (B/2) is for turning on/off the mowing drive or the PTO driven implement.

- Move shifter forward = off
- Move shifter backward = on
- Only change gears when the machine is stopped (decoupled).
- The pointer on the shifter indicates the current gear engaged on the shift pattern located on the steering handle lining (fig. F).
3. Devices and Operating Elements

Steering Handle

Steering Handle Height Adjustment

- Press down locking lever (B/3), until notches are free.
- Adjust handlebar to desired height (fig. G).
- Release locking lever and fit handlebar into proper notch, so that locking lever swivels back into its original position.

Coupling Attachments:

- Pull eccentric lever backward (interlocking lever is opened).
- Remove protective cap from coupling pin on the attachment.
- Insert attachment into coupling hole on basic machine.
- Push eccentric lever forward – now interlocking lever automatically locks into place (eccentric lever completely pushed forward), if not, twist attachment slightly to the left and right.

Decoupling Attachments:

- Pull eccentric lever backward (interlocking lever is opened).
- Remove attachment from coupling.
- Cover attachment coupling pin with protective cap.

Coupling Point

The machine’s quick attachment coupling point allows the mowing drive or another attachment (e.g. the snow dozer) to be mounted/dismounted fast and without tools.

The interlocking lever for coupling attachments is operated with the eccentric lever (B/1) on the handlebar.
3. Devices and Operating Elements

Mowing Attachment

The following cutter bars are available as an option:

- Universal cutter bar 117 cm
- Municipal cutter bar 117 cm
- Finger cutter bar 125 cm

Attaching the Cutter Bar to the Basic Machine

For attaching/removing the cutter bar, fit the knife guard and wear safety gloves!

Assembly of Universal and Municipal Cutter Bar:

The basic machine is supplied with coupling plate (6) and knife driver (16). Fit these to the cutter bar before you attach the cutter bar to the basic machine the first time – see illustration on page 21.

On the Universal Cutter Bar

- use the long bolts for the cutter bar blades (11 = M8 x 30) and the two centering sleeves (8) (on the outer bolts);
- also attach the adjustable running bases (21).

On the Municipal Cutter Bar

- fit the distance bar (8) between coupling plate and cutter bar.

Assembly of the Finger Cutter Bar:

- The basic machine is supplied with a knife driver (16). Fit this to the cutter bar (without using a distance bar (6)) before you attach the cutter bar the first time to the basic machine – see illustration on page 21.

- On the Finger cutter bar use the long attachment bolts (14) supplied with the machine.

Attaching the Cutter Bar to the Basic Machine:

- Loosen the clamping bolt (17) on the knife driver and undo the bolts on the driver by approx. two turns (18).
- On Universal and Municipal cutter bars, attach the coupling plate on the cutter bar to the cutter bar carrier (12) with bolts (1) and washers (2). Tighten them evenly and lock with nuts (7).
- On the Finger cutter bar without coupling plate, bolt the cutter bar to the carrier (12) with bolts (1) and washers (2). Tighten them evenly and lock with nuts (7).
- Tighten the knife driver bolts (18) until there is a play of 0.1mm between the adjustment bolt and the ball-shaped drive pin (13). Then tighten the clamping bolt (17) (for setting see page 37).
- Check all attachment bolts for tight fit.

To remove the cutter bar reverse the above order.
Exchanging Mowing Knives

**Turn off the engine, remove spark plug connector and wear safety gloves!**

**Universal Cutter Bar and Finger Cutter Bar:**
- Remove knife driver (16).
- Push the mowing knife out sideward. Do not push with hands (risk of injuries), but with a suitable object (e.g. a hammer).

**Municipal Cutter Bar:**
- Use spanner provided in tool kit to lift pivot arms on their lifting devices until guiding pins on mowing knives are exposed.
- Move mowing knives forward to take them out.
- Clean cutter bar and grease slightly with Bio-lubricating oil.

**Fit guard before you put down mowing knife.**

Fitting Mowing Knives

- To fit new mowing knife, proceed likewise but in reverse order.
- Adjust mowing knife and knife driver screws (refer to maintenance). To check whether new knife moves smoothly, crank the engine with recoil starter – spark plug connector is removed!

**Keep clear off mowing knife!**
3. Devices and Operating Elements

Drive-Wheels
For improved traction fit wheels in such a way that the pointed parts of the tread profile point into travel direction (wheels seen from above).

Snow Chains
When working with snow chains fitted to wheels, observe manufacturer’s instructions, make sure there is sufficient clearance between chains and machine parts.

Twin-Wheels
Intermediate wheel flanges
Item no. 3616 011 (without wheels)

Drive-wheels 4.00-8
Item no. 3690 011
- To fit twin-wheels, remove wheel nuts and washers.
- Fit intermediate wheel flanges as depicted in figure L and tighten wheel nuts with washers.
- Slide anti-winding tubes (L/4) over intermediate wheel flanges and fit outer drive-wheels, using washers and wheel nuts.

After each wheel change or after fitting strake wheels and twin wheel hubs, re-tighten wheel bolts and nuts at approx. 50 Nm after the first 2 operating hours. Otherwise, always re-tighten when doing maintenance work.
Strake Wheels

Item no. 3617 011 for fitting drive-wheels 4.00-8

- To fit strake wheels, remove wheel nuts and washers.
- Fit strake wheel flanges with bolts and tighten wheel nuts with washers (see fig. M).
- Slide strake wheels onto hexagonal pivots and tighten with tommy screws (M/5).
4. Commissioning and Operation

Commissioning

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.

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. 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.
Each time you take up operation, i.e. before you start the engine, check whether

- the fuel tank contains enough fuel,
- the oil dip-stick (D/10) shows an adequate level of engine oil (for checking, bring engine in horizontal position).

- the oil dip-stick (A/10) shows an adequate level of transmission oil in basic machine (for checking, bring engine in horizontal position). Lower notch marks minimum, upper notch marks maximum oil level.

- transmission oil (pivot arm drive) is filled to the brim of the drain opening (see maintenance and repair).

Only take power mower into operation with all protective devices mounted and positioned to provide protection!

Careful when starting the engine in closed rooms!

Ensure good ventilation and fast escape of exhaust fumes. Exhaust fumes contain carbon monoxide which acts toxic when inhaled.

Do not touch the hot engine – danger of burns!

Do not touch or remove the ignition line and spark plug connector while the engine is running.
Starting
Petrol Engine

- Open fuel tap (D/11).

- **Cold engine:** turn CHOKE lever (C/4) to position “CHOKE”.

- **Warm engine:** leave CHOKE lever in normal operating position or turn half way.

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

- Press down safety lever (B/6), pull hand clutch lever (B/5) and lock pawl (B/7) (start position).

- Pull starting-cord on handle (D/4) 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 turn choke lever back to operating position, if necessary.
4. Commissioning and Operation

Switching off Petrol Engine

- Set drive-gearshift and mowing gear-shift to “0”.
- Set speed control lever to idle position and let engine run idle for approx. half a minute.
- Release safety lever (B/6).
- Close both fuel taps.

**Note:** The safety lever (B/6) also serves as emergency off-switch. If necessary, release lever to turn engine off.

For longer periods of no operation, do not switch off engine with engine-off-switch, but close fuel tap and let engine run until it slowly comes to a complete stop due to lack of petrol. This ensures the carburetor to be empty and no resin residue to deposit.

Secure power 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/4).
- Turn on mowing drive, pull shifter (B/2) backwards.
- Press down safety lever (B/2).
- Pull slightly hand clutch lever (B/6) (pawl unlocks), slowly release and press the throttle at the same time.

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

- Move speed control lever to idling position.
- Pull hand clutch lever (B/6) and hold.
- Move shifter (B/4) to position “R”.
- Slowly release hand clutch lever while pressing the throttle.

For direction change from reverse to forward proceed likewise, but move shifter to required forward speed.

Note for Mowing

After mowing or in case of grass clogging:

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

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 point).

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.
- Press down safety lever, pull hand clutch lever and lock pawl (start position).
- Re-start engine.

![Mowing on flat areas and slopes](image)
Running Bases on Cutter Bar

To prevent the mowing knife from being damaged by stones or other objects during mowing, the cutter bars are equipped with height-adjustable running bases, depending on the cutter bar version (or optional equipment).

For height adjustment, proceed as follows:

- Loosen hexagonal nut (1).
- Lift cutter bar a few centimetres and move running base (2) to required position.
- Re-tighten hexagonal nuts.
- Adjust both running bases to same height.
5. Maintenance

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 8 operating hours,
- only with engine switched off and mower in horizontal position.
- Clean oil filler plug (D/9) 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

Air Filter

Clean air filter (C/3) after every 25 operating hours at the latest or at least every 3 months, in case of heavy dust occurrence after a few hours.

- Clean air filter and surrounding parts.
- Remove air filter cap.
- Carefully remove foamed preliminary filter.
- Remove paper filter element and tap on a smooth surface.

Do not blow clean with compressed air. 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.

Do not soak foamed filter element in oil.

- Insert paper filter element.
- Insert foamed preliminary filter.
- Close air filter cap.

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 screen (D/5) and remove dirt and plants sucked in.
- Take off fan case at least once per year, preferably before start of season. Clean cooling fins 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 (D/3) for plant trash and clean, if necessary. Otherwise

Danger of fire!

Check each time before you start operation.
5. Maintenance

Cleaning the Spark Plug and Setting the Gap

After every 50 operating hours
- Remove soot deposits from spark plug electrodes with a steel brush.
- Check the gap and, if necessary, re-adjust to 0.6–0.7 mm.

Exchange spark plugs after approx. 100 operating hours.

- Exchanging spark plug:
  Screw new spark plug into cylinder head by hand. Then continue with a spark plug wrench. Turn wrench at 90° or a torque of 20 ... 30 Nm.

Fuel Hoses

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

Cleaning the Fuel Strainer

Check the strainer of the fuel tap (D/11) 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

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 25 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 0.08–0.11mm 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 adjustment bolt 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.

Idling Speed 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.

Governor spring in hole 2

Keep governor spring, speed control lever and linkages free from dirt and plant trash at all times.
5. Maintenance

Machine

Gearbox on Basic Machine
Check transmission oil level in basic machine before you take up operation and after every 8 operating hours. (Oil dip-stick and oil filling opening (A/10). With the machine in horizontal position, oil level must reach space between max. and min. marks.

- Remove oil dip-stick, clean with a clean cloth and screw it in again.
- Then screw it out and read oil level, refill transmission oil, if necessary.

Exchange transmission oil in basic machine after the first 50 and subsequently after every 300 operating hours while the engine is still warm.

- For this purpose, keep oil filler plug (A/10) and drain plug (A/9) extremely clean as well as surrounding parts to prevent dirt from penetrating into the gearbox.
- Open drain plug, collect old oil in proper container and dispose of properly.
- Check sealing washers and exchange, if necessary.

- Screw down drain plug with sealing washer and tighten.
- Fill fresh transmission oil up to filling mark “max”.
- For proper oil quantity and quality, refer to chapter “Specifications”.
- Close filling opening with plug/dip-stick.

Drive-Wheels

- Before commissioning the machine and after each wheel change, re-tighten wheel bolts after the first 2 operating hours at 50 Nm and check. Otherwise, re-tighten wheel bolts or wheel nuts each time you do maintenance work.
- Check tyre air pressure regularly. For smooth driving, make sure that there is the same air pressure in front and rear tyres respectively.

Coupling Points

After every 25 operating hours or after each cleaning with air-compressed water jets, lubricate the lubricating nipples (1) with Bio-lubricating grease. Additionally, lubricate PTO shaft each time an implement is mounted.
5. Maintenance

Adjustments on Clutch Hand Lever

Check clutch play or clutch adjustment each time you operate the machine. If necessary, re-adjust (especially after commissioning the machine during break-in period, and after exchanging clutch linings).

- Loosen lock nut (2) on adjustment screw (1).
- Set adjustment screw to a play of \( A = 5 \text{ – } 6 \text{ mm} \).
- Tighten lock nut.

Safety Circuit

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

- With clutch engaged and upon release of safety lever (B/6) 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

Mowing Drive

Transmission oil level in mowing drive

Before commissioning the machine and after every 25 operating hours check the oil level.

- For this purpose, dismount mowing drive and place it vertically onto cutter bar or cutter bar carrier.
- Open oil drain plug (2). The oil level should barely reach the opening and should at least be 1 cm below the opening. Refill oil, if necessary (transmission oil SAE 90-API-GL).
- Check sealing washer, replace if necessary.
- Screw drain plug in again and tighten.

Oil Change

First oil change is after 50 operating hours and subsequently after every 300 operating hours.

- Clean oil drain plug (2) and oil filler plug (1) and surrounding parts.
- Open drain plug, drain the oil, collect old oil in proper container and dispose of properly.
- Screw in drain plug with sealing washer and tighten (check sealing washer and exchange, if necessary).
- Fill fresh transmission oil (see specifications) up to “max” mark (see fig. Transmission oil level). Note: Transmission oil can also be filled into drain opening.
5. Maintenance

Adjusting Knife Driver

Before each mowing operation and after every 8 operating hours check whether play between adjustment screws and spherical drive pin is 0.10 mm.

For this purpose, proceed as follows:

- Loosen clamping screws (1).
- Adjust the play by turning the driver screws (2) left or right.
- Re-tighten attachment screws (1).

Check or adjust while the rocker arm is moved to the right or left.
Mowing Attachment

Universal cutter bar

Adjusting Knife Holders and Guide Pieces

- Slightly loosen hex head bolts (7) and hexagonal nuts (6).
- Slide mowing knife to project approx. 0.5 to 2 mm over bottom blades.
- Slightly press knife holder (4) and guide pieces (5) against the mowing knife, as depicted.
- Tighten hexagonal nuts evenly.
- Turn adjustment bolts (7) to the right to remove a possible play (X).
- After adjusting the play, check mowing knife for smooth movement by cranking the engine with recoil starter (before, remove spark plug connector). Knife must not sit too tight.
- For cutter bars equipped with 4 or 6 knife holders, adjustment is easier when the outer knife holders are mounted before the inner knife holders are.
- When gliding faces of guide pieces (5) show considerable wear and tear, turn them 180° and use reverse side to glide on knife.
Finger Cutter Bar

Adjusting Knife Guiding Devices

In the course of long-time operation, the cutting quality declines due to irregular wear and tear on the knife guiding devices. To solve this problem, adjust the devices.

Correct Adjustment:
The guide bar (2) is located under the knife holder (3) without play and contacts the front end of the knife holder. The sloping gliding faces of the friction plate (4) and the guide bar (2) are parallel and set to a play (X) of 0.2 mm – 1 mm. Apart from that, the gap (Y) between the inwards projecting ends of knife blades (1) and the friction plate (4) is 1 mm – 2 mm and the mowing knife can be moved easily by hand.

To remove a play between knife holder (3) and guide bar (2), turn the adjustment bolt (7).

To correct an excessive play (X), loosen the 2 attachment screws (6) and move the friction plate (4) to correct the play. Then re-tighten the 2 attachment screws (6). These re-adjustments might result in a possible play between knife holder (3) and guide bar (2). Remove this play by turning adjustment screw (7).

To correct gap (Y), a number of shims (5) must be added or removed. Generally, such a correction becomes only necessary, if a wrong number of shims (5) was placed under the friction plate (4) when assembling the knife guiding devices.
5. Maintenance

Municipal cutter bar

Maintenance and Adjustment of Pivot Arm Guides

Lubricate lubricating nipple (11) with Bio-lubricating grease after each mowing operation or after spraying the cutter bar with water, but lubricate at least after every 8 operating hours. In addition, lubricate new pivot arm guides after approx. one operating hour.

After each knife change and after every 8 operating hours, apply a small amount of Bio-lubricating grease onto driver pins (4) of the mowing knife.

After every 25 operating hours check pressure of pivot arms (150 N) with a commercial spring balance (AGRIA no. 60479).

To increase or adjust pressure of pivot arms, first loosen the 2 attachment bolts (7) of bearing (9).

Use adjustment bolts (8) to set the correct pressure to 150 N. Then re-tighten the 2 attachment bolts (7).

Each time you loosen the bolts (7), make sure that bearing (9) is at a right angle to the back of the cutter bar (5).

Also make sure, tips of knife blades project approx. 4 to 5 mm from the tips of the cutter bar blades (lower blade).

Replace driver bushing (3) or driver pin (4) when the play between both parts exceeds 2 mm or when the driver bushing (3) contacts the pin support (2).

When fitting new clamping sleeves (10), ensure that slots point outwards.

---

Municipal cutter bar with exchangeable bottom knife

1. Cutter bar blade
2. Pin support
3. Driver bushing
4. Driver pin
5. Back of cutter bar
6. Attachment bolt
7. Adjustment bolt
8. Bearing
9. Clamping sleeve
10. Lubricating nipple

Pressure: 150 N
Spring balance

4-5 mm
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.
5. Maintenance

General Maintenance

- Watch out for fuel and oil leakage, repair if necessary.
- Regularly check screws 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.

Cleaning

Cutter Bar

After each mowing operation, clean cutter bar thoroughly with water. Above all, remove dirt collected between knife blades. For this purpose, dismount 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 air-compressed water jets 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.

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 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).*

- Drain engine oil and fill a tea-spoon (approx. 0.03l) of engine oil into spark plug opening. Slowly crank engine. Fill in fresh engine oil.

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 standing under load and unsupported.

d) **Pull clutch**

Always pull clutch mower with hand clutch 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.
### 6. Troubleshooting

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

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
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</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 pulled</td>
<td>Set Choke-lever to operating position “BETRIEB”</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Safety circuit is not set to start position</td>
<td>Set safety circuit to start position</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>- Fuel tank empty or poor fuel</td>
<td>Fill fresh fuel</td>
<td>25</td>
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<tr>
<td></td>
<td>- Fuel line clogged</td>
<td>Clean fuel line</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>- Defective spark plug</td>
<td>Clean, adjust or exchange spark plug</td>
<td>32</td>
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<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>26</td>
</tr>
<tr>
<td></td>
<td>- Spark plug connector loosened</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>
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<tr>
<td></td>
<td>- Water or dirt in fuel system</td>
<td>Drain fuel and fill fresh fuel</td>
<td></td>
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<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter or exchange</td>
<td>31</td>
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<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 33</td>
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<tr>
<td>Excessive temperature in engine</td>
<td>- Low engine oil level</td>
<td>Refill oil immediately</td>
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<td></td>
<td>- Impaired cooling</td>
<td>Clean cooling fan grid, clean internal cooling fins</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 33</td>
</tr>
<tr>
<td>Misfirings in engine at high speeds</td>
<td>- Short firing intervals</td>
<td>Adjust spark plug</td>
<td>32</td>
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<tr>
<td></td>
<td>- Incorrect idle mixture</td>
<td>Adjust carburetor</td>
<td>* 33</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>32</td>
</tr>
<tr>
<td></td>
<td>- Carburetor misadjusted</td>
<td>Re-adjust carburetor</td>
<td>* 33</td>
</tr>
<tr>
<td></td>
<td>- Air filter clogged</td>
<td>Clean air filter</td>
<td>31</td>
</tr>
</tbody>
</table>
## 6. Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine does not run smoothly</td>
<td>- Speed control linkages clogged or jammed</td>
<td>Clean speed control linkages</td>
<td>33</td>
</tr>
<tr>
<td>Engine does not stop when set to stop</td>
<td>- Defective engine-stop-line, earth missing</td>
<td>Check line and connection, check earth contact</td>
<td></td>
</tr>
<tr>
<td>Engine output too low</td>
<td>- Loose cylinder head or damaged sealing - poor compression</td>
<td>Tighten cylinder head, exchange sealing Have engine checked</td>
<td></td>
</tr>
<tr>
<td>Clutch does not decouple</td>
<td>- Hand clutch lever misadjusted</td>
<td>Adjust clutch free play</td>
<td></td>
</tr>
<tr>
<td>Clutch slips</td>
<td>- Hand clutch lever misadjusted - Worn out clutch</td>
<td>Adjust clutch free play Exchange clutch disc</td>
<td>35</td>
</tr>
<tr>
<td>Excessive vibration</td>
<td>- Loosened attachment bolts</td>
<td>Tighten attachment bolts</td>
<td>42</td>
</tr>
<tr>
<td>Mowing output suddenly declines</td>
<td>- Dull knives</td>
<td>Exchange or re-grind knives, remove burr with hand grinding stone.</td>
<td>41</td>
</tr>
<tr>
<td>Plant trash gets caught between knives</td>
<td>- Dull knives - Knives not straight - Blades are not aligned - Bottom pivot arms warped</td>
<td>Exchange or re-grind knives Remove knives and re-align Re-align blades Re-align arms</td>
<td>41</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 holders and guide pieces</td>
<td>38–40</td>
</tr>
<tr>
<td>Blades are not on top of each other</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.
## Lubricants, Varnishes, Wear Parts

### AGRIA Order No.

### Lubricants and Anti-Corrosives

<table>
<thead>
<tr>
<th>AGRIA No.</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>
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<tr>
<td>609 25</td>
<td>Transmission oil SAE 90 – API GL 5</td>
<td>bottle</td>
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<tr>
<td>718 98</td>
<td>Transmission flow grease, BP Energrease LS-EP00</td>
<td>can</td>
<td>5kg</td>
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<tr>
<td>690 34</td>
<td>Bio-Lubricating oil</td>
<td>bottle</td>
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<tr>
<td>690 35</td>
<td>Bio-Lubrication grease</td>
<td>cartridge</td>
<td>400g</td>
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<tr>
<td>608 94</td>
<td>High-Temperature paste LM 508 ASC</td>
<td>tube</td>
<td>100g</td>
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<tr>
<td>695 73</td>
<td>Special hot bearing grease</td>
<td>tube</td>
<td>45ml</td>
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<tr>
<td>695 74</td>
<td>Special hot bearing grease</td>
<td>tube</td>
<td>225ml</td>
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<tr>
<td>604 80</td>
<td>Special purpose grease – water resistant</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>
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<tr>
<td>690 36</td>
<td>Bio-slushing oil</td>
<td>bottle</td>
<td>500ml</td>
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<tr>
<td>673 50</td>
<td>Fuel stabilizer</td>
<td>bottle</td>
<td>125ml</td>
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### Glues (for screw fastening), Surface Sealing

<table>
<thead>
<tr>
<th>AGRIA No.</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
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</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>AGRIA No.</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>AGRIA No.</th>
<th>Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>686 11</td>
<td>Air filter set (paper element and preliminary filter)</td>
<td></td>
</tr>
<tr>
<td>671 87</td>
<td>Spark plug Bosch WR7 AC</td>
<td></td>
</tr>
<tr>
<td>009 05</td>
<td>Sealing washer 14 x 20 x 1.5 (engine oil drain plug)</td>
<td></td>
</tr>
<tr>
<td>684 16</td>
<td>Sealing washer (engine oil dip stick)</td>
<td></td>
</tr>
<tr>
<td>009 25</td>
<td>Sealing washer 14 x 18 x 1.5 (drain plug of gearbox housing)</td>
<td></td>
</tr>
<tr>
<td>009 16</td>
<td>Sealing washer 16 x 22 x 1.5 (drain plug of gearbox housing)</td>
<td></td>
</tr>
<tr>
<td>604 79</td>
<td>Spring balance</td>
<td></td>
</tr>
</tbody>
</table>

### Lists of Spare Parts

<table>
<thead>
<tr>
<th>AGRIA No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>997 075</td>
<td>Two-wheel tractor 3600/Power mower 3600 BM</td>
</tr>
<tr>
<td>997 088</td>
<td>Attachments for 3500; 3600; 3600 BM</td>
</tr>
<tr>
<td>997 077</td>
<td>Robin engines</td>
</tr>
<tr>
<td>997 062</td>
<td>Cutter bar</td>
</tr>
</tbody>
</table>

\[1\] = Depending on version
Designation of Parts

4-Stroke-Petrol Engine
Robin EH 17 D

Figure C
2 Carburetor
3 Air filter
4 Choke lever
5 Protected exhaust

Figure D
1 Fuel tank
2 Fuel tank cap
4 Starter handle
5 Recoil starter
6 Cooling-air grille
7 Engine protective base
8 Engine type designation and no.
9 Engine oil drain plug
10 Engine oil filler plug with dip-stick
11 Fuel tap
12 Engine type plate
13 Spark plug/spark plug connector
Designation of Parts

4-Stroke-Petrol Engine
Robin EH 17 D

Figure C

Figure D
Electric Circuit Diagram

1 Engine
2 Magnet ignition system
3 Switch in safety lever

bl = blue
### Inspection and Maintenance Chart

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>After operating hours</th>
<th>min.</th>
<th>min.</th>
<th>B</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean engine, check bolts and nuts</td>
<td>A</td>
<td>½-1</td>
<td>W</td>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Check engine oil level, refill, if necessary</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>First engine oil change, subsequent oil changes</td>
<td>W</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Check air filter</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Clean air filter-foamed-preliminary filter</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Replace air filter element, earlier, if required</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Clean fuel strainer</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Replace fuel hoses</td>
<td>W</td>
<td>W</td>
<td>*</td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Clean cylinder head</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Clean cooling-grille, guide plates, cooling ribs – earlier, if required</td>
<td>W</td>
<td>W</td>
<td>F</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Clean carburetor and adjust</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Adjust valve lash</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Clean spark plug, adjust electrode gap</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Check transmission oil level</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>First transmission oil change, subsequent oil changes</td>
<td>W</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Re-tighten wheel bolts and nuts</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Adjust hand lever free play</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Lubricate attachment coupling</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Mowing drive: Check transmission oil level, change transmission oil</td>
<td>K</td>
<td>K</td>
<td>W</td>
<td></td>
<td></td>
<td>36</td>
</tr>
<tr>
<td>Cutter bar: Lubricate all gliding parts, also, each time you change knives</td>
<td>K</td>
<td>K</td>
<td>W</td>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Cutter bar: Check play of guide pieces, also, each time you change knife</td>
<td>W</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Municipal cutter bar: Check pressure of pivot arm</td>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Municipal cutter bar: Lubricate pivot arm guide</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Municipal cutter bar: Lubricate driver pin – also with each knife change</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Re-grind mowing knife, earlier if required</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>General lubrication points</td>
<td>K</td>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td>41</td>
</tr>
</tbody>
</table>

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 3600 BM
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 March 1996

Dieter Zimmermann
Managing Director
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