

Operator's Manual



Remote control mower AS 1000 OVIS RC

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en-Translation of the Original Operator's Manual

Notes on the operating manual

Dear customer,

Congratulations on your purchase. You have acquired a reliable quality product of the "AS-Motor" brand.

This product has been manufactured according to modern manufacturing methods and comprehensive quality assurance measures. Only when you are satisfied with your device have we attained our goal.

These operating instructions contain important information to help you avoid hazards and to increase the reliability and the life span of the device.



Read the operator's manual before using the device. Share this operator's manual and the operator's manual of the engine manufacturer with other users of the device.

Contact

If you have questions about your device, please contact your customer service.

For international partners, please see: www.as-motor.com.

Device data

Please fill in all data referring to your device. When ordering spare parts, provide your dealer with the serial and engine numbers.

Serial number (see manufacturer's certificate or type plate):

Engine number:

Date of purchase:

Address of dealer:

Intended use

The device is intended for cutting and mulching grass or similar vegetation in agriculture, and forestry. Woody growth must not be older than maximally one year.

The device is intended for use by instructed users. These users must be able, due to their knowledge and experience, to use the device and detect and avoid possible dangers of their own.

Only use accessories and cutting tools that have been approved by the manufacturer.

Any other use exceeding this purpose is inadmissible.

Observe the information in chapter "Maintenance". Otherwise, operational safety is endangered.

The user of the device is responsible for accidents or damage that can happen to other persons or their property!

In particular, the device must not be used:

- as a toy.
- to transport people.
- to cut hard objects, stones, rubble, or pieces of wood.
- to trim bushes, hedges, and shrubbery.
- to cut plants in balcony boxes or containers or on roofs.
- as shredder for shredding tree and hedge cuttings.
- as drive unit for working tools and any type of tool sets that are not authorised by the manufacturer.

The device is not licensed for driving on public roads.

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Explanation of the symbols

Warnings

In these operating instructions, warnings are marked with signal word and colours. The signal words and colours out used to point to following hazards and potential consequences.

▲ Danger

Imminent danger

Indicates an imminently hazardous situation with a **high level of** risk that, if not avoided, **will** result in death or severe injury.

A Warning

Hazardous situation

Indicates a possibly hazardous situation with a **medium level of** risk that, if not avoided, **could** result in death or (severe) injury.

▲ Caution

Hazardous situation

Indicates a possibly hazardous situation with a **low level** of risk that, if not avoided, **could** result in minor or moderate injury.

Notice

Danger of property damage

Indicates a possible risk of damage of the device and its surroundings.

Symbols in the instructions

Warning.

The device is only as safe as its user. Carelessness, negligence or an operating error could result in severe injuries or death.

In these operating instructions, the following symbols are used to denote special dangers.



These symbols denote special dangers.



Prohibition sign. These symbols denote inadmissible procedures.

Dir The

Directive sign. These symbols denote required protective measures.

Symbols in the text

- 1. A numbered text requests you to act or shows a process sequence.
 - ⇒ An indented arrow marks the result of a step.
- An arrow that is not indented refers to the result of a sequence of actions.

Notice: An additional piece of information is marked by the work "Notice" written in bold letters.

Signs on the device

The following signs are attached to the device to provide a reminder that during use of the device, you will have to be careful and attentive:



These operating instructions contain important information to help you avoid hazards and to increase the reliability and the life span of the device.

Read the operator's manual before using the device.



Risk of injury!

Make sure that no one is within the danger zone of the device. Objects may be ejected.



The quickly rotating blade can cause life threatening injuries or immense property damage! Be especially careful to keep your hands and feet away from the blade when the device is put into operation.



Prior to any repair and maintenance work, pull off the spark plug connector.

▲ 6⁻¹• ∰

Prior to repair and maintenance work, pull off the key.



Danger of tipping when driving crosswise to the slope!

Observe the safety instructions, especially those regarding the "Danger zone" and "Driving on slopes".



Danger of tipping when driving uphill and downhill!

Observe the safety instructions, especially those regarding the "Danger zone" and "Driving on slopes".



Danger to life!

On slopes, the device can topple over and slide towards you or run you over. Never stay below the device when on a slope.

Observe the safety instructions, especially those regarding the "Danger zone" and "Driving on slopes".



Clean the ventilation grid! The cooling air of the motor is sucked in through the ventilation grid of the engine cover. Always keep the entire surface open and free!



Noise is causing health problems. Use personal ear protection to avoid hearing damage. Wear safety glasses.



Hot surface. Do not touch the engine or the silencer. These parts become very hot during operation and you can get burned.



Do not clean the device with water spray or high-pressure cleaner!



Check the engine oil level! Before and after each use, check the engine oil level.

Type plate

The type plate on the device provides you with information on the device type and the technical data.



- 1 Name and address of the manufacturer
- 2 Device designation
- 3 Type designation
- 4 Rates power output in kW / engine speed
- 5 Weight
- 6 Year of manufacture
- 7 Serial number
- 8 Conformity marking

Safety instructions

Get informed!

For your safety, read these operating instructions carefully. Familiarize yourself with the control elements and the proper use of the device. Failure to observe the safety information and instructions can result in serious injuries or fatal accidents. Share these operating instructions with other users of the device.

Also read the operating instructions of the transmitter and receiver.

Before starting to work: Have skilled personnel show you the safe handling of the device.

Get familiar with the device in a wide, open and flat terrain first.

User restrictions and hours of operation

Never allow children or persons who are not familiar with the operator's manual to use the device. Persons under 18 years of age may operate the device only under proper supervision. Local regulations determine the minimum age of the operator and the operating times.

Unsuitable for operation of the device are persons who

- are under the influence of alcohol, drugs or reaction delaying medications.
- have physical and mental/emotional impairments.
- are tired or sick.



Persons with pace makers must not touch live parts of the ignition system.

Safe handling of fuel

Fuel is toxic and highly flammable. There is a burn and explosion hazard!

Keep fuel away from ignition sources and do not smoke during handling.

Do not inhale fuel vapours, they are dangerous to your health.

Use gloves and avoid skin contact with the fuel.

Always refuel outdoors when the engine is cold and stopped completely. When doing so, always use a filler spout or a funnel.

Do not spill any fuel or do not let fuel enter canalisation or drain away.

When fuel has overflown, do not start the device until the fuel vapours have evaporated (wipe dry). Move the device away from the spilled fuel.

Always close the tank cap tightly and do not open it while the engine is running or the device is still hot.

Empty the fuel only when outdoors. Use the approved container for this or run the fuel tank empty.

Store the fuel away from children and keep it in a suitable container in a dark, cool and dry place.

Never store the device when there is fuel in the tank inside a building where fuel vapours might come into contact with open fire or sparks.

Immediately replace the fuel tank or tank cap if they are damaged (authorised service centre).

First aid

When swallowing fuel or inhaling fuel vapours, do not force vomiting and immediately consult a doctor.

In case of skin contact, immediately wash with water and soap. Change your soiled clothing as soon as you can.

Measures in case of a fire

In case of a fire, use foam, dry powder extinguisher, or carbon dioxide (CO_2) . Never douse with water!

Check the device prior to use

To ensure safe operation and to avoid hazards, injuries and damage, check the device before each use.

Visually check that the blade, protection skirt, impact protection, covers, ejection rubber, drive and fastening parts, cables and cable connections are in perfect condition and firmly seated.

Never use the device if covers, impact protection, ejection rubber or protection skirt are defective or not mounted.

Do not remove, change or override any safety devices or control elements.

Have an authorised service centre check your device if the blade does not stop within 7 seconds.

Observe the maintenance instructions (see chapter "Maintenance").

Prior to use, check functions and safety functions of the device (see chapter "Maintenance") to ensure safe operation of the device.

Use caution during operation

Make sure that help can be provided in case of an emergency.

Only work during daylight or with adequate artificial lighting. Never work in the event of uncertain weather conditions and risk of lightning.

Be especially carefully when mowing on soft ground, nearby landfills, ditches, dikes and water edges.

Make sure that no persons, children or animals ride along.

Do not drive yourself on the device.

Danger of injury during motor start

The motor must not be started:

- When fuel was spilled.
- In closed or badly ventilated rooms (danger of poisoning!).
- When you or other persons are in close proximity.

Risk of injury when the blade is running

Approach the stationary unit only from behind, set the knife down and wait for the knife to come to a standstill.

- when you drive on surfaces other than the mowing area.
- when you do not mow.
- when you do not have a complete overview of the area to be mowed.
- when the device must be manoeuvred out of a dangerous position.
- when the trafficability of the area to be mowed is too unsafe.

Risk of injury when the motor is running

Switch off the engine, wait for the blade and the engine to stop and remove the key at the main switch

- before you transport the device.
- before you step away from the device, even for just a short time.
- before you clean or check the device or before you carry out work on the device.
- before you unblock or unclog the discharge area.

Risk of injury due to uncontrolled rolling

Never switch off the device using the main switch. Otherwise, the parking will no longer be activated and the device can roll away.

Only park the device on flat surfaces.

Risk of burns

Do not touch the muffler, the engine, and the gearbox. These parts become very hot during operation and you can get burned. If a jumpy movement occurs, the risk of additional injuries can result.

Vibrations

Have an authorised service centre check the device

- when the blade has hit an object.
- if the device starts to vibrate unusually severely.
- Unusual vibrations are an indication that
- blades are missing or broken,
- the blade is worn excessively or on one side or
- damage to the engine or cutter deck fastening.

Mowing surfaces with fire hazard

- Carry a sufficient amount of suitable extinguishing media.
- Observe the moved area even after mowing to make sure that no fire breaks out.

To prevent a fire hazard, always keep the following components free of dirt, grass, hay, leaking oil, grease, etc.:

- engine, ventilation grid
- silencer (manifold, protection, spaces)
- battery, cable connections, electric drive units
- area around the fuel tank
- belt drives

Prior to mowing

Personal protective measures



During mowing, always wear safety shoes with good grip and long trousers. Do not mow with open sandals or while shoeless.



Wear safety gloves to protect yourself against injuries.



Noise is causing health problems. Use personal ear protection when you are less than 15 metres from the device to avoid hearing damage.



Wear safety glasses and headgear.

Ask your specialised dealer about suitable protective equipment.

Preparing the mowing area

Prior to mowing, carefully check the perimeter of the lawn. Remove rocks, pieces of wood, bones, wires, and other objects that could be picked up and thrown out by the device.

Remove live cables from the mowing area. These can be damaged during mowing and cause an electric shock or short circuit.

Danger area



Within the danger area of the device, there is a risk of injury.

The size of the danger zone depends on the conditions of the mowing area.

Stones, trash or other objects on the mowing surface can be caught by the blade and thrown out, causing serious injury. The area in front of the device is especially dangerous. On uneven surfaces, the blade can touch the ground and catch hidden objects. Never work when persons, children, or pets are in the danger area.

There is a risk of injury from the rotating blade. Keep your hands and feed away from moving and rotating parts.

Never stand in the danger zone of the device during operation. Always approach the stationary device from behind. Immediately leave the danger area to the rear after engaging the blade. Only approach the stationary device from the rear when disengaging the blade.

Dangerous situations can result from unintended steering or driving movements. Persons or obstacles can be hit or run over.

Make sure

- that nobody else besides the user is on the mowing area.



- that you are not in the danger zone.



There is a risk of injury on slopes due to tipping or sliding. The device may trap or roll over people. Material goods can be damaged. Never stay below the device when on a slope. Never work when persons, children, or pets are in the danger area.

There is a risk of property damage in the danger area around the device. Make sure that no vehicles, buildings or other material goods are damaged in the danger area.

Working near the road requires special care.

- Pay attention to traffic when working close to roads. Do not expose yourself to any risk from road traffic.
- Make sure that the road is outside the danger area and that you do not endanger any road users.

Recommended position for the operator





Outside the danger area (X), on the side of the device.

Stop the device when you change your position.

 Choose your position so that you are not in the danger area and you have a full view of the mowing area at all times.

Danger area for the operator when mowing



- With a radius of at least 15 meters around the device.

Danger area for the operator with unclutched blade

- A 5 metre radius around the device.

Driving on slopes

Observe the notices for the danger area.

If the device, while in use, stops in steep terrain or the engine cuts out, the device can roll away.

- If possible, stop the device crosswise to the slope.
- Take suitable safety measures to prevent the device from rolling away unintentionally. Secure the device, e.g. with a cable winch or by blocking the chains with a squared lumber.

Danger due to tipping



There is a risk of injury on slopes due to tipping or sliding. The device may trap or roll over people. Material goods can be damaged. Never stay below the device when on a slope. Never work when persons, children, or pets are in the danger area.

Safe work in steep terrain is only possible by a trained operator under ideal conditions and adapted driving style.

If the specified maximum slopes can be achieved also depends on the direction of travel, local conditions and other factors.

- Make sure that you know the slope of the hill or that the slope can be determined on site.
- If the ground is uneven, it is not possible to determined the slope without any doubt. The specified maximum slope inclinations can then not be achieved. There is an increased risk of tilting and accidents.
- Unfavorable conditions may reduce the maximum attainable slope, e.g. wetness, loose and slippery ground, dense growth, mowed grass, etc.
- Be extremely cautious when changing the direction.

- Always keep the speed low when moving on slopes.
- Do not start abruptly and do not brake abruptly.



 While driving uphill or downhill, only use the device up to a maximum slope inclination of 44°.



- Only use the device across the slope up to a maximum slope inclination of 55°.
- Do not turn if the slope inclination exceeds 44°.

If the downhill chains get caught in depressions, terrain edges or paths, the device can tip over or slide away.

 Do not drive near dangerous areas (e.g. walls, slopes, steep declines, edges of bodies of water etc.).

When the uphill chains encounter obstacles, the device can tilt or slip.

- Only drive when you know about the terrain conditions and terrain is free of obstacles.
- Watch for hills, dips and other visible hazards such as tree stumps, roots, branches, rocks, etc.

If the device tilts or slips

- Never try to stop a tilting or sliding device. Severe injuries can result.
- Remove leaking fluids (oil, fuel, battery acid) from the device and the floor. Deposit of contaminated soil environment friendly according to the local regulation.
- Undetectable damage may have occurred to the device. In case of malfunctions, there is a risk of injury. Have an authorised service centre check the device.

Increased risk of tipping with additional load

Loads or attachments change the center of gravity of the device and increase the risk of tipping.

Loads and attachments are not permitted.

When work is completed

After each mowing, close the fuel valve and the tank ventilation.

Before you leave the device, wait for the blade and engine to stop and remove the key from the main switch.

After switching it off, let the device cool down for at least 20 minutes before you store it in a dry, closed, sufficiently ventilated room.

Never place the device with petrol in the tank inside a building where petrol vapours may come into contact with open flames or sparks.

Use caution during maintenance and repair

Only carry out work as described in these operating instructions. Have an authorised service centre perform all other work.

Only use blades and spare parts approved by the manufacturer. Unauthorized blades and spare parts can cause severe injuries.

Prior to all maintenance work, wait until the engine comes to a standstill and pull off the spark plug connector.

We explicitly point out that, in accordance with the Product Liability Act, we are not liable for damages that were caused by our devices if

- worn or damaged parts were not repaired or replaced on time.
- these damages were caused by improper repair.
- when changing a part, our original parts or parts authorised by us were not used.
- the repair work was not carried out by an authorised service station.

The same applies for spare parts and accessories.

Device description



- 1 Gearbox fan
- 2 Silencer
- 3 Oil dipstick / oil filler
- 4 Antenna
- 5 Receiver
- 6 Ventilation grid
- 7 Oil expansion chamber hydrostat
- 8 Air filter
- 9 Emergency stop
- 10 Status indicator
- 11 Power socket
- 12 Cover fuse compartment / fuses (see chapter "Technical data")
- 13 Blade clutch lever
- 14 Tank ventilation
- 15 Tank cap
- 16 Fill level tank
- 17 Fuel valve
- 18 Protection skirt/flaps
- 19 Frame

- 20 Type plate
- 21 Cutting height adjustment
- 22 Ejection rubber
- 23 Mower deck cover
- 25 Cutting height limit
- 25 Sliders
- 26 Chain tensioner and spring pack
- 27 Extension
- 28 Lashing eyes
- 29 Transmitter

Control elements on the device



Main switch (30) with key

You can switch on/off the circuit of the control with the main switch.



0: Off The key can be removed. 1: On

Accelerator lever (31)

Using the accelerator lever, you change the engine speed.



1: Highest speed (full throttle) Press the accelerator lever all the way down.

2: Lowest speed (idle) Pull the accelerator lever all the way up.

Lever for starter flap (choke) (32)

The choke is closed only for start up the cold engine. As soon as the engine is running, open the choke.

 <u>Close the choke:</u> Pull out the lever for the starter flap (**32**). Open the choke:

Push in the lever for the starter flap (**32**).

Operating hours counter (33)

The operating hours are counted as soon as the engine is running.

Display:

- When engine is running: engine speed
- When engine is off: operating hours

Status light (34)

The status light on the device flashes when the blade is engaged.

Emergency stop (9)



<u>Actuate Emergency stop:</u> Press the switch.

<u>Revoke Emergency stop:</u> Turn the switch in the direction of the arrow.

Fuel valve (17)



1: Reserve 2: Open

3: Closed

Blade clutch lever (13)

The blade clutch lever is a guard device. When you disengage the blade, the blade comes to a stop within 7 seconds.



Disengaging blade: Turn the accelerator lever to MIN. Move the blade clutch lever (**13**) upwards.

Engaging blade:

Lift the blade clutch lever (13), engage the latch knob (A) and slowly press the blade clutch lever (13) downwards.

Cutting height adjustment (21)



The cutting height can be continuously adjusted. To prevent unintentional adjustment of the crank handle during operation, the cutting height setting can be fixed.

The top position is the maintenance position. The blade is automatically disengaged.

Setting the cutting height: Swivel the securing bracket (**B**) upwards. Turn the cutting height adjustment (**21**).

+: Increase cutting height.

-: Decrease cutting height.

Setting cutting height:

Swivel the securing bracket (**B**) downwards.

Control elements on the transmitter



Pos.	Symbol	Function	Туре
1		Transmitter:	Start-stop switch
	STOP	Switching on, switching off	
2	•	Forward travel drive and travel speed	Joystick
	♦	Travel drive backwards and travel speed	_
3	*	Steering to the left	Joystick
	×	Steering to the right	
4	I∕I⊐	Horn/acknowledge	Button
5	(((1 2)))	Engine start	Button
6	→>	Displaying frequency	Button
7	L. R.	Trimming steering	Rotary knob
8	E.	Fast maximum speed	Rotary knob
	~ ,	Slow maximum speed	
9	-	Display	
10	А	-	Button
11	В	-	Button
12	С	-	Button

Carrying the transmitter



Fasten the belt to the transmitter in the desired way:

- Hip belt
- Carrying strap

Acoustic signals

Signals of the device

- Single honk signal after the transmitter is switched on: Radio connection between transmitter and receiver was successfully established.
- Horn sounds at intervals: Receiver is in operation. No radio contact to transmitter. Warning of battery consumption.

Signals of the transmitter

- Horn sounds twice when the transmitter is switched on: Transmitter is ready for operation.
- Horn sounds for a long time when the transmitter is switched off: Transmitter is switched off.

Optical signals

Status indicators on the device

- Flashing: Beware, blade is engaged.

Display on the transmitter



<u>Frequency:</u> After a radio contact has been established between transmitter and receiver, the frequency number is briefly displayed.



<u>Transmitter in operation:</u> Red dot jumps here and there.



<u>Warning battery capacity:</u> Quick flashing of an "L". As soon as the display appears, the transmitter can be operated for another approx. 30 minutes.



<u>Error code:</u> When the control detects an error, the error code is displayed. For meaning of this code, see chapter "Error codes".



<u>Energy saving mode:</u> If you do not actuate a button over a longer period of time, the transmitter switches off automatically.





Description	LED 1	LED 2	LED 3
No supply	Off	Off	Off
Supply is ok and ready	Green light	Flashing weak green	Green light
Some type of radio signal was received (not necessar- ily by the cor- responding transmitter)	Green light	Flashing or- ange when signal is re- ceived	Green light
Connection to the corres- ponding trans- mitter was correctly es- tablished	Green light	Flashing or- ange	Flashing green
Disturbance in HF channel (while radio connection is established)	Green light	Flashing or- ange	Flashing red
Fault while checking the EMERGENCY OFF relay	Green light	Flashing or- ange	Slowly flash- ing red
Other error sources	Off	(undefined)	Lights up or flashing red

Safety functions

To ensure safe operation at all times, the device is equipped with safety functions. To make the engine and the blade run, certain requirements need to be fulfilled. These requirements are described in the corresponding chapters.

The device is equipped with an Emergency Stop. To avert danger, switch off all functions of the device with the Emergency Stop. The device is immediately put into a safe state (see chapter "Emergency stop").

Information on mowing

Prior to mowing, check the device for completeness, proper function, and cleanliness. A dirty ventilation grid causes overheating of the engine which can result in engine damage. There is a risk of fire due to dirt on the muffler.

Frequent engagement and disengagement of the clutch increases wear of the blade drive belt and the blade brake. Especially in case of high grass, clutch engagement leads to overload.

To keep the area well maintained, mow frequently and keep the grass short.

Mow only with a sharp and undamaged blade. Check the knife and flail shaft regularly (see chapter "Maintenance"). Contact an authorised service centre if you find faults or damage during the test.

Do not mow when the grass is wet or when it is raining. The turf may be damaged and there is a danger of slipping!

Turn the device around only in already mown sections. Do not leave the device unattended while the engine is running.

Set the cutting height so that the blade edges do not touch the ground in case of uneven terrain.

For mowing, always turn the accelerator lever to full throttle to achieve the best mowing performance.



To avoid blockage during the ejection of grass, we recommend, for flat terrain, to proceed according to the mowing patterns. Mulch is shredded into much smaller pieces when you mow the terrain once again in the opposite direction.

Observe the notices for the danger area.

Stop the device when you change your position.

 Choose your position so that you are not in the danger area and you have a full view of the mowing area at all times.

Prior to starting

Checking the oil level

Notice

Incorrect oil level can damage the engine.

Prior to each use, check the engine oil level.

Observe the information in the operator's manual of the engine manufacturer.

Fuel

Fur fuel, use lead-free gas (see operating instructions of the engine manufacturer).

You can use E10 fuel. Do not store E10 fuel longer than 30 days.

Do not use E85 fuel. The fuel must contain less than 10 % ethanol.

Tanking up

A Warning

Fuel is ignited by hot engine parts.

Prior to filling up, switch off the engine and wait for at least 20 minutes until the engine has cooled down. Observe the safety instructions regarding the fuel!

Filling up with fuel

- 1. For filling, use a canister with filler spout or a funnel.
- 2. Open the canister carefully so that existing excess pressure is slowly reduced.
- Open the tank cap carefully so that existing excess pressure is slowly reduced and no fuel sprays out.
- 4. Fill the fuel tank.
- 5. Tightly close the tank cap again.

Checking and changing the battery of the transmitter

When working, always carry an extra battery.

Consequences of too weak or unsuitable batteries in the transmitter are:

- The range of the radio contact drops.
- The radio contact becomes unreliable.
- An Emergency stop is triggered.
- The device cannot be operated any longer.

The transmitter can be operated with commercially available rechargeable batteries. Only use high-quality and charged rechargeable batteries to avoid functional problems.

Checking the battery



- 1. Switch on the transmitter with the start-stop switch (1).
 - ⇒ In the display (9) the frequency number is briefly shown.
 - ⇒ In the display (9) a dot jumps back and forth: The battery is ok.
 - ⇒ The display (9) flashes an "L": Warning low battery capacity. You can continue to operate the transmitter for approx. 30 minutes.

Notice: If the batteries are unsuitable or faulty, this test can produce an incorrect result. In that case, please replace the batteries.

Changing the batteries



- 1. Move the device to a safe position and switch it off.
- 2. Loosen the locking screw at the battery compartment and remove the cover.
- 3. Replace the batteries with 2 new batteries or 2 charged batteries.
- 4. Close the cover and tighten the locking screw.
- 5. Switch on the transmitter via the start-stop switch.
- 6. Check if a dot is jumping on the display.

Adjusting cutting height

△ Warning

Risk of injury due to rotating blade.

- Only approach the stationary device from the rear before setting the cutting height.
- ► Disengage the blade before setting the cutting height.

The adjustment of the cutting heights is stepless.

Set the cutting height high enough so that the blade does not touch the ground even if the terrain is uneven. If the cutting height is set too high, objects can be ejected. In addition, the cutting pattern may deteriorate.

The top position is the maintenance position. In the maintenance position, the blade is automatically disengaged and cannot be engaged.



- 1. Stand behind the device.
- 2. Swing the safety bar (2) updwards.
- 3. Turn the crank (1), until the desired cutting height is reached.
 - ⇒ Turning in the + direction: increases the cutting height.
 - ➡ Turning in the direction: decreases the cutting height.
- 4. Swing the securing bracket (2) down to prevent unintentional adjustment of the crank handle when working.

Setting cutting height limit

A Warning

Risk of injury due to rotating blade.

Disengage the blade and switch off the engine before setting the cutting height limit.

The cutting height limit sets the minimum distance between the cutting tool and the skid.

The cutting height limit is stepless.

Set the cutting height high enough so that the blade does not touch the ground even if the terrain is uneven.



1. Loosen the securing splint and remove the extension (1) from the holder (2).



- 2. Set the extension (1) on the square (3) of the spindle.
- Place a 1/2" socket wrench handle on the extension (1) and turn the square (3) until the skid (4) reaches the desired distance.
 - ⇒ Spindle on square (3) moves in direction +: increases the cutting height limit.
 - ⇒ Spindle on square (3) moves in direction –: decreases the cutting height limit.
- 4. Put the extension (1) back into the holder (2) and fasten it with the securing splint pin.

Switching on receiver and transmitter

- 1. Insert the key at the main switch.
- 2. Turn the key to pos. I.



- 3. Turn the start-stop switch (A) clockwise to switch on the transmitter.
- 4. Wait until the horn of the device sounds once.
 - ⇒ In the display (9) the frequency number is briefly displayed.
- 5. Press the button "Horn" (4) on the transmitter to get the device ready for operation.
- ⇒ The horn signals that the device is ready for operation.

Selecting radio frequency

When you switch on the transmitter, the receiver automatically searches a suitable frequency.

If several remote controlled devices are operated at the same time or when another transmitter is located close by, faults in the radio contact can occur. If this is the case, change the frequency.

Changing the radio frequency



- 1. Continue to press the button "Horn/acknowledge" (4).
- 2. Press the button "Display frequency" (6).
- ⇒ In the display (9) the frequency number is briefly displayed.
- ⇒ When the transmitter has set a new frequency, the horns sounds and the device is ready for operation.

Training operation

A Warning

Risk of injury due to rotating blade.

Make sure that nobody is in the danger area.

Marning

Risk of injury caused by ejected objects.

Never mow when persons, children, pets or material assets are in the danger area.



Limit the maximum travel speed using the rotary knob (8) on the transmitter. Make sure that you know at all times how to stop the device:

- Press the start-stop switch (1) on the transmitter.

First practice driving and steering with the blade switched off on a large, open and level area.

Practice driving around obstacles.

Never steer the device towards yourself.

Mow on a level and clear area first, slowly increase the difficulty (uneven terrain, obstacles, slight slopes).

Move on to difficult terrain and slopes only after you have safely mastered the device.

Operating

Starting the engine

Requirements

- The fuel valve is open.
- The tank ventilation is open.
- Receiver and transmitter are switched on and ready for operation.
- The blade is disengaged.

Starting

\Lambda Danger

Danger of poisoning due to poisonous exhaust gases.

- Do not operate the engine in closed or insufficiently ventilated rooms.
- Please observe the safety instruction regarding the poisoning risk.

\land Warning

Risk of injury due to unexpected movement when switching on and starting.

- Make sure that no persons or property are in the danger area.
- Immediately press the start-stop switch on the transmitter and the Emergency Stop on the device if an unexpected movement occurs.
- Make sure that no further hazards result from an unexpected movement.



- When the engine is warm: Move the accelerator lever to full throttle position. When the engine and outside temperatures are cold (cold start): Close the starter flap.
- 2. Press the "Engine start" button (5) on the transmitter.
 - ⇒ Engine is started.
- 3. **Only after cold start:** Open the starter flap.

Steering

Notice

Steering while stationary or turning on the spot can damage the ground.

- Only steer or turn when stationary if the ground is not damaged.
- Note that steering while stationary on a surface with good grip (e.g. concrete or asphalt) can lead to increased wear of chains.



Steert he device with the right joystick (**3**) to the left or right. The further you push the joystick, the more the device steers.

Steerinig when stationary

The device rotates around its own axis.

The further you push the joystick, the faster the device rotates.

When you release the joystick, the rotary movement is stopped.

Steering while driving

The device drives a curve.

The further you pushed the joystick, the tighter the curve becomes.

When you release the joystick, the device steers straight forward.

Trimming steering

If the device does not drive straight despite the center position of the steering, compensate with the "Trim steering" rotary knob (7).

- R. When the device moves to the left: Turn the rotary knob Trim steering" (7) to the right until the device drives straight ahead.
- L. When the device moves to the right: Turn the rotary knob "Trim steering" (7) to the left until the device moves straight ahead.

Turning

The device can be turned on the spot.

When turning the device, always stand so the device moves away from you.

Driving

▲ Warning

Risk of injury when driving forwards and in reverse.

- Make sure that no people are in front of or behind your device and that your path is clear of obstacles.
- Make sure that no persons, children or animals ride along.
- Do not drive yourself on the device.
- Make sure that you are outside the danger zone.

▲ Warning

Driving on slopes is dangerous. There is a tilting and slipping hazard.

 Observe the safety instructions regarding "Driving on slopes" and "Danger area".



Adjust the speed and the direction of travel with the left joystick (**2**).

The more you push the joystick, the faster the device moves.



Moving forward: Pressing joystick forward

<u>Stopping (neutral position/parking brake)</u>: Releasing the joystick



Moving in reverse: Pressing joystick backward

Always reverse slowly. Be especially cautious when the blade is engaged.

Limiting the speed



Fast maximum speed



Slow maximum speed

Use the rotary knob (8) to limit the travel speed to a speed at which you can safely control the device. This speed is reached when you push the joystick for the driving speed as far as it will go.

Notice: The adjustment of the driving speed to the mowing conditions enables:

- Clog-free mowing.

- Comfortable holding of the joystick at the stop.

Driving on steep terrain

A Warning

Driving on slopes is dangerous. There is a tilting and slipping hazard.

- ▶ Have skilled personnel who were trained by the manufacturer show you the safe handling of the device before you mow on steep terrain.
- Observe the safety instructions regarding "Driving on slopes" and "Danger area".

Notice

Particularly in steep terrain, the engine can be damaged if the oil level is too low.

Prior to each use, check the engine oil level (see chapter "Maintenance").

Preferably drive crosswise on the slope. This reduces the risk of tipping and improves the traction of the chains.

Notice: Excessive steering movements on steep terrain reduce traction. The device may stop or damage the ground.

Engaging blade

A Warning

Risk of injury due to rotating blade.

- Make sure that no persons, children, animals or objects are in the danger area.
- Only approach the stationary device from the rear be-fore disengaging the blade.
- Immediately leave the danger area to the rear after engaging the blade.

A Warning

Risk of injury caused by ejected objects.

▶ Never mow when persons, children, pets or material assets are in the danger area.

Only engage the blade when it can rotate freely and does not touch objects or the ground.

Do not engage the blade in uncut grass because the blade drive is overloaded, can be damaged or wears prematurely.

Requirements

- The engine is running.
- The blade is not in maintenance position.

Engaging blade:

- 1. Stand behind the device.
- 2. For mowing, set the accelerator lever to the maximum speed.
- Lift the blade clutch lever.
- 4. Press the latch knob on the blade clutch lever.
- 5. Move the blade clutch lever down quickly.
 - ⇒ The blade is engaged.
 - ⇒ Status indicator on the device flashes.

Disengaging blade:

- 1. Stand behind the device.
- 2. Move the blade clutch lever quickly upwards.
- ⇒ The blade is disengaged.
- ⇒ The status indicator no longer flashes.

Switching off and parking

A Warning

There is a risk of injury in case of unauthorized use.

- ▶ Press the start-stop switch on the transmitter.
- Remove the key on the main switch when you are not using the device.

▲ Warning

Risk of injury due to device that is no longer controllable.

If you switch off the main switch on the device first, the receiver is no longer active. The parking brake is not activated and the device can roll away.

Always switch off the device in the order described in the following section.



- 1. Release both joysticks.
- 2. Press the start-stop switch (1) on the transmitter.
 - ⇒ The engine is switched off.
 - \Rightarrow The travel drive goes to zero position.
 - \Rightarrow After 10 seconds, the horn sounds with interval.
- 3. Switch off the device using the main switch.
 - \Rightarrow The sounding of the horn in intervals is finished.
 - ⇒ The receiver is now de-energized.
- 4. Remove the key from the main switch.
- 5. Close the fuel valve and the tank ventilation.
- 6. Disengage the blade.

Notice: If you do not switch off the main switch at the device, the receiver continues to consume power. After 10 seconds, the horn sounds with interval. Switch off to the main switch so that the battery is not discharged.

Emergency stop

The device is equipped with an Emergency Stop. To avert danger, switch off all functions of the device with the Emergency Stop. The device is immediately put into a safe state.

Immediately press the Emergency stop switch on the device,

- in an emergency or a dangerous situation.
- if the device does not work properly.

Do not sue the Emergency stop switch to normally switch off the device.

Be extremely cautious when switching on again. Make sure that you are not in the danger area.

Causes of the Emergency stop

- Loss of radio connection between transmitter and receiver
- Press the Emergency Stop switch on the device.

Notice: When the control detects an error, the error code is displayed. For meaning of this code, see chapter "Error codes".

Consequences of an Emergency Stop

The device is brought into a safe state.

- The engine is switched off.
- The travel drive goes to zero position.
- The parking brake is activated.
- The control function of the transmitter is switched off.

Procedure after an Emergency stop

▲ Warning

Risk of injury due to unexpected movement when switching on and starting.

- Make sure that no persons or property are in the danger area.
- Immediately press the start-stop switch on the transmitter and the Emergency Stop on the device if an unexpected movement occurs.
- Make sure that no further hazards result from an unexpected movement.



After an Emergency Stop, the following starting procedure must be carried out.

- 1. Check and eliminate the cause for the Emergency Stop.
- 2. Disengage the blade.
- 3. Turn the Emergency stop on the device clockwise.

- 4. Switch off the transmitter by pressing the start-stop switch (1) and wait 5 seconds.
- 5. Turn the start-stop switch (1) clockwise to switch on the transmitter.
- 6. Wait until the horn of the device sounds once.
 - ⇒ In the display (9) the frequency number is briefly displayed.
- 7. Press the button "Horn" (4) to get the device ready for operation.
 - ⇒ The horn signals that the device is ready for operation.

Transport

Transport the device on a freight vehicle or a trailer which is designed for a carrying capacity of at least as great as the empty weight of the device.

Transport on pallets

For transport over short distances, use a fork lift or a lift truck.

For longer distances, load the device with a fork lift onto a freight vehicle or trailer.

The user must be authorised to operate a fork lift. When the machine is lifted, all persons must step away from the working area of the fork lift.



Notice! Drive the fork lift completely under the longitudinal beams of the wooden pallets.

Transport of ready-to-use device

A Warning

Risk of injury due to the heavy weight of the device. The device can fall over and fall down and cause severe injuries.

Observe the following notices.

Do not stay in the tilting area of the device.

Prior to each transport, let the device cool down for at least 20 minutes. Close the fuel valve and the tank ventilation.

Loading

Use suitable ramps for loading that

- can carry the empty weight of the device + 200 kg.
- are wider than the device.
- have a slip-free surface.

Notice

Risk of damage due to incorrect fastening of straps.

- ► Fasten the straps only at the points shown in the figure.
- Do not overtighten the straps.
- 1. Put the device in front of the ramps and make sure that the ramps
 - are as wide as the wheel gauge of the device.
 - are tightly secured to the platform.
 - are not steeper than 15°.
- Carefully drive the device via the ramps onto the platform.
- 3. Observe the instructions in chapter "Switching off and parking".
- Secure the device against rolling, sliding and tilting. Use straps that support the weight of the device.
- 5. Set the mower to the lowest cutting height so that the cutting height limit touches the ground.
- 6. Lash the device to lashing eyes and frame parts with straps that can hold the weight.





Unloading the device

- 1. Slacken the transport attachments.
- Carefully drive the device over the ramps off the loading area.

Observe the information in chapter "Loading".

Maintenance

▲ Danger

Danger of poisoning due to poisonous exhaust gases.

- Do not operate the engine in closed or insufficiently ventilated rooms.
- Please observe the safety instruction regarding the poisoning risk.

▲ Warning

Risk of injury due to unexpected movement. When inspections are carried out, the device can move unexpectedly.

- Make sure that no persons or property are in the danger area.
- Immediately press the start-stop switch on the transmitter and the Emergency Stop on the device if an unexpected movement occurs.
- Make sure that no further hazards result from an unexpected movement.

▲ Warning

Risk of injury during maintenance and cleaning work when the engine is running.

- Perform maintenance tasks only then with a running engine if this is required in the Maintenance table.
- 1. Let the device cool down for at least 20 minutes.
- 2. Close the fuel valve and the tank ventilation.
- 3. Press the start-stop switch on the transmitter.
- 4. Switch off the device using the main switch.
- 5. Pull off the ignition key.

Improper maintenance can make the device unsafe for operation and result in accidents. Regular maintenance keeps your device ready for use.

Service the device according to the following maintenance instructions.

Contact an authorised service centre if problems during maintenance occur or if you determine deficiencies during one of the following inspections.

Maintenance overview

Component	Action	Mainter interva	nance I
		Α	в
Device Clean.			
	Perform basic inspection.		
	Check the RC functions.		
	Check the safety functions.		
Mower	Clean. See chapter "Cleaning mower".		
Fuel	Check fuel level.		
	Is the tank cap closed?		
Tank, fuel valve, and fuel line	Check parts for leaks and check for good condition.	•	
Ventilation grid	Clean.		
Engine cooling	Clean.		
Spark plug	Check/replace.		
Air filter	Maintain.		
Blade and fastening components	Check for wear and damage (see chapter "Checking the blade").		
	Change.		
	Clean the screw-on point of the knife blade.		
Blade brake clutch	Does the blade function safely and does the blade stop in 7 seconds?		
Traction drive	Is the device stationary when the left joystick is in the center position?		
V-belt	Are the belts tensioned correctly, without fissures, and in good condition?		▲
Bowden cables	Check for proper function and ease of movement.		
Acceleration lever	Check for proper function.		
Chassis and impact	Check for rust and fissures and check the welding seams.		
protection	Are all protective devices and covers in place, fastened cor- rectly and properly functioning?	•	
Label	Condition of the labels.		
Engine	Binding information (see operating instructions of the engine manufacturer).		
	Check the oil level (see operating instructions of the engine manufacturer).		
	Oil change (see operating instructions of the engine manufacturer).		▲
	Oil filter change (see operating instructions of the engine manufacturer).		
Parking brake	Check.		
Flammable material	Remove easily flammable debris buildup from the engine and the device.		
Chains	Check for wear.		
	Check the tension.		
Emergency stop switch	Check.		

Maintenance

Start-stop switch	Check.		
Hydrostatic trans-	Check oil level.		
mission	Check for leaks.	-	
	Oil change after 50-100 h and every 200 h thereafter.		
Bevel gear	Check the oil level.		
Lubrication	See chapter "Grease lubrication".		
Battery of the device	Check the charging conditions.		
Safety function	Check.		
RC functions	Check.		

А Before and after each use.

- В
- Once a year or every 50 h. By the operator when the engine is not running. By the operator when the engine is running. By the authorised service centre.

Maintenance and cleaning position

Marning

Risk of injury due to the heavy weight of the device. The device can fall over and fall down and cause severe injuries.

Observe the following notices.

To perform maintenance, repair or cleaning tasks at the bottom of the device, you can lift or tilt the device.

- Lift the device only when on level and firm terrain.
- Use only lifting gear or ramps that are suitable for the weight of the device.
- Attach the lifting gear only to the main frame because only the main frame can carry the weight.
- Secure the device always against tilting, falling down or slipping.
- Do not stay in the tilting area of the device.
- Do not tilt the device more than indicated in the safety instructions regarding driving on the slope. Otherwise the device can tilt and the device can be damaged or contaminations can occur due to leaking fluid.
- Do not carry out tasks that can result in tilting, falling down or slipping of the device.

Cleaning the device

Depending on use, clean the device thoroughly, especially the bottom and the blade.

Grass build-up and dirt that are stuck interfere with the grass ejection and impair the cutting quality.

For sufficient cooling of the hydrostat transmission, keep the gearbox casing and the area around the gearbox fan clean.

Fire hazard! Take particular care that the components at the silencer are clean.

For cleaning, use a hand brush. Remove stubborn dirt with a wooden or plastic spatula. Clean the outside housing parts with a cloth.

Do not clean the device with water spray or high-pressure cleaner! Do not use any aggressive cleaning agents.

Cleaning the mower unit

Notice

Cleaning agents damage the mower unit.

Clean the mower unit with water only.

Clean the mower immediately after mowing. Avoid that the dirt dries up and is difficult to remove.

- 1. Switch off the engine.
- 2. Move mower to maintenance position.
- 3. Clean the mower with water. A strong water jet improves the cleaning effect.

Cleaning engine cooling

A dirty ventilation grid causes overheating of the engine which can result in engine damage. To sufficiently cool the engine, keep the engine cover, ventilation grid and engine clean.

Keep the ventilation grids free of dirt even during operation.



- 1. Switch off the engine.
- 2. Remove dirt from both ventilation grids (1).
- 3. Lösen Sie den Spannverschluss (2) und öffnen Sie das Lüftergitter (1).
- 4. Clean the round cooling air grille (3) of the engine.
- 5. Clean the cooling air duct (4), especially the inside.
- 6. Close the ventilation grid (1) and secure it with the tension lock (2).

General inspection

To make sure that the device can be operated safely, check all nuts, bolts, screws, connection of fuel lines, air filters etc. regularly for firm seating. Check the ignition wire and the spark plug connectors for damage.

Immediately replace damaged or worn parts, especially covers, protection skirt, silencers or fuel tank (authorised service centre).

Check all parts that that contain fluids for leaks and proper condition. These can be: Fuel tank, fuel valve, fuel lines, carburetor, engine, gears, battery, hydraulic system.

In case of leaks, contact an authorised service centre.

Checking safety function

Check the safety switches for proper function. It must not be possible to start the engine when:

The blade clutch is switched on.

Checking the RC functions

A Warning

Risk of injury due to unexpected movement. When inspections are carried out, the device can move unexpectedly.

- Perform the tests in a sufficiently large and clear area without obstacles.
- Make sure that no persons, children, animals or objects are in the danger area.
- Observe the safety instructions at the beginning of the chapter Maintenance.

Contact an authorized service center if you notice any deviating behavior during the test or if, for example, the steering trim cannot be adjusted correctly.

The controller may need to be calibrated or there may be mechanical malfunctions.



Checking when the engine is running

- 1. Switch on the transmitter and the receiver.
- 2. Set the rotary knob "maximum travel speed" (8) to rabbit.
- 3. Start the engine.
 - \Rightarrow The device must be stopped.
- 4. Pull the accelerator lever all the way up.
 - \Rightarrow The engine is idling.

Perform all further tests exclusively with idle gas.

Checking the traction drive

- 1. Press the left joystick (2) forward.
 - \Rightarrow The device must move forward.
- 2. Press the left joystick (2) backwards.
 - ⇒ The device must move backwards.
- 3. Release the left joystick (2).
 - \Rightarrow The device must stop and stand still.

Checking steering when stationary

- 1. Press the right joystick (3) slowly to the left.
 - ⇒ The device rotates slowly on the spot to the left. The left chain moves backwards, the right chain moves forward.
- 2. Press the right joystick (3) slowly to the right.
 - ⇒ The device rotates slowly on the spot to the right. The left chain moves forward, the right chain moves backwards.

The further you push the right joystick (3), the faster the device rotates.

Checking and adjusting steering trim

When steering while stationary, the steering trim has no effect.

- 1. Slowly press the left joystick (2) forward.
 - \Rightarrow The device should move straight forward.
- When the device moves to the left: Turn the rotary know "Trim steering" (7) to the right until the device drives straight ahead.
- When the device moves to the right: Turn the rotary knob "Trim steering" (7) to the left until the device moves straight ahead.

Checking steering while driving

- Slowly press the left joystick (2) forward the device must move forward.
- 2. Press the right joystick (3) slowly to the left.
 - ⇒ The device drives a curve to the left.
- 3. Press the right joystick (3) slowly to the right.
 - ⇒ The device drives a curve to the right.

If you press the right joystick $(\mathbf{3})$ completely, the inner curve chain stops.

Checking the Emergency stop switch

- 1. Switch on the transmitter and the receiver.
- 2. Start the engine.
- 3. Move on a terrain where the blade can rotate freely and does not touch objects or the ground.
- 4. Make sure that nobody is in the danger area of the device.
- 5. Press the Emergency stop switch on the device.
 - ⇒ The engine must stop.

Checking start-stop switch

- 1. Switch on the transmitter and the receiver.
- 2. Start the engine.
- 3. Drive on large, open and level terrain.
- 4. Make sure that nobody is in the danger area of the device.
- 5. Drive slowly forward.
- 6. Press the start-stop switch on the transmitter.
 - ⇒ The drive goes to neutral position, the parking brake is active.
 - ⇒ The engine must stop.

Checking main switch

- 1. Remove the key from the main switch.
 - \Rightarrow The key may only be removed in position 0.

Checking maintenance and cleaning position of the blade

- 1. Put the blade into maintenance and cleaning position.
- \Rightarrow Now the blade should not engage.

Checking the parking brake

A Warning

If the parking brake is not properly adjusted, the device can roll away.

- Make sure that the parking brake always functions correctly.
- 1. Drive the device uphill into terrain with a 30° to 40° slope.
- 2. Stop the device.
 - ⇒ The device must remain stationary and not roll downhill.

If the chains lock up, the parking brake is set correctly.

If the device moves, the parking brake must be readjusted by an authorized service center.

Checking the blade and flail shaft

A Warning

Wear or damage on the blades and the fastening elements can result in the blades or the fastening elements coming off.

Check the blades and all fastening elements according to the following instructions.

A Warning

There is a considerable risk of injury due to improperly mounted and maintained blades.

Work at blades must be carried out by an authorised service centre.



Use solid gloves when you check the blade.

Working with the blade and the blade shaft requires special skills and therefore may only be carried out by an authorised service centre.

Check the blade, the flail shaft and all fastening elements for completeness, wear, damage and cracks

- each time before and after you mow.
- in case of noticeable changes or unusual vibrations.

Contact an authorised service centre if you detect faults or damage during inspection.

All shown blade parts and their fastening elements must be changed

- if damage or cracks are detected.
- if unusually strong vibrations occur.
- at least once a year or every 50 operating hours, no matter if wear does exist or not.

The material weakens, can suffer cracks, endangering people and material assets. Ejected broken pieces can cause severe injuries.

Unusual vibrations are an indication that

- blades are missing or broken,
- the blade is worn excessively or on one side or
- damage to the engine or cutter deck fastening.

Maintenance

Changing the flail blades



New blade

Replacing the

blade

- broken - bent - worn on both sides

Turning over the

blade



The flail blades (1) can be mounted to both sides. Turn all flail blades over together when:

- one side is worn and
- when the other side of the flail blade has not yet been used.

Replace a flail blade when the blade is:

- broken,
- torn,
- bent or
- worn on both sides.

In case of uneven wear, there is a risk of imbalance.

Replace all flail blades together when more than 2 flail blades are damaged or worn.

For each blade change, check the flail shaft (2) for damage and cracks.

Always have a new spare blade ready.

Original blade

An original blade is engraved with:

AS XXXXXXXX

The engraving shows the spare part number.

Checking the fastening elements and the flail shaft

A Warning

Wear or damage at the flail shaft and the fastening elements can result in the flail blade or the fastening elements coming off.

Check the flail shaft, mounting plates, fastening screws and corresponding nuts of the flail blades.



The fastening elements are worn down during mowing. Replace the fastening screws (1) and the corresponding nuts (2),

- if they are worn by more than 0.04 in (1 mm) in diameter and
- for each blade change.

Only use original spare parts.

For each blade change, check the flail shaft for damage. The fastening straps (3) must not be damaged, bent or knocked out. Contact an authorised service centre if damage, cracks or wear have occurred.

Checking the blade brake clutch

- 1. Switch on the transmitter and the receiver.
- 2. Start the engine.
- 3. Move on a terrain where the blade can rotate freely and does not touch objects or the ground.
- 4. Make sure that nobody is in the danger area of the device.
- 5. Turn the accelerator lever to the maximum engine speed.
- 6. Engage the blade.
- 7. Disengage the blade.
 - ⇒ The blade must stop from maximum speed in less than 7 seconds.
 - \Rightarrow The status indicators on the device must go out.

Checking chains

Checking the condition of the chains

Check the chains for completeness, wear, damage and cracks.

- each time before and after you mow.

Contact an authorised service centre if you determine faults or damage during the inspection.

The chains must be changed

- If damage or cracks are found.
- if the cleats of the chains are worn out.
- if the steel cables of the chains are exposed.
- if broken steel cables are visible.

Change the chains in pairs.

Checking chain tension

Notice

Risk of damage due to incorrectly tensioned chains.

Always make sure that the chins are correctly tensioned.

Chains that are not sufficiently tensioned can detach from the device during travel.

Excessively tensioned chains increase the stresses on the equipment and can cause damage to the chains.

The chain tension is set correctly if the length of the spring pack $(\mathbf{5})$ is 125 mm.

The spring pack (5) is accessible from above.

Tensioning chains

You can carry out the work described below while the device is standing on a level surface.



1. Loosen the securing splint and remove the extension (1) from the holder (2).



- 2. Insert the extension (1) from the back of the device and pass it under the device.
- 3. Set the extension (1) on the square (3).
- Place a 1/2" socket wrench handle on the extension (1) and turn the square (3) clockwise to tension the chain (4).



- 5. Tension the chain so that the spring pack (5) has a length of 125 mm.
- 6. Tension the other chain in the same way.
- 7. Put the extension (1) back into the holder (2) and fasten it with the securing splint pin.

Maintaining the engine

▲ Danger

- The ignition system generates an electromagnetic field.
- Wearers of pacemakers must not work on active parts.

▲ Caution

If the speed is set too high, objects can be ejected. The engine can be damaged and a higher level of noise pollution is produced.

Do not change the basic setting of the carburetor or the speed control.

The engine manufacturer has prepared the operating manual of the engine. The manual contains all maintenance requirements and warranty conditions for the engine. If warranty work at the engine is required, contact your authorised service centre or the next authorised dealer for engines.

To ensure a long service life of the engine, sufficient engine cooling is required.

Keep the

- engine cover (ventilation grid),
- silencer (protective grid) and
- cooling fins of the engine
- clean at all times.

Checking the engine oil level

Notice

Incorrect oil level can damage the engine.

▶ Prior to each use, check the engine oil level.

The oil level may never be too low; otherwise, the engine can be damaged. When moving on slopes, the oil level should always be at the top level.

Never fill in too much oil. Otherwise there is a risk that oil enter the air filter and destroys it.

Observe the information in the operator's manual of the engine manufacturer.



- 1: Air filter
- 2: Oil filler neck

3: Oil dipstick

Maintaining the air filter

A Warning

There is a fire and explosion risk due to cleaning agents.

Never clean the air filter with flammable solvents.

Make sure that the air filter is always clean. A dirty air filter reduces the engine power and leads to increased engine wear and fuel consumption. Independent of the operating hours, change the filter insert at least once a year. Do not operate the engine without air filter.

Observe the information in the operator's manual of the engine manufacturer.

Checking and charging the battery

A Warning

Batteries can be dangerous.

- Keep children away.
- ► Never perform any changes to the battery.
- ► The battery is sealed and may never be opened.
- For all work on the battery or the battery cables, wear safety glasses and gloves.
- If accidents with battery acid occur, always contact a doctor.

A Warning

Explosion hazard

When the battery is charged, explosive gases are generated. An explosion of the battery can result in injuries and blindness.

- Keep open flames and ignition sources away and do not smoke.
- Charge the battery only in well ventilated rooms.

A Warning

Danger of chemical burn

Batteries contain acids. Contact with battery acid can result in blindness or serious burns.

- Always keep the battery upright and do not spill any battery acid.
- ► Avoid contact with skin and eyes.
- If battery acid comes into contact with eyes, immediately rinse the eyes with water.

Notice

Work on the battery can damage the receiver.

Press the start-stop switch on the transmitter. Switch off the device at the main switch and remove the key.

If the starter does not get the engine going or only insufficiently, charge the battery.

Use electronically controlled charging systems. These charging systems detect the connected battery and charge it with the required charging current and terminate the charging process when the battery is full. Use a charger that is equipped with a 12 V connection for standard norm outlets. Insert the plug for charging into the standard norm outlet.

Charge the battery before you put the device away for winter storage. A fully charged battery lasts for approx. 4 months before it needs to be recharged.

Exchanging the battery

A Warning

When you work on the battery, there is a risk of short circuit.

- ► Do not put any tools or metal objects onto the battery.
- When disconnecting and connecting the battery, observe the order of assembly steps.

Important: Only use original batteries.

You can buy original batteries from the manufacturer or your authorised service centre. Also observe all information in the operator's manual of the battery (if existing).

Beware! Never confuse the plus and minus terminals.

- 1. Disconnect the black cable (-).
- 2. Disconnect the red cable (+).
- 3. Dismantle the battery from the device.
- 4. Mount the new battery into the device.
- 5. Connect the red cable (+).
- 6. Connect the black cable (-).

Hydrostat transmission

Marning

Risk of injury due to high pressure in the hydraulic system.

Check the hydraulic drive system for leaks, damage and chafe points.

A Warning

When oil leaks there is a danger of environmental pollution.

Check the hydraulic drive system for leaks before and after mowing.

Oil changes must be carried out by an authorised service centre (see chapter "Maintenance overview").

Check if the gearbox fan is undamaged.

The hydrostatic drive generates a monotone working noise that gets louder as the load is increased (e.g. in steep terrain). If the working noise changes, if it gets irregular or very loud, let the hydrostatic drive cool down. If the change working noise sitll exists, have the device checked by an authorised service centre.

Grease lubrication



A grease nipple (1) is attached to the cutting height adjustment and the cutting height limit.

- 1. Clean the lubricating nipples.
- 2. Lubricate the lubricating nipples with a grease gun (1-2 strokes pressure-resistant grease).
- 3. Remove excess grease that has been pressed out of the bearing points.
- 4. Clean the spindles, especially if the are dirty or sluggish.
- 5. Grease the spindles.

Assembly

Scope of delivery

The device is shipped in a carton on a pallet. The scope of delivery includes:

- The device.
- The transmitter with batteries and belts.
- Key for main switch.
- Tool bag with small parts.
- This operating manual.
- Manufacturer's certificate.
- Operator's manual of the engine manufacturer.
- Operating instructions for receiver and transmitter.

Unpacking

- 1. Remove the box.
- 2. Insert the batteries into the transmitter (see chapter "Checking and changing the battery").
- 3. Attach the belt to the transmitter.
- 4. Remove the spare key and keep it in a safe place.

Storage

▲ Danger

Danger of poisoning due to poisonous exhaust gases.

- Do not operate the engine in closed or insufficiently ventilated rooms.
- Please observe the safety instruction regarding the poisoning risk.

A Warning

Fire hazard

Parts of the device can become extremely hot during operation and this may cause fire.

Please observe the safety instruction regarding the fire risk.

▲ Warning

There is a risk of injury in case of unauthorized use.

Press the start-stop switch on the transmitter. Switch off the device at the main switch and remove the key.

Storing the device

Store the device in a locked, dry and sufficiently ventilated room and out of reach of children. Always rectify faults of the device before storage so that the device is always in operationally safe condition. Let the device cool down for at least 20 minutes before you store it.

Also observe the information regarding storage in the operator's manual of the engine manufacturer.

Longer storage

- 1. Observe the safety instructions for handling the fuel.
- 2. Run the fuel tank empty.
- 3. Emptyping carburetor: Close the fuel valve, start the engine and let it run until it stops by itself.
- 4. Thoroughly clean the device.
- 5. Touch up any possible damage to the paint finish (for paint, see chapter "Accessories").
- 6. Remove the key from the main switch and store it separately from the device.
- 7. Remove the batteries from the transmitter.

Before longer storage, e.g. in the fall, have an authorised service centre check the device!

Also observe the information regarding storage in the operator's manual of the engine manufacturer.

Restarting

If you want to start the device after a longer storage, carry out the tasks described in chapter "Maintenance".

Spare parts

The reliable and safe operation of the device also depends on the quality of the spare parts used. Only use original spare parts and accessories approved by the manufacturer. When foreign parts are installed, the warranty and guarantee shall be void for the foreign parts, the device, and for any resulting damage.

Inform your authorized service center about the device type and serial number of your device when you order spare parts.

Via www.as-motor.com you have direct access to our spare parts portal. Here you can quickly find the right spare part using the search function and print out the corresponding spare parts list. This makes it easier for you to place the subsequent order via your authorised specialist workshop, stating the device type and the serial number of your device.

Wear parts

Some parts are described as wear parts. They wear during use and must be replaced. The warranty does not cover the following parts (examples):

Blades, cutting edges, cutter bars, blade bolts, sliding plates, V-belts, chains, Bowden cables, starter ropes, pressure plates, air filters, spark plugs, disk springs, lock washers, fuses, disks, thrust plates, pressure disks, protection skirts, impact protection, wheels, tires, brushes, skids etc.

Disposal

The device cuts and shreds the growth in a single operation. Shredded plant material decomposes quickly and can be used as fertilizer and, therefore, be left on the ground.

Dispose of waste oil and fuel in accordance with the local regulations or return it to an oil shop.

Packaging, device, and accessories are made of recyclable materials and must be disposed of accordingly.



The transmitter as well as its batteries must not be thrown away with regular household rubbish. Dispose of the transmitter via the local take-back system for waste electrical and electronic equipment. Dispose of the batteries at your local battery collection point.

Warranty

Please see our homepage www.as-motor.com for warranty conditions.

Please print out the documents that you receive during the online registration. Keep these together with your proof of purchase.

Troubleshooting

If a fault occurs, first it is recommended to switch off the transmitter at the start-stop switch and the device at the main switch. Wait 10 seconds and restart the device. If required, also change the frequency (see chapter "Selecting radio frequency").

If the fault persists, the following error codes describe the faults that occur most frequently and how to eliminate them.

If the fault cannot be eliminated, contact your closest authorised service centre.

You can find an authorized service center on our home page under www.as-motor.com.

Problem	Possible cause	Remedy
No connection between transmitter and receiver	Battery on the transmitter is empty.	Replace battery.
	Battery on the device is empty.	Charge the battery (see chapter "Check- ing the battery") or have authorised ser- vice centre do so.
	Radio range exceeded.	Reduce distance between transmitter and receiver.
	Radio interference due to other transmitters (radio equipment,	Switch off transmitter and receiver, re- start after 10 seconds.
	garage door opener, vehicle kev).	Switch the radio channel.
		Increase the distance to the disturbance source. Remove the disturbance source.
	The Emergency stop switch on the device is activated.	Unlock the Emergency Stop switch.
	Antenna loose, damaged or no longer existent.	Fasten or replace antenna.
Starter does not turn	An Emergency stop situation occurred.	Eliminate the Emergency stop situation.
	Fuse is defective.	Replace (if necessary, have authorised service centre do so).
	Battery at the device is empty.	Charge the battery (see "Checking the battery") or have authorised service centre do so.
	Battery at the device is defect- ive.	Replace the battery (authorised service centre).
Engine does not start	Fuel valve is closed.	Open fuel valve.
	Tank ventilation screw is closed.	Open tank ventilation screw.
	No fuel is in the tank.	Refill fuel.
	Choke is open.	Close the choke.
	Device was tilted – oil leaked into the air filter.	Replace air filter, unscrew spark plug and start several times when the fuel valve is closed, dry the spark plug and screw it back in.
	Engine was flooded due to too many start attempts.	Unscrew spark plugs and start several times when the fuel valve is closed, dry the spark plugs and screw them back in.
	Spark plug connector is pulled off.	Observe the safety instructions! Put spark plug connector back on.
	Air filter is dirty.	Maintain air filter (see chapter "Mainten- ance").
	Spark plugs are sooted, dam- aged, or incorrect electrode gap.	Clean spark plugs and check electrode gap (see chapter "Maintenance"). Re- place spark plugs if necessary.

	Poor quality, dirty, or old fuel.	Clean fuel system (authorised service centre). Always use fresh fuel.
Engine starts badly or	Choke is closed.	Open choke (see chapter "Starting").
runs irregularly	Air filter is dirty.	Maintain air filter (see chapter "Mainten- ance").
	Poor quality, dirty, or old fuel.	Always use fresh fuel.
	Spark plug is dirty, damaged, or incorrect electrode gap.	Clean spark plug and check electrode gap (see chapter "Maintenance"). Re- place spark plug if necessary.
Device does not move	Rotary knob limit speed is set to "0".	Adjust rotary knob limit speed.
	Hydrostatic drive is overheated.	Cool down (see chapter "Maintenance").
Blade cannot be en- gaged	Mower in maintenance and cleaning position.	Move mower to desired cutting position.
The blade does not rotate	V-belt is insufficiently tensioned or damaged.	Authorised service centre.
	Bowden cable is defective.	Authorised service centre.
Strong vibrations dur- ing operation	Unbalance due to missing, broken, chipped or unevenly worn knives.	Check the knife and flail shaft (see chapter "Maintenance").
	Flailshaft is bent due to colli- sions with foreign objects.	Authorised service centre.
	Engine fastening is loose.	Authorised service centre.
	Blade fastening is loose.	Authorised service centre.
Irregular noises	Loose fastening elements.	Authorised service centre.
	Silencer is defective.	Authorised service centre.
	Hydrostatic drive is overheated.	Cool down (see chapter "Maintenance").
Engine is smoking	Air filter is dirty or drenched with oil.	Maintain or replace air filter (see chapter "Maintenance").
	Oil level is too high.	Have authorised service centre lower the oil level to the marking.
Engine gets hot	Ventilation grid is dirty.	Clean ventilation grid.
	Oil level in the engine is too low.	Refill engine oil (see operating instruc- tions of the engine manufacturer).
	Cooling fins of the engine are dirty.	Have cooling fins cleaned by authorised service centre.
Poor cutting	Blade is dull or worn.	Have someone replace a damaged blade immediately (authorised service centre).
	Speed is too high in relation to the cutting height.	Reduce speed and/or select the correct cutting height.
	Housing of the device is heavily contaminated.	Clean.
	Mower housing is not parallel to the ground.	Adjust (authorized service center).
Mulching result with high plant material not satisfactory	Speed is too high.	Reduce speed.
Mulching result with low plant material not satisfactory	Plant material is ejected too quickly.	Increase speed.

Housing is jammed	Mowed grass was too long or too damp.	Adjust cutting height and mowing speed to the mowing conditions.
	Blade is worn.	Authorised service centre.
	Engine speed is too low despite full power.	Authorised service centre.
The device does not stop when the brake is activated	Brake is adjusted incorrectly, worn, or defective.	Check the parking brake (see chapter "Maintenance"). Authorised service centre.
The engine does not switch off	Switching off system is defect- ive.	Close the fuel valve. Authorised service centre.
Device does not drive straight forward	Trimming of the steering is mis- adjusted.	Adjust trimming with rotary knob trim- ming steering on the transmitter (if re- quired, authorised service centre).
Chain detaches from	Chain incorrectly tensioned.	Tension chain correctly.
the device	Foreign object in the drive.	Remove foreign object.
	Chain, sprocket or wheels worn or damaged.	Replace worn or damaged parts (author- ized service center).

Error codes

When the control detects an error, the error code is displayed.

The following table lists the most frequent error codes. Contact an authorised service centre when an error code is displayed that you cannot find in this table.

Display	Designation	Reasons	Remedy
A3	Activate the Emergency stop switch on the device	Emergency stop switch actuated.	Unlock the Emergency stop switch by turning clockwise.
		Fuse no. 5 (10 A) has blown.	Eliminate cause of fuse tripping and replace fuse.
F2	Right drive lever does not	Drive lever / rods blocked on the right.	Remove blockage.
	go to center position	Fuses nos. 1-3 (25 A) have blown.	Eliminate cause of fuse tripping and replace fuse.
F3	Angle sensor driving right	Fuses nos. 1-3 (25 A) have blown.	Eliminate cause of fuse tripping and replace fuse.
F4	Left drive lever does not go	Drive lever / rods blocked on the left.	Remove blockage.
	to center position	Fuses nos. 1-3 (25 A) have blown.	Eliminate cause of fuse tripping and replace fuse.
F5	Angle sensor driving left	Fuses nos. 1-3 (25 A) have blown.	Eliminate cause of fuse tripping and replace fuse.
FU Interruption of radio tra mission	Interruption of radio trans-	Battery on the transmitter is empty.	Replace battery.
	mission	Battery on the device is empty.	Charge the battery (see chapter "Checking the battery") or have authorised service centre do so.
		Radio range exceeded.	Reduce distance between transmitter and re- ceiver.
		Radio interference due to other transmit- ters (radio equipment, garage door opener, vehicle key).	Switch off transmitter and receiver, restart after 10 seconds.
			Switch the radio channel.
			Increase the distance to the disturbance source. Remove the disturbance source.
		Antenna loose, damaged or no longer ex- istent.	Fasten or replace antenna.
L	Warning low battery capa- city	Battery capacity of the transmitter low.	Replace battery of the transmitter.

Technical specifications

Туре	AS 1000 OVIS RC
Range of application (temperature)	0 - 30 °C For temperatures below 5 °C, observe the engine manufacturer's informa- tion regarding the engine oil.
Engine, type Manufacturer Type Cylinder capacity Performance Engine speed	Two-cylinder four-stroke engine Briggs & Stratton Vanguard, V-Twin 627 cm ³ 15,5 kW (21,1 PS) 3600 min ⁻¹
Starting device	Electric start
Battery Device Transmitter	12 V, 30 Ah 2xAA 1.5V or 2xAA Mignon 1.2V NiMH batteries (not included in scope of delivery)
Traction drive Speed forward Speed reverse	Crawler track 0 - 5,0 km/h 0 - 5,0 km/h
Maximum area coverage	approx. 5000 m²/h
Turning radius	approx. 0 m
Cutting device , type Cutting width Continuous cutting height Maintenance and cleaning position Drive of cutting tool Clutch of cutting tool Growth height	Flail mower unit with 28 Y-knife, can be used on both sides. 100 cm 30 - 110 mm 700 mm V-belt Belt tension clutch up to approx. 150 cm
Measures and weights Transport size with packaging L/W/H max. operating dimensions L/W/H Weight	208/130/130 cm 183/114/69 cm 419 kg
Capacities Fuel tank Engine oil Transmission oil (per device side)	12 liters, of which approx. 0,1 L reserve 1,7 liters 5W-50 fully synthetic engine oil (see operating instructions of the engine manufacturer) 2,1 Liter SAE 5W-50 fully synthetic engine oil
Sound level	according to DIN EN 12733
Measured sound level L _{wA} Uncertainty factor K _{wA}	103,5 dB (A) 3,0 dB (A)
measured sound level L_{pA} when operating behind the device	92,0 dB (A) Wear ear protection! 3.0 dB (A)
measured sound level L_{pA} at a distance of 15 metres Uncertainty factor K_{pA}	73,6 dB (A) 3,0 dB (A)
Maximum slope crosswise to the slope uphill and downhill	55° 44°
Angle at which the device flips over Measurement method crosswise to the slope uphill and downhill	Measured angle at which the stationary device tips over (mower in highest position, tank full) 61° 49°

Fuses



The fuses are located at the rear of the device.

If you experience malfunctions, remove the fuse compartment cover and check the fuses. Replace defective fuses.

Contact an authorized service center if the malfunctions cannot be remedied by replacing the fuses or if the fuses blow again after replacement.

Do not perform any repairs on the electrical system of the device.

Pos	Rating	Designation	Supplied
1	10A	Fuse onboard power supply socket	Power socket
2	10A	Fuse fuel pump	Fuel pump
3	25A	Fuse controller generator	Generator
4	25A	Main fuse 1	Receiver
5	25A	Main fuse 2	Receiver
6	25A	Main fuse 3	Receiver

Accessories

Spray can (orange colour): Inclinometer:

G00011050 G06950027



AriensCo GmbH Ellwanger Straße 15 74424 Bühlertann Germany www.as-motor.com

Declaration of conformity

We declare that the grassland mowers

Туре	AS 1000 OVIS RC
Starting from serial no.	038722120001

as brought into circulation by us conform to all relevant safety and health requirements of the EC directives listed.

- 2006/42/EC - 2014/30/EC - 2014/53/EC (RED) - 2011/65/EC (RoHs)

Function:

Germany

The device is intended for cutting and mulching grass or similar vegetation in agriculture, and forestry.

Applied standards:

DIN EN 12733

Place where all technical records are filed: AriensCo GmbH Ellwanger Straße 15 74424 Bühlertann

Bühlertann, in May 2023

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Jochen Schneider Management

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by proxy Frank Einsiedler Head of devolpment



AriensCo GmbH Ellwanger Straße 15 74424 Bühlertann Germany www.as-motor.com



AS-Motor is your premium brand for lawn and high grass mowers as well as weed removers. We offer our customers professional technology for steep slopes, rough terrain, and lawn care. Our extensive product range which includes hand-held entry-level devices up to devices with remote control will always offer private customers, service providers, cities, municipalities and road maintenance authorities the right product. For more than 60 years, we have been developing and producing with a high production depth in Southern Germany and supply our dealer network in more than 45 countries all over the world.

Mulching mower	AS Mulching mowers shred the grass to create such a fine mulch, almost an "invisible" fertiliser, that sinks right away back into the lawn. Disposal of the cuttings is not required.
Professional lawn mower	Professional lawn mowers with rear or side discharge for every requirement, even with all-wheel drive, brake and reverse gear.
Allmäher®	An agile lawn mower for maintenance of extensive grassed areas. The Allmäher® reliably mows metre-high grass, brushes, and weeds.
Flail mower	High grass with undergrowth, steep slopes or areas in unknown terrain? The movably mounted flail blades of the AS-Motor flail mower give way to rocks and obstacles and ensure an even cut-ting pattern.
Ride-on mower	Large areas, weeds, undergrowth or enormous grass heights - the AS-Motor ride-on mowers are made for it. The all-wheel drive ride-on mowers are also perfect for rough terrain.
Equipment carriers and attachments	Equipment carriers from AS-Motor give flexibility for the professional service provider's daily routine. For example, for insect-friendly mowing, sweeping, snow clearing and even more.
Remote control mower	Steep slope mowing is a challenge for man and machine. Modern RC technology makes this hard work much easier and safer.
Rotary mower	Ideal for feed production in the non-professional segment. The grass is moved to the side, un- shredded, in rows as swaths.
Weed remover	The AS-Motor weed removers mechanically clean paved areas and curb stones from growing weeds – quickly, safely, and efficiently.
AS-Motor Electric	The AS-Motor Electric drive sets new standards in performance, power and endurance. Devices with this drive offer comparable performance values to devices with combustion engine.

AS-Motor is a brand of the Ariens Company

