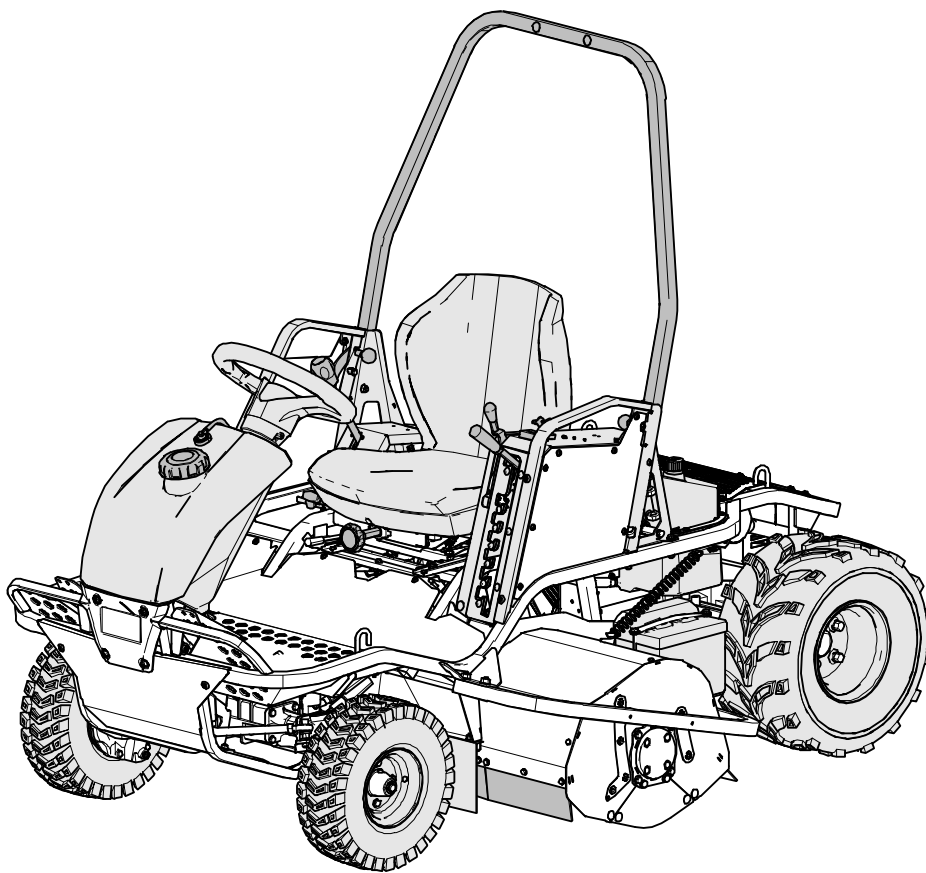




Operator's Manual



Ride-on-Allmäher®

AS 1020 YAK 2WD, AS 1040 YAK 4WD, AS 1040 YAK 4WD XL

From serial number:

AS 1020 YAK 2WD: 037420090001, AS 1040 YAK 4WD: 033120100001,
AS 1040 YAK 4WD XL: 037320080001

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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 by "AS-Motor Germany".

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 AS 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, undergrowth or weeds in agriculture, forestry, and landscape conservation. Woody growth must not be older than maximally one year.

The device is intended for use by professional and 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 attachments and cutting tools authorised by "AS-Motor Germany".

Any other use exceeding this purpose is inadmissible.

Observe the instructions 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 work tools and any type of tool sets that are not authorised by "AS-Motor Germany".

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 are 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.

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

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.



Warning.
These symbols denote special dangers.



Prohibition sign.
These symbols denote inadmissible procedures.



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

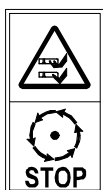
The following signs are attached to the device to provide a reminder that during use of the device, you will have to be careful and attentive:



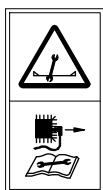
Working with the device requires extreme cautiousness. Read the operating instructions before you use the device.



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.



Risk of tipping!
When positioned sideways to the slope, the device is stable up to
18°: AS 1020 YAK 2WD
20°: AS 1040 YAK 4WD
20°: AS 1040 YAK 4WD XL
(in accordance with the standard measuring method)



Prior to any repair and maintenance work, remove the ignition key.



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!



Wear safety glasses.



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



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



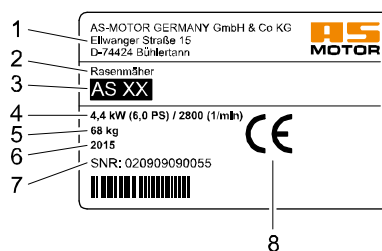
Do not clean the device with water spray or high-pressure cleaner!



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 CE marking

Type overview

In this operating manual, the following device types are described. Depending on the equipment of your device, the corresponding descriptions of this operating manual apply.

The illustrations in this operating manual may show different device types.

Equipment	AS 1020 YAK 2WD	AS 1040 YAK 4WD	AS 1040 YAK 4WD XL
All wheel drive	-	X	X
Tilting safety	18°	20°	20°

Safety instructions

Prior to starting

For your safety, read these operating instructions carefully. Familiarize yourself with the control elements and the proper use of the device. Share these operating instructions with all other users of the device.

Have skilled personnel who were trained by AS-Motor show you the safe handling of the device before you work with it for the first time.

Read the operator's manual of the engine and share it with all other users 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 standing still. 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 overflowed, 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.

When longer operating pauses are scheduled, the fuel should be run empty as much as possible.

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 (CO₂). Never spray with water!

Check the device prior to use

Prior to each use, check the blade, protection skirt, impact protection, covers, ejection rubber, drive and fastening parts, cables and cable connections for proper working condition and firm seating by visual inspection.

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

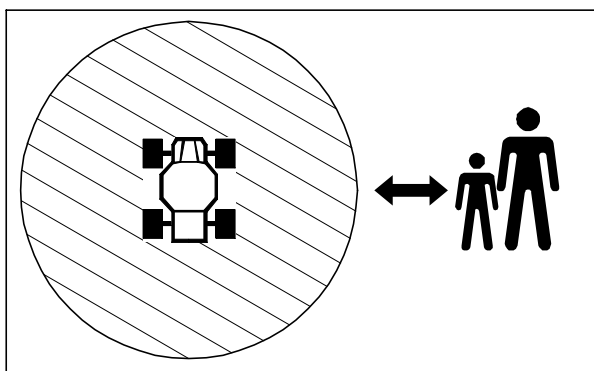
Do not remove, change or override any safety devices or control elements.

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.

Danger area



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

The rotating knife can cause injuries and objects can be thrown out. The area in front of and to the right of the device is especially dangerous.

On slopes, the device can topple over and slide towards persons or run them over.

Make sure

- that nobody else besides the user is on the mowing area.
- that people are never positioned in the direction of travel in front of the device.
- that nobody is positioned on the slope below the device.
- that you have a complete overview of the danger area at all times.
- that you keep your hands and feet away from the rotating parts.

Fire hazard

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

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

When fuel leaked or was spilled, there is an increased fire hazard.

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

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

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

Danger of poisoning due to exhaust gases

Engine exhaust fumes contain carbon monoxide that can lead to serious health problems or death. Do not operate the engine in a closed room, even when all doors and windows are open and the room seems to be sufficiently ventilated.

Operate the engine only after you have moved the device to the outdoors.

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

Use caution during operation

Danger of injury during motor start

The motor must not be started,

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

Risk of injury when the blade is running

Switch off the blade and wait until the blade stops

- when you drive on surfaces other than the mowing area.
- when you do not mow.
- when you cannot overlook completely 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 ignition key

- 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 remove the blockages at the mower.
- before you refuel.

Risk of injury due to uncontrolled rolling

Actuate the parking brake after each stop and before shutting off the engine. By doing so, you can prevent the device from rolling away in an uncontrolled way.

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.

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 and vibrations.



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



Wear safety glasses.

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.

Use caution when mowing

Risk of injury

Keep your hands and feet away from the rotating parts.

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

Only mow during daylight or with adequate artificial lighting. Never mow 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.

Do not transport any person on the device.

Be extremely cautious when moving and mowing in reverse.

Pay attention to traffic when working close to roads.

Vibrations

When the device is used over a longer period of time, vibrations can cause disturbances in the blood supply of the hands. A generally accepted usage time cannot be determined.

- Use gloves.
- Take breaks on time.

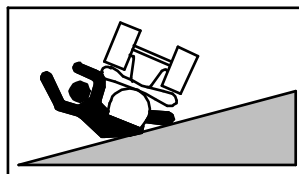
Have an authorised service centre check the device

- when the blade has hit an object.
- if the device starts to vibrate unusually severely.

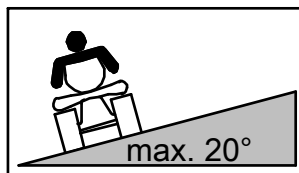
Caution when mowing slopes

If the device, while in use, stops in steep terrain or the engine cuts out, the device can roll away. Immediately actuate the parking brake to prevent the device from rolling away.

Sliding and tipping risk



There is a risk of injury during driving on slopes due to tipping over or sliding. Please observe the following notices.



Do not mow excessively steep slopes. For safety reasons, use the device only on slopes with the following gradients:

18°: AS 1020 YAK 2WD

20°: AS 1040 YAK 4WD

20°: AS 1040 YAK 4WD XL

- Please observe the following information on the danger area.
- Use a clinometer if you are not familiar with the slope (see chapter Accessories).
- Never unlock the drive on a slope because the device can roll away.
- Always drive uphill and downhill, never drive crossways to the slope.
- Never drive on a slope that you cannot drive up backwards without sliding.
- Be extremely cautious when changing the direction.
- Do not turn on a slope.
- Prior to entering the slope, always activate the differential lock. Move on slopes only when the differential lock is activated.
- Always keep the speed low when moving on slopes.
- Do not start abruptly and do not brake abruptly.
- Hold the steering wheel tightly so that the device does not swerve.
- Drive with the bar flipped up. If the device tips over, the bar can prevent the device from overturning.

When the uphill wheels encounter obstacles such as roots, branches, rocks, mounds etc., the device can tilt or slip.

- Only drive when you know about the terrain conditions and terrain is free of obstacles.
- Pay attention to bumps, holes, and other visible hazards.
- Do not drive close to danger zones (e.g. walls, slopes, steep declines, water edges etc.).

Safety instructions

Danger due to uncontrolled slipping

Only park the device on flat surfaces.

Proceed with extreme caution in case the ground is wet or loose. The danger of slipping is very high on cut growth, no matter if it is wet or dry.

If the mower starts to slide you cannot regain control by actuating the brake.

Uncontrolled sliding can occur because of:

- slope angles that are too steep.
- slippery ground.
- poor tire grip.
- speeding.
- abrupt braking.
- an inappropriate task for the device.

Keep in mind that all attachments or additional loads increase the risk of tilting.

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.

When work is completed

After mowing, always close the fuel valve.

Prior to leaving the device, wait until the engine comes to a standstill and pull off the spark plug connector.

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 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.

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 the blades and spare parts authorised by “AS-Motor Germany”. Unauthorised 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 ignition key.

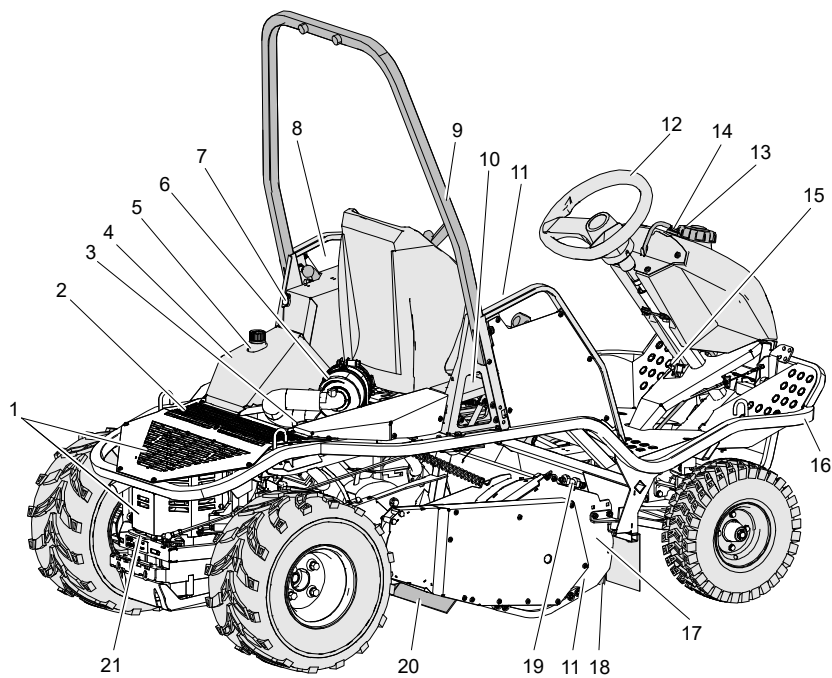
We would like to explicitly point out that we cannot be made responsible for damages caused by our devices if

- worn or damaged parts were not repaired on time.
- if they were caused by improper repair.
- if, in case of a part replacement, other parts than our original components or components approved by us have been used.
- repair has not been carried out by an authorised service centre.

The same applies to spare parts.

Device description

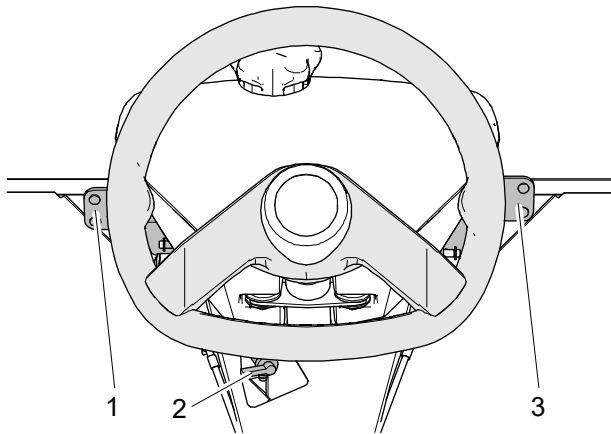
Illustration shows AS 1040 YAK 4WD



- 1 Gearbox fan with ventilation grid
- 2 Silencer grille (front part of the cover)
- 3 Oil dipstick / oil filler neck
- 4 Ventilation grid
- 5 Oil expansion chamber hydrostat
- 6 Air filter
- 7 Power socket
- 8 Fuses
- 9 Bar
- 10 Type plate and serial number
- 11 Connections cleaning nozzle (on both sides)
- 12 Steering wheel
- 13 Tank cap
- 14 Tank ventilation
- 15 Fuel valve
- 16 Frame
- 17 Mower cover
- 18 Protective blankets
- 19 Cleaning nozzle in holder
- 20 Ejection rubber
- 21 Unlocking drive

Control elements

Front area



Differential lock (1)

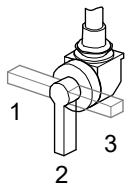
You actuate the differential lock with the left foot pedal.



Pedal depressed:
Differential lock on

Pedal not depressed:
Differential lock off

Fuel valve (2)



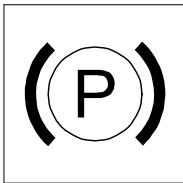
1: Reserve

2: Open

3: Closed

Brake pedal/parking brake (3)

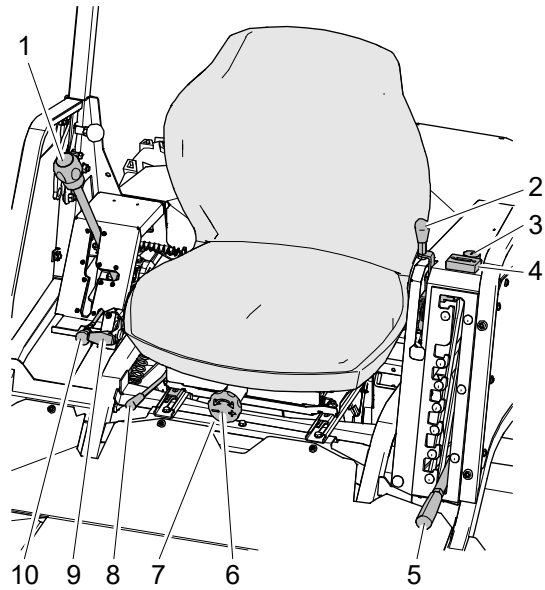
When you actuate the right foot pedal, the parking brake is applied. Press the foot pedal only in exceptional situations because the device stops abruptly.



Brakes:

Release the drive lever and press the right foot pedal (3) down.

Control lever at seat



Drive lever with parking brake (1)

The drive lever is required for moving the device forward, reversing as well as stopping the device. The further you move the lever in one or the other direction, the faster the device moves.

In the neutral position, the parking brake is active.



Reversing



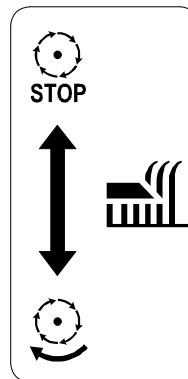
Stopping (neutral position/parking brake)



Moving forward

Blade clutch lever (2)

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



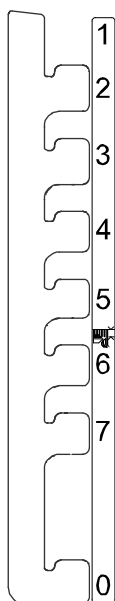
Disengaging blade:

Turn the accelerator lever to MIN. Move the blade clutch lever back.

Engaging blade:

Press the lever slowly forward.

Cutting height adjustment (5)

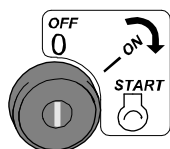


The cutting height of the lawn can be set to seven positions.

The top position is the transport position.

Ignition lock (3)

The ignition lock has three positions.



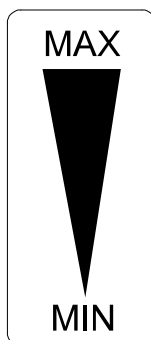
OFF: Ignition off.
The key can be removed.

ON: Ignition on.

START: Electric starter on.

Acceleration lever (9)

Using the accelerator lever, you change the engine speed.



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

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

Lever for choke (10)

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



Close choke:
Pull out the lever for the choke (10) to the front.



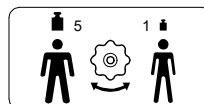
Open choke:
Push the lever for the choke (10) backward.

Seating position (8)

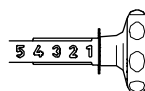
Press the lever (8) to the right, move the seat to the desired position lock the seat in position.

Seat springing (6)

The seat suspension can be adjusted continuously from 1-5 to the driver's weight. Read the setting from the scale (7) on the seat.



Heavy driver:
Turn clockwise. The indicator moves towards 5. The seat suspension becomes stiffer.



Light driver:
Turn anti-clockwise. The indicator moves towards 1. The seat suspension becomes softer.

Operating hours counter (4)

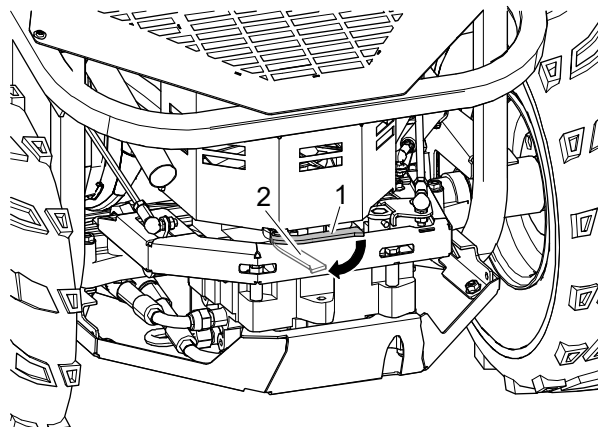
The operating hours are counted as soon as the engine is running.

Display:

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

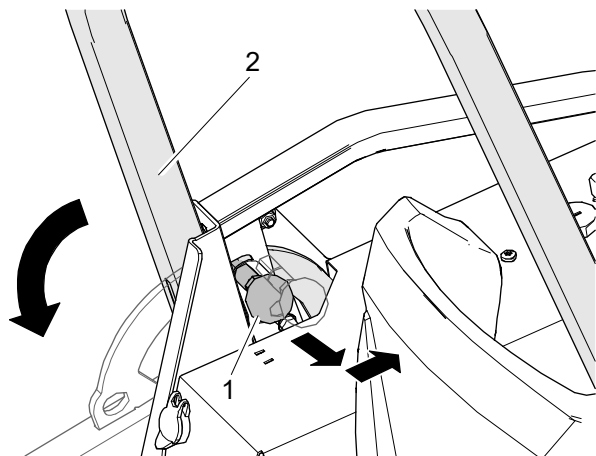
Moving the device without drive

To push the device without engine drive, unlock the drive at the rear of the device and release the parking brake.



- 1: = Locked
- 2: = Unlocked

Bar



Putting up the folding bar

1. Pull the lever (1) out on one side and swivel the lever forward.
2. Set up the bar (2) up and pull the lever (1) out on the opposite side.
3. Hold on to the bar and engage both levers (1) again.

Putting down the folding bar

1. Pull the lever (1) out on one side and swivel the lever forward.
2. Hold on to the bar (2) and pull the lever (1) out on the opposite side.
3. Fold the bar (2) backward.
4. Engage both levers (1) again.

Information on mowing

Prior to mowing, check your device for completeness, proper functioning, and cleanliness. A dirty ventilation grid causes overheating of the engine, this can damage the engine. A dirty protective grid on the silencer poses a fire hazard.

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.

Only mow with a sharp and undamaged blade. Check the blade and the flail shaft regularly (see Maintenance). Contact an authorised service centre if you detect faults or damage during inspection.

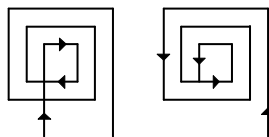
Do not mow when the grass is wet or when it is raining. The turf may be damaged and there is a danger of slipping!

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 does not touch the ground even in case of terrain unevenness.

Always set the blade to transport position when you do not mow.

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.

Prior to starting

Checking the oil level

Notice

Incorrect oil level can damage the engine.

- Prior to each use, check the engine oil level and the oil level in the hydrostat (see Maintenance).

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

Fuel

For 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

⚠ 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.
3. Open the tank cap carefully so that fuel does not splash out.
4. Fill the fuel tank.
5. Close the tank cap.

Adjusting the seating position

Adjust the seat in the longitudinal direction until your feet are positioned on the inclined support plates and you sit comfortably.

Adjusting the seat suspension

The seat suspension should be adjusted to the driver's weight and the terrain features. You will sit most comfortably when the spring travel is fully made use of.

The seat suspension should be set as soft as possible to keep it from going coil-bound during normal operation. You can read the current setting from the scale on the seat.

If the seat goes coil-bound during normal operation, turn the handwheel clockwise. The indicator moves towards 5. The seat suspension becomes stiffer.

If the seat suspension is stiff during normal operation and thus uncomfortable, turn the handwheel anticlockwise. The indicator moves towards 1. The seat suspension becomes softer.

Guide values for driver's weight for flat terrain:

kg	Scale
50	≥ 2
90	≥ 3
130	≥ 4

Putting up the bar

For safety reasons, always use the device with the bar folded up and locked. If the device tips over, the bar can prevent the device from overturning. Serious damage to the device can be thus avoided.

The device may only be used with the bar folded down on level ground.

Starting

Warning

During startup, there is a risk of injury due to rotating blades.

- ▶ Make sure that nobody is in the danger area of the blade.

Warning

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.

Safety switches

The device is equipped with safety switches. To be able to start the engine, the following conditions must be met:

- The driver is seated on driver's seat.
- The blade is disengaged.
- The drive lever is in neutral position.

If the engine is running and the driver leaves the seat, the engine is shut down. Then turn the ignition key to position "ignition off" or restart the engine.

Starting the engine

Start the device only when on level and firm terrain.

1. Open the fuel valve.
2. Sit down in the driver's seat.
3. Disengage the blade.
4. Move the lever for the cutting height adjustment to transport position.
5. Move the drive lever to neutral position.
6. Move the accelerator lever to middle position.
7. Pull out the lever for the choke (cool engine).
8. Turn the ignition key to starting position.
9. When the engine has started, release the ignition key and press the lever for the choke back in.
10. For mowing, set the accelerator lever to the maximum speed.

If the engine has not started after 5 seconds, release the key. Wait for approx. 15 seconds before you try to restart the device.

Engaging the blade

Warning

Risk of injury due to rotating blade.

- ▶ Make sure that no persons, children, animals or objects are in the danger area.

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 when overloaded, the blade can be damaged or wear prematurely.

1. Start the engine.
2. Move the lever for the cutting height adjustment to the highest cutting position.
3. Press the blade brake clutch lever slowly forward – the blade starts up.
4. Set the desired cutting height.

If you set the cutting height during mowing to transport position, the blade is automatically disengaged.

Disengaging the blade

1. Move the blade brake clutch swiftly to the rear.

Oil pressure switch

Warning

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

- ▶ Immediately actuate the parking brake to prevent the device from rolling away.

The oil pressure switch ensures that the engine is not damaged when the device is used in steep terrain.

The oil pressure switch switches off the engine when damage to the engine may occur due to lack of oil pressure. This may occur when:

- Oil level is too low.
- The device is in too steep a sloping position while in steep terrain.

How steep the gradient for the oil pressure switch to switch off the engine may depend on the engine type, direction of inclination, and the oil level.

In order to restart the engine, let the device roll to terrain that is less steep while in idle state. In every case, check the oil level.

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.

Warning

Device can move jerkily. If you are standing on the device, injuries can result.

- ▶ Do not stand up while the device is moving.
- ▶ Do not drive while standing up.

Warning

Mowing on the slope is dangerous. There is a tilting and slipping hazard.

- ▶ Observe the safety instructions regarding mowing on slopes.

In case of a hazardous situation, declutch the blade and switch off the travel drive.

Brakes

Warning

The foot brake does not take effect if you hold on to the accelerator lever during braking.

- ▶ Release the accelerator lever when you actuate the foot brake.

To stop move the drive lever slowly to neutral position and then to the left to parking position or step on the brake pedal.

The parking brake acts on the rear wheels. When you actuate the brake pedal, the drive lever moves all the way to neutral position/parking brake.

Press the brake pedal only in exceptional situations because the device stops abruptly.

Driving

1. Start the engine.
2. Make sure that your path is clear of obstacles or persons.
3. Push the drive lever to the right to release the parking brake.
4. Move the drive lever slowly to the desired driving direction. The more you move the lever away from the neutral position, the faster the device moves.

Reversing

⚠ Warning

Danger of injury when reversing

- ▶ Make sure that your path is clear of obstacles and that no other persons stand behind your device.

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

1. Slowly move the drive lever to the rear. The more you move the lever away from the neutral position, the faster the device moves.

Differential lock

⚠ Warning

Danger of injury when curves are driven

When curves are driven while the differential lock is actuated, the turning circle is increased.

- ▶ While the differential lock is actuated, only go slowly into a curve.

The differential lock connects the two rear wheels rigidly to each other. This improves traction. Actuate the differential lock when a wheel slips.

Always actuate the differential lock when moving downhill. This improves the driving stability of the device. The risk of sliding or swerving of the rear is reduced and safe braking is possible.

To avoid excessive wear,

- actuate the differential lock only when the device is stopped, if possible.
- always step on the pedal all the way.
- release the differential lock when it is no longer absolutely needed.

Transport

⚠ 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.

Transport the device by truck or trailer whose load capacity is intended for at least the operating weight of the device.

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.

Loading

Use suitable ramps for loading that

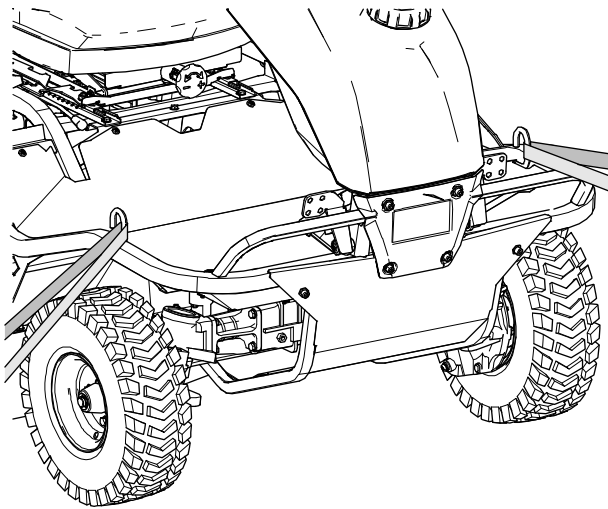
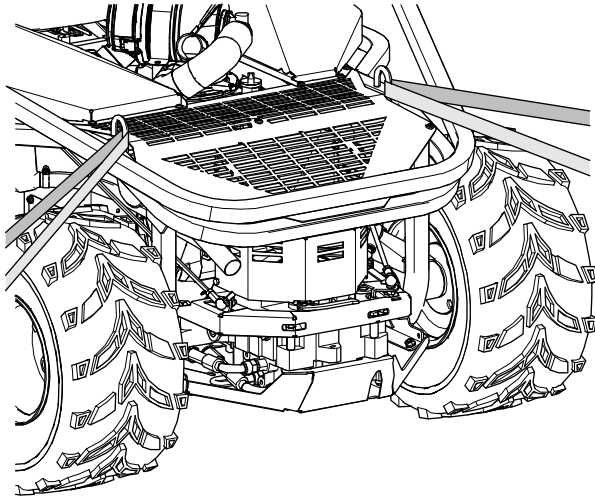
- can carry the empty weight of the device + 200 kg.
- are wider than the device.
- have a slip-free surface.

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°.
2. Carefully drive the device via the ramps onto the platform.
3. Observe the instructions in chapter Switching on and stopping.
4. Secure the device against rolling, sliding and tilting. Use straps that support the weight of the device.



5. Secure the device with belts to the frame elements that can hold the weight

Unloading the device

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

Observe the information in chapter Loading.

Moving the device without drive

⚠ Warning

The device can roll away without the drive.

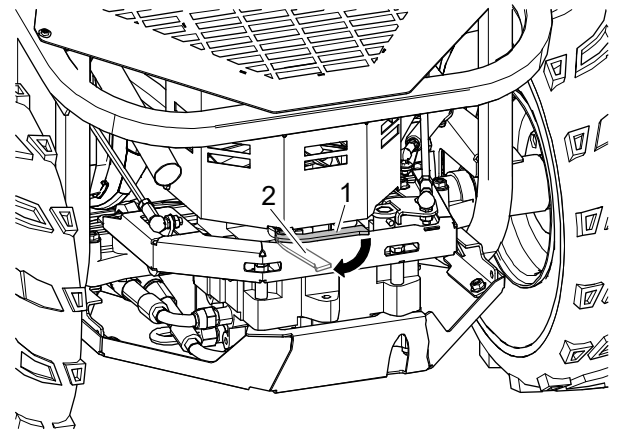
- ▶ Never unlock the drive in steep terrain without securing the device against rolling away.

Disconnecting the drive

Notice

When the engine is started while the drive is unlocked, the hydraulic drive can be destroyed.

- ▶ Never start the engine when the drive is unlocked.



1: = Locked

2: = Unlocked

Pushing

Caution

Hot silencer grid.

- ▶ Do not touch the silencer grid (3), when you push the device. It becomes very hot during operation and you can get burned.

To push the device without engine drive, unlock the drive at the rear of the device and release the parking break. The device can only be braked via the parking brake.

Towing

If the engine cannot be started again, the device must be towed.

1. While using the brakes, let the device roll to terrain that is less steep.
2. Secure the device against rolling away or sliding.
3. Secure the device with a cable winch that has got enough load capacity.
4. For towing unlock the drive and release the parking brake.

Switching off and parking

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

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 in case of unauthorised use.

- ▶ Always remove the ignition key when you do not use the device.

1. Move the drive lever slowly to neutral position and then to the left to parking position.
2. Turn the accelerator lever to idle speed.
3. Disengage the blade.
4. Move the lever for the cutting height adjustment to transport position.
5. Turn the ignition key to "ignition off".
6. Wait for the engine to stop completely before you step away from the device.
7. Clean the mower unit (see Maintenance).
8. Pull off the ignition key.
9. Close the fuel valve.

Maintenance

⚠ Warning

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

- ▶ Make sure that no persons or objects are in the danger area of the blade.
- ▶ 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.

⚠ 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

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.

Prior to all maintenance and cleaning work when the engine is not running:

1. Let the device cool down for at least 20 minutes.
2. Close the fuel valve.
3. Disconnect the negative pole of the battery.

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 and cleaning position

⚠ 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.

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.

Maintenance overview

Component	Action	Maintenance interval	
		A	B
Device	Check for safe working condition (basic inspection).	■	▲
	Clean.	■	
	Customer service.		▲
Mower unit	Clean. See chapter Cleaning the mower unit.	□	
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 and flail shaft.	■	▲
	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?	□	▲
Release the drive lever	Does the device stop when the lever is in neutral position (parking brake)?	□	▲
	Devices with foot brake: Does the lever move to neutral position when the foot brake is actuated?	■	▲
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 protection	Check for rust and fissures and check the welding seams.	■	▲
	Are all protective devices and covers in place, fastened correctly 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.		▲
	Oil filter change.		▲
Parking brake	Check.	■	▲
Check the foot brake	Check the foot brake.	■	▲
Flammable material	Remove easily flammable debris buildup from the engine and the device.	■	▲
Steering	Check the clearance.	■	▲
Tyres	Check tyres and, if necessary, the tyre pressure.	■	▲

Safety switches	Check the switches at the driver seat, cutting height adjustment, and drive for proper function.	■	▲
Ignition lock	Check for proper function.	□	▲
Hydrostatic transmission	Check oil level.	■	▲
	Repair leaks.		▲
	Oil change after 50 h and every 200 h thereafter.		▲
Battery	Check the charging conditions.		▲

- A Before and after each use.
 B Annually or every 50 h.
 ■ By the user when the engine is not running.
 □ By the user when the engine is running.
 ▲ By the authorised service centre.

Cleaning the device

After each use, you should clean the device thoroughly, especially the bottom side and the blade.

Stuck grass or dirt affect the grass discharge and the cutting quality. For a sufficient engine cooling, keep the engine cover, ventilation grid, and the engine clean.

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

Fire hazard! Pay special attention so that components at the silencer are clean.

For cleaning use a hand brush. Remove stubborn soiling with a wooden or plastic spatula. Clean the outer housing parts with a cloth.

Do not rinse off the device with a water jet or high pressure cleaner! Do not use aggressive cleaning agents.

Cleaning the mower unit

Notice

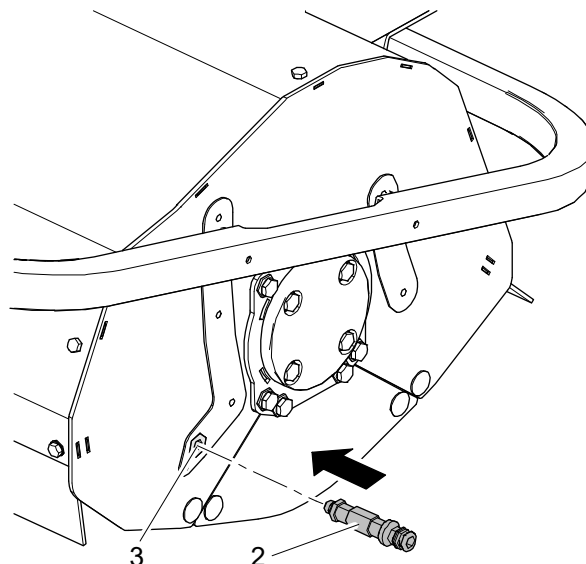
Cleaning agents damage the mower unit.

► Clean the mower unit with water only.

Notice

Mounted cleaning nozzles can be damaged during mowing.

► Dismount the cleaning nozzles after mowing and insert them into the holder.



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

1. Remove the cleaning nozzle from the holder (1).
2. Screw the cleaning nozzle (2) to the left and right into the thread (3) on the mower unit.
3. Connect a water hose (push-in coupling) to the cleaning nozzle.
4. Turn on the water. A strong water jet improves the cleaning effect.
5. Sit down on the device and start the engine.
6. Move the lever for the cutting height adjustment to the lowest cutting position (level 1).
7. Engage the blade.
8. Depending on the contamination, it can take some time before the mower unit is cleaned.
9. Dismount the cleaning nozzle in the reverse order of steps.

Repeat the procedure on the other side.

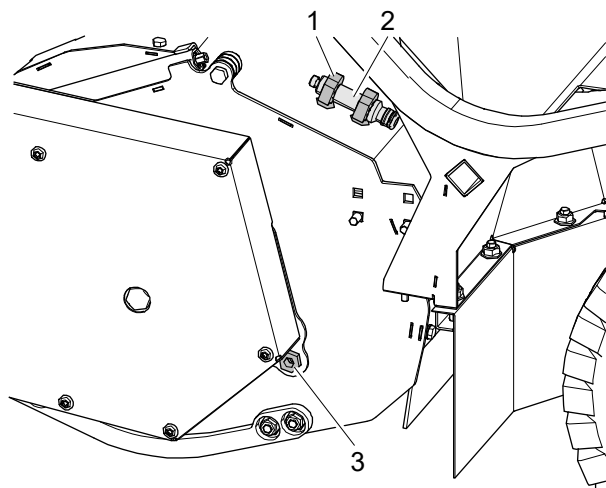
General inspection

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

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

Check all parts 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 the safety functions

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

- The driver does not sit on driver's seat.
- The blade is engaged.
- The drive lever is not in neutral position.

If the engine is running and the driver leaves the seat, the engine must shut down.

Checking the parking brake

⚠ Warning

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

- ▶ Make sure that the parking brake always functions correctly.

1. Place the device on a surface with a good grip (e.g. concrete or asphalt).
2. Switch off the engine.
3. Let the device cool down for at least 20 minutes.
4. Unlock the drive.
5. Activate the parking brake.
6. Try to push the device.

If the rear wheels lock up, the parking brake is set correctly. If the device can be pushed, the parking brake must be readjusted by an authorised service centre.

Check in the drive lever goes back to neutral position (parking brake) when the brake pedal is actuated.

Check if the drive lever goes to neutral position (parking brake) when the driver leaves the seat.

Checking the blade and flail shaft

⚠ 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.

⚠ 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

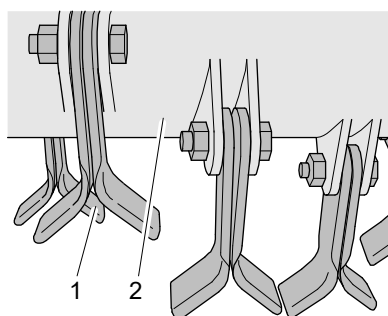
- if damage or cracks are detected.
- if unusually strong vibrations occur.
- at least once a year or every 50 operating hours, no matter if wear does exist or not.

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.

Changing the flail blades

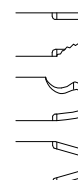


New blade



Replacing the blade

- broken
- bent
- worn on both sides



Turning over the blade

- worn on one side



Maintenance

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 AS-blade is engraved with:

AS XXXXXXXX

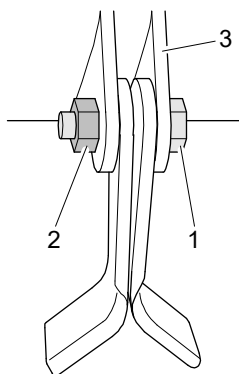
The engraving shows the spare part number.

Checking the fastening elements and the flail shaft

⚠ 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.



During mowing, the fastening elements wear. Replace the fastening screws (1) and the corresponding nuts (2),

- when their diameter is worn for more than 1 mm and
- during each blade change.

Use only original AS-Motor spare parts.

During each blade change, check the flail shaft for damages. The mounting plates (3) must not be damaged, bent, or worn. Contact an authorised service centre if damage, cracks or wear has occurred.

Checking the blade brake clutch

Inspection by an authorised service centre.

After declutching, the blade must come to a standstill from full speed in less than 7 seconds.

Maintaining the engine

⚠ 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

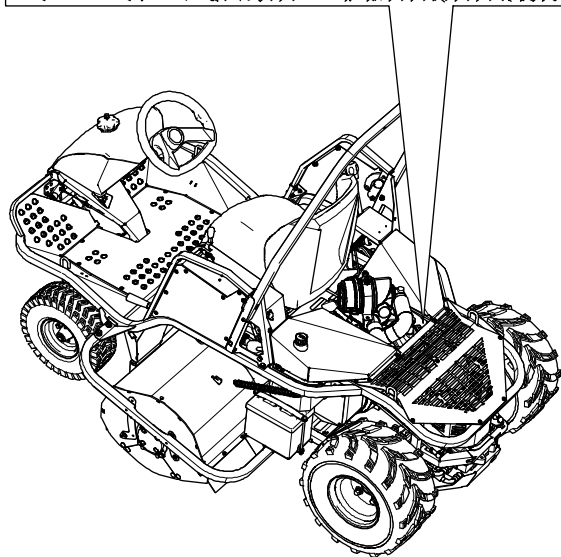
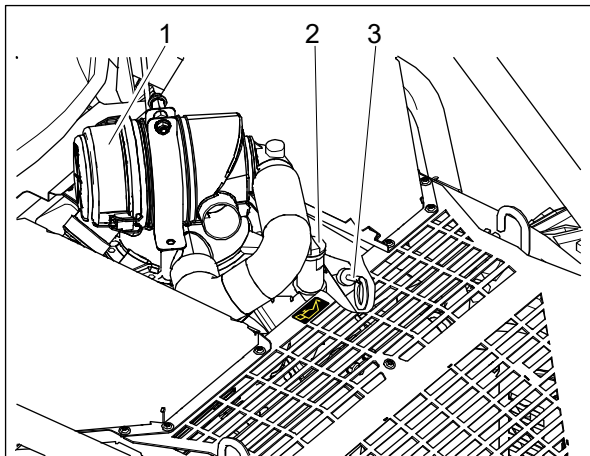
Incorrect oil level can damage the engine.

- 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

Checking the spark plugs

⚠ Danger

The ignition system generates an electromagnetic field.

- Wearers of pacemakers must not work on active parts.

Always check both spark plugs.

Maintaining the air filter

⚠ 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.

For this, observe the attached operating instructions of the engine.

Checking and charging the battery

⚠ 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.

⚠ 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.

⚠ 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.

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

The battery is maintenance-free.

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

⚠ 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 AS-Motor or your authorised service centre. Also observe all information in the operator's manual of the battery (if existing).

Caution! 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

⚠ Warning

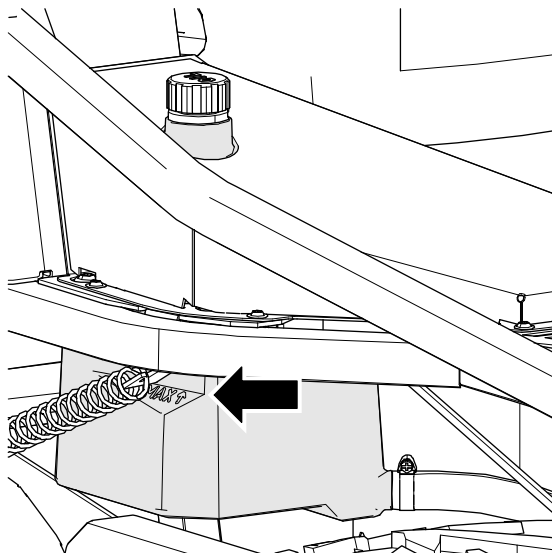
Risk of injury due to high pressure (up to 410 bar) in the hydraulic system.

- ▶ Check the hydraulic hoses for leaks, damage and chafe points.

⚠ Warning

When oil leaks there is a danger of environmental pollution.

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



In warmed up condition, the oil level must be at "MAX" marking. In cold condition, the oil level can be somewhat below, in hot condition the oil level can be somewhat above the "MAX" marking.

There always must be oil in the compensation tank so that no air can enter the hydraulic system.

The oil change must be carried out by an authorised service centre (see Maintenance table).

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 and check the oil level.

If the change working noise still exists, have the device checked by an authorised service centre.

It is possible that the hydraulic system must be ventilated or the oil must be changed. For refilling, only use the types of oil specified in the technical data.

Check oil level of the bevel gear.

Place the device for 30 minutes on a level surface before you check the oil level.

The ideal oil level is at the centre of the inspection glass.

If the oil level is below the bottom edge of the inspection glass, damage to the gearbox due to overheating will result. If the oil level is higher than 2/3 of the inspection glass, the seals will be damaged and oil loss will result.

Contact an authorised service centre when the oil level is too high or too low.

Assembly

Scope of delivery

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

- The device.
- This operating manual.
- Manufacturer's certificate.
- Tool bag.
- Ignition key.
- Operator's manual of the engine manufacturer.

Unpacking

1. Remove the carton.
2. Check the air pressure of the tires (see Technical data).

Storage

⚠ Warning

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

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

Risk of injury in case of unauthorised use.

- ▶ Always remove the ignition key when you do not use the device.

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. Emptying carburetor: Close the fuel valve, start the engine and let it run until it stops by itself.
4. Thoroughly clean the device.
5. Remove the ignition key and store it separately from the device.

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 "AS-Motor Germany". 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 wear parts. They wear during use and must be replaced. The warranty does not cover the following parts:

Blades, cutting blades, cutter bars, blade bolts, sliding plates, V-belt, chains, Bowden cables, starter ropes, pressure plates, air filters, spark plugs, disc springs, lock washers, fuses, discs, thrust plates, pressure discs, protection skirts, impact protection, wheels, tires.

Tyres

⚠ Warning

If wheels with different diameters are used, damage of the all-wheel drive system can result. There is a risk of accident.

Only use the set of tyres authorised by "AS-Motor Germany".

Disposal

The device cuts and shreds the plant material in a single operation. Shredded plant material decomposes quickly, can be utilized 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.

Warranty

Please see our AS-Motor website for warranty information.

Please print out the documents that you receive during the online registration. Keep them together with your sales receipt.

Troubleshooting

The following table contains the most frequent problems and their elimination. If more problems occur, contact the closest authorised service centre.

You can find an authorised service centre on our home page www.as-motor.com.

Problem	Possible cause	Remedy
Starter does not turn	Safety switches are not actuated.	<ul style="list-style-type: none"> – Move drive lever to neutral position. – Disengage blade. – Put driver in seat to activate seat contact switches.
	Battery is empty: <ul style="list-style-type: none"> – Ignition key was not in position "Off". – Standstill period was too long. 	Charge the battery (see Checking the battery) or have authorised service centre do so.
	Fuse is defective.	Replace (if necessary, have authorised service centre do so).
	Battery is defective.	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 Maintenance).
	Spark plugs are dirty, damaged, or incorrect electrode gap.	Clean spark plugs and check electrode gap (see Maintenance). Replace spark plugs if necessary.
	No oil pressure: Too little engine oil.	Check engine oil level, refill.
	No oil pressure: Slope too steep.	Bring the device to a level position.
	Poor quality, dirty, or old fuel.	Clean fuel system (authorised service centre). Always use fresh fuel.
Engine starts badly or runs irregularly	Choke is closed.	Open choke (see chapter Starting).
	Air filter is dirty.	Maintain air filter (see chapter Maintenance).
	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). Replace spark plug if necessary.
Device does not move	The drive is unlocked.	Lock the drive.
	Hydrostatic drive is overheated.	Cool down (see chapter Maintenance).

Troubleshooting

Blade cannot be engaged	Lever for cutting height adjustment in transport position.	Lower lever for cutting height adjustment to the desired cutting height.
The blade does not rotate	V-belt is insufficiently tensioned or damaged.	Authorised service centre.
	Bowden cable is defective.	Authorised service centre.
Strong vibrations during operation	Unbalance due to missing, broken, cracked or unevenly worn blades.	Checking the blade and flail shaft (see Maintenance).
	Flailshaft is bent due to collisions 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.
	Muffler 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 instructions 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 proportionately to the cutting height.	Reduce speed and/or select the correct cutting height.
	Housing of the device is heavily contaminated.	Clean.
	Different tyre pressure.	Check the tyre pressure.
	Mower housing is not parallel to the ground.	Adjust (authorised service centre).
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 defective.	Close the fuel valve. Authorised service centre.
The tires become flat	Thorns or sharp objects damage the tires.	If necessary, use tire protection gel (authorised service centre).

Technical data AS 1020 YAK 2WD

Type	AS 1020 YAK 2WD
Range of application (temperature)	0 - 30 °C For temperatures below 5 °C, observe the engine manufacturer's information 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	12 V, approx. 30 Ah
Fuses Main fuse Fuse controller generator	25 A 25 A
Traction drive Rear Speed forward Speed reverse	Rear axle with differential lock 0-6,8 km/h 0-6,3 km/h
Maximum area coverage	ca. 6800 m ² /h
Turning radius	approx. 1,4 m
Seat	Movable, spring mounted, adjustable to the driver's weight
Cutting device, type Cutting width Cutting height in 7 levels Transport 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 120 mm V-belt Belt tension clutch up to approx. 150 cm
Measures and weights Transport size with packaging L/W/H max. tyre dimensions L/W/H Height when rollbar is folded down Weight	208/130/123 cm 199/122/159 cm 108 mm 323 kg
Capacities Fuel tank Engine oil Transmission oil (hydrostat)	17 Liter, davon ca. 0,8 L Reserve 1,7 litres 5 W50 fully synthetic engine oil (see operating instructions of the engine manufacturer) 3,9 Liter vollsynthetisches Motoröl 5W-50
Sound level Measured sound level L _{VWA} Sound level at working place L _{pA} Measurement uncertainty k	according to DIN EN 12733 102,6 dB 92,7 dB 3,0 dB
Vibration emission value Hand-arm-vibrations a _{h,w} Measurement uncertainty U Whole-body vibrations a _{h,w} Measurement uncertainty U	according to DIN EN ISO 5395 1,3 m/s ² 1,0 m/s ² 0,31 m/s ² 0,15 m/s ²
Tyre pressure Front Rear	0,9-1,2 bar 0,4-1,2 bar
Tyre designation Front Rear	15x5.00-6 (as standard with flat tyre protection sealant approx. 0,5 litres) 18x9.50-8 (standard with flat tyre protection sealant approx. 1,0 litres)

Technical data AS 1040 YAK 4WD, AS 1040 YAK 4WD XL

Type	AS 1040 YAK 4WD	AS 1040 YAK 4WD XL
Range of application (temperature)	0 - 30 °C For temperatures below 5 °C, observe the engine manufacturer's information 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	12 V, approx. 30 Ah	
Fuses Main fuse Fuse controller generator	25 A 25 A	
Traction drive Rear Front	Permanent all-wheel drive Rear axle with differential lock Pendular portal axle, with two hydraulic engines and upright shafts	
Speed forward Speed reverse	0-6,8 km/h 0-6,3 km/h	0-7,5 km/h 0-6,5 km/h
Maximum area coverage	ca. 6800 m ² /h	ca. 7500 m ² /h
Turning radius	approx. 1,4 m	approx. 1,4 m
Seat	Movable, spring mounted, adjustable to the driver's weight	
Cutting device, type Cutting width Cutting height in 7 levels Transport 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 120 mm V-belt Belt tension clutch up to approx. 150 cm	
Measures and weights Transport size with packaging L/W/H max. tyre dimensions L/W/H Height when rollbar is folded down Weight	208/130/123 cm 199/122/159 cm 108 cm 335 kg	208/130/123 cm 199/122/162 cm 111 cm 351 kg
Capacities Fuel tank Engine oil Transmission oil (hydrostat)	17 litres, thereof approx. 0,8 L Reserve 1,7 litres 5 W50 fully synthetic engine oil (see operating instructions of the engine manufacturer) 6,7 Litres fully synthetic engine oil SAE 5W-50	
Sound level Measured sound level L _{WA} Sound level at working place L _{pA} Measurement uncertainty k	according to DIN EN 12733 102,6 dB 92,7 dB 3,0 dB	according to DIN EN 12733 102,6 dB 92,7 dB 3,0 dB
Vibration emission value Hand-arm-vibrations a _{h,w} Measurement uncertainty U Whole-body vibrations a _{h,w} Measurement uncertainty U	according to DIN EN ISO 5395 1,1 m/s ² 1,0 m/s ² 0,35 m/s ² 0,15 m/s ²	according to DIN EN ISO 5395 1,3 m/s ² 1,0 m/s ² 0,36 m/s ² 0,15 m/s ²
Tyre pressure Front Rear	0,9-1,2 bar 0,4-1,2 bar	2,0 bar 0,8-1,5 bar

Type	AS 1040 YAK 4WD	AS 1040 YAK 4WD XL
Tyre designation Front Rear	15x5.00-6 (standard with flat tyre protection sealant approx. 0,5 litres) 18x9.50-8 (standard with flat tyre protection sealant approx. 1,0 litres)	4.80/4.00-8 (standard with flat tyre protection sealant approx. 0,5 litres) 20x10.00-8 (standard with flat tyre protection sealant approx. 1,0 litres)

Accessories

Spray paint 400 ml, colour orange:	G00011050
Clinometer:	G06950027
Steering wheel knob:	G06980011
Flat tyre protection 950 ml:	G00041068
Adapter for trailers:	G90400102
Trailer:	G06800003
Snow blade without adapter and control elements:	G06837006
Adapter and control elements for snow blade:	G90499002
Transport box Kit:	G90499003
Winding protection Kit front axle (AS 1040 YAK 4WD XL only):	G06999003

Declaration of conformity

We declare that the grassland mowers

Type	starting from serial no.
AS 1020 YAK 2WD	037420090001
AS 1040 YAK 4WD	033120100001
AS 1040 YAK 4WD XL	037320080001

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

- 2006/42/EC
- 2000/14/EC
- 2014/30/EU

Function:

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

Applied standards:

DIN EN 12733

Place where all technical records are filed:

AS-Motor Germany GmbH & Co. KG
Ellwanger Straße 15
D-74424 Bühlertann

Bühlertann, in November 2020



Eberhard Lange
Managing director



By proxy Frank Einsiedler
Head of development



THE HIGH GRASS MOWER AND 2 STROKE ENGINE MANUFACTURE

AS-Motor is your premium manufacturer for lawn and high grass mowers as well as 2 stroke engines. 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 the world's first all-wheel ride-on mower with remote control will always offer private customers, municipalities service providers 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 30 countries all over the world.

Mulching mower	Mulching mower – the time-saving alternative! AS-Motor 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.
Brush cutter®	An agile lawn mower for maintenance of extensive grassed areas. The Allmäher® reliably mows and mulches metre-high grass, brushes and weeds.
Flail mower	High grass with undergrowth, steep slope or extensive areas in unknown terrain? The movably mounted flail blades of the AS-Motor flail mower give way to rocks and obstacles and chop the cuttings several times over.
Ride-on brush cutter	If extensive areas, weeds and undergrowth up to 1.2 m, the AS-Motor all-wheel mowers are also perfect for steep and even extremely steep terrain. Ease of use and high area performance combined in one compact ride-on mower. For more safety, comfort and efficiency in difficult terrain we have developed the innovative and the world's first remote controlled ride-on mower.
Rotary mower	The cost-effective alternative to the cutter-bar mower. Also ideal for feed production. The grass is not shredded but deposited in straight rows as a windrow next to the machine.
Weed remover	Careful and chemical-free weed removal. The AS-Motor weed removers “WeedHex” mechanically clean paved areas and curb stones from growing weeds – quickly, safely, and efficiently.