

STIHL RT 5097 Z, RT 5097 Z RT 5112 Z, RT 6112 ZL, RT 6127 ZL

STIHL

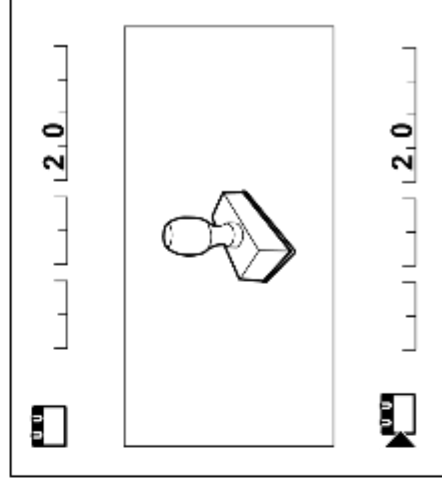
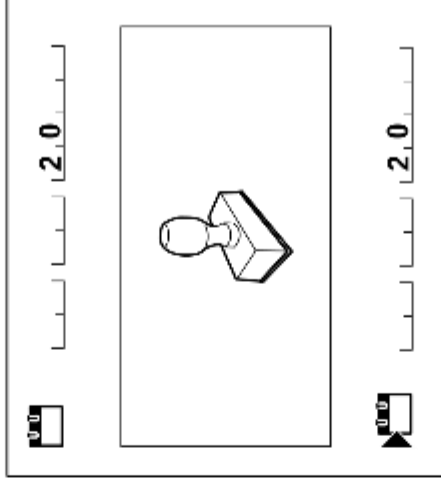
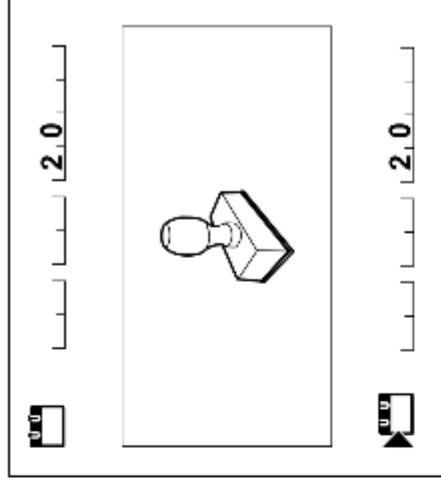
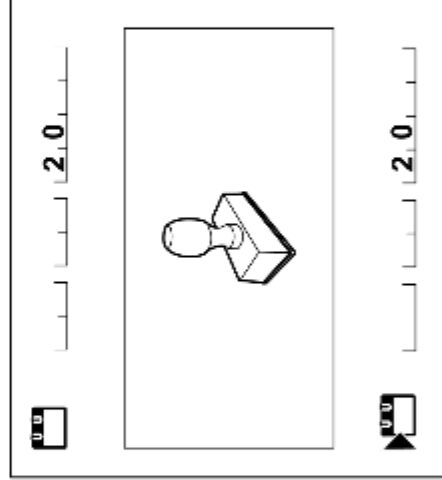
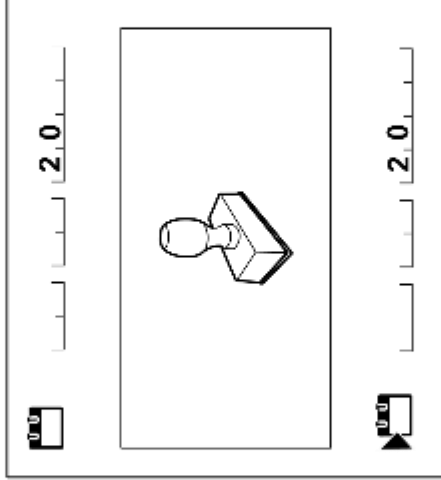
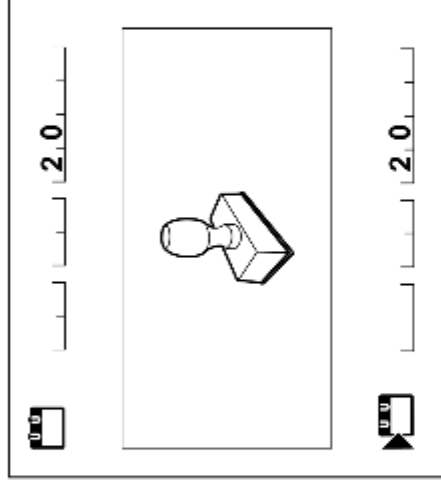
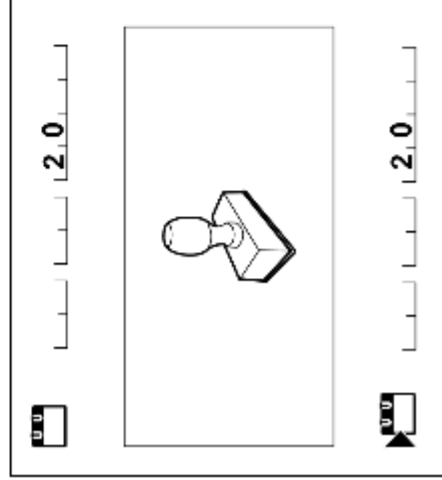
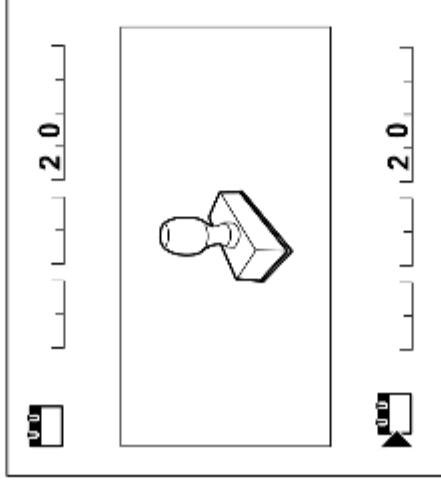
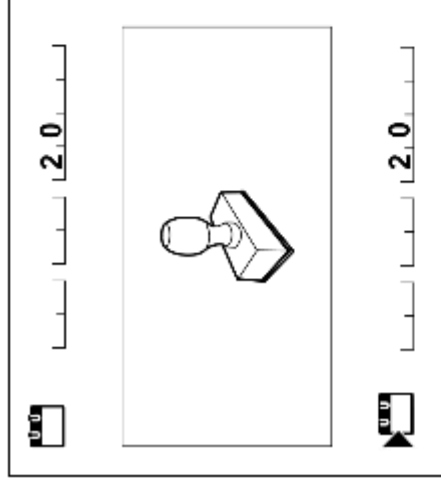
- EN** Instruction manual
- ES** Manual de instrucciones
- PT** Manual de utilização
- EL** Οδηγίες χρήσης



RT 5097.1 RT 5097.1 Z RT 5112.1 Z RT 6112.1 ZL RT 6127.1 ZL

D **EUR 2**





Dear Customer,

Thank you for choosing STIHL. We develop and manufacture our quality products to meet our customers' requirements. The products are designed for reliability even under extreme conditions.

STIHL also stands for premium service quality. Our specialist dealers guarantee competent advice and instruction as well as comprehensive service support.

We thank you for your confidence in us and hope you will enjoy working with your STIHL product.



Dr. Nikolas Stihl

**IMPORTANT: READ BEFORE USE AND
KEEP IN A SAFE PLACE.**

1. Table of contents

Notes on the instruction manual	4
General	4
Instructions for reading the instruction manual	4
Machine overview	6
Ride-on mower	6
Dashboard	8
For your safety	9
General	9
Training – learning to use the machine	10
Transporting the ride-on mower	10
Refilling the tank – handling petrol	10
Clothing and equipment	11
Before operation	11
During operation	12
Maintenance and repairs	15
Storage for prolonged periods without operation	16
Disposal	16
Description of symbols	17
Standard equipment	19
Operations prior to initial use	20
Controls	20
Ignition lock with light switch	20
Throttle lever with choke function (RT 5097)	20
Throttle lever (RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL)	21
Choke knob (RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL)	21
Mowing deck switch (RT 5097, RT 5097 Z, RT 5112 Z)	22

Mowing deck button (RT 6112 ZL, RT 6127 ZL)	22
Cruise control button (RT 6112 ZL, RT 6127 ZL)	23
Reverse mowing safety switch	23
Driving direction selector lever	23
Steering wheel	24
Driver's seat adjustment	24
Drive pedal	24
Brake pedal	25
Parking brake	25
Cutting height adjustment lever	26
Grass catcher box emptying lever	26
Grass catcher box release lever	27
Gearbox freewheel lever	27
Level sensor (grass catcher box)	28
Electronics	28
Self-diagnosis when starting	28
Ride-on mower faults during operation	29
Electronics faults	29
Display RT 6112 ZL, RT 6127 ZL	29
5-digit segmental display	30
Set button	30
Mode button	30
Display of faults	30
Display of operating information	30
Display of active functions	31
Notes on working with the machine	31
Safety devices	32
Operating the machine	33
Filling the fuel tank	33
Starting the engine	34
Stopping the engine	34
Driving	35
Braking	35

2. Notes on the instruction manual

Adjusting the cutting height	35	Charging the battery using the charger plug	57
Mowing	36	Replacing headlamp bulbs	58
Programming automatic disengagement of the mowing deck	36	Combustion engine	58
Emptying the grass catcher box	37	Gearbox	59
Removing and attaching the grass catcher box	37	Storage	59
Pulling loads	38	Extended periods of inoperation (e.g. winter break)	59
Operating on slopes	39	Following storage for extended periods (e.g. over winter)	59
Mowing deck	39	Transport	59
Removing the mowing deck	39	Standard spare parts	60
Installing the mowing deck	41	Accessories	60
Maintenance	44	Environmental protection	60
Maintenance schedule	44	Minimising wear and preventing damage	60
Cleaning the machine	45	Declaration of conformity	61
Opening the engine hood	46	EU declaration of conformity – STIHL RT 5097.1, RT 5097.1 Z, RT 5112.1 Z, RT 6112.1 ZL, RT 6127.1 ZL ride-on mower	61
Closing the engine hood	46	UKCA-Declaration of Conformity STIHL RT 5097.1, RT 5097.1 Z, RT 5112.1 Z, RT 6112.1 ZL, RT 6127.1 ZL Ride-On Mower	62
Removing the discharge chute	46	Technical specifications	63
Installing the discharge chute	46	Dimensions	66
Fuel cock	47	REACH	66
Checking the engine oil filling level	47	Troubleshooting	67
Changing the engine oil	47	Service schedule	69
Topping up engine oil	48	Handover confirmation	69
Checking the safety devices	48	Service confirmation	70
Cleaning the level sensor (grass catcher box)	49		
Mowing blade maintenance	49		
Checking the installation position of the mowing deck	52		
Changing the wheels	52		
Tyre pressure	54		
Lubrication	54		
Opening and closing the battery compartment	54		
Removing and installing the battery fuses	55		
	57		

2.1 General

This instruction manual is a **translation of the original manufacturer's instructions** in the sense of EC Directive 2006/42/EC.

STIHL is continually striving to further develop its range of products; we therefore reserve the right to make alterations to the form, technical specifications and equipment level of our standard equipment.

For this reason, the information and illustrations in this manual are subject to alterations.

This instruction manual may describe models that are not available in all countries.

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2.2 Instructions for reading the instruction manual

Illustrations and texts describe specific operating steps.

All symbols which are affixed to the machine are explained in this instruction manual.

Viewing direction:

Viewing direction when "left" and "right" are used in the instruction manual: the user is standing behind the machine and is looking forwards in the direction of travel.

Section reference:

References to relevant sections and subsections for further descriptions are made using arrows. The following example shows a reference to a section: (→ 4.)

Designation of text passages:

The instructions described can be identified as in the following examples.

Operating steps which require intervention on the part of the user:

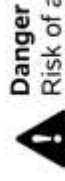
- Release bolt (1) using a screwdriver, operate lever (2)...

General lists:

- Use of the product for sporting or competitive events

Texts with added significance:

Text passages with added significance are identified using the symbols described below in order to especially emphasise them in the instruction manual:



Danger

Risk of accident and severe injury to persons. A certain type of behaviour is necessary or must be avoided.



Warning

Risk of injury to persons. A certain type of behaviour prevents possible or probable injuries.



Caution

Minor injuries or material damage can be prevented by a certain type of behaviour.



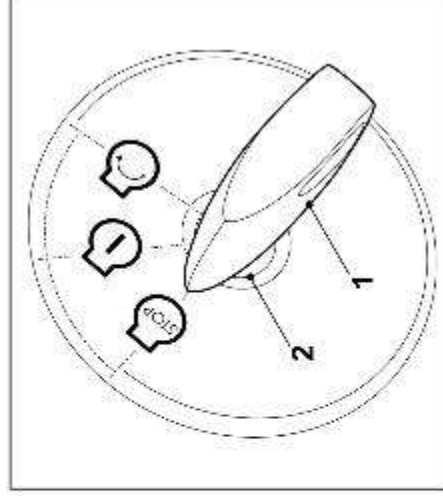
Note

Information for better use of the machine and in order to avoid possible operating errors.

Illustrations with text passages:

Operating steps relating directly to the illustration can be found immediately after the illustration, with a corresponding reference to the item numbers.

Example:



Insert ignition key (1) in ignition lock (2).

Texts relating to illustrations:

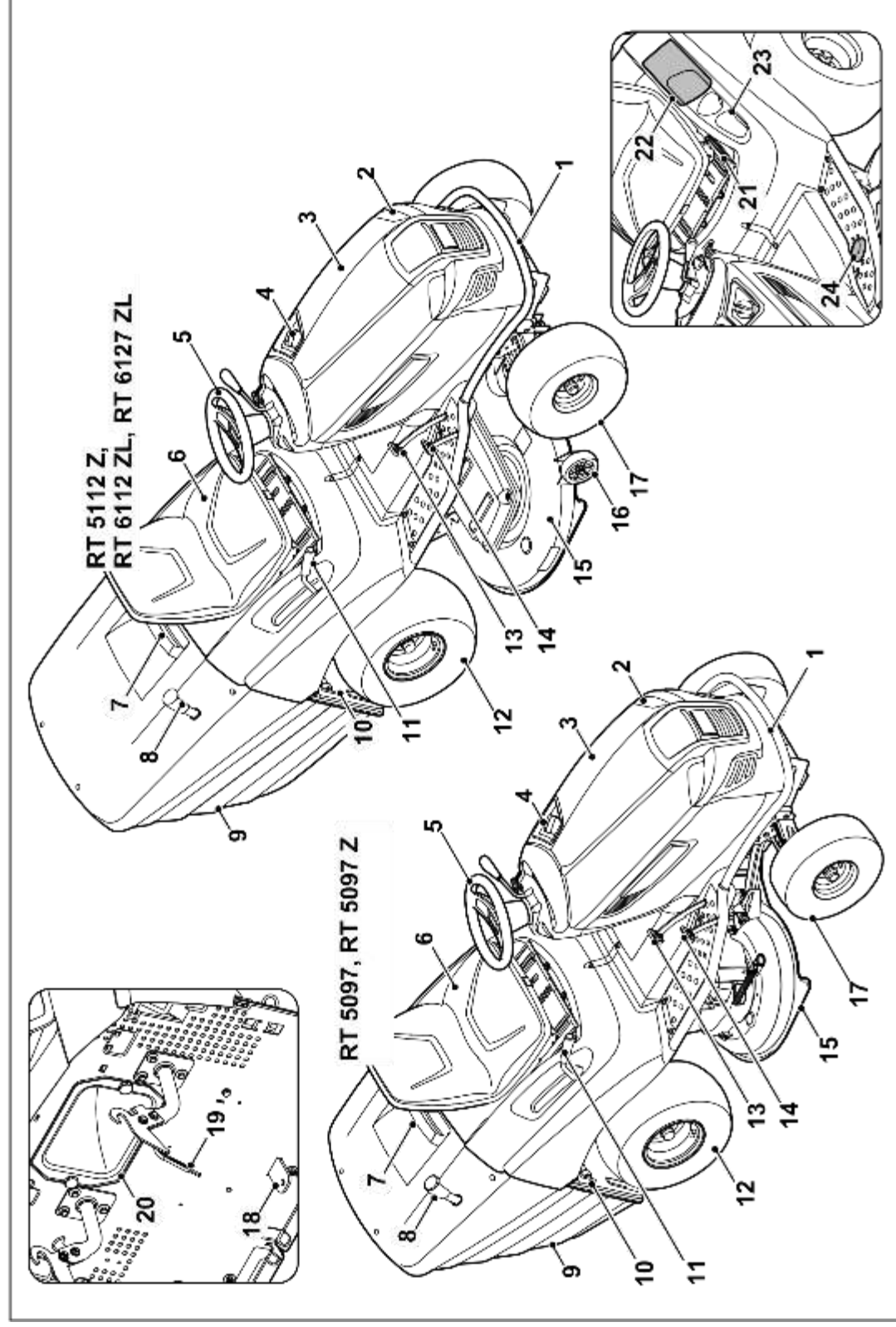
Illustrations relating to use of the machine can be found in the front of this instruction manual.



The camera symbol serves to link the figures on the illustration pages with the corresponding text passages in the instruction manual.

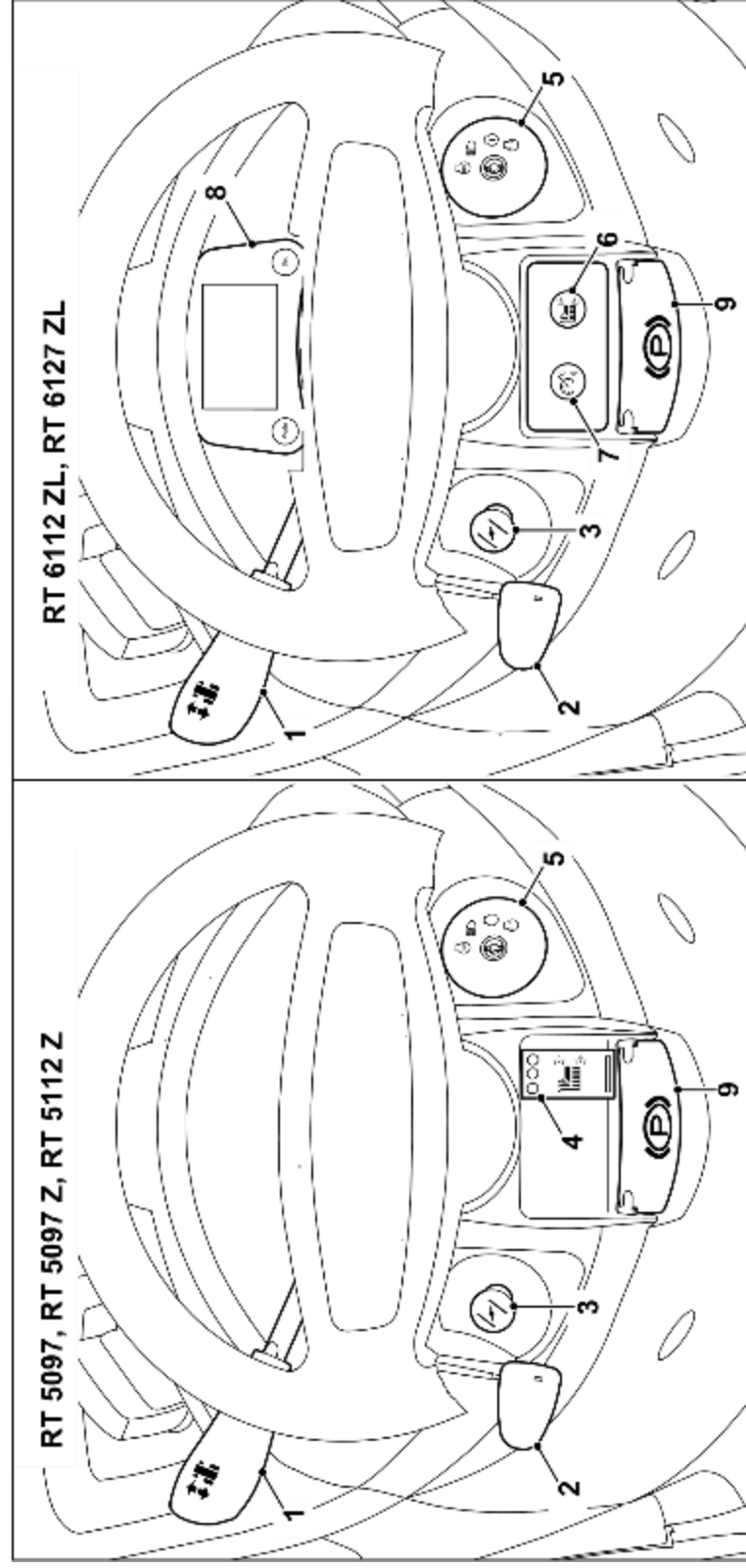
3. Machine overview

3.1 Ride-on mower



- 1 Bumper
- 2 Headlamp
- 3 Engine hood
- 4 Tank cap
- 5 Steering wheel
- 6 Driver's seat
- 7 Grass catcher box handle with grass catcher box release lever
- 8 Grass catcher box emptying lever
- 9 Grass catcher box
- 10 Gearbox freewheel lever
- 11 Cutting height adjustment lever
- 12 Rear wheel
- 13 Brake pedal
- 14 Drive pedal (driving speed)
- 15 Mowing deck
- 16 Gauge wheels
- 17 Front wheel
- 18 Trailer hitch
- 19 Level sensor (grass catcher box)
- 20 Discharge chute
- 21 Driver's seat adjustment lever
- 22 Battery compartment
- 23 Beverage compartment
- 24 Reverse mowing safety switch

3.2 Dashboard



- | | |
|---|--|
| 1 Driving direction selector lever
(forward – reverse)
(⇒ 8.9) | 4 Mowing deck switch
(RT 5097 Z, RT 5112 Z)
(⇒ 8.5) |
| 2 Throttle lever with integrated
choke function
(RT 5097)
(⇒ 8.2) | 5 Ignition lock with light switch
(⇒ 8.1) |
| 2 Throttle lever
(RT 5097 Z, RT 5112 Z,
RT 6112 ZL, RT 6127 ZL)
(⇒ 8.3) | 6 Mowing deck button
(RT 6112 ZL, RT 6127 ZL)
(⇒ 8.6) |
| 3 Choke knob
(RT 5097 Z, RT 5112 Z, RT 6112.1
ZL, RT 6127.1 ZL)
(⇒ 8.4) | 7 Cruise control button
(RT 6112 ZL, RT 6127 ZL)
(⇒ 8.7) |
| | 8 Display with control buttons
(RT 6112 ZL, RT 6127 ZL)
(⇒ 10.) |
| | 9 Parking brake lever
(⇒ 8.14) |

4. For your safety

4.1 General



These safety regulations must be observed when working with the machine.



Read the entire instruction manual before using the machine for the first time. Keep the instruction manual in a safe place for future reference.

Observe the operating and maintenance instructions contained in the separate engine instruction manual.

These safety precautions are essential for your safety, however the list is not exhaustive. Always use the machine in a reasonable and responsible manner and be aware that the user is responsible for accidents involving third parties or their property.



Risk of death from suffocation!

Packaging material is not a toy - danger of suffocation! Keep packaging material away from children.

Only give or lend the machine, including any accessories, to persons who are familiar with this model and how to operate it. The instruction manual forms part of the machine and must always be provided to persons borrowing it.

Make sure that the user is physically, sensorily and mentally capable of operating the machine and working with it. If the user is physically, sensorily or

mentally impaired, the machine must only be used under supervision or following instruction by a responsible person.

Make sure that the user is of legal age or being trained under supervision in a profession in accordance with national regulations.

The machine must only be operated by persons who are well rested and in good physical and mental condition. If your health is impaired, you should consult your doctor to determine whether working with the machine is possible. The machine should not be operated after the consumption of alcohol, drugs or medications which impair reactions.

Caution – risk of accident!

The ride-on mower is only intended for mowing lawns; its use for other purposes is not permitted.

The machine must only be equipped with original STIHL accessories. These enable further applications. Information is available from your STIHL specialist dealer.

Due to the physical danger to the user or other persons, the machine must not be used, for example, for the following applications (incomplete list):

- for cutting creepers,
- for shredding or chopping tree or hedge cuttings,
- for clearing paths (vacuuming, blowing),
- for snow clearing using the mowing deck,
- for the care of lawn roofs,
- for levelling earth mounds, e.g. mole hills.

- for transporting clippings, except in the grass catcher box intended for this purpose.

The machine is not approved for use on public roads.

The carrying of persons (especially children) and animals is not permitted.

Never climb onto the mowing deck, and in particular the gauge wheels.

Objects must not be transported on the machine, but only with the aid of a trailer approved by STIHL (accessory). The weight limits must be observed. (→ 13.11)

Particular care is required during use in public green spaces, parks, sports fields, along roads and in agricultural and forestry businesses.

The machine must not be used for sporting or competitive events.

For safety reasons, any modification to the machine, except the proper installation of accessories or attachments approved by STIHL is forbidden and results in voiding of the warranty cover. Information regarding approved accessories and attachments can be obtained from your STIHL specialist dealer.

In particular, any tampering with the machine which increases the power output, engine speed or driving speed is forbidden.

The machine is equipped with electronics which must not be modified or removed.

For safety reasons, the machine software must never be modified or tampered with.



Caution! Danger to health due to vibrations. Excessive exposure to vibrations can result in damage to the

cardiovascular or nervous system,

particularly in persons with cardiovascular problems. Please consult a physician if you experience symptoms that may have been caused by vibrational loads. Symptoms of this kind principally affect the fingers, hands or wrists and include (incomplete list):

- numbness,
- pain,
- muscular weakness,
- skin discolouration,
- unpleasant tingling sensation.

Hold the handlebar tightly, but not tensed, with both hands in the designated locations during operation.

Plan your working times so that more severe physical strains over a longer period are avoided.

4.2 Training – learning to use the machine

Make sure that you are familiar with the controls and operation of the machine. In particular, the user must know how the work tools and engine can be stopped quickly.

The machine must only be used by persons who have read the instruction manual and are familiar with operation of the machine. The user should seek expert and practical instruction prior to initial operation. The user must receive instruction on safe use of the machine from the vendor or another expert.

During this instruction, the user should be made aware

- that the utmost care and concentration are required for working with the machine.

- that a ride-on mower which is sliding down a slope cannot be brought under control by applying the brake.

The main causes for the loss of control over the ride-on mower include:

- inadequate adhesion of the wheels,
- driving too fast,
- inappropriate braking,
- incorrect use (sport events, etc.),
- inadequate knowledge of the effects associated with ground conditions, especially on slopes (see section "For your safety", "Working on slopes"),
- incorrect attachment of loads and poor load distribution.

Residual risks persist even if you operate the machine according to the instructions.

4.3 Transporting the ride-on mower

On account of its own weight, the ride-on mower can cause severe crush injuries. Particular care must be taken when loading or unloading the ride-on mower onto/from a vehicle or trailer for transport purposes.

This ride-on mower must not be towed. For transporting on public roads, a suitable vehicle or a suitable trailer must be used.

During transport, secure the ride-on mower to a load floor as described in this instruction manual. Always engage the parking brake. (⇒ 16.)

Prior to transporting or storage, disengage the drive to the mowing blade or attachments.

When transporting the machine, always observe regional legislation, especially regarding load security and the transport of objects on load floors.

Allow the machine, in particular the engine and muffler, to cool down completely after loading and before further transport. The load floor and the area around the muffler and engine must be kept free of combustible materials such as straw, leaves or dry grass residues.

4.4 Refilling the tank – handling petrol



Danger to life!

Petrol is poisonous and extremely inflammable.

Petrol must only be stored in appropriate, tested containers (canisters). Always screw on the fuel tank and canister caps properly and tightly. Defective caps must be replaced for safety reasons.



Keep petrol away from sparks, naked flames, pilot lights, heat sources and other ignition sources. Do not smoke!

Refill the tank out-of-doors and do not smoke during refilling.

Before refilling the tank, stop the engine and allow it to cool.

Refilling with petrol must be performed before the engine is started. When the engine is running or is hot, the tank cap must not be removed and the tank must not be refilled with petrol.

Open the fuel tank cap slowly and carefully. Wait for pressure compensation and only then remove the tank cap completely.

Use a suitable funnel or filling pipe for refilling the tank, so that no fuel can spill onto the engine and housing or the lawn.

Do not overfill the fuel tank!

To give the fuel room to expand, never fill the fuel tank past the lower edge of the filler neck.

Observe the additional instructions in the engine instruction manual.



If petrol is spilled, the engine must only be started after the petrol-contaminated area has been cleaned. All attempts at starting must be avoided until the petrol fumes have dispersed (wipe dry).

Any spilt fuel must be wiped up immediately.

Clothing must be changed if it comes into contact with petrol.

Following each refilling of the tank, the fuel tank cap must be properly screwed on and tightened. The machine must not be operated without the original tank cap.

For safety reasons, the fuel line, fuel tank, tank cap and connections must be checked regularly for damage, ageing (brittleness), firm seating and leaks. Replace if necessary (consult a specialist dealer; STIHL recommends STIHL specialist dealers).

If it is necessary to drain the tank, this must be done out of doors.

Never use beverage bottles or similar for disposal or storage of fuels and lubricants. Persons, particularly children, could be tempted to drink out of them.

Never store the machine with petrol in the tank inside a building. The resulting petrol fumes could come into contact with naked flames or sparks and could be ignited.

Do not leave the machine and the fuel tank close to heating systems, radiant heaters, welding equipment and other sources of heat. **Explosive hazard!**

4.5 Clothing and equipment

 Always wear sturdy footwear with high-grip soles when working. Never work barefoot or, for example, in sandals.

Always wear long trousers and tight-fitting clothing when operating the machine.

Never wear loose clothes which may become caught on moving parts (control levers) – do not wear jewellery, ties or scarves.

 Also always wear sturdy gloves and tie up and secure long hair (headscarf, cap, etc.) when performing maintenance and cleaning work or when transporting the machine.

 Wear suitable safety glasses when sharpening the mowing blade.

 Noise is produced when working. Noise may damage the hearing.

Wear hearing protection.

4.6 Before operation

Make sure that only persons who are familiar with the instruction manual are permitted to use the machine.

Check the fuel system (particularly visible parts such as e.g. tank, tank cap, hose connections) before operating the machine. In the event of any leaks or damage, do not start the engine – **fire hazard!**

Have the machine repaired by a specialist dealer prior to operation.

Observe the local regulations regarding permitted operating times for gardening power tools with combustion engines or electric motors.

Completely inspect the area on which the machine is to be used and remove any stones, sticks, wires, toys and other foreign objects that could be thrown up by the machine. Obstacles (e.g. tree stumps, roots) can be easily overlooked in long grass.

For this reason, mark all foreign objects (obstacles) which are hidden in the lawn and cannot be removed before commencing work with the machine.

All faulty, worn or damaged parts must be replaced before using the machine.

Replace any illegible or damaged danger signs and warnings on the machine. Your STIHL specialist has a supply of replacement stickers and all the other spare parts.

Risk of injury!



Worn or damaged parts (e.g. blunt blades) can affect the safety of the machine and result in injury to the user.

Never use the machine with damaged safety devices or with safety devices removed.

Spring-loaded mechanisms may release stored energy. Spring-loaded mechanisms must be undamaged and working.

The braking function must be checked before each use. (⇒ 13.5)

Before each use, check whether:

- the cutting tool and the entire cutting unit (mowing blade, blade clutch, blade brake, retaining pin, mowing deck housing) are in good condition. Particularly check for secure fastening, damage and wear.
- the tank cap is securely attached.
- the tank and fuel-carrying parts as well as the tank cap are in good condition.
- the safety devices are in good condition and function correctly.
- the tyres (inflation pressure, damage, wear) and frame are in good condition. Check that all screw connections are securely fastened. In particular, all maintenance operations listed in the maintenance schedule under the heading "Before each use" must be carried out. (⇒ 15.1)

If necessary, consult a specialist dealer. STIHL recommends STIHL specialist dealers.

4.7 During operation

Never work in the vicinity of other people, particularly children, or animals. Ensure that the grass is never



discharged in the direction of other people.

Do not operate the machine in the rain or during thunder storms, particularly when there is a risk of lightning strike.

Exhaust gases:



Danger to life through poisoning!

In the case of nausea, headache, impaired vision (e.g. decreasing field of view) hearing disorder, dizziness, decreasing power of concentration, stop working immediately. These symptoms may be caused by excessively high exhaust gas concentrations.



The machine generates poisonous exhaust gases when the engine is running. The gases contain poisonous carbon monoxide, a colourless and odourless gas, as well as other pollutants. The engine must never be operated in closed or poorly ventilated spaces.

Starting:

The machine must only be started from the driver's seat.

Start the machine on level ground, not on a slope.

The engine may only be started in a well ventilated working area, sufficient ventilation must be ensured, particularly in garages.

Before starting the engine, disengage the cutting tool, attachments and drive and press down the brake pedal fully.

When starting, it must be ensured that there is sufficient clearance between the feet and the cutting tool.

Never start the engine by short-circuiting the starter terminal. If the normal starter circuit is bypassed, the ride-on mower may suddenly be set in motion.

Never start the engine if the smell of petrol can be detected – **Explosive hazard!**

Working:



Warning – risk of injury!

Observe the working area of the mowing blade. Never put hands or feet on or underneath rotating parts. Never touch the rotating mowing blade. Always keep away from the discharge opening. An adequate safety distance must always be maintained.



Only work during the day or with good artificial light.

When driving off the lawn or when not mowing, the mowing blades must be disengaged and the mowing deck must be set to the highest cutting position.

Objects hidden in the turf (lawn sprinkler systems, posts, water valves, foundations, electrical wires, etc.) must be avoided.

Never run over any such foreign objects.

Always hold the steering wheel firmly with both hands when driving.

Particular care must be taken when driving on lawns and other uneven surfaces, as the steering wheel can be made to turn due to holes, mounds, impacts, etc.

Risk of injury to hands and fingers!

If, during operation, a defect in the tank, tank cap or in the fuel-carrying components (fuel lines) is detected, the engine must be stopped immediately. A specialist dealer must then be contacted. STIHL recommends STIHL specialist dealers.

Beware of depressions (holes) in the terrain and other invisible points of danger. Obstacles can be easily overlooked in long grass.

Always drive at a reasonable speed.

Use the machine with great care when working near slopes, rubbish piles, terraces, ditches and embankments. In particular, ensure that you maintain sufficient distance to such danger areas.

Particular care must be taken at points of poor visibility, bushes, trees and other obstacles, behind which persons, especially children, or animals may be hidden.

Bring the ride-on mower to a standstill immediately and stop the mowing blade if someone moves into the area to be mown.

Always monitor the area in front of the vehicle. Beware of obstacles, in order to be able to evade them in time.

When working together in a group, always inform the others in advance of what you intend to do. Maintain a safety distance!

The vehicle speed must be reduced before each change of direction, so that the user retains control of the machine at all times and also that the ride-on mower cannot tip over.

When operating near to roads and when crossing roads, other road users must be taken into account.

Before reversing, always check the area behind the ride-on mower and, if present, disengage the attachment. Never mow in reverse, if it is not absolutely necessary. When mowing in reverse, take particular care and before beginning to mow, thoroughly check the entire area behind the ride-on mower.

Take particular care when mowing near roads, cycle paths and footpaths. Objects which are thrown up by the mower can cause severe injury and damage.

Only empty the grass catcher box from the driver's seat.

Before emptying the grass catcher box, always disengage the mowing blades and wait until they have come to a standstill.

When operating the ride-on mower with attachments, always follow the instructions and safety regulations supplied with the attachments.

Switch off the drive, stop the engine and wait until the mowing blades have come to a complete standstill, engage the parking brake and remove the ignition key:

- when leaving or when transporting the machine.
- before remedying blockages, including those in the discharge chute.
- before checking, cleaning or working on the ride-on mower.
- if the mowing blades have hit an obstacle.

Inspect the machine and the cutting tool for damage and have any necessary repairs performed before re-starting.

On the models RT 5112 Z, RT 6112 ZL and RT 6127 ZL, additionally check the installation position of the mowing blades – the mowing deck must not be engaged if the angle of the blades relative to each other is not as specified in the section "Mowing blade maintenance". (⇒ 15.13)

- if the machine begins to vibrate excessively. An immediate check must be performed.

Stop the engine and wait until the mowing blades have come to a complete standstill:

- Before filling with fuel.
- Before removing the grass catcher box.

- Before opening the engine hood.

Driving with cruise control:

Activating cruise control in the wet or under adverse ground conditions as well as when pulling loads increases the accident risk.

When cruise control is switched off, the ride-on mower brakes abruptly.

Cruise control is an aid that provides assistance when driving. The responsibility for the driving speed and for timely braking always lies with the user.

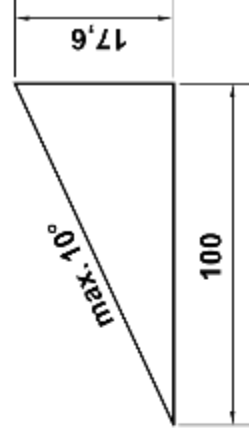
Cruise control does not react to obstacles or to altered ground conditions. If an obstacle cannot be avoided at the set driving speed, cruise control must be switched off.

Working on slopes:

Slopes are one of the major causes of accidents in which control over the ride-on mower is lost causing it to tip over, which can result in severe or even fatal injuries.

There is no "safe" slope! Driving on grassy slopes requires special concentration.

For safety reasons, the machine must not be used on slopes with an inclination of more than 10° (17.6 %). **Risk of injury!** A slope inclination of 10° corresponds to a vertical height increase of 17.6 cm for a 100 cm horizontal distance.



When transporting on slopes, the loads must be adapted so that safe handling of the ride-on mower (e.g. braking, change of direction, starting off) is ensured at all times.

Check whether loads are properly and securely fastened. Use lashing straps for securing loads.

Ensure balanced load distribution.

Use suitable additional weights (accessories) if this is described in the instruction manual for the attachment.

Do not execute tight curves. Particular care must be taken when reversing.

Do not change speed or direction abruptly.

Stopping and parking:

The ride-on mower must only be parked on a level surface.

Make sure that the ride-on mower has come to a complete standstill before you dismount.



Beware of the cutting tool running on for several seconds before coming to a standstill.

Before leaving the driver's seat, disengage the mowing blades, shift the drive to the attachments, lower the mowing deck and all attachments, set all control levers to the neutral position, engage the parking brake, stop the engine and remove the ignition key.

Keep the ignition key in a place where only authorised persons can access it.

4.8 Maintenance and repairs



Before beginning cleaning, adjustment, repair and maintenance operations, park the machine on firm, level ground, engage the parking brake, stop the engine, allow it to cool down and remove the ignition key.

Allow the machine to cool down before working on or around the engine, exhaust manifold or muffler; this also applies in particular to all maintenance operations on the mowing deck. Temperatures of 80 °C and above can be reached. **Danger of burns:**

Direct contact with engine oil can be dangerous. Engine oil must not be spilled. STIHL recommends leaving the task of topping up engine oil or performing engine oil changes to a STIHL specialist dealer.

Cleaning:

Following operation, the entire ride-on mower and the attachments must be cleaned. In particular, all grass residues must be removed because the moisture these contain leads to damage in the long term.

STIHL does not recommend the use of high-pressure cleaners. (⇒ 15.2)

Remove the mowing deck for cleaning operations. Never clean the mowing deck using water under high pressure (e.g. garden hose) or by engaging the mowing deck in puddles of water.

Never drive close to an edge or a ditch for the purpose of cleaning (e.g. the frame of) the ride-on mower.

In order to prevent fire hazards, keep the engine, cooling ribs, battery compartment, area around the fuel tank and exhaust free from grass, leaves or escaping oil (or grease).

Always clean the grass catcher box.

Maintenance operations:

Only maintenance operations described in this instruction manual may be carried out. Have all other work performed by a specialist dealer.

If you do not have the necessary expertise or auxiliary equipment, please **always** contact a specialist dealer.

STIHL recommends that you have maintenance operations and repairs performed exclusively by a STIHL specialist dealer.

STIHL specialist dealers regularly attend training courses and are provided with technical information.

Only use tools, accessories or attachments approved for this machine by STIHL or technically identical parts.

Otherwise, there may be a risk of accidents resulting in personal injury or damage to the machine. If you have any questions, please consult a specialist dealer.

The characteristics of original STIHL tools, accessories and spare parts are optimally adapted to the machine and the user's requirements. Genuine STIHL spare parts can be recognised by the STIHL spare parts number, by the STIHL lettering and, if present, by the STIHL spare parts symbol. On smaller parts, only the symbol may be present.

The ride-on mower and all attachments should be inspected once annually by a specialist dealer. (⇒ 15.1)

Always keep warning and information stickers clean and readable. Damaged or missing stickers must be replaced by new, original plates from your STIHL specialist dealer. If a component is replaced with a new component, ensure that the new component is provided with the same stickers.

For safety reasons, fuel-carrying components (fuel line, fuel cock, fuel tank, tank cap, connections, etc.) must be checked regularly for damage and leaks and replaced by a technician if necessary (STIHL recommends STIHL specialist dealers).

Before starting work on or near electrical components, the negative (–) cable must be disconnected from the battery.

The machine is equipped with numerous safety devices. These devices must not be removed or modified (bypassed, etc.) and must be checked at regular intervals.

Operations on the safety devices must only be carried out by a technician. STIHL recommends STIHL specialist dealers for this purpose.

Be aware that moving one cutting tool results in the turning of the other cutting tools.

Ensure that all nuts, pins and screws, especially the blade fastening screws, are securely tightened, so that the machine is in a safe operating condition.

For safety reasons, worn or damaged parts must be replaced immediately.

Check the grass catcher unit (e.g. grass catcher box, discharge chute) regularly for wear, damage or loss of functionality.

Particular care is required when working under the machine, due to the weight of the ride-on mower. Consult your specialist

dealer for this purpose; STIHL recommends STIHL specialist dealers. They will have a workshop pit or a hydraulic working platform.

Check the secure fastening of the front and rear wheels.

Always maintain the ride-on mower and the attachments in perfect operating condition. All safety devices must be present and be in perfect operating condition.

Ensure that the tyres have the correct tyre pressures. The tyre pressures specified in the instruction manual must not be exceeded.

Only perform work on the mowing blades when wearing thick work gloves and exercising extreme care.

Check the function of the brakes at regular, short intervals and, if necessary, have the required adjustments or maintenance operations performed by a technician. STIHL recommends STIHL specialist dealers.

Electrical system and battery:

In order to prevent sparks due to short circuiting, the negative (-) cable must always be disconnected from the battery first and reconnected last.



Never smoke when working on the battery. Sparks, naked flames and other heat sources must be kept away from the battery.

Particular care is necessary when using battery jump leads. Observe the relevant instructions in order to prevent damage to the ride-on mower (in particular, actuate the starter for a maximum of 10 seconds). (⇒ 13.2)

When charging the battery using another charging system, observe the instructions in section "Charging the battery". (⇒ 15.21)

Never open the battery and do not drop it.

Always charge the battery in an enclosed, well-ventilated room which is dry and weather-protected.

Do not short circuit the battery connections.

Deformed or faulty (leaking) batteries must not be used and must be replaced and disposed of in an environmentally-friendly manner. Observe country-specific legislation.

Fluid may escape from faulty batteries. Avoid contact! In the case of inadvertent contact, rinse with water. Seek medical attention if the fluid contacts the eyes. Escaping battery fluid can cause skin irritation and burns.

Visually inspect the battery connection cables for damage at regular intervals. Have damaged cables replaced by a technician.

Never bypass the fuses. Never use a fuse with a value that differs from the specified rating (ampere).

4.9 Storage for prolonged periods without operation

Allow the engine to cool before storing the machine in an enclosed space.

Store the ride-on mower with empty fuel tank and the fuel reserve in a lockable and well-ventilated room.

Never store the machine with petrol in the fuel tank inside a building in which the petrol fumes could come into contact with naked flames or sparks.

If the tank has to be emptied (e.g. immobilisation before the winter break), the fuel tank must be emptied out of doors only (empty the tank by running the engine out of doors, for example).

Store the machine in good operational condition.

The ignition key must always be removed and kept in a safe place, to prevent unauthorised or improper use by children or other persons.

Thoroughly clean the ride-on mower before storage (e.g. winter break). Dry grass residues and leaves near to the muffler may ignite. **Danger of combustion!**

Allow the machine to cool down completely before covering it.

Perform all the necessary maintenance operations before storing the machine. (⇒ 15.1)

The battery cables must be disconnected if the ride-on mower is immobilised for longer periods. STIHL recommends removing the battery and storing it in a dry and locked place. (⇒ 15.19)

Ensure that batteries are protected from unauthorised use (e.g. by children).

4.10 Disposal

Waste products such as used engine oil or fuel, used lubricants, filters, batteries and similar wearing parts can be harmful to

people, animals and the environment, and must consequently be disposed of properly.

Consult your recycling centre or your specialist dealer for information on the proper disposal of waste products. STIHL recommends STIHL specialist dealers.

Ensure that old machines are properly disposed of. Render the machine unusable prior to disposal. In order to prevent accidents, ensure that you remove the ignition key, the battery and the ignition lead on the engine.

Risk of injury due to the mowing blade!
Always store an old ride-on mower in a safe place prior to scrapping. Ensure that the machine and particularly the mowing blades are kept out of the reach of children.

The battery must be disposed of separately from the machine. Ensure that batteries are disposed of safely and in an environmentally friendly manner.

5. Description of symbols



Attention!

Read the instruction manual and follow the safety instructions before initial use.



Risk of injury!

Remove the ignition key before performing any work on the cutting tool or maintenance and cleaning work.



Attention!

Beware of objects being thrown up - keep a safe distance and keep other people away.



Attention!

Beware of objects being thrown up when the engine is running - work with the grass catcher box or deflector (special accessory).



Risk of injury!

Do not drive or mow on slopes with an incline greater than 10° (17%).

Danger of tipping over!



Risk of injury!

Keep other people out of the danger area.



Attention!

Never reach into the working area of the mowing blades when the engine is running.

Risk of injury!

Do not stand on the mowing deck.



Danger of burns!

Do not touch hot surfaces and keep a safe distance. Engine components, especially mufflers, can become extremely hot.



Danger to life through poisoning!

Stop working immediately in case of nausea, headaches, impaired vision (e.g. decreasing field of view), hearing problems, dizziness or decreasing power of concentration. These symptoms may be caused by excessively high exhaust gas concentrations.



Danger to life!

Petrol is poisonous and extremely inflammable. Keep petrol away from sparks, naked flames, pilot lights, heat sources and other ignition sources. Do not smoke!

Before refilling the tank, stop the engine and allow it to cool.



Risk of injury!

Noise is produced when working. Noise may damage the hearing.

Wear hearing protection.

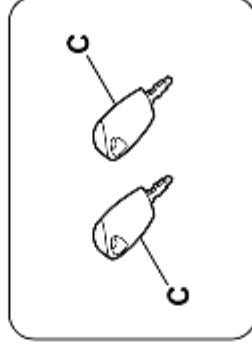
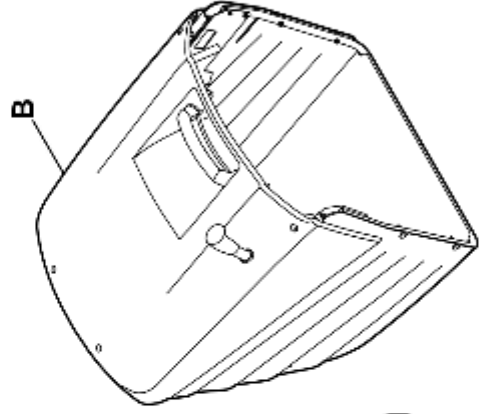
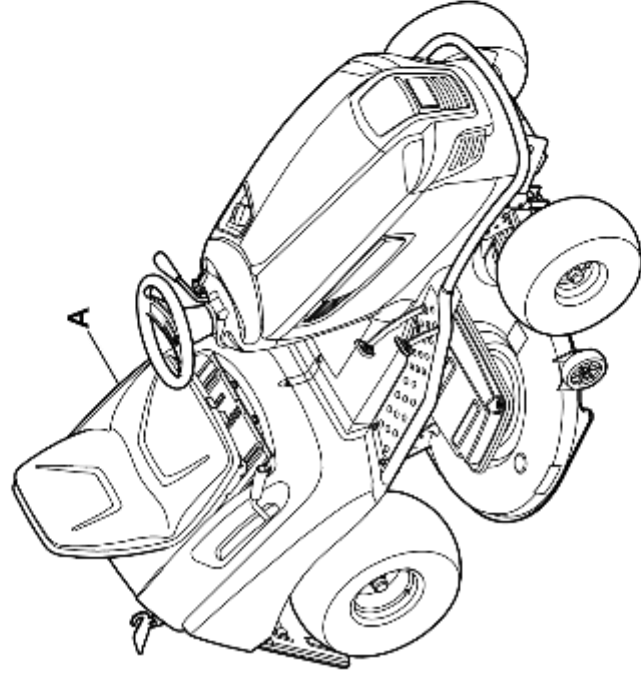
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6. Standard equipment



Item	Designation	Qty.
A	Basic unit	1
B	Grass catcher box	1
C	Ignition key	2
-	Instruction manual	1
-	Engine instruction manual	1

7. Operations prior to initial use



Warning!

Prior to all operations on the ride-on mower, carefully read and observe the section "For your safety". (⇒ 4.)

- Check engine oil filling level. (⇒ 15.8)
- Fill fuel tank. (⇒ 13.1)
- Open fuel cock. (⇒ 15.7)
- Optimise tyre pressure. (⇒ 15.16)

8. Controls

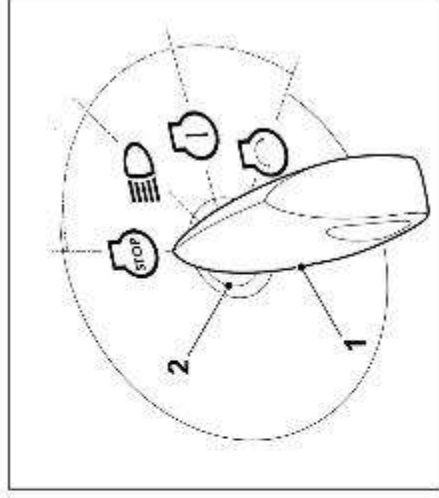
8.1 Ignition lock with light switch

The ignition lock serves to start and stop the engine and to switch the headlamps on and off.



Avoid damage to the machine.

The ignition key can only be inserted and removed in the "engine off" position.
The ignition lock can only be operated with the appropriate ignition key – never use a screwdriver or other such object.



Insert ignition key (1) in ignition lock (2).

The following **four** positions can be selected by turning the ignition key:

Engine off:

The engine is switched off or will be stopped. The lights are switched off and the ignition key can be removed.



Lights on (operation with lights):

Running engine:
The lights are switched on and the engine continues to run.



Engine off:

The lights are switched on.

Ignition on/engine running:

The ignition is switched on and the lights are switched off.
Following starting, the ignition key returns automatically to this position and the engine continues to run.



Start engine:

When all safety-relevant points for starting are fulfilled and the ignition key is turned to this



position, the engine starts.
On releasing the ignition key, it returns automatically to the "engine running" position.



Note

When the engine is stopped, a signal tone is activated after 20 seconds in the "lights on" and "ignition on" positions. The acoustic signal indicates that the battery is being discharged. To deactivate the signal tone, turn the ignition key to the "engine off" position or start the engine.

8.2 Throttle lever with choke function (RT 5097)

To start a cold engine, move the throttle lever on the RT 5097 model to the choke position.

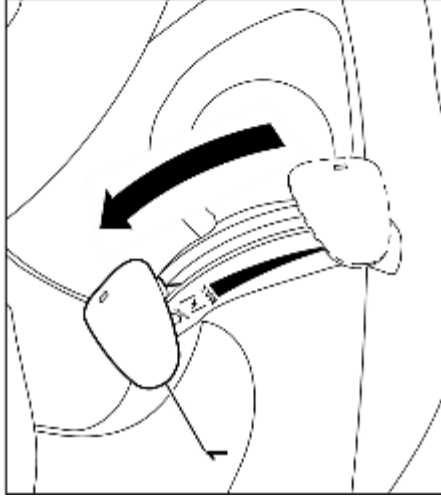


Do not use the choke when starting a warm engine (throttle lever in MAX position).

Deactivate the choke as soon as the engine is running.

Never move the throttle lever to the choke position when the engine is running.

Choke position:

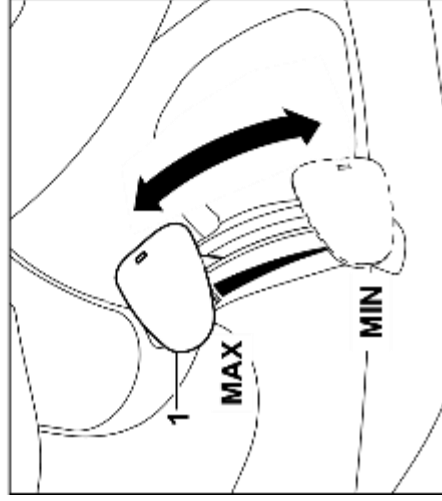


Push throttle lever (1) fully forwards into the choke position (note detent).

Setting the engine speed:



Move the throttle lever to the MAX position during mowing and to start the engine.



If the throttle lever (1) is pushed downwards or upwards, the engine speed changes and, if the mowing deck is engaged, the speed of the mowing blades is changed.

MAX position:

If the throttle lever (1) is moved forwards towards the MAX marking, the engine speed is increased.

MIN position:

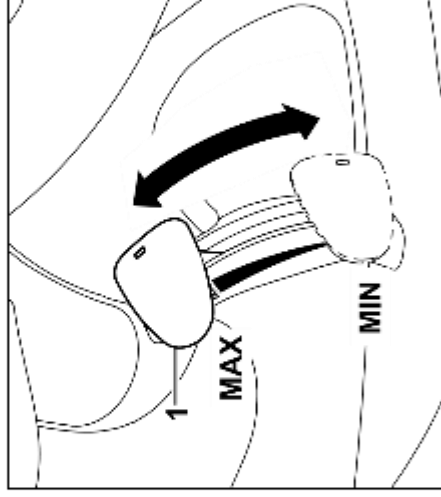
If the throttle lever (1) is pushed back towards the MIN marking, the engine speed is reduced.

8.3 Throttle lever (RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL)

Setting the engine speed:



Move the throttle lever to the MAX position during mowing and to start the engine. To start a cold engine, also actuate the choke knob.



If the throttle lever (1) is pushed downwards or upwards, the engine speed changes and, if the mowing deck is engaged, the speed of the mowing blades is changed.

MAX position:

If the throttle lever (1) is moved forwards towards the MAX marking, the engine speed is increased.

MIN position:

If the throttle lever (1) is pushed back towards the MIN marking, the engine speed is reduced.

8.4 Choke knob (RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL)

The models RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL are equipped with a choke knob for starting a cold engine.

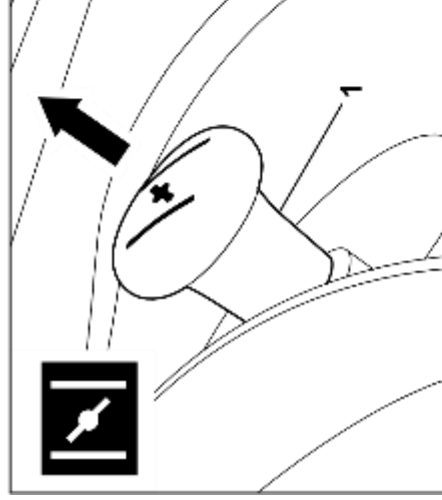


Do not use the choke when starting a warm engine.

As soon as the engine is running, push the choke knob back to its initial position.

Never activate the choke when the engine is running.

Activating the choke:



Before starting, pull out the choke knob (1) to the stop.

Deactivating the choke:

- Press in the choke knob to the stop.

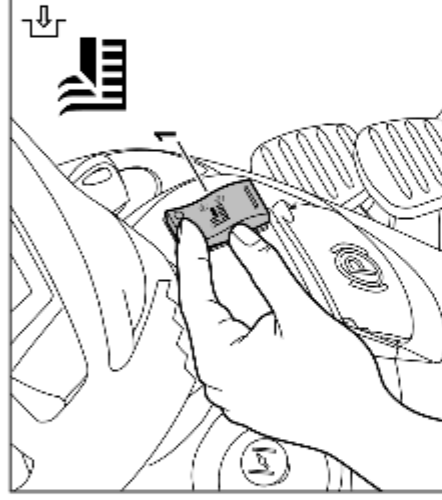
8.5 Mowing deck switch (RT 5097, RT 5097 Z, RT 5112 Z)

The mowing deck switch can be used to engage the mowing deck when the engine is running and with due regard to all safety devices (⇒ 12.).

! Avoid damage to the machine!
Do not engage the mowing blade in tall grass or when set to the lowest cutting level.

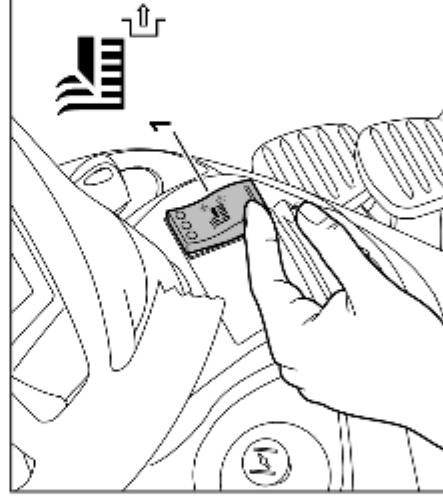
Only activate the mowing deck at maximum speed (throttle lever in MAX position).

Engaging the mowing deck:



Press the top of the mowing deck switch (1) to the stop.

Disengaging the mowing deck:



Press the bottom of the mowing deck switch (1) to the stop.

i If necessary, the electronics can be programmed so that the mowing deck is automatically disengaged when the grass catcher box is full. (⇒ 13.8)

8.6 Mowing deck button (RT 6112 ZL, RT 6127 ZL)

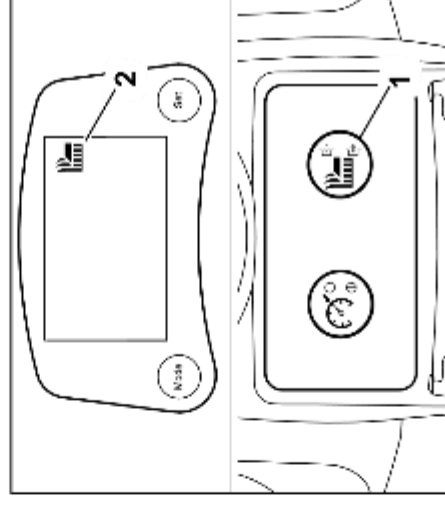
The mowing deck button can be used to engage the mowing deck when the engine is running and with due regard to all safety devices (⇒ 12.).



! Avoid damage to the machine!
Do not engage the mowing blade in tall grass or when set to the lowest cutting level.

Only activate the mowing deck at maximum speed (throttle lever in MAX position).

Engaging the mowing deck:



Press the mowing deck button (1) for at least 1 second. The mowing deck is engaged as soon as the "mowing deck active" symbol (2) appears on the display.

Disengaging the mowing deck:

- Press the mowing deck button. The mowing deck is disengaged as soon as the "mowing deck active" symbol disappears from the display.



If necessary, the electronics can be programmed so that the mowing deck is automatically disengaged when the grass catcher box is full. (⇒ 13.8)

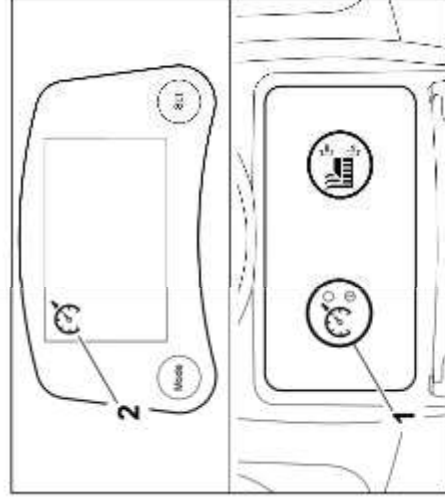
8.7 Cruise control button (RT 6112 ZL, RT 6127 ZL)

The cruise control button sets the current driving speed when driving.



Although the "cruise control active" symbol appears on the display when reversing after the cruise control button is pressed, cruise control remains deactivated for safety reasons.

Activating cruise control:



Select the required driving speed and press the cruise control button (1) for at least 1 second. Cruise control is activated as soon as the "cruise control active" symbol (2) appears on the display. The drive pedal is locked in place and the current driving speed is maintained. The foot can be removed from the drive pedal.

Deactivating cruise control:



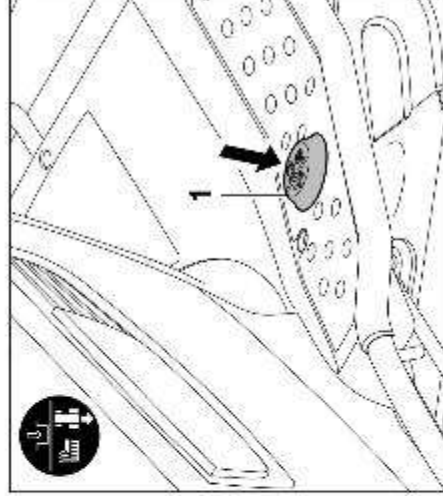
Risk of injury!

Place the foot on the drive pedal prior to deactivating cruise control in order to prevent the drive pedal from springing back, thereby preventing abrupt braking of the ride-on mower.

- Press the cruise control button, leave the driver's seat or press the brake pedal.
Cruise control is deactivated as soon as the "cruise control active" symbol disappears from the display.

8.8 Reverse mowing safety switch

The reverse mowing safety switch enables the mowing deck for mowing in reverse driving direction. The mowing deck is automatically disengaged for safety reasons if reverse mowing is not enabled.



For reverse mowing, briefly press the reverse mowing safety switch (1) once with the left foot within a defined time window.

1 Enable with the mowing deck disengaged:

- Bring the ride-on mower to a standstill and select reverse driving direction. (⇒ 8.9)
- Briefly press the reverse mowing safety switch once with the left foot.
- Engage the mowing deck and start reverse mowing within 5 seconds. (⇒ 8.5), (⇒ 8.6)
Reverse mowing can also be enabled up to 1 second after starting.

2 Enable with the mowing deck engaged:

- Briefly press the reverse mowing safety switch once with the left foot during mowing operation.
- Switch to reverse driving direction within 5 seconds and continue mowing. (⇒ 8.8)
Reverse mowing can also be enabled up to 1 second after changing the driving direction.



If the reverse mowing safety switch is continuously pressed, the switch must be released within the time window and pressed again.

On the models RT 6112 ZL and RT 6127 ZL, the "reverse mowing" symbol flashes on the display until reverse mowing is enabled. (⇒ 10.5)

8.9 Driving direction selector lever

The driving direction is selected using the driving direction selector lever.



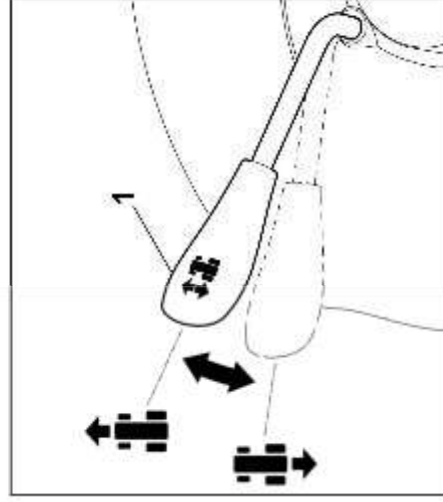
The ride-on mower drives in the selected direction after the drive pedal is

actuated – actuating the driving direction selector lever alone does not set the machine in motion.



For safety reasons, the driving direction selector lever is locked when the drive pedal is pressed. Therefore release the drive pedal before actuating the driving direction selector lever.

Selecting the driving direction:



Forward driving direction:

Move the driving direction selector lever (1) to the front position.

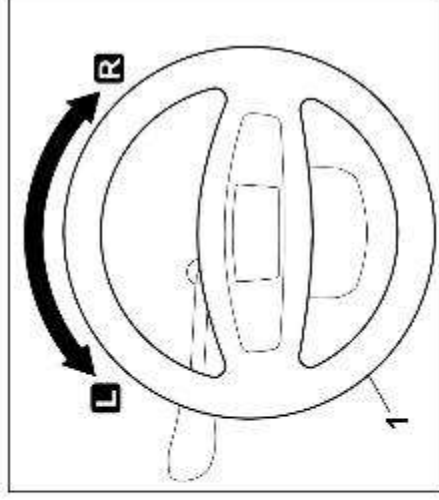
Reverse driving direction:

Move the driving direction selector lever (1) to the rear position.

8.10 Steering wheel



Warning:
Always hold the steering wheel firmly in both hands when driving.

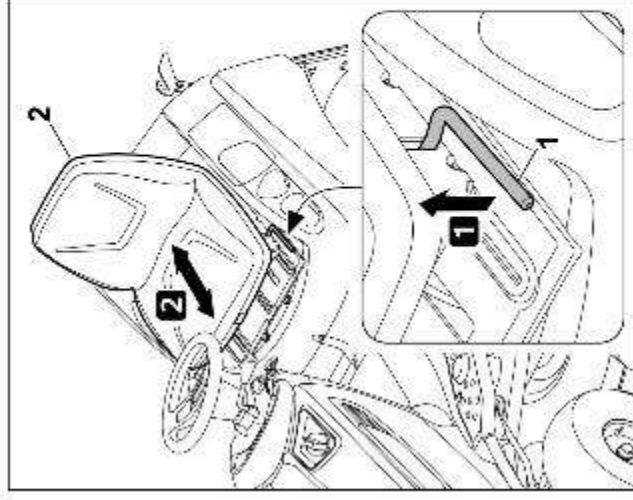


Turning the steering wheel (1) to the left **L** or right **R** changes the driving direction of the machine.
The further the steering wheel (1) is turned, the smaller the turning radius.

8.11 Driver's seat adjustment

The driver's seat can be adjusted to seven notched positions.

- Stop the engine. (→ 13.3)
- Sit on the driver's seat and put your right hand on the steering wheel.



- 1** With your left hand, lift and hold the driver's seat adjustment lever (1).
- 2** Move the driver's seat (2) to the required position. Then release the driver's seat adjustment lever again and allow it to engage.

8.12 Drive pedal

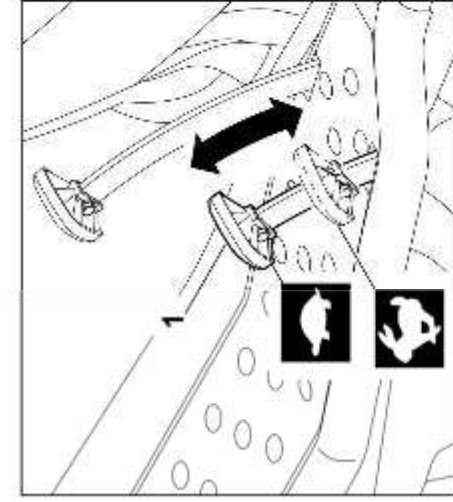


Note

Before actuating the drive pedal, ensure that the correct driving direction is selected at the driving direction selector lever.
If the parking brake is engaged or the brake pedal is pressed, the drive pedal cannot be actuated.



The driving speed can be continuously regulated via the drive pedal.



Stopping:

Take foot off the drive pedal (self-propulsion) (1).

Reducing the driving speed:

Reduce pressure on the drive pedal (1).

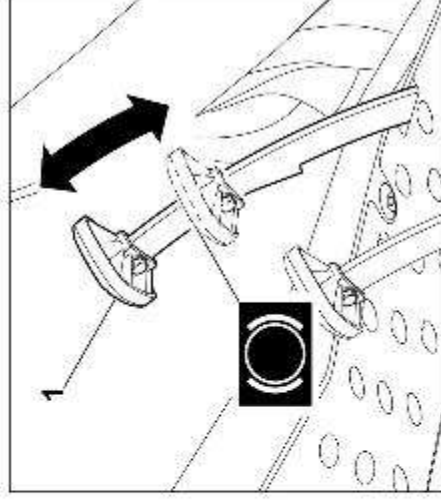
Increasing driving speed:

Press down drive pedal (1).



8.13 Brake pedal

The machine can be braked when driving and can be blocked at a standstill via the brake pedal.



Press the brake pedal (1).

The more firmly the brake pedal (1) is pressed, the more the rear wheels are braked.



Warning!

Never operate the machine with a defective brake.

Always have a defective brake repaired or adjusted by a specialist dealer.

STIHL recommends STIHL specialist dealers.

Never try to service the brakes yourself.

8.14 Parking brake

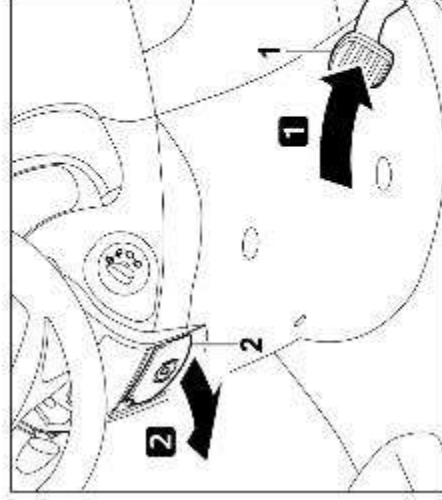
The rear wheels of the machine are blocked by the engaged parking brake. This prevents the ride-on mower from being set in motion inadvertently (e.g. on slopes, etc.).



Note

Always check the function of the brakes before engaging the parking brake.

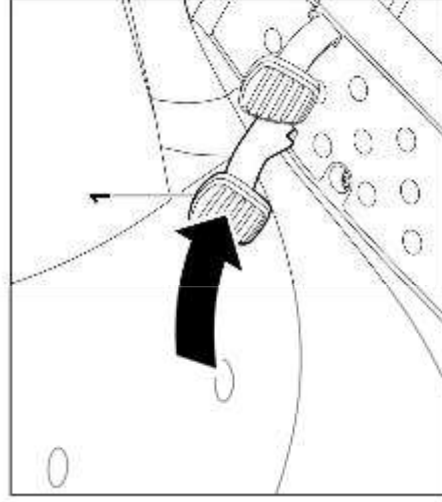
Engaging the parking brake:



Press the brake pedal (1) down to the stop with the foot and hold. Pull the parking brake lever (2) upwards.

- Release the brake pedal again. The parking brake is activated if the brake pedal remains in the pressed position. The "parking brake engaged" symbol appears on the display of the models RT 6112 ZL and RT 6127 ZL. (⇒ 10.5)
- Release the parking brake lever. This swings downwards. The rear wheels are blocked.

Releasing the parking brake:



Briefly press on brake pedal (1) with the foot.

- The brake pedal returns to the initial (unactuated) position. The parking brake is deactivated and the rear wheels are no longer blocked.

8.15 Cutting height adjustment lever

Eight cutting levels can be set using the cutting height adjustment lever.



Raising and lowering the mowing deck:

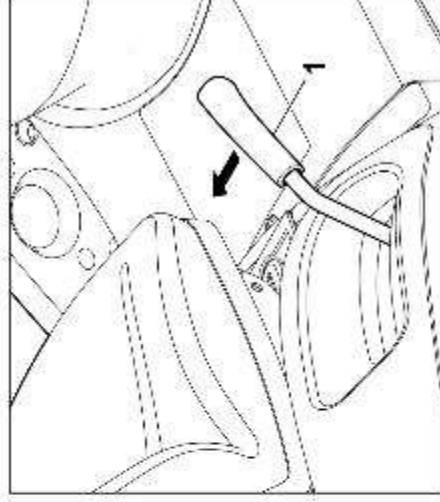


Risk of injury!

Always hold the cutting height adjustment lever when adjusting the cutting height.
Adjust the cutting height only when the ride-on mower is at a standstill.



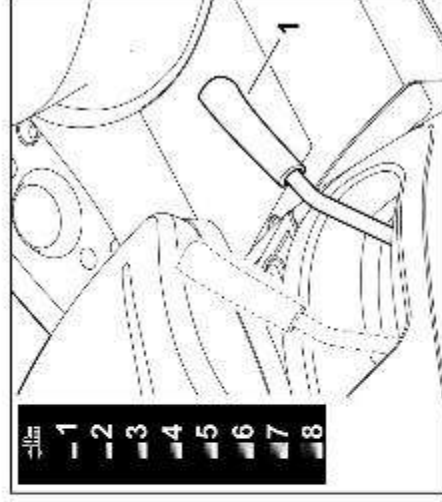
The procedure for releasing the cutting height adjustment lever depends on whether the mowing deck is installed or removed.



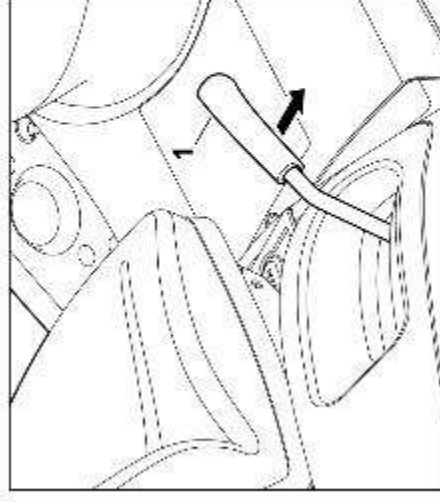
Releasing the cutting height adjustment lever:

With the mowing deck installed Pull the cutting height adjustment lever (1) inwards (towards the driver's seat) and hold.

With the mowing deck removed Push the cutting height adjustment lever (1) slightly downwards and then inwards (towards the driver's seat) and hold.



Guide the released cutting height adjustment lever (1) upwards/downwards and set the required cutting height.



Locking the cutting height adjustment lever:

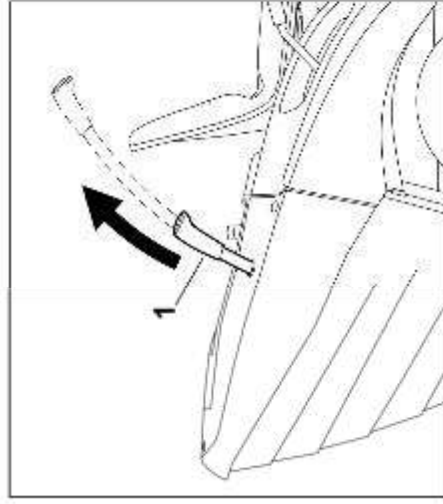
Guide the cutting height adjustment lever (1) outwards until it engages in the chosen notched position.

8.16 Grass catcher box emptying lever

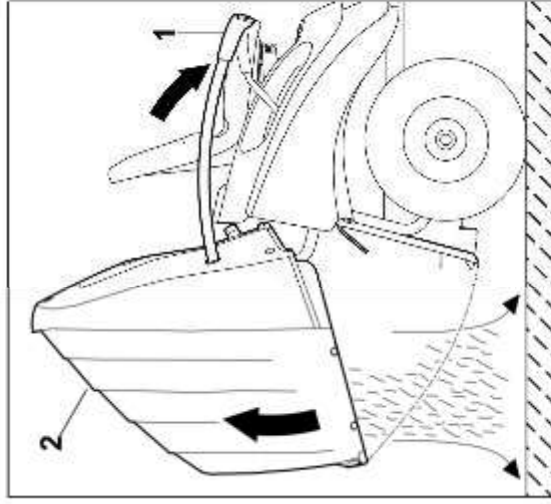
The grass catcher box can be emptied using the grass catcher box emptying lever, without the user having to leave the driver's seat.



- Disengage the mowing deck. (→ 8.5), (→ 8.6)
- Brake the machine to a complete standstill.
- Keep the brake pedal pressed or engage the parking brake.



Pull the grass catcher box emptying lever (1) upwards.



Push the grass catcher box emptying lever (1) forwards. The grass catcher box (2) swings upwards and the clippings fall out.

The "grass catcher box open or missing" symbol appears on the display of the models RT 6112 ZL and RT 6127 ZL when the grass catcher box is raised. (⇒ 10.5)

- Slowly move the grass catcher box emptying lever towards the rear and allow the grass catcher box to re-engage with the rear panel.
- Press the grass catcher box emptying lever downwards and move to the initial position.

8.17 Grass catcher box release lever

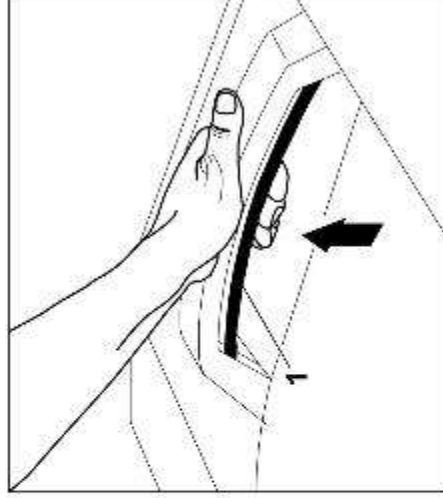
Warning:

- Ensure that you do not pinch your fingers when actuating the grass catcher box release lever.

The grass catcher box release lever is located underneath the grass catcher box handle.

The grass catcher box release lever must be pulled upwards and held before attaching or detaching the grass catcher box.

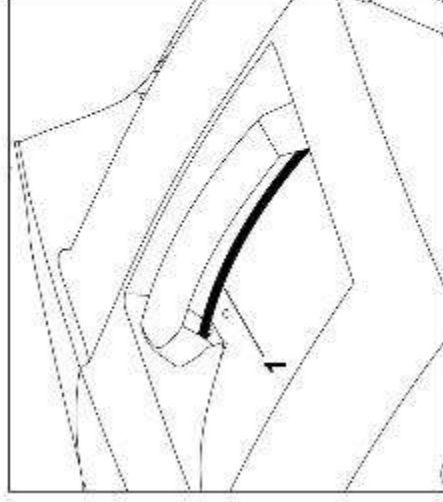
Releasing the grass catcher box:



Pull grass catcher box release lever (1) fully upwards and hold.

- The grass catcher box is released and can be removed.

Locking the grass catcher box:



After attaching the grass catcher box, release the pulled-out grass catcher box release lever (1). Ensure that the lock engages fully.

- Once locked, the grass catcher box is firmly attached to the machine again.

8.18 Gearbox freewheel lever

The gearbox can be disengaged (e.g. for pushing the machine) or engaged (for self-propulsion) using the gearbox freewheel lever.



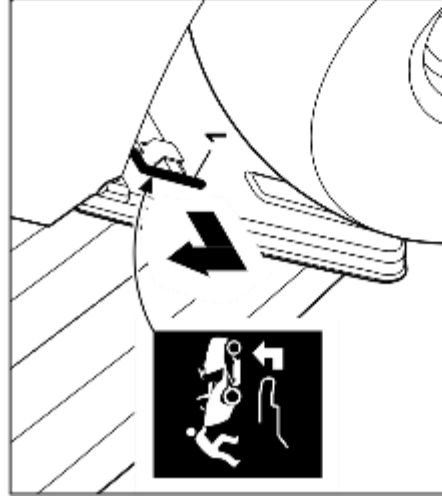
Warning!

Risk of crush injuries!

Only pull out the gearbox freewheel lever on level surfaces, as the machine may be set in motion. If the machine is parked with the gearbox disengaged, the parking brake must be engaged.

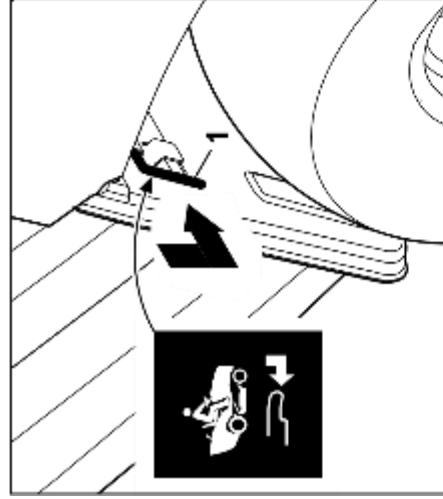


Disengaging the gearbox:



Pull the gearbox freewheel lever (1) outwards to the stop and then raise.

Engaging the gearbox:



Guide the gearbox freewheel lever (1) downwards and then press inwards to the stop.

8.19 Level sensor (grass catcher box)

A continuous tone sounds if the grass catcher box is full. This signals that the grass catcher box needs to be emptied.



Disengaging the mowing deck stops the continuous tone.

The time for the filled grass catcher box signal is adjusted by modifying the length of the (grass catcher box) level sensor.

This allows you to adapt filling of the grass catcher box to the characteristics of the clippings.

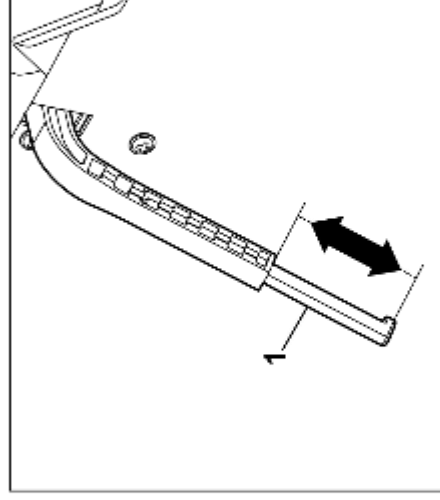
A shorter sensor generally causes later triggering of the signal (the grass catcher box is filled to a greater extent, ideal for very dry clippings).

The level sensor can be adjusted to 6 notched positions.

In delivery condition, the level sensor (grass catcher box) is fully extended.

Adjusting the level sensor:

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the grass catcher box. (⇒ 13.10)



Extend or shorten the level sensor by moving the slide (1) of the (grass catcher box) level sensor in the direction of the arrows.

- Attach the grass catcher box. (⇒ 13.10)

9. Electronics

In order to ensure safe operation, the ride-on mower is equipped with electronics which check all the safety devices before each starting procedure and when the mower is running.



The electronics in the models RT 6112 ZL and RT 6127 ZL also control the display. The display on these models therefore shows additional information.

9.1 Self-diagnosis when starting

Before the engine is started, the electronics perform self-diagnosis. This checks switches, wiring, etc. for correct functioning.

Activating self-diagnosis:

- Sit on the driver's seat.
- Release the parking brake. (⇒ 8.14)
- Turn the ignition key to the "ignition on" position (⇒ 8.1) – do not press any buttons and switches or press any pedals.

Self-diagnosis without faults:

A short beep sounds – the electronics are activated and the ride-on mower is ready to start.

RT 6112 ZL, RT 6127 ZL:

All symbols are shown on the display for 2 seconds. The operating hours can be read off for 5 seconds.

- Start the engine. (⇒ 13.2)

Self-diagnosis with faults:

- A continuous beep or three successive beeps sound.
- A **continuous beep** signals a fault in the electronics or a battery connected with the incorrect polarity.
- Turn the ignition key to the "engine off" position. (→ 8.1)
 - Check the polarity of the battery connections and connect the wiring correctly if necessary. (→ 15.19)
 - Repeat self-diagnosis.
If the continuous beep continues to sound even after the battery is correctly connected, an electronic fault is present. Consult your specialist dealer; STIHL recommends STIHL specialist dealers.

Three successive beeps signal a fault in the electrics (short circuit) or in the seat switch. It is not possible to start the engine.

RT 6112 ZL, RT 6127 ZL:

- The relevant symbols and the text ERROR flash on the display.
- Turn the ignition key to the "engine off" position. (→ 8.1)
 - Have a detailed diagnosis carried out by a specialist dealer. STIHL recommends STIHL specialist dealers.

9.2 Ride-on mower faults during operation

The electronics monitor the safe condition during operation. Three successive beeps sound if there is a fault in the electrics (short circuit, loose connectors, broken wire).

The engine is stopped – the respective symbol and the text "ERROR" flash on the display on the models RT 6112 ZL and RT 6127 ZL.

Procedure:

- Turn the ignition key to the "engine off" position. (→ 8.1)
- Activate self-diagnosis. (→ 9.1)



If the fault cannot be rectified, detailed diagnosis is necessary. Consult your specialist dealer; STIHL recommends STIHL specialist dealers.

9.3 Electronics faults

In rare cases, electronics faults may occur during operation of the mower. A continuous beep sounds and the engine is stopped.

Behaviour:

- Turn the ignition key to the "engine off" position. (→ 8.1)
- Activate self-diagnosis. (→ 9.1)
- Restart the engine. (→ 13.2)

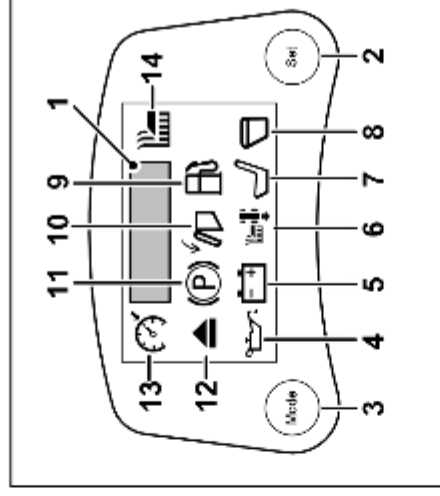


If the fault cannot be rectified, detailed diagnosis is necessary. Consult your specialist dealer; STIHL recommends STIHL specialist dealers.

10. Display RT 6112 ZL, RT 6127 ZL

Faults, operating information and active functions are shown on the display.

The display is protected against damage (e.g. due to water) on account of its design. It may be affected by fogging due to temperature variations and high air humidity. After the ride-on mower has been started, ingressed moisture dissipates within a few minutes under the influence of heat from the engine.



- 1 5-digit segmental display (→ 10.1)
- 2 Set button (→ 10.2)
- 3 Mode button (→ 10.3)

Faults (→ 10.4)

- 4 Engine oil pressure too low (RT 6127 ZL)
- 5 Battery fault

Operating information (→ 10.5)

- 6 Reverse mowing
- 7 Driver's seat unoccupied
- 8 Grass catcher box open or missing
- 9 Fuel reserve
- 10 Grass catcher box full
- 11 Parking brake engaged

Operating information (→ 10.5)

- 12 Discharge chute removed

Active functions (→ 10.6)

- 13 Cruise control active
- 14 Mowing deck active

10.1 5-digit segmental display

The 5-digit segmental display provides information about operating hours and battery voltage. It also indicates faults by displaying the text ERROR.

The operating hours and battery voltage can be called up during operation by pressing the Mode button. (→ 10.3)

Operating hours:

Display of the engine operating hours in full hours (e.g. 281 h).

The hour meter cannot be reset.

The correct times for maintenance or service operations are determined based on the meter. These are indicated in the maintenance schedule. (→ 15.1)

Battery voltage:

Display of the current battery voltage in volts (e.g. 12.0 V).

10.2 Set button

Pressing the Set button during display of the operating hours or battery voltage switches to continuous display.

Turning the ignition key to the "engine off" position resets the display to the default setting (display of operating hours or battery voltage for 5 seconds).



10.3 Mode button

Pressing the Mode button switches between the individual displays:

- 1 Operating hours [h]
- 2 Battery voltage [V]
- 3 No display

The operating hours and battery voltage are both displayed for 5 seconds. Press the Set button for a continuous display. (→ 10.2)



10.4 Display of faults

Engine oil pressure too low

symbol:



The oil pressure required for correct operation of the engine is too low. The engine will be stopped within 3 seconds.

Avoid damage to the machine.
The oil pressure warning is not an oil level indicator. Therefore check the oil level at regular intervals.

- Do not attempt to restart the engine.
- Visually check for oil leaking from the engine.
- Check the oil level and top up the engine oil if necessary.

Battery fault symbol:

The battery voltage is too low. The battery is faulty or is not recharging. The current voltage is additionally shown in volts on the display (e.g. 10.5 V).

The engine is stopped or cannot be started.



- Do not attempt to restart the engine.
- Check the battery voltage on the display.
- Check the fuses and replace if necessary. (→ 15.20)
- Visually check for leaking battery fluid.
- Check battery terminals for corrosion and correct seating.
- Charge the battery. (→ 15.21)
- Replace the faulty battery. (→ 15.19)

10.5 Display of operating information



If symbols do not display as expected or do not disappear as described, the probable cause is a fault in the respective switch, in the plug connections or in the wiring. Consult your specialist dealer. STIHL recommends STIHL specialist dealers.

Reverse mowing symbol:

The symbol is continuously

displayed when reverse mowing is enabled.

The symbol flashes when the reverse mowing safety switch is pressed or if an enable is required for reverse mowing. (→ 8.8)



The symbol disappears from the display:

- When reverse mowing is completed.

Switches from flashing to continuous display:

- When reverse mowing is enabled.
- When the mowing deck is manually disengaged within the time window.

- When the mowing deck is automatically disengaged if reverse mowing is not enabled.

Driver's seat unoccupied

symbol:



The driver's seat is unoccupied. The seat switch is one of the ride-on mower's safety devices (⇒ 12.). If the "driver's seat unoccupied" symbol appears on the display, the engine cannot be started without the parking brake engaged and the mowing deck cannot be engaged.

The symbol disappears from the display:

- When the user sits on the driver's seat.

Grass catcher box open or missing

symbol:



The grass catcher box is open or the grass catcher box or deflector (accessory) are not installed or not correctly engaged. The symbol is also displayed when emptying the grass catcher box. (⇒ 13.9)

If the grass catcher box is raised (e.g. for emptying) while the mowing deck is engaged, the engine is stopped for safety reasons.

The symbol disappears from the display:

- When the grass catcher box is closed. (⇒ 13.9)
- When the grass catcher box or deflector (accessory) are correctly installed. (⇒ 13.10)

Fuel reserve symbol:



The fuel is down to the reserve level, there is still approx. 2 litres of fuel in the tank. (⇒ 13.1)

The symbol disappears from the display:

- When the fuel is topped up.

Grass catcher box full



The grass catcher box is full, a continuous tone sounds. (⇒ 8.19) The continuous tone stops after the mowing deck is disengaged. (⇒ 13.8)

The symbol disappears from the display:

- When the grass catcher box is emptied.

Parking brake engaged

symbol:



The parking brake is engaged. (⇒ 8.14)

The symbol disappears from the display:

- When the parking brake is released.

Discharge chute removed

symbol:



The discharge chute has been removed. (⇒ 15.5) The engine cannot be started for safety reasons.

The symbol disappears from the display:

- When the discharge chute is correctly installed. (⇒ 15.6)

10.6 Display of active functions



If symbols do not display as expected or do not disappear as described, the probable cause is a fault in the respective switch, in the plug connections or in the wiring. Consult your specialist dealer. STIHL recommends STIHL specialist dealers.

Cruise control active

symbol:



Cruise control has been activated. (⇒ 8.7)

The display disappears when cruise control is switched off.

Mowing deck active

symbol:



The mowing deck is engaged. (⇒ 8.6)

The display disappears when the mowing deck is disengaged.

11. Notes on working with the machine



Warning:

Risk of injury.

Before each use, observe all information regarding safe operation of the machine. Working on slopes requires special concentration and care.



Note

Check the mowing deck for correct installation position before starting work.

Select a flat, even area for initial use of your machine and mow in straight and slightly overlapping strips for practising purposes. Grass should always be mowed when dry.

A perfect, thick lawn is achieved by

- Mowing at high speed (throttle lever in MAX position) and a slow driving speed.
- Regular mowing and keeping the grass short.
- Not cutting the lawn too short in hot, dry conditions as it will be burnt by the sun and become unsightly.
- Using sharp mowing blades. Mowing blades should therefore be regularly sharpened or replaced.
- Changing the cutting direction.

Mowing tall grass

If the grass is very high, it is better to mow it in two stages:

- use the highest cutting height, maximum engine speed and slow driving speed for the first mowing operation;
- for the second mowing operation, select the desired cutting height and set the maximum engine speed. Adjust the driving speed to the condition of the lawn.



Warning – fire hazard!

Avoid overloading the mowing deck drive. Overloading may lead to constant slipping of the V-belt and consequently to a fire hazard due to overheating.

Unusual running noise, e.g. a "squealing" (slipping noise) of the V-belt, indicates overloading. For this reason, never mow in high grass when the discharge chute is blocked or the grass catcher box is full; use a mulching kit (special accessory) if necessary.

The mowing deck, particularly the V-belt area, must always be kept free of combustible material (grass, leaves, etc.). It should also be cleaned regularly to prevent a fire hazard.

Preventing blockage of the discharge chute

If the discharge chute becomes blocked with grass, reduce the driving speed. This may be too high in relation to the lawn conditions. Pull out the slide of the level sensor fully. (⇒ 8.19)

If the problem persists, the probable cause is damaged or worn wings on the mowing blades. Replace the mowing blades. (⇒ 15.13)

Clean the mowing deck, discharge chute and mowing blades after each use to prevent the accumulation of grass deposits. (⇒ 15.2)

Fertilisation

Mowing the grass deprives the ground of permanent nutrients, which can be returned by using a high-grade, long-term lawn fertiliser. Usually, fertilising three times per mowing season is necessary.

For this purpose, the lawn should be dry, so that the fertiliser does not stick to the grass blades and burns them. It is then better to water the lawn, which results in the fertiliser being flushed off the grass blades. (Observe manufacturer's instructions for use.)

Natural fertilising is possible using lawn clippings. This is made possible by the use of the mulching kit. The mulching kit is available as a special accessory and is not included in the standard equipment. (Further information is available from your STIHL specialist dealer.)

Ground-conserving working

The most important factors for ground-conserving working are operating technique and ground moisture.

In order to achieve clean mowing results, the driving speed must be adapted to the condition of the grass to be mowed (height and density) and to the moisture of the lawn.

Executing curves that are too tight increases the loading on the turf and leads to poor mowing results, particularly on wet grass, as the wheels sink into the soft grass.

12. Safety devices

The machine is equipped with several safety devices for safe operation and for the prevention of improper use.



Risk of injury!

If a safety device is found to be defective, the machine must not be operated. Consult a specialist dealer; STIHL recommends STIHL specialist dealers.

To start the engine, the following conditions must always be fulfilled:

- The discharge chute must be correctly installed.
- The brake pedal must be pressed or the parking brake engaged.

The engine is switched off if the user:

- Leaves the driver's seat with the mowing deck engaged.
- Lifts the grass catcher box or removes the deflector (special accessory) with the mowing deck engaged.
- Removes the discharge chute with the mowing deck disengaged.
- Leaves the driver's seat without engaging the parking brake.

Integrated blade run-down brake:

RT 5097, RT 5097 Z, RT 5112 Z,

RT 6112 ZL:

Following disengagement, the mowing blades come to a standstill after **5 seconds** at the latest.

RT 6127 ZL:

Following disengagement, the mowing blades come to a standstill after **7 seconds** at the latest.



Following engagement of the mowing deck, the mowing blades turn and a wind noise is audible. The run-on time corresponds to the duration of the wind noise following disengagement. This can be measured using a stopwatch.

To check the integrated blade run-down brake, measure the duration of the wind noise following disengagement using a stopwatch.

RT 5097, RT 5097 Z, RT 5112 Z,

RT 6112 ZL:

If this duration exceeds 5 seconds: consult a STIHL specialist dealer.

RT 6127 ZL:

If this duration exceeds 7 seconds: consult a STIHL specialist dealer.

13. Operating the machine



Risk of injury!

Carefully read and observe the entire section "For your safety" before operating the machine. (⇒ 4.)

For safety reasons, the machine must not be used on slopes with an inclination of more than 10° (17.6%).

A slope inclination of 17.6% corresponds to a vertical height increase of 17.6 cm for a 100 cm horizontal distance.

- Familiarise yourself with the controls on the machine before using it. (⇒ 8.)
- Before operating the machine, inspect the maintenance schedule and carry out all relevant maintenance operations. (⇒ 15.1)
- Check the safety devices before each use. (⇒ 12.)
The ride-on mower must not be operated if safety devices are missing or damaged or have been bypassed or modified.

13.1 Filling the fuel tank

Maximum tank capacity:

9 litres

Recommendation:

Fresh good quality fuel, please refer to the engine instruction manual for information on fuel grade (octane rating).

- Unleaded petrol.

Filling procedure:

- Stop the engine and allow it to cool down (warm to the touch). (⇒ 13.3)
- Engage the parking brake. (⇒ 8, 14)



To prevent fuel spillage, use a suitable funnel (not included in standard equipment) when filling up.

Pour in the fuel slowly and carefully. In order to prevent the fuel from overflowing, filling should be performed in several stages.

Remove the funnel between the individual filling operations in order to visually check the filling level in the tank.

The more fuel has already been filled into the tank, the smaller the filling quantities should be for each filling operation. To give the fuel room to expand, never fill the fuel tank past the lower edge of the filler neck.



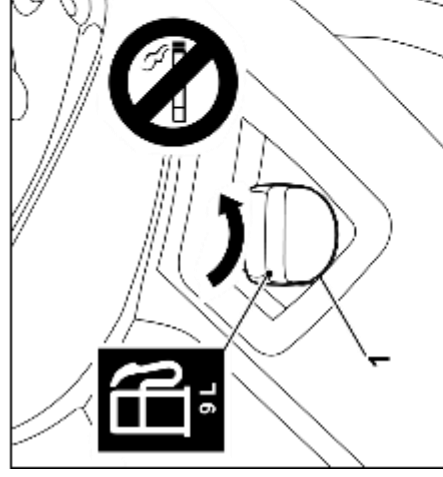
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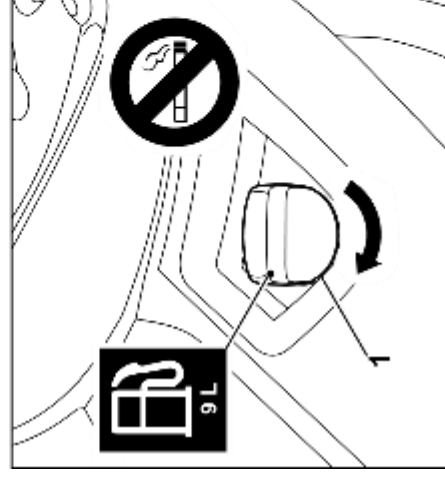
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Tank cap:



Unscrew the tank cap (1) (note direction of arrow) and remove.

- Fill the fuel into the tank using a suitable funnel (not included in standard equipment) (see Filling procedure).



Fit and screw on the tank cap (1) (note direction of arrow). Then tighten the tank cap (1) hand-tight.

- Wipe away any spilled fuel and allow it to evaporate before starting the engine.

13.2 Starting the engine



Avoid damage to the machine.

If the engine does not start immediately, leave breaks between the starting attempts.
Never leave the ignition key in the "start engine" position for more than 10 seconds.



The discharge chute must be correctly installed to start the engine. (⇒ 15.6)

Before starting:

- Check the engine oil level. (⇒ 15.8)
- Remove grass residues from the mowing deck and engine compartment.
- Check the fuel and top up if necessary. (⇒ 13.1)
- Before each use, check the braking function. (⇒ 13.5)
- Perform all personal settings (driver's seat adjustment) on the machine – not when the engine is running!
- Never start the machine in the vicinity of other persons, particularly children, or animals.

Starting sequence:

- Open the fuel cock. (⇒ 15.7)
- Sit on the driver's seat.
- Before starting, press the brake pedal to the stop and hold or engage the parking brake. (⇒ 8.13), (⇒ 8.14)
- Insert the ignition key in the ignition lock and turn to the "ignition on" position. (⇒ 8.1)

• Cold engine:

RT 5097:

Set the throttle lever to the choke position. (⇒ 8.2)
RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL:

Set the throttle lever to the MAX position and pull the choke knob. (⇒ 8.3), (⇒ 8.4)

Warm engine:

Set the throttle lever to the MAX position. (⇒ 8.2), (⇒ 8.3)

- Turn the ignition key to the "start engine" position.

The engine starts. As soon as the engine is running, release the ignition key. This returns automatically to the "engine running" position.

RT 5097:

Return the throttle lever to the MAX position when the engine is running. Note detent! (⇒ 8.2)

RT 5097 Z, RT 5112 Z, RT 6112 ZL, RT 6127 ZL:

Press in the choke knob. (⇒ 8.4)

- When the engine is running, the foot can be removed from the brake pedal or the parking brake released.

13.3 Stopping the engine

- Brake the machine to a complete standstill.

- Disengage the mowing deck. (⇒ 8.5), (⇒ 8.6)

- Set the throttle lever to the MIN position. (⇒ 8.2), (⇒ 8.3)

- Turn the ignition key to the "engine off" position. The engine is stopped.

- Engage the parking brake. (⇒ 8.14)

- Close the fuel cock if necessary. (⇒ 15.7)
- Remove the ignition key and store safely.

13.4 Driving



Warning!

A low driving speed must always be selected on rough terrain. Before each change of direction, especially on slopes, reduce the driving speed appropriately.



Avoid damage to the machine!

In order to ensure optimum cooling of the gearbox, always drive at the maximum engine speed. Therefore only regulate the driving speed using the drive pedal and not the throttle lever.

Before driving:

- Engage the gearbox freewheel lever. (⇒ 8.18)
- RT 5112 Z, RT 6112 ZL, RT 6127 ZL: With the mowing deck removed, press the V-belt tensioner lever forwards and lock in place. (⇒ 14.1)
- Start the engine. (⇒ 13.2)

Forward driving:

- Select the forward driving direction. (⇒ 8.9)
- Disengage the parking brake, if engaged. (⇒ 8.14)
- Press the drive pedal – the machine moves forwards. (⇒ 8.12)

Reversing:

- Select the reverse driving direction. (⇒ 8.9)

- Disengage the parking brake, if engaged. (⇒ 8.14)
- Press the drive pedal – the machine moves backwards. (⇒ 8.12)

Forward driving with cruise control (RT 6112 ZL, RT 6127 ZL):

- With the mowing deck removed, press the V-belt tensioner lever forwards and lock in place. (⇒ 14.1)
- Start the engine. (⇒ 13.2)
- Set the throttle lever to the MAX position. (⇒ 8.3)
- Set driving direction selector lever to front position (forward driving direction). (⇒ 8.9)
- Disengage the parking brake, if engaged. (⇒ 8.14)
- By pressing the drive pedal, the driving speed is regulated and the machine moves forwards.
- **Activating cruise control:** Maintain the required driving speed and press the cruise control button for 1 second. (⇒ 8.7)
Cruise control is activated when the "cruise control active" symbol appears on the display and the drive pedal is locked in place.
When cruise control is activated, it is possible to increase the set driving speed by pressing on the drive pedal.
- The foot can be removed from the drive pedal.

Deactivating cruise control:

- Press the brake pedal or cruise control button. (⇒ 8.7)
Cruise control is deactivated when the "cruise control active" symbol disappears from the display.

13.5 Braking

- Reduce the driving speed by easing the pressure on the drive pedal – avoid braking abruptly at the maximum driving speed. (⇒ 8.12)
- Press the brake pedal down evenly until the machine comes to a standstill. (⇒ 8.13)

13.6 Adjusting the cutting height



Risk of injury!

Adjust the cutting height only when the ride-on mower is at a standstill.

- Brake the machine to a complete standstill.
- Release the cutting height adjustment lever and set the required cutting height. (⇒ 8.15)

Level 1

Lowest cutting height

Level 8

Highest cutting height



RT 5112 Z, RT 6112 ZL, RT 6127 ZL:

STIHL recommends mounting the two gauge wheels in a lower bore. In the lowest position, the gauge wheels increase the distance between the mowing deck and the ground, ensuring an optimum supply of air. The result is a more attractive cutting pattern and better collecting performance.

13.7 Mowing



If the mowing deck is engaged when driving, the engine speed is briefly reduced due to the additional load (mowing blades starting to rotate).

Before mowing:

- Read and observe the section "Notes on working with the machine". (⇒ 11.)
- Always set the maximum engine speed during mowing. The mowing blade is optimised for this speed – it produces the best cutting pattern as well as the most powerful suction effect for collection of the clippings.

Engage the mowing deck in the following sequence:

- Start the engine. (⇒ 13.2)
- Set the throttle lever to the MAX position. (⇒ 8.2), (⇒ 8.3)
- Drive the ride-on mower onto the lawn. Do not engage the mowing deck in tall grass or when set to the lowest cutting level. Only engage the mowing deck when the machine is already on the area to be worked.

Forwards mowing:

Select the forward driving direction (⇒ 8.9), then engage the mowing deck by pressing the mowing deck switch or mowing deck button. (⇒ 8.5), (⇒ 8.6)

Reverse mowing:

Select the reverse driving direction (⇒ 8.9) and briefly press the reverse mowing safety switch (⇒ 8.8) once, then engage the mowing deck by pressing the mowing deck switch or mowing deck button within 6 seconds. (⇒ 8.5), (⇒ 8.6)

During mowing:

- Set the throttle lever to the MAX position. (⇒ 8.2), (⇒ 8.3)
- Always adapt the driving speed to the grass height/cutting level. A low driving speed should be selected when mowing tall grass/at a low cutting level.



A permanent continuous tone signals that the grass catcher box is full. (⇒ 13.9)

Changing the driving direction with the mowing deck engaged:

- For **reverse mowing**, briefly press the reverse mowing safety switch once within the designated time window (5 seconds/1 second after switching). (⇒ 8.8)
- Bring the machine to a standstill on the lawn and set the required driving direction using the driving direction selector lever. (⇒ 8.9)
- Continue mowing.

Disengage the mowing deck in the following sequence:

- Drive onto an area of grass which has already been mown or select the highest cutting level. (⇒ 8.15)
- Disengage the mowing deck by pressing the mowing deck switch or mowing deck button. (⇒ 8.5), (⇒ 8.6)



Risk of injury!

After disengaging the mowing deck, beware of the mowing blade running on for up to 7 seconds before coming to a standstill. (⇒ 12.)

13.8 Programming automatic disengagement of the mowing deck



The electromagnetic blade clutch can be programmed so that the mowing deck is automatically disengaged when the grass catcher box is full. This enhances operating convenience as blockage of the discharge chute is prevented.

- Stop the engine. (⇒ 13.3)
- Turn the ignition key to the "ignition on" position. (⇒ 8.1)
- Wait for the electronics self-diagnosis – do not press any buttons.

Activating automatic disengagement:

- Press the reverse mowing safety switch and press the drive pedal at the same time for 5 seconds. A short beep signals that automatic operation is switched on.
- The current setting is permanently saved.

Deactivating automatic disengagement:

- Set the driving direction selector lever to forwards.
- Press the reverse mowing safety switch and press the drive pedal at the same time for 5 seconds. Three beeps in quick succession signal that automatic operation is switched off.
- The current setting is permanently saved.

Programming automatic disengagement using the Mode button (only with RT 6112 ZL, RT 6127 ZL):

- Set the driving direction selector lever to forwards.

- Keep the mowing deck button pressed and press the Mode button at the same time – automatic disengagement is switched on or off using the Mode button (ON or OFF appears on the display).

- The current setting is permanently saved.

Checking the programming (only with RT 6112 ZL, RT 6127 ZL):

- Press and hold the mowing deck button. The mowing deck active symbol and the text ON or OFF appear on the display.
ON – The mowing deck is automatically disengaged when the grass catcher box is full.
OFF – The mowing deck is not automatically disengaged when the grass catcher box is full.

13.9 Emptying the grass catcher box



Risk of injury!

Only empty the grass catcher box on level surfaces, as the centre of gravity is changed by swinging up the grass catcher box and thus the danger of tipping over is increased.



A permanent continuous tone during mowing signals that the grass catcher box is completely full and must be emptied.

The continuous tone ceases once the mowing deck has been disengaged.

The "grass catcher box full" symbol appears on the display of the models RT 6112 ZL and RT 6127 ZL. (⇒ 10.5)

The following points must be noted if the grass catcher box is not being completely filled:

- Correctly adjust the level sensor (grass catcher box). (⇒ 8.19)
- When emptying the grass catcher box, check the discharge chute for blockage and clean if necessary.
- Check the wings of the mowing blades for damage or wear and replace if necessary. (⇒ 15.13)

Emptying the grass catcher box:

- Disengage the mowing deck. (⇒ 8.5), (⇒ 8.6)
 The continuous tone ceases.
- Select the highest cutting level. (⇒ 8.15)
- Drive the machine to the point at which the clippings are to be emptied.
- Pull out the grass catcher box emptying lever and push it forwards. (⇒ 8.16)
 The grass catcher box swings upwards and the clippings fall out.
- If necessary, drive forwards slightly with the grass catcher box raised.
- Briefly swing the grass catcher box up and down so that all the clippings fall out.
- Slowly move the grass catcher box emptying lever towards the rear and allow the grass catcher box to re-engage with the rear panel.
- Release the grass catcher box emptying lever again and press down until it has returned to the initial retracted position.

13.10 Removing and attaching the grass catcher box

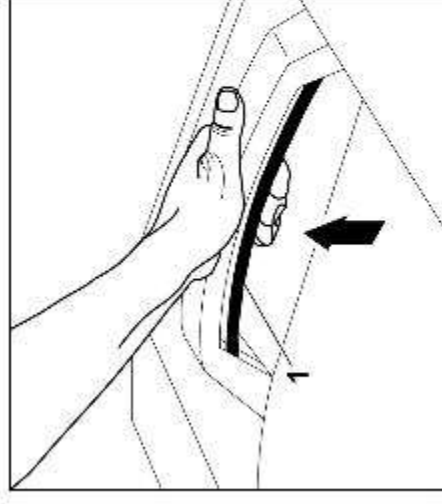
The following points must be noted before removing:

- Disengage the mowing deck. (⇒ 8.5), (⇒ 8.6)
- Empty the grass catcher box. (⇒ 13.9)
- Engage the parking brake. (⇒ 8.14)
- Stop the engine. (⇒ 13.3)

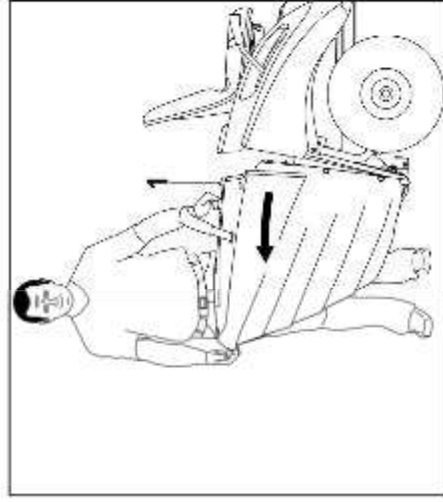


When removing and attaching the grass catcher box, the grass catcher box release lever must always be held in the released position until the grass catcher box has been fully removed or attached.

Removing the grass catcher box:

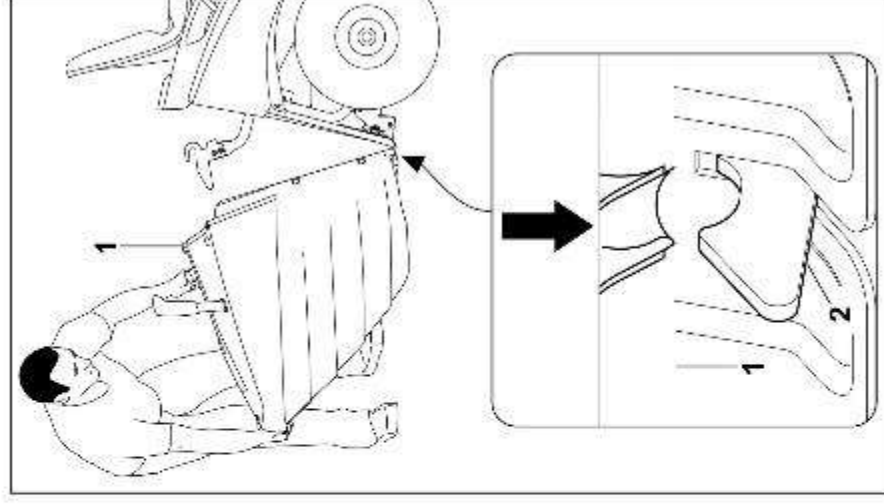


Pull the grass catcher box release lever (1) upwards and hold.



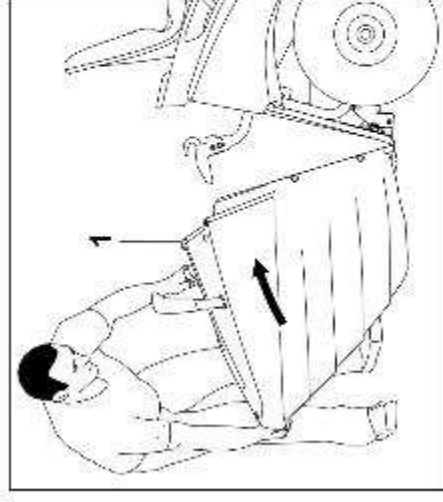
Remove the grass catcher box (1).

Attaching the grass catcher box:



Position the grass catcher box (1) on both snap-in hooks (2) on the rear panel.

- Actuate and hold the grass catcher box release lever. (⇒ 8.17)



Raise the grass catcher box (1) to the stop.

- Release the grass catcher box release lever and ensure that the grass catcher box engages. (⇒ 8.17)



If the machine is operated without the grass catcher box or deflector (accessory), the mowing deck cannot be engaged and the engine stops automatically.

13.11 Pulling loads



Risk of injury!

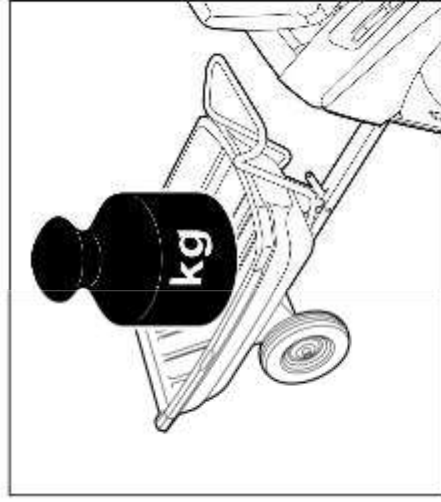
The driving characteristics of the machine change when transporting loads (e.g. longer braking distance). The heavier the load, the more the driving characteristics change. Therefore select a lower driving speed when pulling loads.



Avoid damage to the machine!

The maximum pulled load is reduced on inclines.

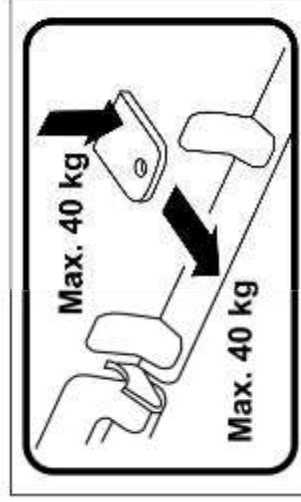
- Before attaching loads, check the braking function. (⇒ 13.5)



Maximum trailer weight on a level surface

= **250 kg**

Maximum trailer weight on a maximum 10° incline = **100 kg**



Maximum coupling load = **40 kg**

Maximum pulled load = **40 kg**

i A pulled load of 40 kg at the trailer coupling is achieved when pulling a trailer with a weight of 250 kg on a level surface.

13.12 Operating on slopes

- Check the braking function before operating the mower on slopes. (⇒ 13.5)

- Drive slopes in a longitudinal direction. Driving transversely increases the danger of tipping over – note the maximum slope inclination. (⇒ 4.7)
- Avoid changes of direction on slopes – if changes of direction cannot be avoided, they must be executed with particular care.

14. Mowing deck

14.1 Removing the mowing deck



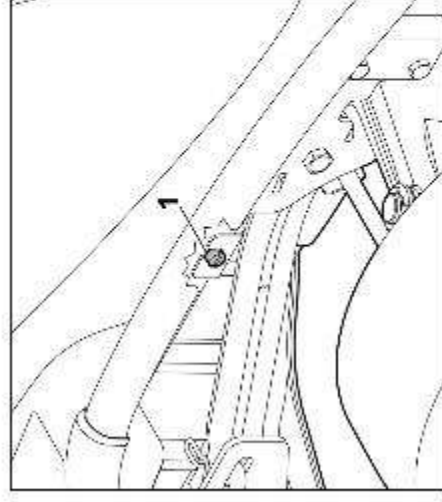
Risk of injury!

Prior to all operations on the mowing deck, carefully read and observe the section "For your safety". (⇒ 4.)

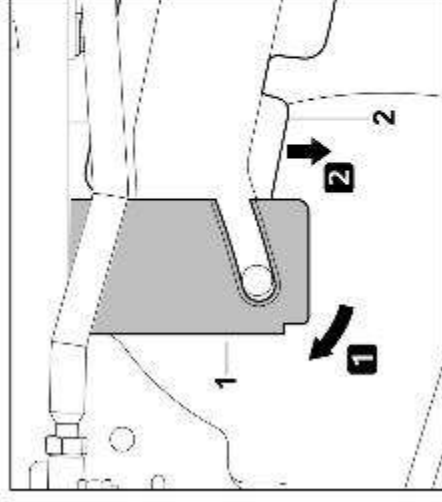
Danger of pinching when removing the mowing deck due to its inherent weight. Therefore ensure that no body parts (hands, fingers, feet, etc.) are positioned directly under the mowing deck.

- Park the machine on level and solid ground.
- Turn the front wheels to the left or right to the stop.
- Stop the engine. (⇒ 13.3)
- Remove the ignition key.
- Engage the parking brake. (⇒ 8.14)
- Select the lowest cutting level. (⇒ 13.6)
- Remove the grass catcher box. (⇒ 13.10)
- Remove the discharge chute. (⇒ 15.5)

Detaching the V-belt cover:

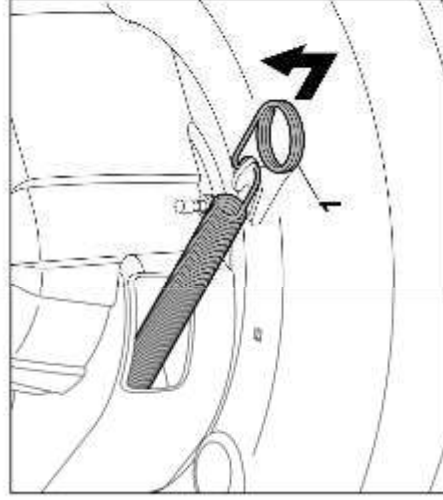


Loosen the screw (1) behind the right front wheel until it turns freely.



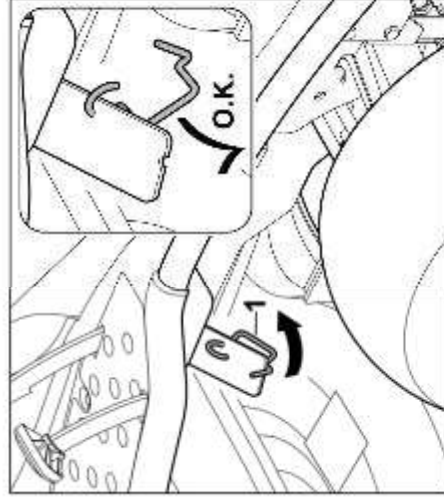
Press the retaining plate (1) forwards and hold in place. Fold the V-belt cover (2) downwards.

Slackening the V-belt (RT 5097, RT 5097 Z):

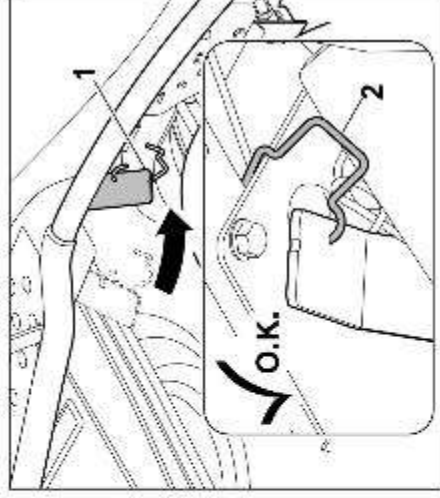


Pull the tension spring (1) forwards, detach and set down.

Slackening the V-belt (RT 5112 Z, RT 6112 ZL, RT 6127 ZL):

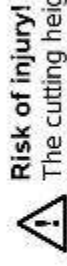


Detach the retainer (1) from the V-belt tensioner lever.



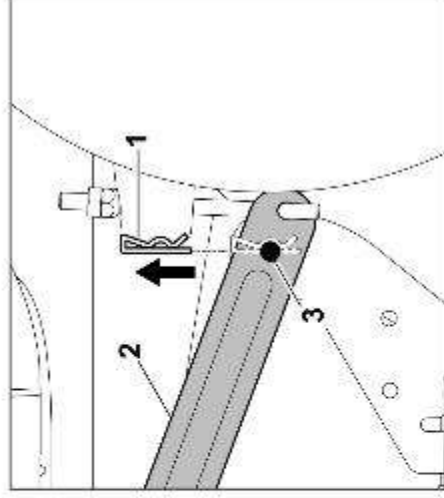
Press the V-belt tensioner lever (1) forwards and hold. Engage the retainer (2) at the frame as shown. Make sure that the V-belt tensioner lever is fixed in the front position.

Detaching the mowing deck at the rear:



Risk of injury!

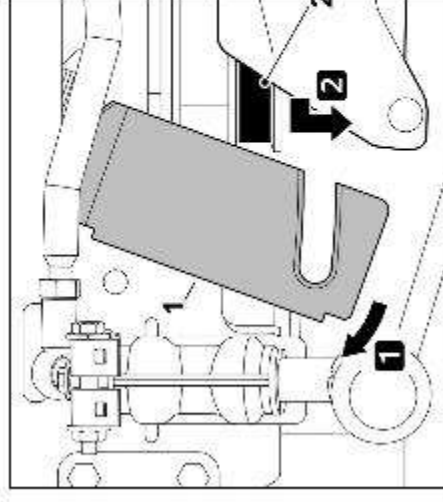
The cutting height adjustment lever is under tension when the mowing deck is detached. Therefore carefully set the highest cutting level immediately after detaching the mowing deck.



Pull out the cotter pin (1) upwards. Lift up the mowing deck slightly and hold. Push the mounting (2) outwards and remove the retaining pin (3) from the mounting.

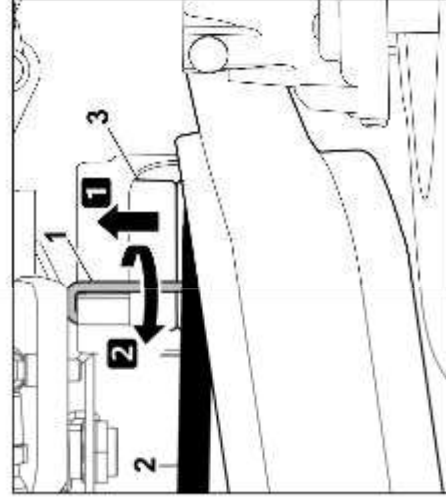
- Repeat this procedure on the other side.
- Carefully and slowly set down the mowing deck.

Detaching the V-belt:



Press the retaining plate (1) forwards and hold. Pull the V-belt (2) forwards and detach.

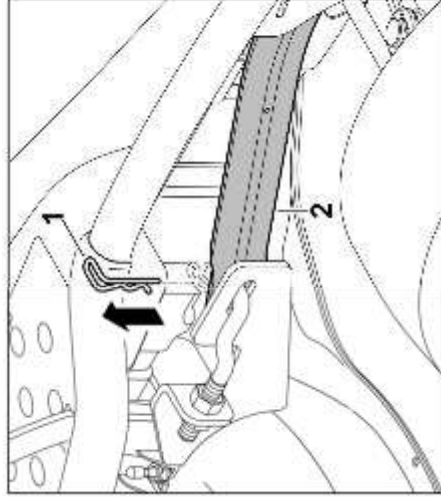
Releasing the V-belt from the tension roller (RT 5112 Z, RT 6112 ZL, RT 6127 ZL):



Push the locking pin (1) approx. 0,5 cm upwards and rotate it by 180°. Detach the V-belt (2) from the tension roller (3).

i After the V-belt is detached, rotate the locking pin back and push it down again as far as it will go until it engages in the cover. After engagement, check that the locking pin is securely seated.

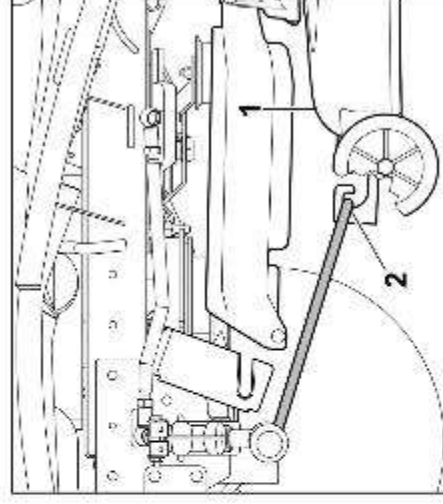
Detaching the mowing deck at the front (RT 5097, RT 5097 Z):



Remove the cotter pin (1). Lift the mowing deck slightly and detach it from the front mowing deck mounting (2). Carefully release the mowing deck.

- Repeat this procedure on the other side.
- Carefully and slowly set down the mowing deck.

Detaching the mowing deck at the front (RT 5112 Z, RT 6112 ZL, RT 6127 ZL):

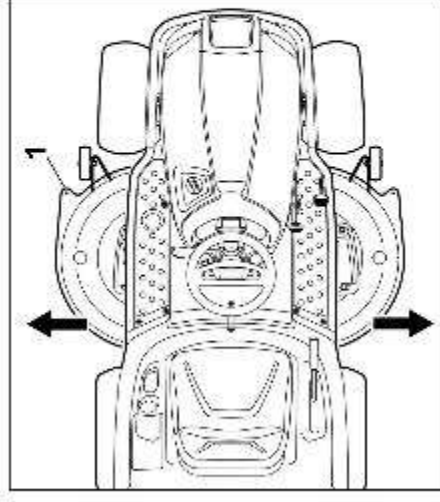


Push the mowing deck (1) forwards parallel and detach it at the front mowing deck mounting (2). The mounting automatically swings upwards.

- Carefully and slowly set down the mowing deck.

Removing the mowing deck:

- Set the highest cutting level.



Pull the mowing deck (1) out from under the ride-on mower either to the left or right.

14.2 Installing the mowing deck

! Risk of injury!

Prior to all operations on the mowing deck, carefully read and observe the section "For your safety". (⇒ 4.)

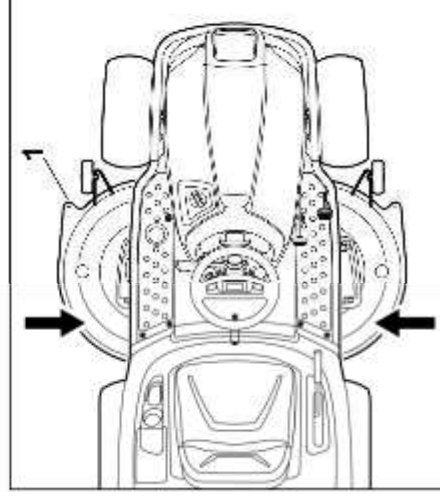
Danger of pinching when installing the mowing deck due to its inherent weight. Therefore ensure that no body parts (hands, fingers, feet, etc.) are positioned directly under the mowing deck.

- Park the machine on level and solid ground.
- Turn the front wheels to the left or right to the stop.
- Stop the engine. (⇒ 13.3)
- Remove the ignition key.
- Engage the parking brake. (⇒ 8.14)
- Select the highest cutting level. (⇒ 13.6)

- Remove the grass catcher box. (⇒ 13.10)
- Remove the discharge chute. (⇒ 15.5)

Pushing in the mowing deck:

- Position the V-belt in the opening in the V-belt cover so that it is accessible and can be attached.



Push the mowing deck (1) under the ride-on mower either from the left or right.

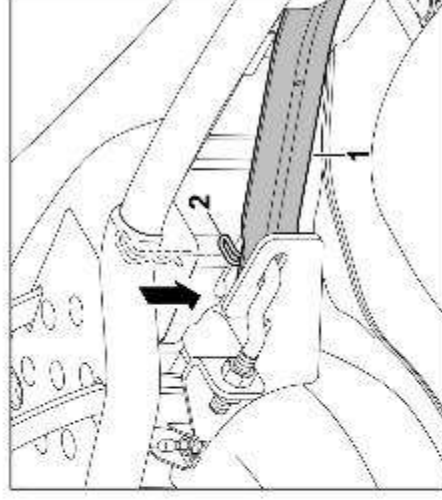
- Select the lowest cutting level.



Risk of injury!

In the lowest cutting level, the cutting height adjustment lever is under tension. Do not touch the cutting height adjustment lever during installation of the mowing deck.

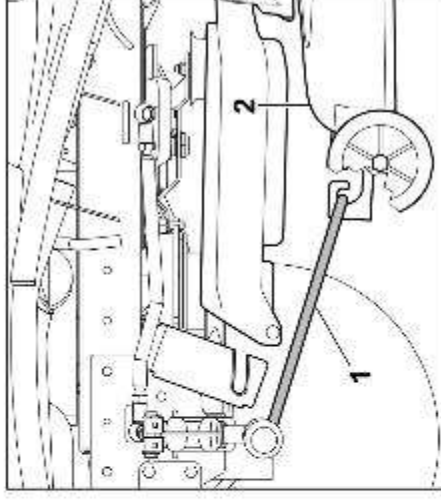
Attaching the mowing deck at the front (RT 5097, RT 5097 Z):



Pull the front mowing deck mounting (1) downwards and hold. Raise the mowing deck slightly with one hand and insert the mounting pin on the mowing deck into the bore on the front mowing deck mounting (1). Insert the cotter pin (2) through the bore in the mounting pin.

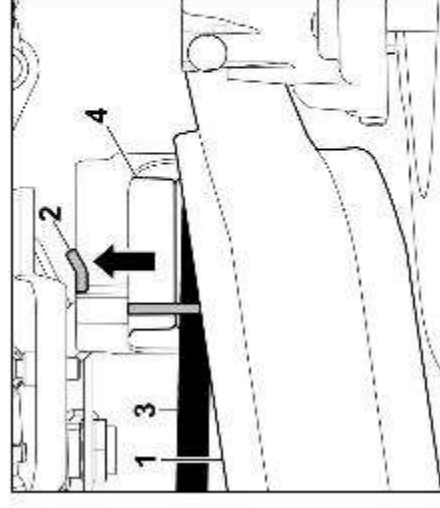
- Repeat this procedure on the other side.

Attaching the mowing deck at the front (RT 5112 Z, RT 6112 ZL, RT 6127 ZL):

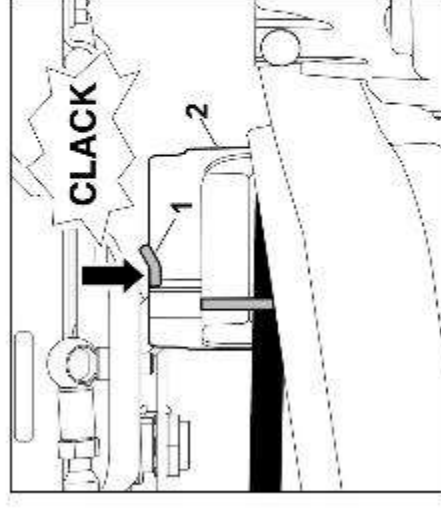


Swivel the front mowing deck mounting (1) downwards and attach to the mowing deck (2) as shown. Push the mowing deck (2) to the rear, attaching the front mowing deck mounting (1) to the mowing deck.

Fitting the V-belt onto the tension roller RT 5112 Z, RT 6112 ZL, RT 6127 ZL:



Press the cover (1) downwards and hold it. Push the locking pin (2) approx. 0.5 cm upwards. Fit the V-belt (3) onto the tension roller (4).

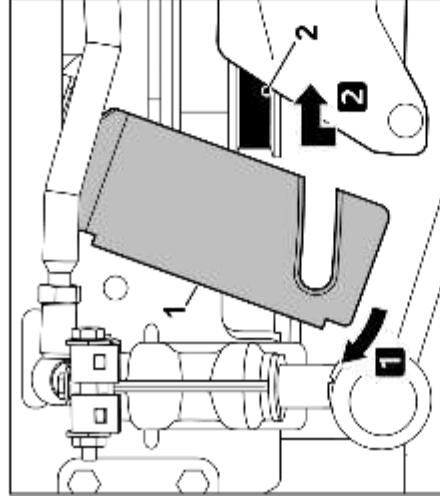


Push the locking pin (1) down again as far as it will go. The locking pin (1) must engage in the cover (2).



Check that the locking pin is seated securely.

**RT 5097, RT 5097 Z, RT 5112 Z,
RT 6112 ZL, RT 6127 ZL:**



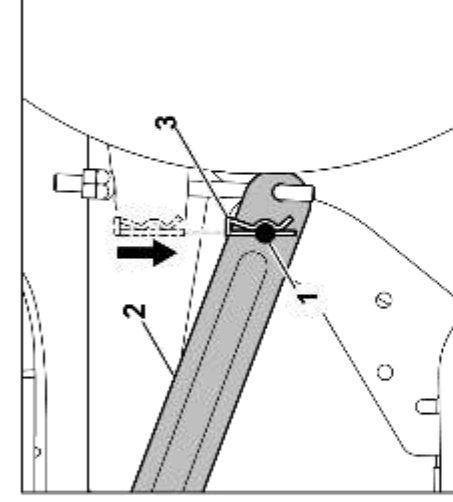
Press the retaining plate (1) forwards and hold. Pull the V-belt (2) forwards and lift with the V-belt cover.
Fit the V-belt (2) correctly onto the V-belt pulley (without twisting).

Attaching the mowing deck at the rear:



Before attaching, check that the mowing deck is correctly attached at the front mowing deck mounting.

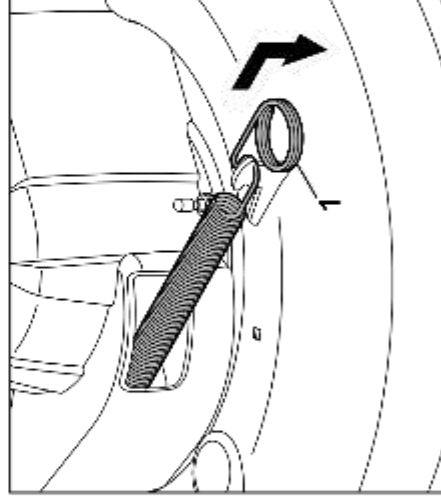
- Raise the mowing deck with one hand and hold. The bores in the mounting must be aligned with the retaining pins on the mowing deck.



Guide the retaining pins (1) into the bores in the mounting (2). Insert the cotter pin (3) into the retaining pin bores from above and allow to engage.

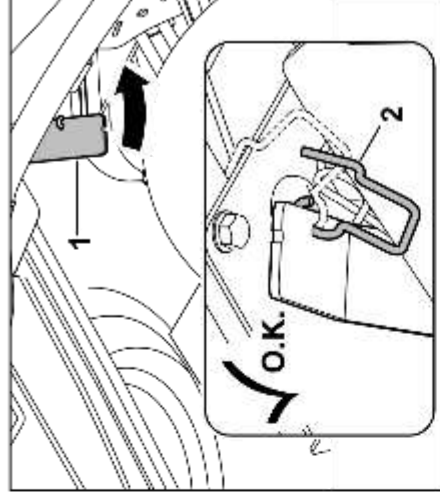
- Repeat this procedure on the other side.

**Tensioning the V-belt (RT 5097,
RT 5097 Z):**

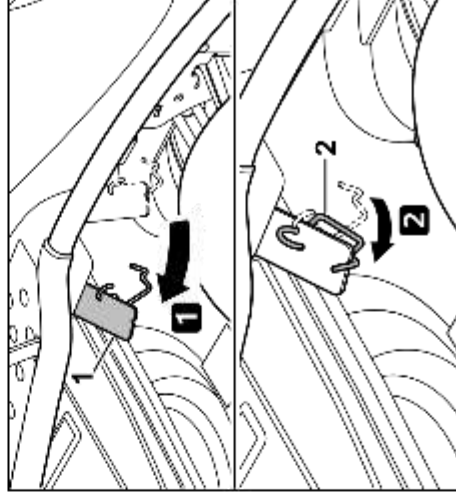


Pull the tension spring (1) forwards and attach to the mowing deck as shown.

**Tensioning the V-belt (RT 5112 Z,
RT 6112 ZL, RT 6127 ZL):**

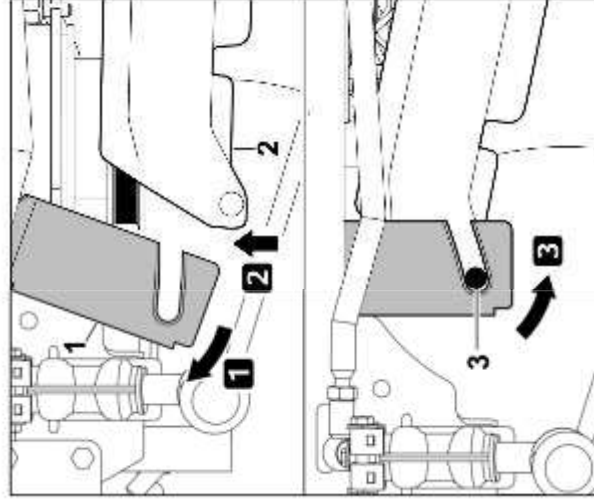


Press the V-belt tensioner lever (1) forwards and hold. Detach the retainer (2).

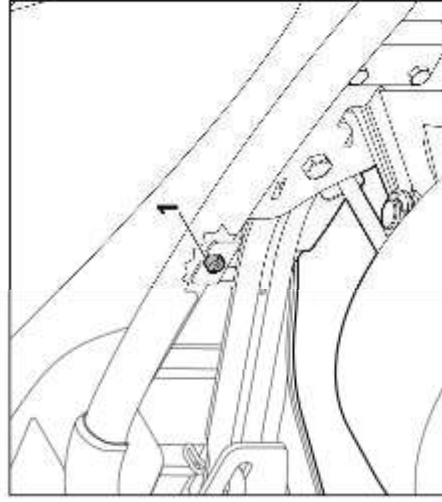


Tension the V-belt by relieving the load on the V-belt tensioner lever (1). Attach the retainer (2) to the V-belt tensioner lever (1) as shown.

Installing the V-belt cover:



Press the retaining plate (1) forwards and hold in place. Fold the V-belt cover (2) upwards. Guide the retaining plate (1) to the rear and engage at the two retaining tabs (3) on the V-belt cover.



Fasten the retaining plate in place using the screw (1).

- Install the discharge chute. (⇒ 15.6)

15. Maintenance



Risk of injury!

Before all maintenance and repair work, carefully read and observe the section "For your safety" and especially the subsection "Maintenance and repairs". (⇒ 4.)

Remove the ignition key to prevent inadvertent starting of the engine.



Always wear gloves.



Never touch the mowing blades before they have come to a standstill.

For safety reasons, maintenance operations on the brakes are not permitted. Only allow adjustment and maintenance operations to be performed by a specialist dealer. STIHL recommends STIHL specialist dealers.

General maintenance instructions:

- The maintenance schedule and maintenance intervals must be strictly observed.

- Observe the maintenance schedule and maintenance operations in the engine instruction manual.

Before any maintenance, repair and cleaning operations:

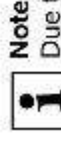
- Park the machine on level and solid ground.
- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Allow the engine and muffler to cool down completely.

The following maintenance and repair work can be found in the engine instruction manual:

- Replacing the air filter.
- Information on engine oil (type, oil capacity, etc.).
- Checking and replacing the spark plug.
- Changing the fuel filter.
- Cleaning the engine.

15.1 Maintenance schedule

All the instructions in the maintenance schedule must be strictly observed. Non-observance of the maintenance plan can lead to significant damage to the machine.



Note

Due to heavy-duty use, especially in professional operation, shorter maintenance intervals than those specified here may be required. Moreover, extreme external conditions such as sandy or stony ground, dust, etc. may lead to shorter maintenance intervals than those specified in the instruction manual.

An inspection by a specialist dealer must be performed after every 100 operating hours or once a year. STIHL recommends STIHL specialist dealers.

Display of operating hours (RT 6112 ZL, RT 6127 ZL):

In order to ensure that the various maintenance intervals can be observed exactly, the ride-on mowers RT 6112 ZL,

RT 6127 ZL are equipped with an hour meter. The operating hours are indicated as full hours.

- With the **engine switched off**, turn the ignition key to the "Ignition on" position. (⇒ 8.1)
The operating hours are shown on the display for 5 seconds. (⇒ 10.1)
- With the **engine running**, press the Mode button. (⇒ 10.3)
The operating hours are shown on the display for 5 seconds.

Maintenance operations prior to initial use:

In order to achieve more efficient and safer operation and to prevent faults, it is important to be familiar with the condition of the machine.

For this purpose, the following checks are required before each start (visual inspection):

- Tyre pressure. (⇒ 15.16)
- Wear and damage to tyres.
- Leaks in fuel carrying lines.
- Engine oil level (see engine instruction manual).
- Fuel-tank level.
- General visual inspection of the machine and mowing deck. Particularly the protective covers must be inspected for damage.
- Tightness of bolted connections.

Maintenance operations after each use:

- Clean the entire machine (mowing deck, discharge chute, grass catcher box) and all attachments.

- Observe the instructions on cleaning the engine (see engine instruction manual).

- Remove grass residues from the gearbox (by brushing off), remove any other dirt from the gearbox.
- Check the cooling ribs of the engine and hydrostatic gearbox and clean if necessary.

Maintenance operations after the first 10 operating hours (initial operation):

- An inspection by your specialist dealer is recommended.
STIHL recommends STIHL specialist dealers.

Maintenance operations after every 25 operating hours:

- Check the blade fastenings and mowing blade wear limits.
- Check the installation position of the mowing blades (RT 5112 Z, RT 6112 ZL, RT 6127 ZL).

Maintenance operations after every 50 operating hours:

- Check the installation position of the mowing deck. (⇒ 15.14)

Maintenance operations after every 100 operating hours:

- Replace the mowing blades.
- Maintain the V-belt or toothed belt.
- Inspection by a specialist dealer. STIHL recommends STIHL specialist dealers.

 All required maintenance operations on the brake system and gearbox are carried out during the inspection.

15.2 Cleaning the machine



Avoid damage to the machine!

Never spray water (high-pressure cleaner) onto engine components, seals, electrical components (battery, wiring harness, etc.) and bearing points. This may result in damage and expensive repairs.

Do not use aggressive cleaning agents. These cleaners can damage plastics and metals, impairing the safe operation of your STIHL machine. If you are unable to remove the dirt with water using a brush or a cloth, STIHL recommends the use of a special cleaner (e.g. STIHL special cleaner).



Always remove the mowing deck for cleaning and maintenance operations.

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.
- Remove the mowing deck. (⇒ 14.1)
- First, remove accumulated clipping deposits in the mowing deck housing using a stick.
- Clean the underside of the mowing deck with water and a brush.
- When cleaning the upper side of the mowing deck, ensure that the V-belt and toothed belt do not get wet – never spray water into the openings in the covers.

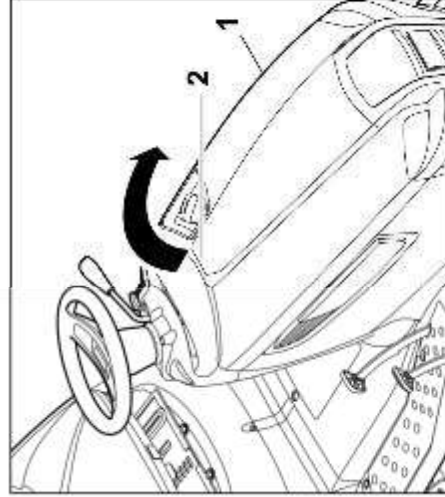
- Clean the discharge chute using running water and a brush when removed and well away from the machine.
- Remove grass residues from the mowing deck (upper and underside), engine compartment and gearbox. Clean the cooling ribs of the engine and gearbox.
- Clean the mowing blades with water and a brush – under no circumstances should you hit the mowing blades (e.g. with a hammer) to loosen dirt.
- Remove the grass catcher box clean using running water and a brush well away from the machine. (⇒ 13.10)

15.3 Opening the engine hood



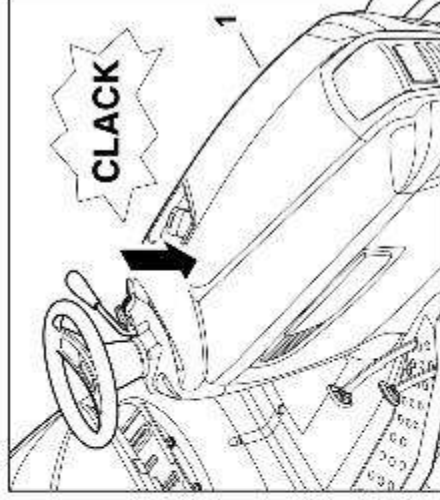
Danger of burns!

Allow the engine to cool down before opening the engine hood.



Hold the engine hood (1) with one hand at the handle (2) and open by pulling gently upwards.
Fold the engine hood (1) forwards to the stop.

15.4 Closing the engine hood



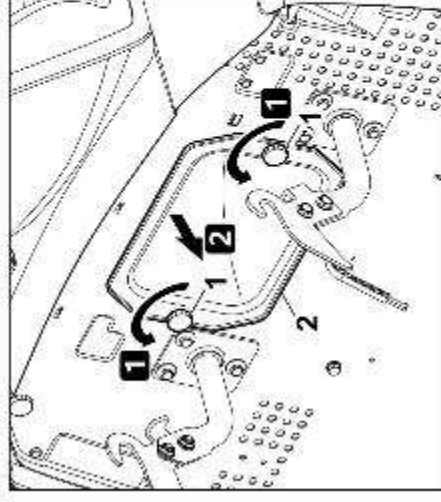
Close the engine hood (1) carefully and slowly and allow to engage.

15.5 Removing the discharge chute

The discharge chute can be removed for cleaning without the use of additional tools. The engine cannot be started when the discharge chute is removed.

The following points must be observed before removal:

- Stop the engine. (⇒ 13.3)
- Remove the ignition key and keep it in a safe place.
- Engage the parking brake. (⇒ 8.14)
- Remove the grass catcher box. (⇒ 13.10)



Unscrew the retaining nuts (1), remove the discharge chute (2).



The "discharge chute removed" symbol appears on the display on the models RT 6112 ZL and RT 6127 ZL when the ignition key is turned to the "lights on" or "ignition on" position. (⇒ 10.5)

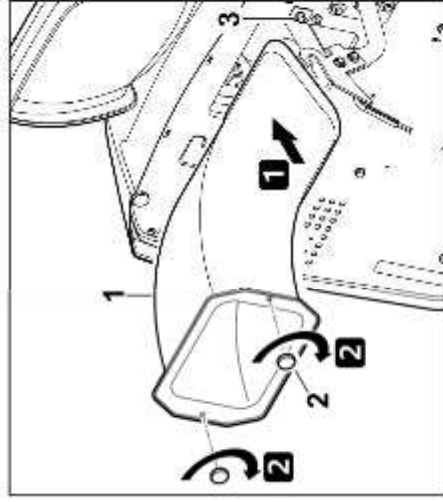
15.6 Installing the discharge chute



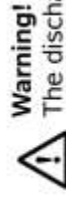
When cleaning the discharge chute or each time it is removed, also check the level sensor (grass catcher box) and clean if necessary.

The following points must be observed before installation:

- Engage the parking brake. (⇒ 8.14)
- Remove the grass catcher box. (⇒ 13.10)
- Select the lowest cutting level.



Push the discharge chute (1) in to the stop. When pushing in, ensure that the discharge chute fits over the discharge opening of the mowing deck on all sides. Screw in the retaining nuts (2) and tighten.



Warning!

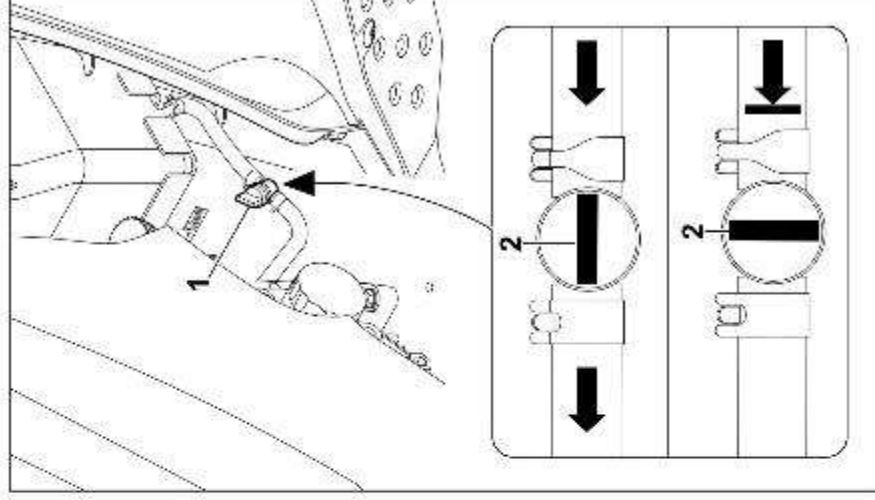
The discharge chute is one of the protective covers. Do not operate the ride-on mower with a damaged discharge chute. When installing the discharge chute, make sure that the switch (3) is actuated.

15.7 Fuel cock

The flow of fuel in the fuel line is enabled or interrupted by opening or closing the fuel cock.

The fuel cock is located on the left under the fuel tank.

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)



The fuel cock (1) is opened and closed by turning the control valve (2).

15.8 Checking the engine oil filling level

- Park the machine on a flat, level surface.
- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Allow the engine to cool down.
- Open the engine hood. (⇒ 15.3)

- Check the filling level as per the engine instruction manual – top up the engine oil if necessary. (⇒ 15.10)

15.9 Changing the engine oil



Risk of injury!

Allow the engine to cool down before topping up the engine oil or before changing the oil. Danger of burns due to hot engine oil.

Information regarding the specified engine oil and oil capacity can be found in the engine instruction manual.

Perform an oil change when the engine is warm to the touch. Place a suitable oil collection container (note engine oil capacity) under the oil drain tube.

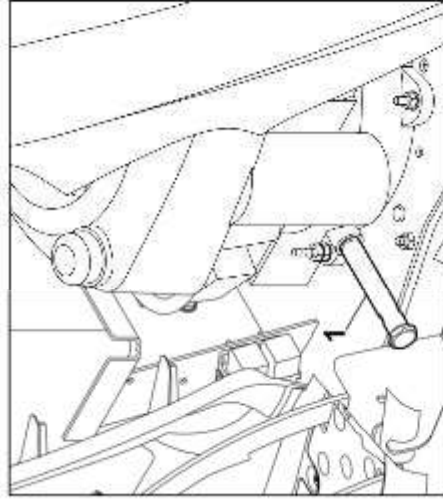
Dispose of used oil in conformance with statutory requirements.

Oil change interval:

The recommended oil change intervals can be found in the engine instruction manual.

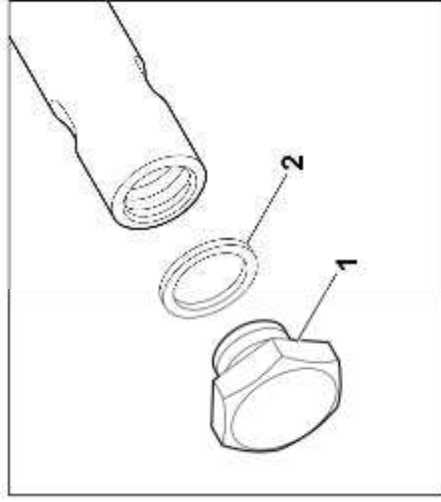
Draining the engine oil:

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.
- Allow the engine to cool down (warm to the touch).
- Open the engine hood. (⇒ 15.3)
- Unscrew the oil cap (see engine instruction manual).



The oil drain tube (1) is located on the right-hand side of the engine, near the two pedals.

- Place a suitable oil collecting container underneath.



Using two spanners (A/F 19/A/F 15), unscrew the oil drain plug (1) and remove. Dispose of the seal ring (2).

- Drain all the engine oil.
Then fit the new seal ring (2) onto the oil drain plug (1). Screw the oil drain plug into the oil drain tube and tighten to **12 - 14 Nm**.

15.10 Topping up engine oil

! Avoid damage to the machine.
Avoid exceeding and falling below the correct engine oil level.

- Open the engine hood. (⇒ 15.3)
- Check the engine oil filling level. (⇒ 15.8)
- Top up the engine oil as per the engine instruction manual – use a suitable funnel.
- Close the engine hood. (⇒ 15.4)

15.11 Checking the safety devices



Risk of injury!

The safety devices must only be checked from the driver's seat. No persons, particularly children, or animals must be in the vicinity. Proper functioning of the safety devices must be checked at least once a month. Following longer periods without use, for low-use machines or after repairs, always check all safety devices before using again.

Checking the brake switch:

- Sit on the driver's seat.
- Stop the engine and allow it to come to a standstill. (⇒ 13.3)
- Release the parking brake and do **not** actuate the brake pedal.
- Turn the ignition key to the "start engine" position. (⇒ 8.1)

The engine cannot be started when the brake switch is functioning correctly.

Checking the seat switch:

- Sit on the driver's seat.
- Start the engine (⇒ 13.2) and allow it to run at maximum speed. (⇒ 8.2), (⇒ 8.3)
- Engage the mowing deck. (⇒ 8.5), (⇒ 8.6)
- Relieve the weight on the driver's seat by standing up slowly and carefully. Do not dismount!

The engine will be switched off if the seat switch is functioning.

Checking the grass catcher box switch:

- Sit on the driver's seat.
- Start the engine (⇒ 13.2) and allow it to run at maximum speed. (⇒ 8.2), (⇒ 8.3)
- Engage the mowing deck. (⇒ 8.6), (⇒ 8.6)
- From the driver's seat, tilt (empty) the grass catcher box upwards using the grass catcher box emptying lever. (⇒ 13.9)

The engine will be switched off and the mowing deck disengaged if the grass catcher box switch is functioning.

Checking the discharge chute switch:

- Remove the discharge chute (⇒ 15.5) and then attach the grass catcher box again. (⇒ 13.10)
- Sit on the driver's seat.

- Press the brake pedal to the stop and hold. (⇒ 8.13)
- Turn the ignition key to the "start engine" position. (⇒ 8.1)

The engine cannot be started when the discharge chute switch is functioning correctly.

Checking the reverse mowing safety switch:

- Sit on the driver's seat – do **not** press the reverse mowing safety switch.
- Start the engine (⇒ 13.2) and allow it to run at maximum speed.
- Engage the mowing deck. (⇒ 8.2), (⇒ 8.3)
- Engage the mowing deck. (⇒ 8.5), (⇒ 8.6)
- Select reverse driving direction and drive off. (⇒ 8.9)

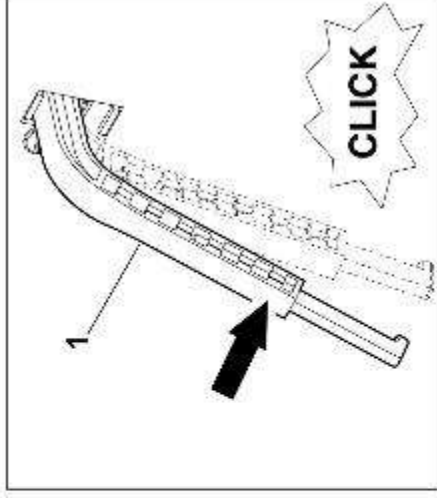
If the reverse mowing safety switch is functioning, the mowing deck will be disengaged after 1 second.

15.12 Cleaning the level sensor (grass catcher box)

The level sensor (grass catcher box) may become soiled when mowing wet or moist grass. This results in impaired function.

By way of prevention, clean the level sensor following each mowing operation or each time the discharge chute is cleaned.

- Stop the engine. (⇒ 13.3)
- Remove the ignition key and keep it in a safe place.
- Engage the parking brake. (⇒ 8.14)
- Remove the grass catcher box. (⇒ 13.10)



Using slight pressure, press the level sensor (grass catcher box) (1) downwards. When doing so, it must move easily and a quiet "clicking" of the switch must be audible.

After the level sensor is released, it must automatically return upwards to the initial position.

- If the level sensor does not move easily or is dirty, carefully clean it using a brush – do not use water.

15.13 Mowing blade maintenance



Risk of injury!

Always wear gloves.

If you do not have the necessary expertise or auxiliary equipment, please **always** contact a specialist dealer (STIHL recommends STIHL specialist dealers).

Never touch the mowing blades before they have come to a standstill.

Always set down the mowing deck on a non-slip surface.

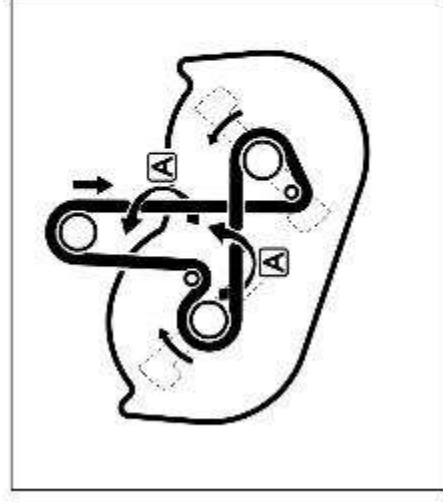
Maintenance interval:

Every 25 operating hours

Maintenance operations:

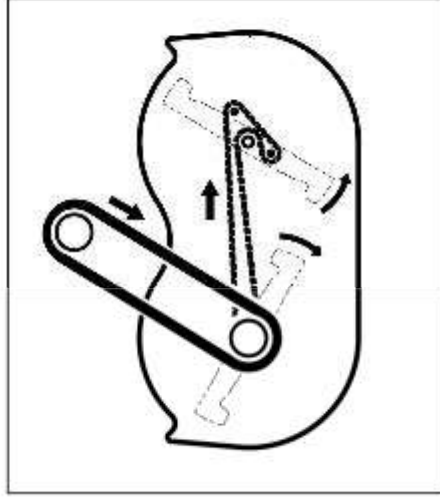
- Check the mowing blade wear limits.
- RT 5112 Z, RT 6112 ZL, RT 6127 ZL: Check the installation position of the mowing blades.
- Sharpen or replace the mowing blades if necessary (poor mowing result).

Routing of the V-belt and rotational direction of the mowing blades on the models RT 5097, RT 5097 Z:



The V-belt is twisted through 180° due to the double diversion at the positions **A**.

Routing of the V-belt or toothed belt and rotational direction of the mowing blades on the models RT 5112 Z, RT 6112 ZL, RT 6127 ZL:



i Maintenance and checking of toothed belts must only be carried out by STIHL specialist dealers.

Checking the mowing blade wear limits:



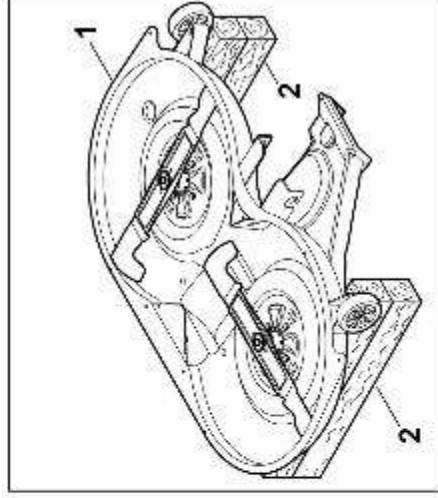
Risk of injury!
A worn mowing blade may break off and cause serious injuries. The instructions for blade maintenance must therefore always be observed. Mowing blades are subject to differing degrees of wear depending on the location and duration of use. If you use the machine on sandy ground or use it frequently under dry conditions, the mowing blade will be subjected to greater loads and will wear more quickly than normal.

Caution!

Always replace the **blade fastening screw** and the **retaining washer** when replacing the mowing blade.

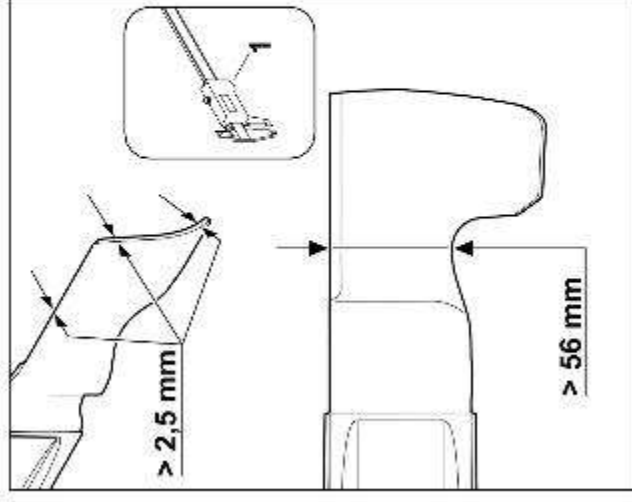
i STIHL recommends removing the mowing deck if the wear limits need to be checked. If a suitable lifting platform is available, the mowing blade wear limits can also be checked with the mowing deck installed.

- Remove the mowing deck. (⇒ 14.1)



Turn over the mowing deck (1) and set down with the blades facing upwards on wooden supports (2) approx. 20 cm high and sufficiently long.

- Carefully clean the mowing deck and mowing blades. (⇒ 15.2)



The mowing blades must be at least **2.5 mm** thick and at least **56 mm** wide at their narrowest point.

Check the **blade thickness** of the two mowing blades using a slide calliper (1) at several points. Check the **blade width** at the point shown, again using a slide calliper (1).

Replace the mowing blades if any of the measured points no longer meet the specified values.

Checking the installation position of the mowing blades (RT 5112 Z, RT 6112 ZL, RT 6127 ZL):



Risk of injury!

The mowing blades must be installed offset at an angle of approx. 90° to each other to prevent them touching during mowing.

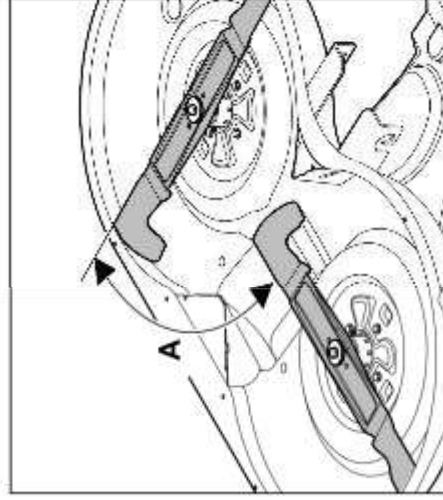
The mowing deck must not be engaged if the angle of the blades relative to each other is not as specified.

If necessary consult a specialist dealer. STIHL recommends STIHL specialist dealers.



STIHL recommends removing the mowing deck if the installation position needs to be checked. If a suitable lifting platform is available, the installation position of the mowing blades can also be checked with the mowing deck installed.

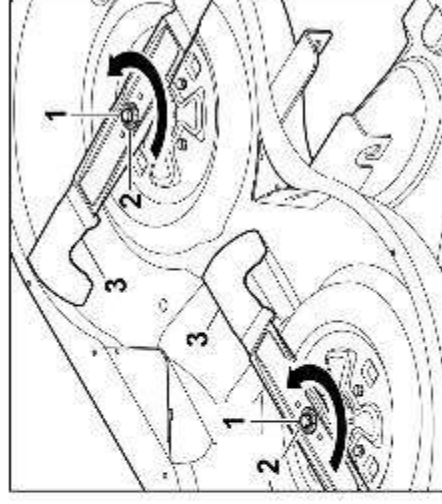
- Set down the mowing deck on two suitable wooden supports if necessary.



Turn the mowing blades as shown and check the angle **A** (approx. 90°) of the blades relative to each other.

Removing the mowing blades:

- Remove the mowing deck. (⇒ 14.1)
- Set down the mowing deck on suitable wooden supports.



Loosen and remove the blade fastening screw (1) using an A/F 17 spanner (not included in standard equipment).

Counterhold the mowing blade when loosening the blade fastening screw.

Remove the blade fastening screw (1) with the retaining washer (2) and mowing blade (3).

Sharpening the mowing blades:



Risk of injury!

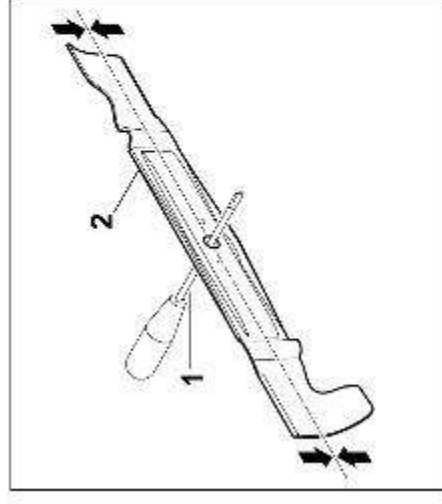
Always wear safety glasses and gloves when sharpening.

- Cool the mowing blades when sharpening, e.g. with water. The blades must not be allowed to display blue colouring, as this would reduce their cutting quality.

- Sharpen blades evenly to prevent vibration due to imbalance.

- Observe a cutting angle of 30°.
- Observe the wear limits when sharpening.

Checking the balance of the mowing blades:



Insert a screwdriver (1) through the central bore.

When the mowing blade (2) is properly balanced, it must balance in the position illustrated.



Risk of injury!

If the mowing blade does not balance, the sharpening procedure must be repeated until the blade is balanced.

The mowing blade may only be balanced by means of sharpening back the cutting edges.

Installing the mowing blade:



Risk of injury!

Before installing, check the mowing blade for damage (notches or cracks) and wear. Worn or damaged mowing blades must be replaced.

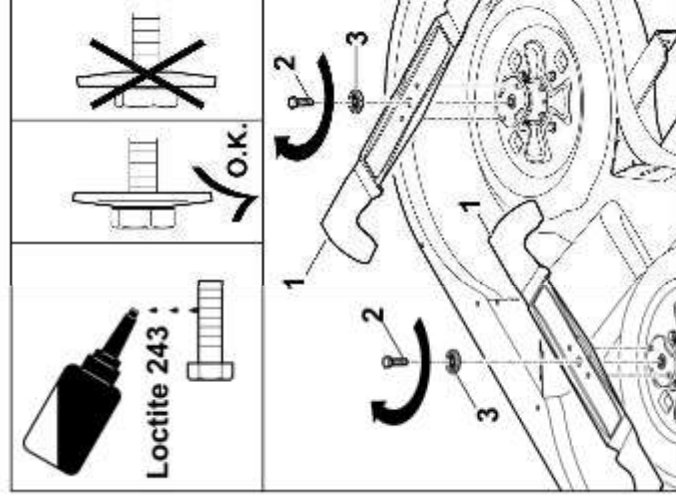
Replace the retaining washer each time the blade is installed.

Additionally secure the blade fastening screw with **Loctite 243**.

Observe the specified torque of

65 - 70 Nm when tightening the blade fastening screws, as the secure attachment of the cutting tool depends on this.

- Install the mowing blade with the curved vanes pointing upwards (towards the mowing deck).



Fit the mowing blade (1), screw in the blade fastening screw (2 – apply **Loctite 243**) with retaining washer (3 – observe convexity) and tighten to a torque of **65 - 70 Nm**. Counterhold the mowing blade when tightening the blade fastening screw.

- RT 5112 Z, RT 6112 ZL, RT 6127 ZL: Check the installation position of the mowing blades.

15.14 Checking the installation position of the mowing deck

Maintenance interval:

Every 50 operating hours or as required (e.g. following severe impacts to the mowing deck or a poor cut).

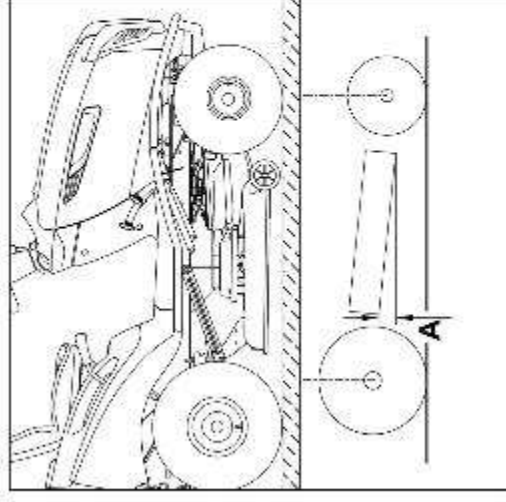


Uniform tyre pressure is a prerequisite for checking the correct installation position.

Therefore check the tyre pressure of all the tyres and adjust if necessary before checking the installation position. (→ 15.16)

The mowing deck is in the correct installation position when it is tilted slightly forwards – the front of the mowing deck is slightly lower than the rear.

- Park the machine on level ground.
- Stop the engine. (→ 13.3)
- Engage the parking brake. (→ 8.14)
- Remove the ignition key and keep it in a safe place.
- Select the lowest cutting level. (→ 8.15)



Difference in height **A = 10 mm**.

15.15 Changing the wheels

In the case of damage (holes, cracks, cuts, etc.) to the wheels, remove the damaged wheel and take it to a specialised dealer.

Lifting and supporting the machine:



Risk of injury!

Bear in mind the heavy weight of the machine when lifting it (see section "Technical specifications"). (→ 22.)

If necessary, lift the machine with the help of a second person or using a jack (not included in the standard equipment). Secure the machine against rolling away before lifting.

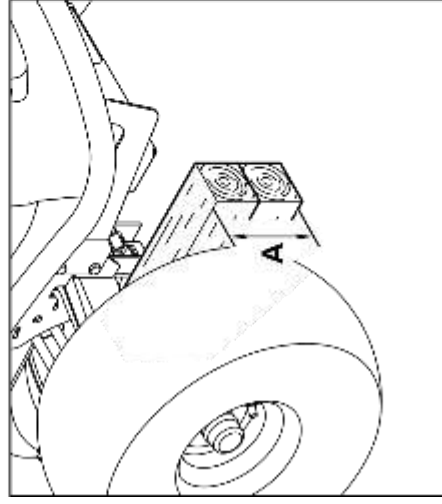
The brake only acts on the rear wheels. Secure the machine against rolling away when lifting the rear axle.

**Avoid damage to the machine**

When supporting, ensure that only the axle or the rear panel of the machine contacts the trailer coupling.

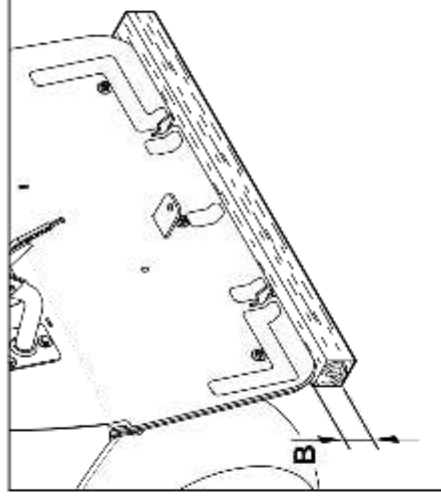
Only lift the machine at suitable components (e.g. frame, rims, axle). Never lift or support the machine at plastic parts.

- Park the machine on firm and level ground and secure it against rolling away.
- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.



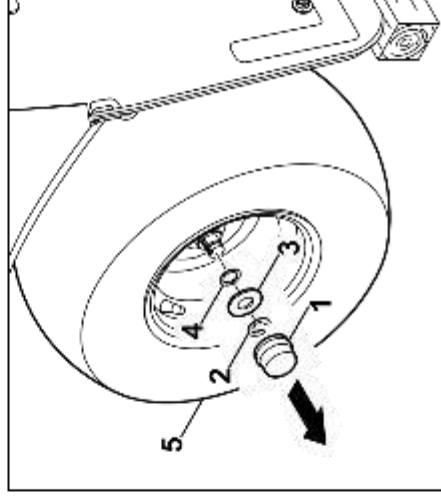
To relieve the weight on the **front wheels**, support the ride-on mower at the front axle:

A = at least **260 mm**



To relieve the weight on the **rear wheels**, support the ride-on mower at the rear panel:

B = at least **120 mm**

Removing the wheel:

Remove the cap (1). Remove the retaining ring (2) using a screwdriver.

Pull the large washer (3) and small washer (4 – on the rear wheel only) together with the wheel (5) off the wheel axle.

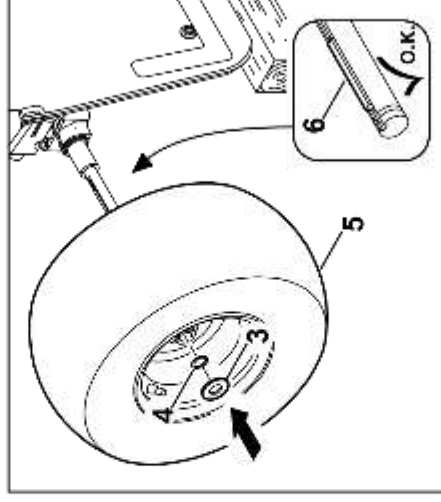
**Avoid damage to the machine.**

When removing the rear wheels, ensure that the couplers (feather keys) are not lost.

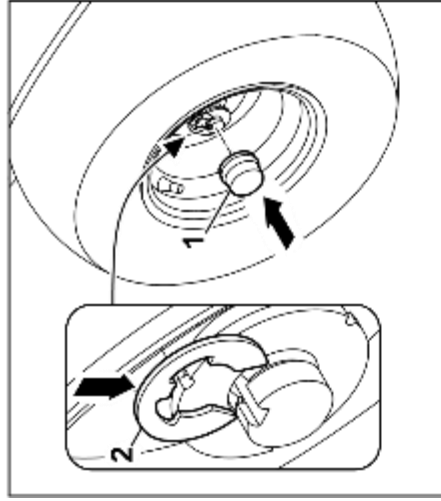
Installing the wheel:**Avoid damage to the machine.**

Before installing the rear wheels, ensure that the couplers (feather keys) are correctly positioned in the groove of the wheel axle.

- Remove dirt from the wheel axle.
- Lightly coat the wheel axle with grease before installation.



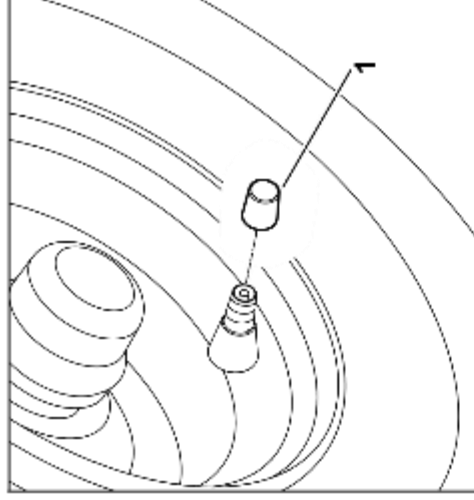
Insert the feather key (6) in the rear wheel axle. Push the wheel (5 – valve facing outwards) with the small washer (4 – on the rear wheel only) and the large washer (3) onto the wheel axle.



Allow the retaining ring (2) to engage in the groove on the wheel axle.
Fit the cap (1) onto the wheel axle.

15.16 Tyre pressure

i Correct tyre pressure is an important prerequisite for alignment of the mowing deck and consequently for a clean cutting pattern.
Moreover, the turf may be damaged by the tyre studs in the case of excessively high tyre pressure.



Remove the cap from the valve (1). Inflate the tyres to the following tyre pressures using a suitable air pump with pressure gauge:

Front tyres: 0.8 – 1.0 bar

Rear tyres: 0.6 – 0.8 bar

15.17 Lubrication

Lubricate the two front steering knuckles via the two grease nipples on the front axle.

i Note

Before lubricating, the front axle must be unloaded by supporting appropriately.

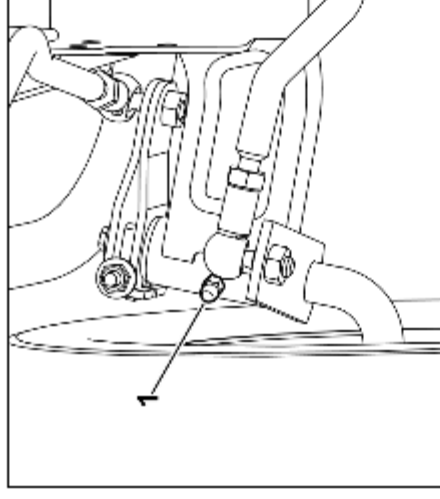
The grease nipple must be cleaned before lubricating, so that no dirt enters the steering knuckle.
Escaping grease should always be removed (wiped off) after lubricating.

Use commercially available lubricating grease.

Lubricating:

- Stop the engine. (⇒ 13.3)

- Remove the ignition key and keep it in a safe place.
- Engage the parking brake. (⇒ 8.14)
- Unload the front axle by supporting (lifting) it. (⇒ 15.15)



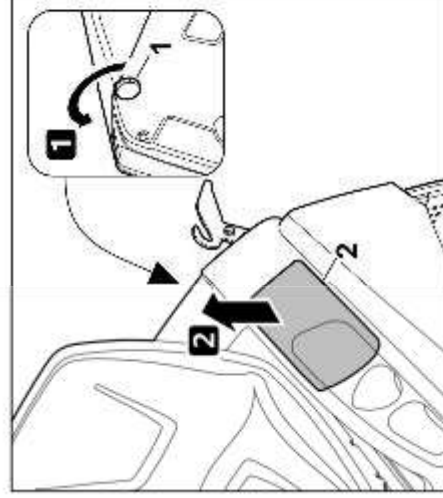
Using a grease gun (not included in standard equipment), inject grease on both sides via grease nipples (1) until small amounts of grease escape from the steering knuckles.

- Remove escaping lubricating grease.
- Remove support for the front axle.

15.18 Opening and closing the battery compartment

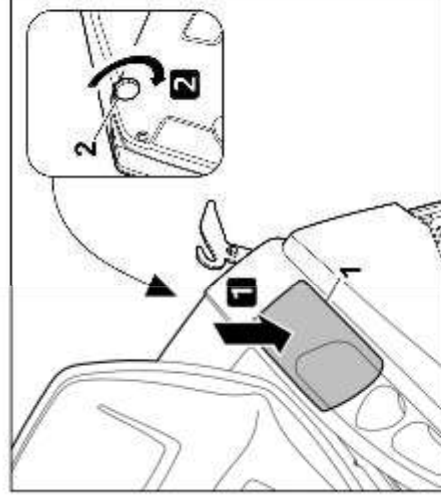
- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.
- Remove the grass catcher box. (⇒ 13.10)

Opening the battery compartment:



Unscrew the retaining nut (1) and remove the battery compartment cover (2) forwards.

Closing the battery compartment:



Position the battery compartment cover (1) as shown and fasten using the retaining nut (2).

15.19 Removing and installing the battery



Risk of injury!

Always remove the black negative (-) cable first and only then, the red positive (+) cable. When connecting the battery, always connect the red positive (+) cable first.

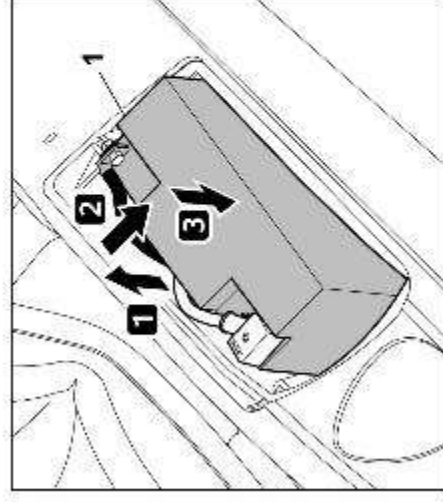


The battery is maintenance free and must only be replaced if it is damaged and must be removed in the case of prolonged immobilisation (e.g. winter break) or disposal of the machine.

Do not dispose of the battery with domestic waste, but hand it in to a specialist dealer or at a hazardous waste collection point.

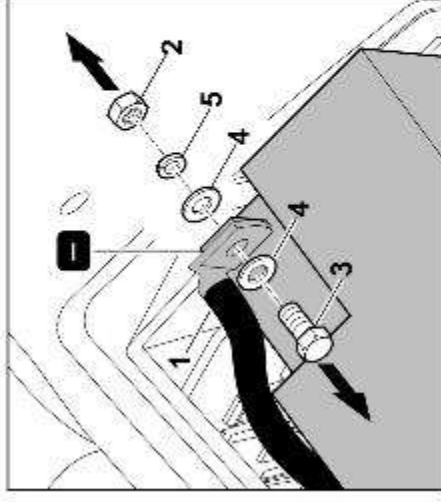
- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.
- Open the battery compartment. (⇒ 15.18)

Installation position:

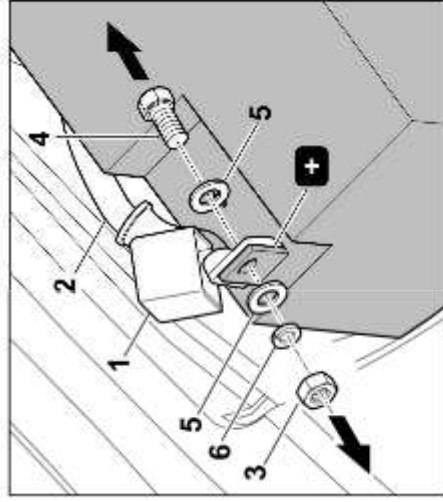


To connect or disconnect the battery (1), pull it halfway out of the battery compartment and tilt sideways. Then guide the battery downwards once more and set down – check for secure position.

Disconnecting the battery:



Disconnect black cable (1) from the battery negative (-) terminal by unscrewing nut (2) using two A/F 8 spanners and removing together with bolt (3), washers (4) and spring washer (5).



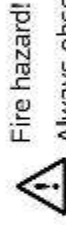
Detach cap (1). Disconnect red cable (2) from the battery positive (+) terminal by unscrewing nut (3) using two A/F 8 spanners and removing together with bolt (4), washers (5) and spring washer (6).

- Remove the battery if necessary.
- Attach the bolts, washers and nuts to the battery terminals for safe keeping.
- If necessary, stow the connection cables in the battery compartment and close the battery compartment. (⇒ 15.18)

Connecting the battery:

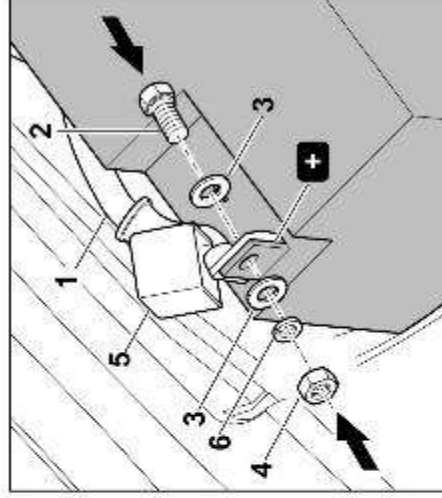
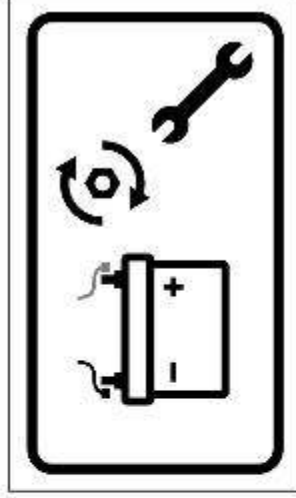
i Check the charge state of the battery before installing it. If the voltage is lower than **11.5 V**, recharge the battery using a suitable battery charger before installation.

- Move the battery into the assembly position.
- If necessary, remove the bolts, washers and nuts from the battery.

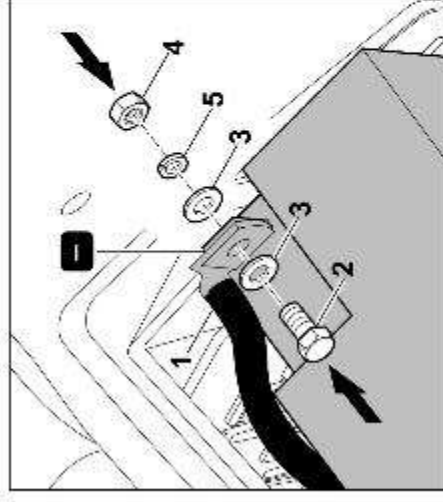


Fire hazard!

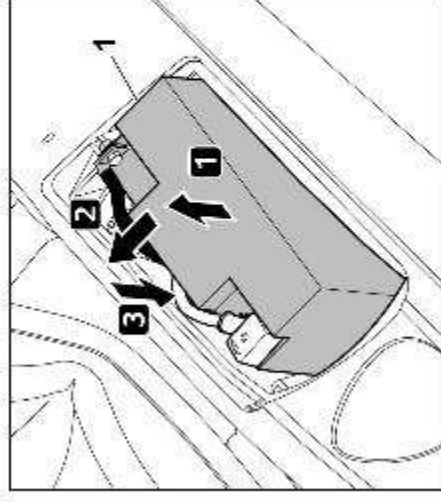
Always observe the specified torque. Make sure that the bolt connections at the terminals are always tightened to avoid damage due to sparking.



Attach red cable (1) to the battery positive (+) terminal using bolt (2), washers (3), spring washer (4) and nut (4). Tighten the bolt connection to **6 - 8 Nm** using two wrenches A/F 8. Fit cap (5) to completely cover the bolt connection.



Attach black cable (1) to the battery negative (-) terminal using bolt (2), washers (3), spring washer (4) and nut (4). Tighten the bolt connection to **6 - 8 Nm** using two wrenches A/F 8.



Lift the battery (1) and tilt inwards slightly. Carefully insert the battery, making sure that the two connection cables are properly stowed in the battery compartment.

- Close the battery compartment. (⇒ 15.18)

15.20 Fuses



Fire hazard!

Never bypass the fuses with wire or foil.

Never use a fuse with a value that differs from the specified rating (amperes).



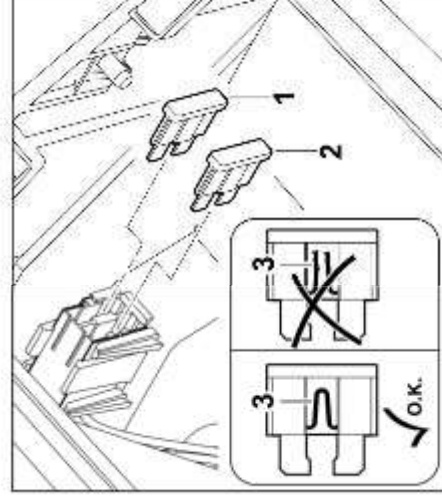
If a new fuse blows within a short time, an electrical fault (e.g. short circuit) is the probable cause.

We recommend that you consult a specialist dealer. STIHL recommends STIHL specialist dealers.

Checking the plug-in fuses:

The plug-in fuses are located in the battery compartment.

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Remove the ignition key and keep it in a safe place.
- Open the battery compartment. (⇒ 15.18)



Remove the plug-in fuses (1,2). Visually check whether the wire (3) in the plastic is damaged (burnt through).

Replace damaged fuses.

Charging device (1): 15 A

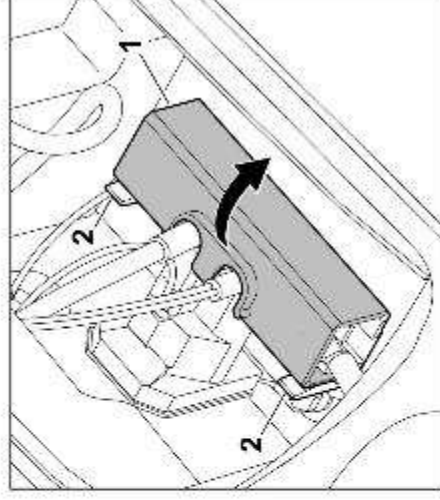
Electrics (2): 10 A

- Close the battery compartment. (⇒ 15.18)

Checking the main fuse:

The main fuse (150 amps) is located behind the battery.

- Remove the battery. (⇒ 15.19)

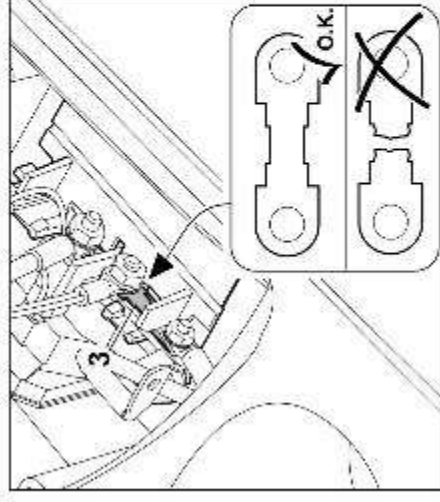


Open the cover (1) by lightly pressing the tabs (2) to the rear.

15.21 Charging the battery using the charger plug

The STIHL ACB 010 battery float charger or the STIHL ADL 012 diagnostic charger (neither included in standard equipment) can be connected.

Only float charging can be performed with the STIHL ACB 010 battery float charger. Both float charging and full charging (charging an empty battery) can be performed with the ADL 012 diagnostic charger.



Visually check whether the fuse (3) is damaged (blown). If necessary have the fuse (3) replaced by a specialist dealer. STIHL recommends STIHL specialist dealers.

- Close the cover again.
- Install the battery. (⇒ 15.19)



Avoid damage to the machine!

Never charge the battery when the engine is running.

Only the STIHL ACB 010 battery float charger or the STIHL ADL 012 diagnostic charger may be connected to the charger plug.

Other chargers, particularly those with a higher charging current, can damage the machine.

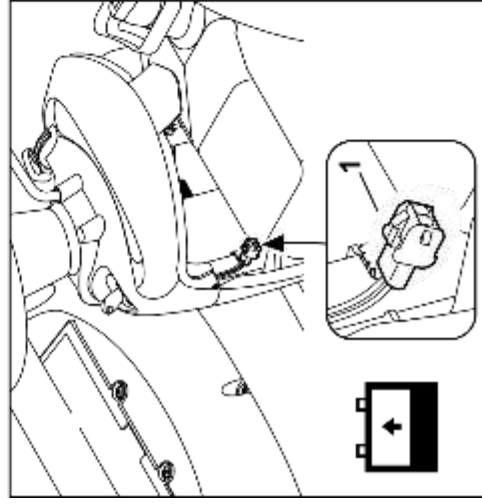
In order to charge the battery using another charger, it must first be removed.

Before connecting:

- Read and observe the information in the instruction manuals for the STIHL chargers.
- Read and observe the instructions in the battery supplementary sheet.

Connecting:

- Stop the engine. (⇒ 13.3)
- Engage the parking brake. (⇒ 8.14)
- Open the engine hood. (⇒ 15.3)



Only connect the STIHL ACB 010 battery float charger or the STIHL ADL 012 diagnostic charger to the charger plug (1).

15.22 Replacing headlamp bulbs

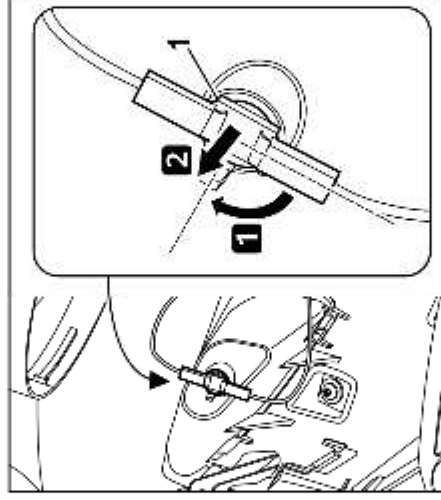


When replacing defective lamp bulbs, always use 12V bulbs rated at 6W.

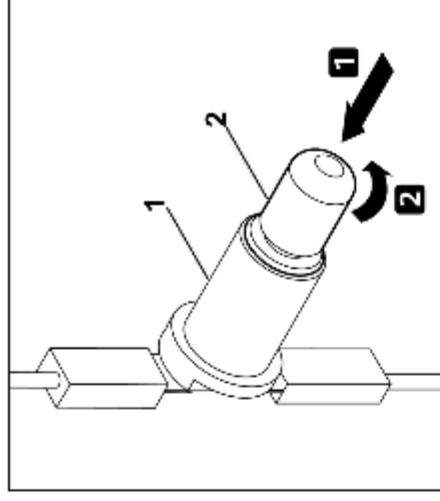
Bulb designation:

12V 6W BA9s

- Open the engine hood. (⇒ 15.3).

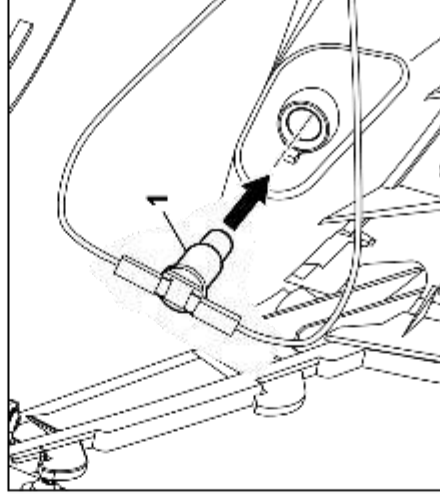


Turn the socket (1) through approx. 90° and it pull out.



Press the bulb (2) in the direction of the socket (1) and hold. Carefully turn the bulb (2) and remove.

- Install the bulb in reverse order.



Push the socket (1) into the headlamp housing.

- Close the engine hood. (⇒ 15.4)

15.23 Combustion engine

Observe the operating and maintenance instructions contained in the attached engine instruction manual.

To achieve a long service life, it is always particularly important to maintain a sufficient level of oil and to change the engine oil and air filter regularly.

15.24 Gearbox

For the user, the gearbox is maintenance-free.
During the inspections of the machine by the specialist dealer, the required maintenance operations are performed on the gearbox.

15.25 Storage

- Store the machine in a dry and dust-free room out of reach of children and unauthorised persons.
- Any machine faults must be remedied prior to storage in order to maintain a safe operating condition.
- Close the fuel cock. (⇒ 15.7)
- Remove the ignition key and keep in a place where no unauthorised persons, especially children, can access it.

15.26 Extended periods of inoperation (e.g. winter break)

- Clean the entire machine fully. In particular, also carefully clean all external parts of the engine and gearbox (especially the cooling ribs).
- Thoroughly lubricate/grease all moving parts.
- Remove the fuel from the fuel tank and carburettor (e.g. by running empty).
- Engage the parking brake. (⇒ 8.14)

- Observe the information on immobilisation in the engine instruction manual.
- Perform an engine oil change (engine instruction manual). (⇒ 15.9)
- Remove the battery. (⇒ 15.19)
- Store the fully charged battery safely in a cool and dry room out of reach of children.

15.27 Following storage for extended periods (e.g. over winter)

- Check the battery voltage before installing the battery. If the battery voltage is lower than **11.5 V**, fully recharge the battery using a battery charger before installation. (⇒ 15.21)
- Install the battery. (⇒ 15.19)
- Check the tyre pressures. (⇒ 15.16)
- Open the fuel cock. (⇒ 15.7)
- Fill the fuel tank. (⇒ 13.1)
- Check the engine oil filling level. (⇒ 15.8)

16. Transport



Risk of injury!

Before transporting, carefully read and observe the section "For your safety", in particular the subsection "Transporting the ride-on mower". (⇒ 4.1), (⇒ 4.3)

Drive slowly and with particular caution on loading ramps, ensuring that the wheels do not drive over the edges of the loading ramps – **danger of falling!**

Do not change speed or direction abruptly.



On public roads, the machine may only be transported by means of a suitable vehicle or trailer. **Do not tow!**

- Before loading, select the highest cutting level. (⇒ 13.6)
- Support the trailer at the front so that it cannot tilt up due to the weight of the machine.
- Use a suitable lifter or suitable and stable loading ramps of sufficient width for loading the machine.
- Position the loading ramps safely and secure – observe the wheel base and track width of the ride-on mower. (⇒ 22.1)
- Ensure an even distribution of the load on trailers.
- After loading, select the lowest cutting level. (⇒ 13.6)
- Stop the engine. (⇒ 13.3)
- Push the machine fully forward until the bumper contacts the front wall of the trailer or vehicle.

- Engage the parking brake. (⇒ 8.14)
- Close the fuel cock. (⇒ 15.7)
- Fasten the front bumper of the machine to the front wall of the trailer or vehicle using suitable fastening material (straps, ropes, etc.), apply forward tension and secure.
- Place additional wedges (not included in standard equipment) at the wheels to prevent the machine from inadvertently rolling away.

17. Standard spare parts

Blade fastening screw:

9010 345 2430

Spring washer:

0000 702 6600

RT 5097:

Mowing blade, right:

6160 702 0115

Mowing blade, left:

6160 702 0110

RT 5097 Z:

Mowing blade, right:

6160 702 0105

Mowing blade, left:

6160 702 0100

RT 5112 Z, RT 6112 ZL:

Mowing blade, right:

6170 702 0135

Mowing blade, left:

6170 702 0130

RT 6127 ZL:

Mowing blade, right:

6170 702 0145

Mowing blade, left:

6170 702 0140



Replace the spring washer each time the blade is installed and the blade fastening screw each time the blade is replaced. Spare parts are available from a STIHL specialist dealer.

18. Accessories

Additional accessories are available for the machine.

Further information is available from your STIHL specialist dealer, on the internet (www.stihl.com) or in the STIHL catalogue.



For safety reasons, only accessories approved by STIHL may be used with the machine.

19. Environmental protection



Lawn clippings should be composted and not disposed of in household waste.

The machine, its packaging and accessories are all produced from recyclable materials and must be disposed of accordingly.

By disposing of materials separately and in an environmentally friendly manner, recyclable waste can be re-used. For this reason, the machine should be disposed of for recycling at the end of its useful life. Improper disposal may be harmful to health and pollute the environment.

Waste products such as used oil (engine oil, gearbox oil), fuel and batteries must always be disposed of properly. Observe local regulations.

Remove the battery before disposing of the machine.

Do not dispose of the battery with domestic waste, but hand it in to a specialist dealer or at a hazardous waste collection point.

Consult your recycling centre or your specialist dealer for information on the proper disposal of waste products. STIHL recommends STIHL specialist dealers.

20. Minimising wear and preventing damage

Important information on maintenance and care of the product group

lawn mower with driver's seat and combustion engine (STIHL RT)

STIHL assumes no liability for material or personal damage caused by the non-observance of information contained in the operating instructions, in particular with regard to safety, operation and maintenance, or which arise through the use of unauthorised attachment or spare parts.

Please always observe the following important information for the prevention of damage or excessive wear to your STIHL machine:

1. Wearing parts

Some parts of the STIHL machine are subject to normal wear even when used properly and must be replaced in due time depending on type and duration of use.

These include:

- Mowing blades
- Grass catcher box
- V-belt
- Toothed belt

- Plug-in fuses
- Battery
- Tyres, rollers
- Spark plug

2. Compliance with the information in this instruction manual

The STIHL machine must be used, maintained and stored with the care described in this instruction manual. Any damage caused by non-compliance with the safety, operating and maintenance instructions is the sole responsibility of the user.

This applies in particular to:

- Improper use of the product.
- Use of fuel and lubricants not approved by STIHL (lubricants, petrol and engine oil, see engine manufacturer's specifications).
- Product modifications not approved by STIHL.

- Use of tools or accessories which are not approved or suitable for the machine, or are of inferior quality.
- Use of the product for sporting or competitive events.
- Resultant damage due to continued use of the product with defective components.

3. Maintenance operations

All operations listed in the section "Maintenance" must be performed regularly.

If these maintenance operations cannot be carried out by the user, a specialist dealer must be commissioned to perform them.

STIHL recommends that you have maintenance operations and repairs performed exclusively by a STIHL specialist dealer.

STIHL specialist dealers regularly attend training courses and are provided with technical information.

If these operations are neglected, faults may arise which are the responsibility of the user.

These include:

- Corrosive and other resultant damage caused by incorrect storage.
- Damage to the machine through the use of inferior-quality spare parts.
- Damage due to untimely or inadequate maintenance or damage due to maintenance or repair work not performed in the workshops of specialist dealers.

21. Declaration of conformity

21.1 EU declaration of conformity –

STIHL RT 5097.1, RT 5097.1 Z, RT 5112.1 Z, RT 6112.1 ZL, RT 6127.1 ZL ride-on mower

STIHL Tirol GmbH

Hans Peter Stihl-Strasse 5

6336 Langkampfen

Austria

declares under our sole responsibility that

- design: ride-on mower
- manufacturer's brand: STIHL
- type: RT 5097.1, RT 5097.1 Z, RT 5112.1 Z, RT 6112.1 ZL, RT 6127.1 ZL

- cutting width, RT 5097.1, RT 5097.1 Z: 95 cm
- cutting width, RT 5112.1 Z, RT 6112.1 ZL: 110 cm
- cutting width, RT 6127.1 ZL: 125 cm

– serial number:

RT 5097.1, RT 5097.1 Z, RT 5112.1 Z: 6160

RT 6112.1 ZL, RT 6127.1 ZL: 6170

complies with the relevant provisions of Directives 2000/14/EC, 2006/42/EC, 2014/30/EU and 2011/65/EU and has been developed and manufactured in accordance with the versions of the following standards valid on the date of manufacture: EN ISO 14982, EN ISO 5395-1 and EN ISO 5395-3.

Notified body involved:

TÜV Rheinland LGA Products GmbH
Tillystrasse 2

90431 Nuremberg, Germany

The measured and guaranteed sound power levels were determined in accordance with Directive 2000/14/EC, Appendix VIII.

RT 5097.1, RT 5097.1 Z

- Measured sound power level: 99,7 dB(A)

- Guaranteed sound power level: 100 dB(A)

RT 5112.1 Z, RT 6112.1 ZL

- Measured sound power level: 99,8 dB(A)

- Guaranteed sound power level: 100 dB(A)

RT 6127.1 ZL

- Measured sound power level: 104,5 dB(A)

5112.1 Z, RT 6112.1 ZL

Measured sound power level:

99,8 dB(A)

Guaranteed sound power level:

100 dB(A)

6127.1 ZL

Measured sound power level:

104,5 dB(A)

Guaranteed sound power level:

105 dB(A)

Technical documents are stored at

ihl Tirol GmbH.

One year of manufacture and machine

number are indicated on the ride-on

power.

Engkampfen, 01.07.2022

ihl Tirol GmbH

D.

U. Flecken

Matthias Fleischer, Vice President Product

development

D.

Zimmermann für

Ben Zimmermann, Director Quality

management

EN

ES

PT

EL

22. Technical specifications

RT 5097.1, RT 5097.1 Z, RT 5112.1 Z, RT 6112.1 ZL, RT 6127.1 ZL:

Engine, design	4-stroke combustion engine
Fuel tank	9 l
tarter	Electric
Battery type	start/ignition key
– Rated voltage	Lead/gel
Cutting tool	12 V
Tightening torque for blade fastening screws	2 cutter bars
Self-propulsion, rear wheels	65 - 70 Nm
	Infinitely variable forward/infinately variable reverse
RT 5097.1:	
Serial number	6160
Engine type	EVC 4000
Displacement	452 ccm
Nominal output at nominal speed	8,2 - 2700 kW - rpm
Output speed	2700 rpm
Cutting width	95 cm
Cutter bar drive	Asynchronous
Cutting height	8 settings
	30 - 100 mm
Wheel dimensions (front), tyre pressure	15x6.00-6, 0,8 - 1,0 bar
Wheel dimensions (rear), tyre pressure	18x8.50-8, 0,6 - 0,8 bar
Grass catcher box capacity	250 l

RT 5097.1:

Weight with mowing deck and empty grass catcher box	228 kg
Measurement in accordance with 2000/14/EC / S.I. 2001/1701:	
Guaranteed sound power level L_{WA}	100 dB(A)
Uncertainty K_{WA}	0,7 dB(A)
Measurement in accordance with EN ISO 5395-3:	
Sound pressure level at workplace L_{pA}	86 dB(A)
Uncertainty K_{pA}	2 dB(A)
Measurement in accordance with EN ISO 5395-3, EN 1032:	
Vibration at seat (whole-body acceleration) a_w	0,98 m/s ²
Uncertainty K_w	0,49 m/s ²
Measurement in accordance with EN ISO 5395-3, EN 20643:	
Vibration at steering wheel a_{hw}	2,60 m/s ²
Uncertainty K_{hw}	1,30 m/s ²
Specified vibration characteristic in accordance with EN 12096	

RT 5097.1 Z:

Serial number	6160
Engine type	EVC 7000
Displacement	635 ccm
Nominal output at nominal speed	8,2 - 2700 kW - rpm
Output speed	2700 rpm
Cutting width	95 cm
Cutter bar drive	Asynchronous
Cutting height	8 settings
	30 - 100 mm

RT 5097.1 Z:

Wheel dimensions (front), tyre pressure	15x6.00-6, 0,8 - 1,0 bar
Wheel dimensions (rear), tyre pressure	18x8.50-8, 0,6 - 0,8 bar
Grass catcher box capacity	250 l
Weight with mowing deck and empty grass catcher box	237 kg
Measurement in accordance with 2000/14/EC / S.I. 2001/1701:	
Guaranteed sound power level L_{WA}	100 dB(A)
Uncertainty K_{WA}	0,7 dB(A)
Measurement in accordance with EN ISO 5395-3:	
Sound pressure level at workplace L_{pA}	86 dB(A)
Uncertainty K_{pA}	2 dB(A)
Measurement in accordance with EN ISO 5395-3, EN 1032:	
Vibration at seat (whole-body acceleration) a_w	0,98 m/s ²
Uncertainty K_w	0,49 m/s ²
Measurement in accordance with EN ISO 5395-3, EN 20643:	
Vibration at steering wheel a_{hw}	2,20 m/s ²
Uncertainty K_{hw}	1,10 m/s ²
Specified vibration characteristic in accordance with EN 12096	

RT 5112.1 Z:

Serial number	6160
Engine type	EVC 7000
Displacement	635 ccm
Nominal output at nominal speed	12,2 - 2700 kW - rpm

RT 5112.1 Z:

Output speed	2700 rpm
Cutting width	110 cm
Cutter bar drive	Synchronous
Cutting height	8 settings 30 - 100 mm
Wheel dimensions (front), tyre pressure	15x6.00-6, 0.8 - 1,0 bar
Wheel dimensions (rear), tyre pressure	18x8.50-8, 0.6 - 0.8 bar
Grass catcher box capacity	350 l
Weight with mowing deck and empty	
grass catcher box	258 kg
Measurement in accordance with 2000/14/EC / S.I. 2001/1701:	
Guaranteed sound power level L_{WA}	100 dB(A)
Uncertainty K_{WA}	0.6 dB(A)
Measurement in accordance with EN ISO 5395-3:	
Sound pressure level at workplace L_{pA}	86 dB(A)
Uncertainty K_{pA}	2 dB(A)
Measurement in accordance with EN ISO 5395-3, EN 10332:	
Vibration at seat (whole-body acceleration) a_w	0.98 m/s ²
Uncertainty K_w	0.49 m/s ²
Measurement in accordance with EN ISO 5395-3, EN 20643:	
Vibration at steering wheel a_{hw}	4.40 m/s ²
Uncertainty K_{hw}	2.20 m/s ²
Specified vibration characteristic in accordance with EN 12096	

RT 6112.1 ZL:

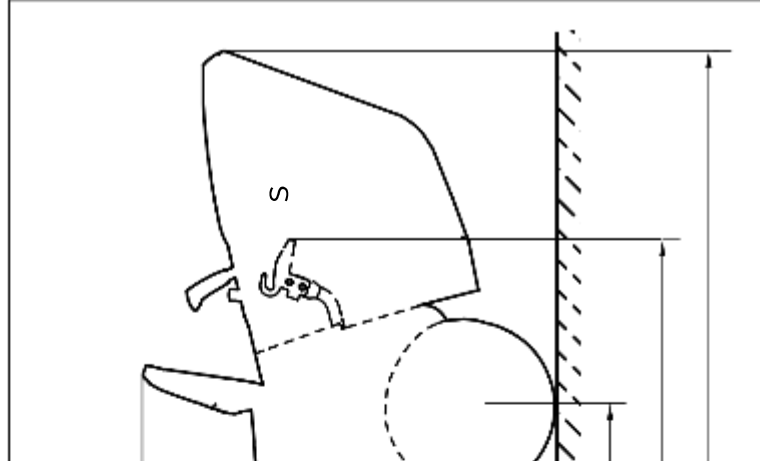
Serial number	6170
Engine type	EVC 7000
Displacement	635 ccm
Nominal output at nominal speed	12,2 -2700 kW - rpm
Output speed	2700 rpm
Cutting width	110 cm
Cutter bar drive	Synchronous
Cutting height	8 settings 30 - 110 mm
Wheel dimensions (front), tyre pressure	16x7.50-8, 0.8 - 1,0 bar
Wheel dimensions (rear), tyre pressure	20x10.00-8, 0.6 - 0.8 bar
Grass catcher box capacity	350 l
Weight with mowing deck and empty	
grass catcher box	268 kg
Measurement in accordance with 2000/14/EC / S.I. 2001/1701:	
Guaranteed sound power level L_{WA}	100 dB(A)
Uncertainty K_{WA}	0.6 dB(A)
Measurement in accordance with EN ISO 5395-3:	
Sound pressure level at workplace L_{pA}	86 dB(A)
Uncertainty K_{pA}	2,0 dB(A)
Measurement in accordance with EN ISO 5395-3, EN 10332:	
Vibration at seat (whole-body acceleration) a_w	0.5 m/s ²
Uncertainty K_w	0.25 m/s ²
Measurement in accordance with EN ISO 5395-3, EN 20643:	

RT 6112.1 ZL:

Vibration at steering wheel a_{hw}	4.40 m/s ²
Uncertainty K_{hw}	2.20 m/s ²
Specified vibration characteristic in accordance with EN 12096	
RT 6127.1 ZL:	
Serial number	6170
Engine type	EVC 8000
Displacement	764 ccm
Nominal output at nominal speed	15,6 - 2950 kW - rpm
Output speed	2950 rpm
Cutting width	125 cm
Cutter bar drive	Synchronous
Cutting height	8 settings 30 - 110 mm
Wheel dimensions (front), tyre pressure	16x7.50-8, 0.8 - 1,0 bar
Wheel dimensions (rear), tyre pressure	20x10.00-8, 0.6 - 0.8 bar
Grass catcher box capacity	350 l
Weight with mowing deck and empty	
grass catcher box	281 kg
Measurement in accordance with 2000/14/EC / S.I. 2001/1701:	
Guaranteed sound power level L_{WA}	105 dB(A)
Uncertainty K_{WA}	0,9 dB(A)
Measurement in accordance with EN ISO 5395-3:	
Sound pressure level at workplace L_{pA}	90 dB(A)
Uncertainty K_{pA}	2,0 dB(A)
Measurement in accordance with EN ISO 5395-3, EN 10332:	

RT 6127.1 ZL:

Vibration at seat (whole-body acceleration) a_w	0,5 m/s ²
Uncertainty K_w	0,25 m/s ²
Measurement in accordance with EN ISO 5395-3, EN 20643:	
Vibration at steering wheel a_{hw}	4,40 m/s ²
Uncertainty K_{hw}	2,20 m/s ²
specified vibration characteristic in accordance with EN 12096	



2 REACH

REACH is an EC Regulation for the registration, evaluation, authorisation and restriction of chemicals.

Information on compliance with the REACH Regulation (EC) No. 1907/2006 is available from www.stihl.com/reach.

23. Troubleshooting

✂ If necessary, contact a specialist dealer; STIHL recommends STIHL specialist dealers.

📖 See engine instruction manual.

Fault:

Starter turns, engine does not start.

Possible cause:

- Throttle lever set to MIN position.
- Choke position (throttle lever) not selected or choke knob not actuated.
- No fuel in tank.
- Fuel cock closed.
- Insufficient flow of fuel.
- Spark plug dirty or damaged.
- Incorrect electrode gap.
- Spark plug socket detached from spark plug.
- Engine flooded due to several starting attempts.
- Clogged air filter.
- Battery almost discharged.

Remedy:

- Set the throttle lever to the MAX position.
- Set the throttle lever to the choke position (⇒ 8.2) or actuate the choke knob. (⇒ 8.4)
- Top up the fuel.
- Open the fuel cock. (⇒ 15.7)
- Check the fuel filter. (📖)
- Clean or replace the spark plug. (📖)
- Adjust the electrode gap. (✂)
- Connect the spark plug socket; check the connection between the ignition lead and socket. (✂)

- Remove the spark plug and dry; set the throttle lever to the MIN position and start several times with the spark plug removed; screw in the spark plug and connect the spark plug socket. (📖)
- Clean the air filter. (📖)
- Check the charge state of the battery and charge the battery if necessary. (⇒ 15.21)

Fault:

Starter not functioning.

Possible cause:

- The safety devices are blocking the starter.
- Battery not or incorrectly connected.
- Battery completely discharged or not sufficiently charged.
- Main fuse (150 A) defective.
- Faulty earth connection to engine or chassis.
- Starter defective.

Remedy:

- Check all the safety devices. (⇒ 12.)
- Check battery connections. (⇒ 15.19)
- Charge the battery. (⇒ 15.21)
- Replace the main fuse. (✂)
- Check the connection cables at the battery and at the chassis. (✂)
- Repair the starter. (✂)

Fault:

Starting problems or deteriorating engine power.

Possible cause:

- Water in fuel tank and carburettor; carburettor is blocked.
- Contaminated fuel tank.
- The air filter is dirty.
- Dirty spark plug.

- Mowing grass which is too long or too wet.

Remedy:

- Empty fuel tank, clean fuel tank, fuel line and carburettor. (✂)
- Clean fuel tank. (✂)
- Clean/replace air filter. (📖)
- Clean spark plug. (📖)
- Adapt cutting level and driving speed to the mowing conditions.

Fault:

Engine overheating.

Possible cause:

- Dirty cooling ribs.
- Engine oil level too low.
- V-belt worn.

Remedy:

- Clean cooling ribs. (📖)
- Check the engine oil level and top up the engine oil if necessary. (⇒ 15.8)
- Replace the V-belt. (✂)

Fault:

Machine does not drive.

Possible cause:

- Gearbox disengaged.
- V-belt (gearbox) detached.
- V-belt (gearbox) worn or defective.
- Missing feather key between rear axle and rear wheels.

Remedy:

- Engage the gearbox (freewheel lever). (⇒ 8.18)
- Fit V-belt (gearbox). (✂)
- Replace V-belt (gearbox). (✂)
- Install feather key. (⇒ 15.15)

Fault:

Excessive vibration during operation.

Possible cause:

- Mowing blades imbalanced due to incorrect sharpening or damage.
- Blade fastening screws not securely tightened.
- Engine mounting not securely tightened.
- V-belt or toothed belt damaged.

Remedy:

- Re-sharpen and balance or replace the mowing blades. (⇒ 15.13)
- Tighten the blade fastening screws, observing the tightening torque. (⇒ 15.13)
- Tighten the engine mounting. (✖)
- Replace the V-belt or toothed belt. (✖)

Fault:

Poor cut, lawn turns yellow after mowing.

Possible cause:

- Mowing blade blunt or worn.
 - Driving speed too fast in relation to mowing conditions (cutting height, lawn condition).
- Maximum engine speed not set (throttle lever not in MAX position).
- Mowing deck adjustment not OK.
- Discharge chute blocked.
- Mowing deck soiled with grass residues (deposits on inside of mowing deck housing).

Remedy:

- Sharpen or replace the mowing blade (observe wear limits). (⇒ 15.13)
- Reduce the driving speed and select a higher cutting height.
- Set the throttle lever to the MAX position. (⇒ 8.2), (⇒ 8.3)

- Check the mowing deck adjustment and re-adjust the mowing deck if necessary. (⇒ 15.14)
- Remove the grass catcher box and free the discharge chute from grass residues.
- Clean the inside of the mowing deck.

Fault:

Discharge chute blocked.

Possible cause:

- Mowing blade wing worn or damaged.
- Mowing grass too long or too wet.
- Driving speed too fast in relation to set cutting height.
- Maximum engine speed not set (throttle lever not in MAX position).
- Level sensor adjusted incorrectly.

Remedy:

- Replace the mowing blade. (⇒ 15.13)
- Mow the lawn in two stages: 1. Mowing at the highest cutting level.
2. Mowing at the desired cutting height.
- Reduce the driving speed and select a higher cutting height.
- Set the throttle lever to the MAX position. (⇒ 8.2), (⇒ 8.3)
- Adjust the level sensor (pull slide out fully). (⇒ 8.19)

Fault:

Grass catcher box not being completely filled.

Possible cause:

- Level sensor incorrectly adjusted.
- Cutting height set too low.
- Grass excessively damp and consequently too heavy to be transported through the discharge chute into the grass catcher box.
- Mowing blades blunt or worn.
- Grass too high.

- Air holes in grass catcher box blocked (no air flow in grass catcher box).
- Discharge chute or mowing deck (inside) soiled through deposited grass residues (residue from last mowing operation).

Remedy:

- Adjust the level sensor. (⇒ 8.19)
- Set a higher cutting height.
- Wait until the lawn is dry.
- Sharpen or replace the mowing blades. (⇒ 15.13)
- Mow the lawn in two stages: 1. Mowing at the highest cutting level.
2. Mowing at the desired cutting height.
- Clean the grass catcher box (clean air holes).
- Clean the discharge chute or inside of the mowing deck.

Fault:

Level sensor (grass catcher box) does not respond properly.

Possible cause:

- Level sensor (grass catcher box) soiled through grass residues.
- Level sensor (grass catcher box) incorrectly adjusted.
- Driving speed too high.

Remedy:

- Clean the level sensor and check for ease of movement.
- Adjust level sensor (grass catcher box). (⇒ 8.19)
- Adapt driving speed to the mowing conditions (reduce driving speed).

Fault:

Mowing blades do not switch on / do not rotate.

Possible cause:

- The safety devices are preventing activation of the mowing blades.
- V-belt (mowing deck) worn, detached or defective.

Remedy:

- Check whether all the safety requirements for activation of the mowing blades are met. (⇒ 12.)
- Check V-belt (mowing deck) and replace if necessary. (✖)

Fault:

Engine cuts out when mowing deck is activated.

Possible cause:

- User not sitting or not properly positioned on driver's seat.
- Grass catcher box switch or discharge chute switch not pressed or faulty.
- Seat switch or associated wiring faulty.

Remedy:

- Sit on the driver's seat or change seat position.
- Install a grass catcher box or deflector (accessory), check that the ejection chute is seated correctly (⇒ 15.6), repair/replace switch or wiring. (✖)
- Repair/replace seat switch or wiring. (✖)

Fault:

Mowing deck disengaged when mowing in reverse driving direction.

Possible cause:

- Reverse mowing safety switch not pressed.

Remedy:

- Release the mowing blades within the time window (5 seconds before to 1 second after engaging the mowing deck or changing the driving direction). (⇒ 8.8)

Fault:

Engine cuts out when user leaves driver's seat.

Possible cause:

- Parking brake not engaged.
- Mowing deck engaged (safety device).

Remedy:

- Engage the parking brake before leaving the driver's seat. (⇒ 8.14)
- Disengage the mowing deck before leaving the driver's seat. (⇒ 8.5), (⇒ 8.6)

Fault:

Text ERROR flashes on display, three acoustic signals sound in quick succession.

Possible cause:

- Fault in seat switch or electrics (short circuit).

Remedy:

- Turn the ignition key to the "engine off" position, carry out self-diagnosis. (⇒ 9.1)

Fault:

Continuous tone sounding.

Possible cause:

- Grass catcher box full.
- Electronics fault.
- Battery connected with incorrect polarity.

Remedy:

- Disengage the mowing deck and empty the grass catcher box. (⇒ 13.9)
- Turn the ignition key to the "engine off" position, carry out self-diagnosis. (⇒ 9.1)
- Check the polarity of the battery connections, connect wiring correctly if necessary. (⇒ 15.19)

24. Service schedule

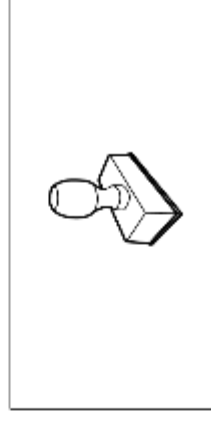
24.1 Handover confirmation

Model: _____

Serial number:

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Date: _____



Next service

Date: _____

24.2 Service confirmation



Please hand this instruction manual to your STIHL specialist dealer in the case of maintenance operations. He will confirm the service operations performed in the pre-printed boxes.



Service performed on



Next service date