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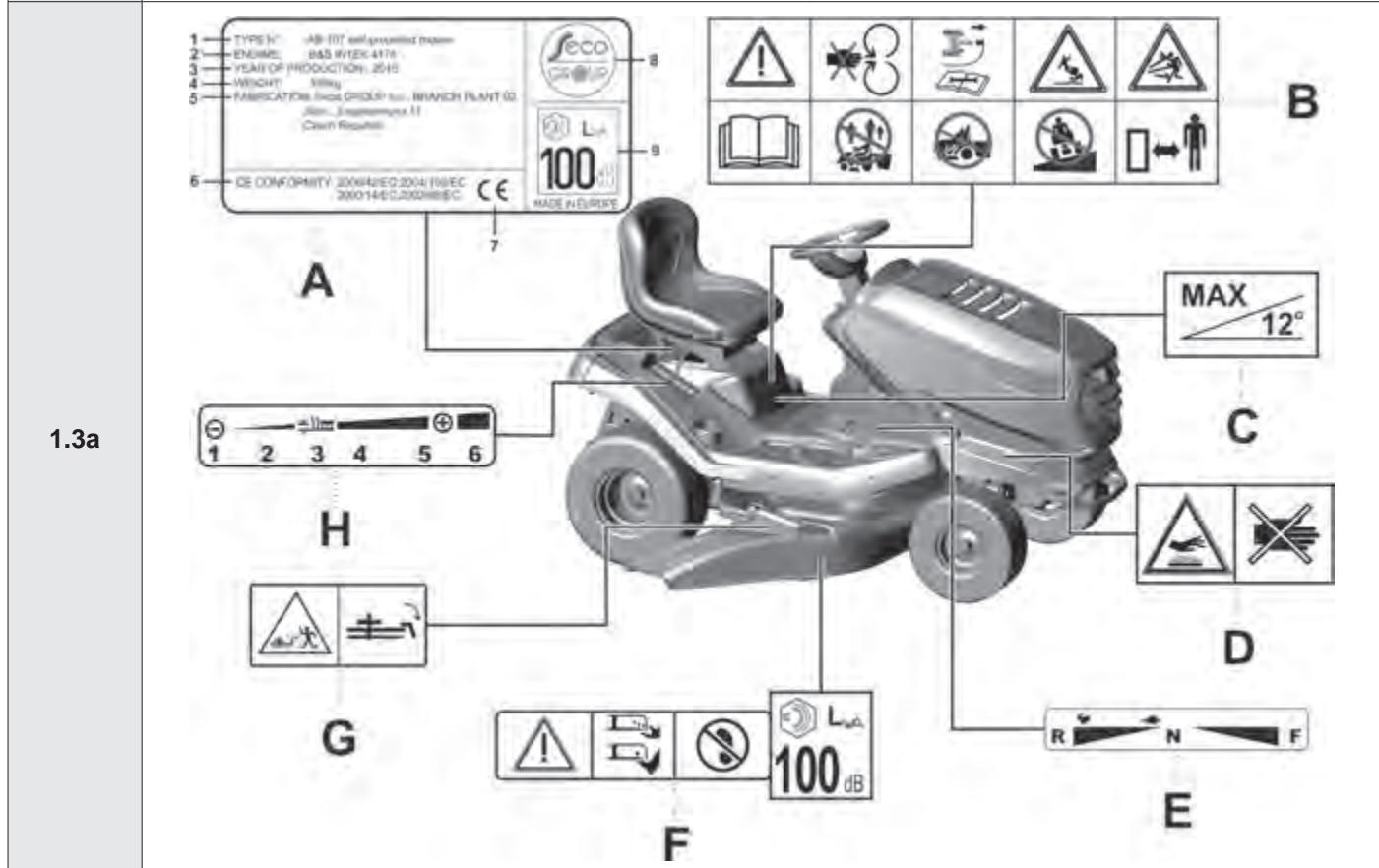
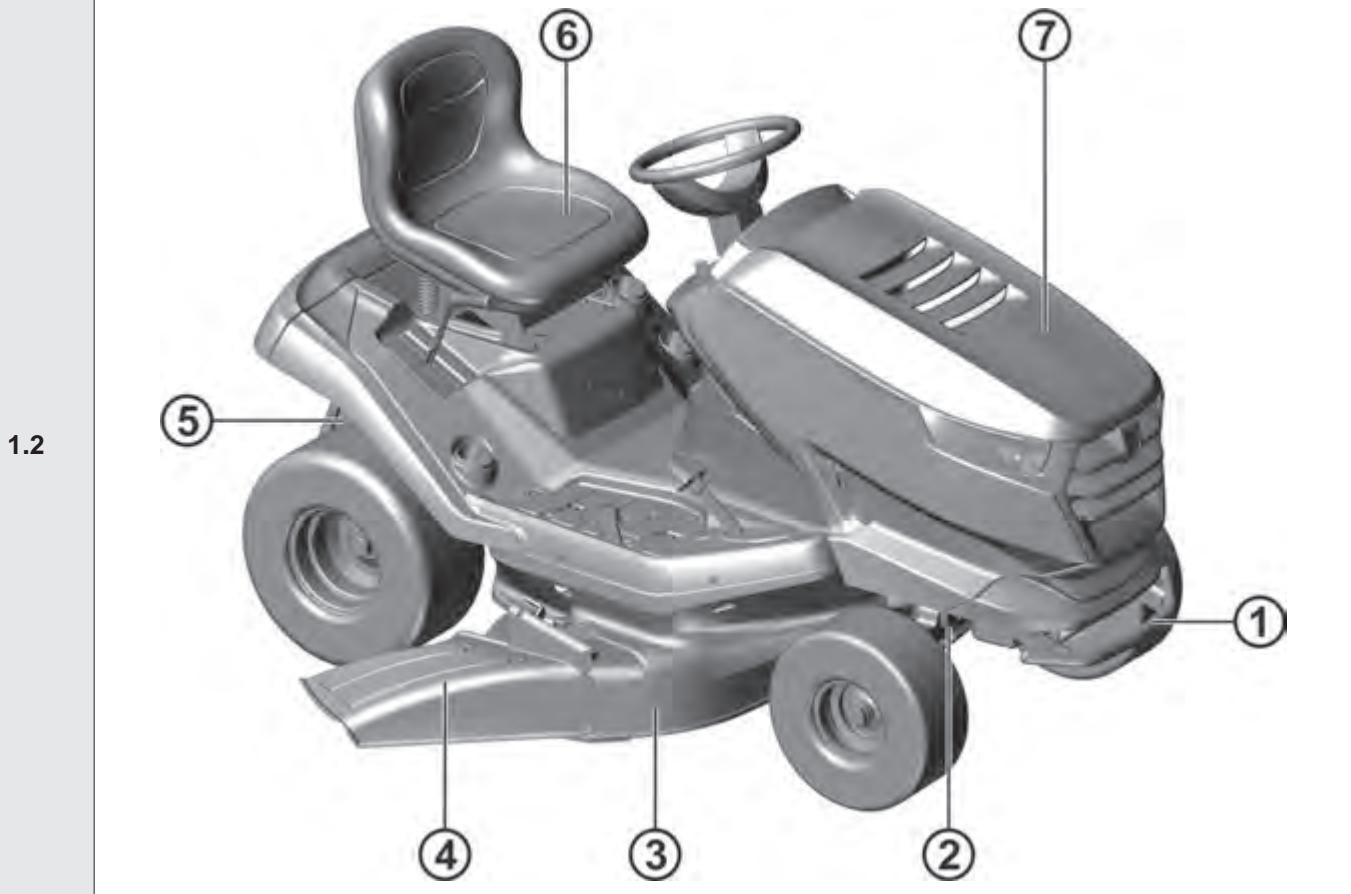
RIDE-ON LAWNMOWER



OWNER'S MANUAL

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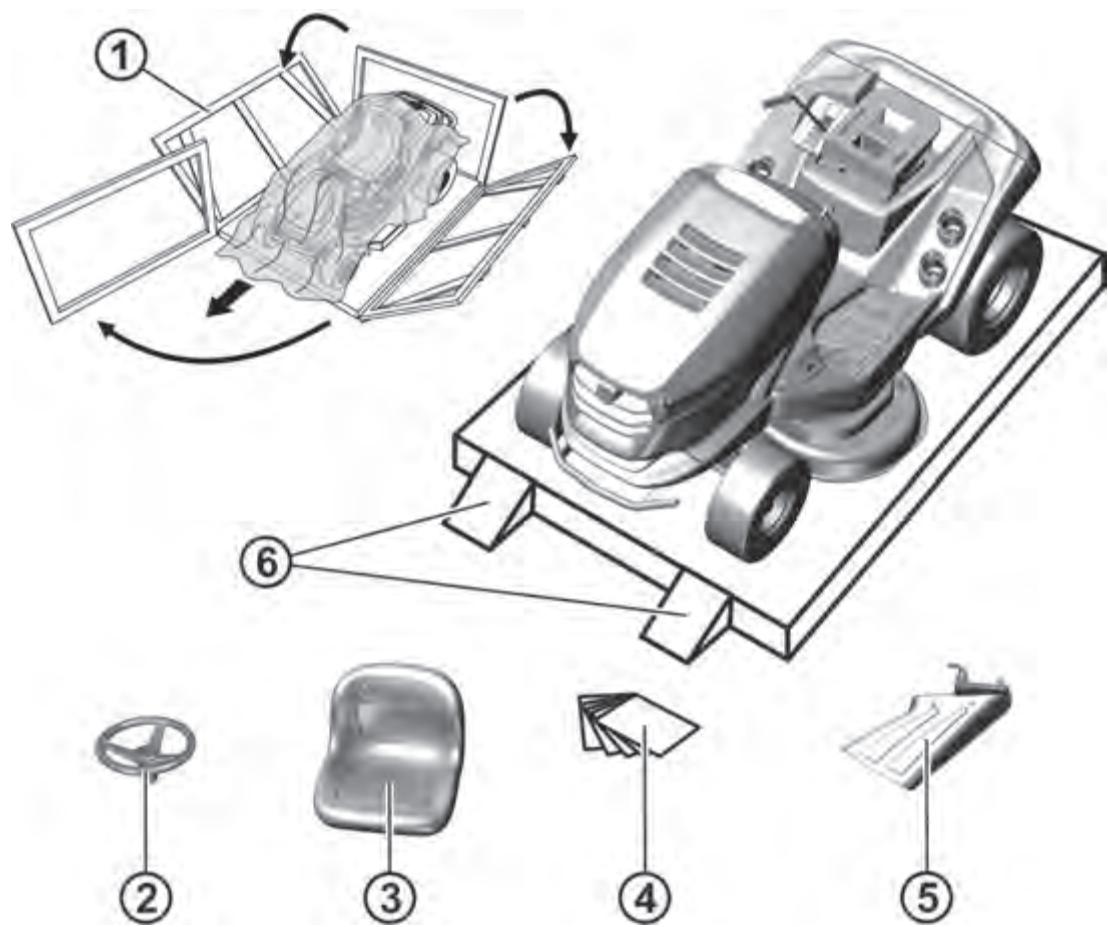
IMPORTANT: Keep these instructions and the engine booklet in a safe place for future reference.
They contain important information about your mower.



1.3b



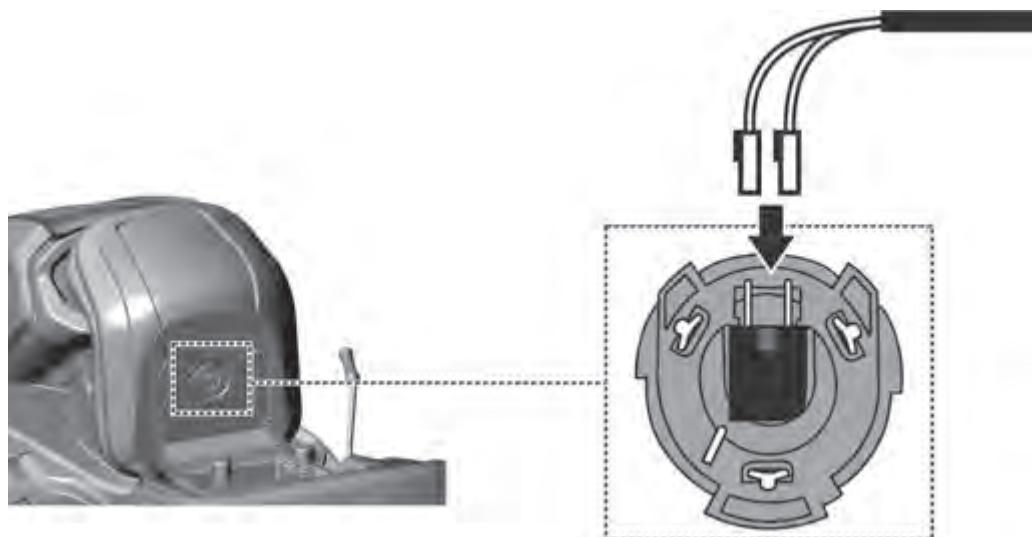
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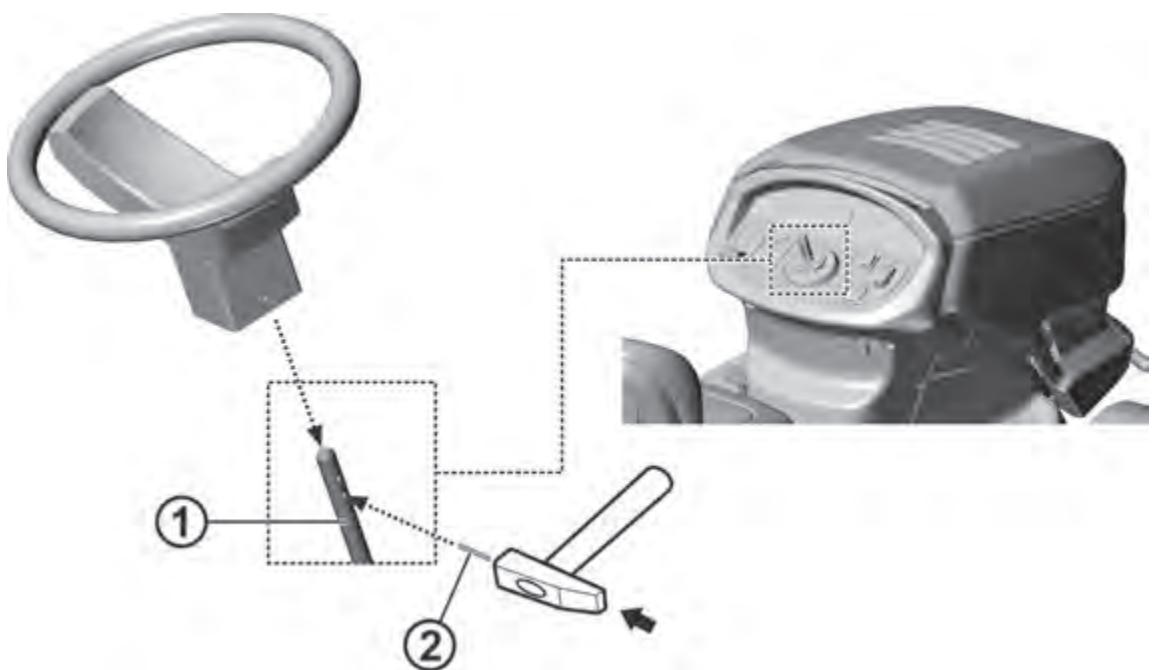
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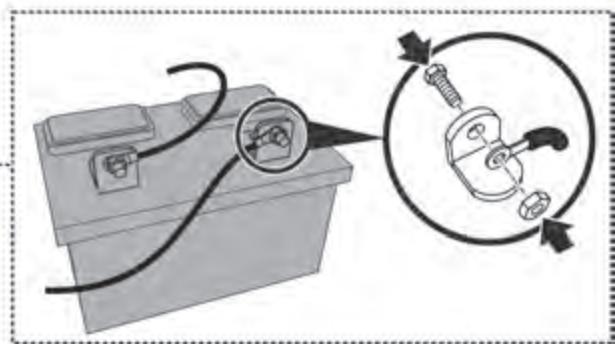
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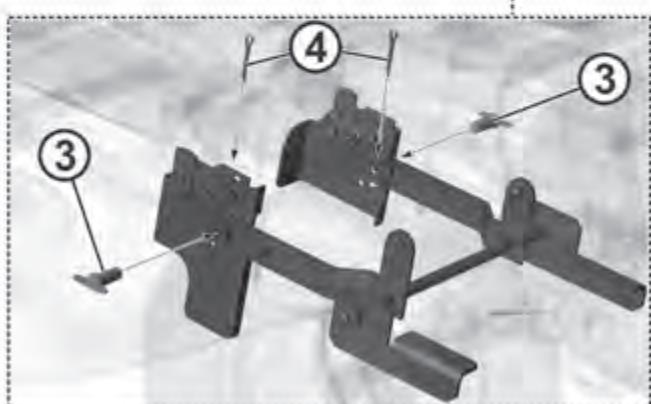
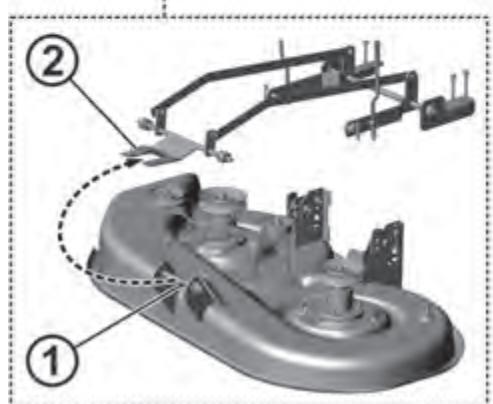
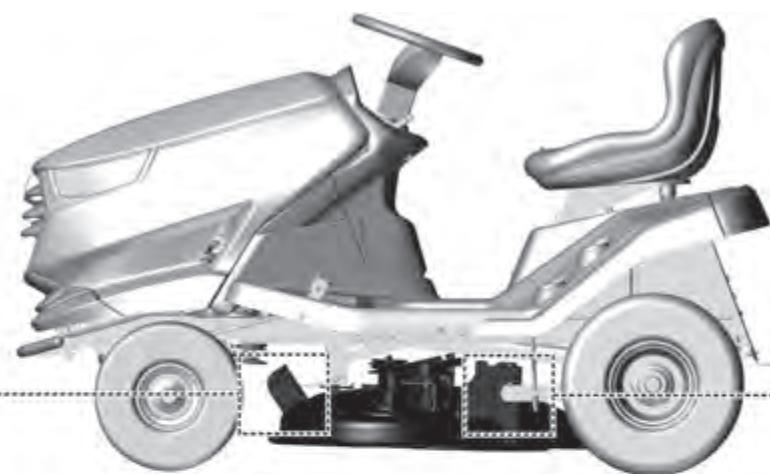
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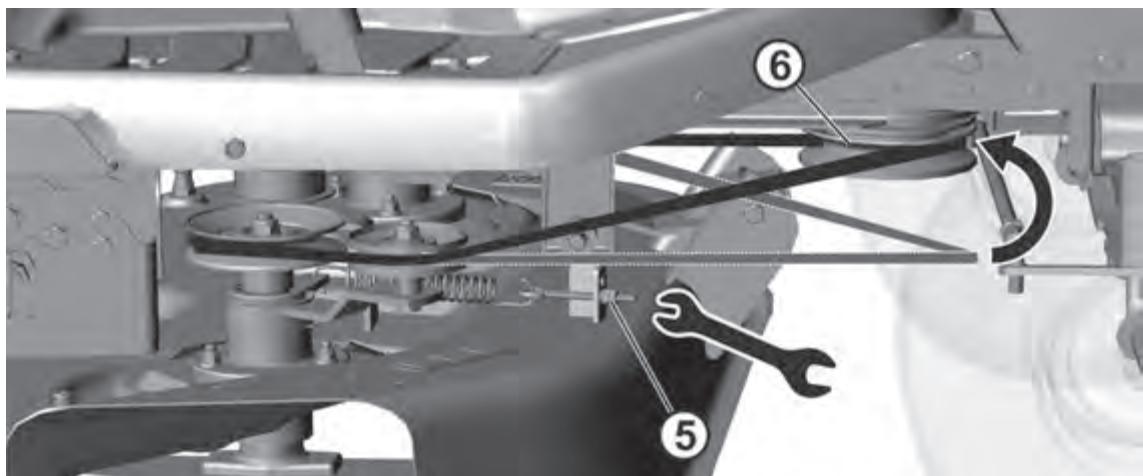
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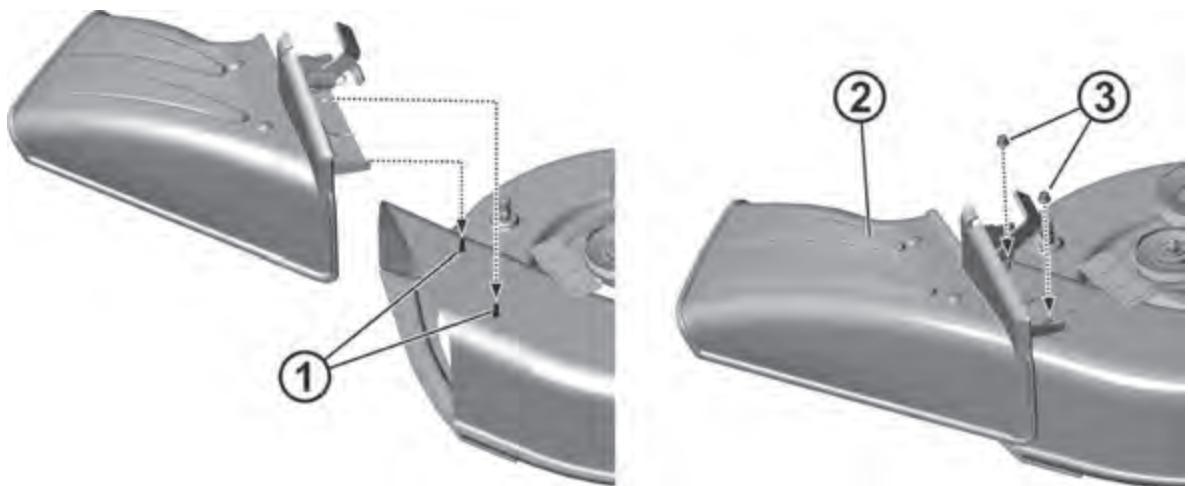
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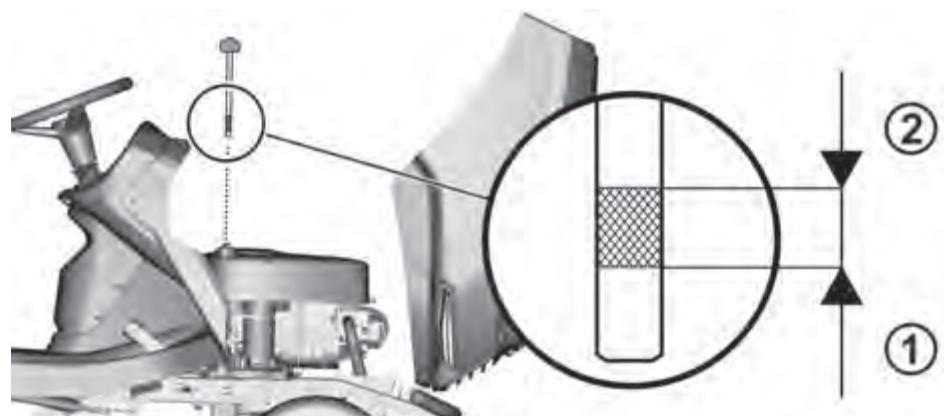
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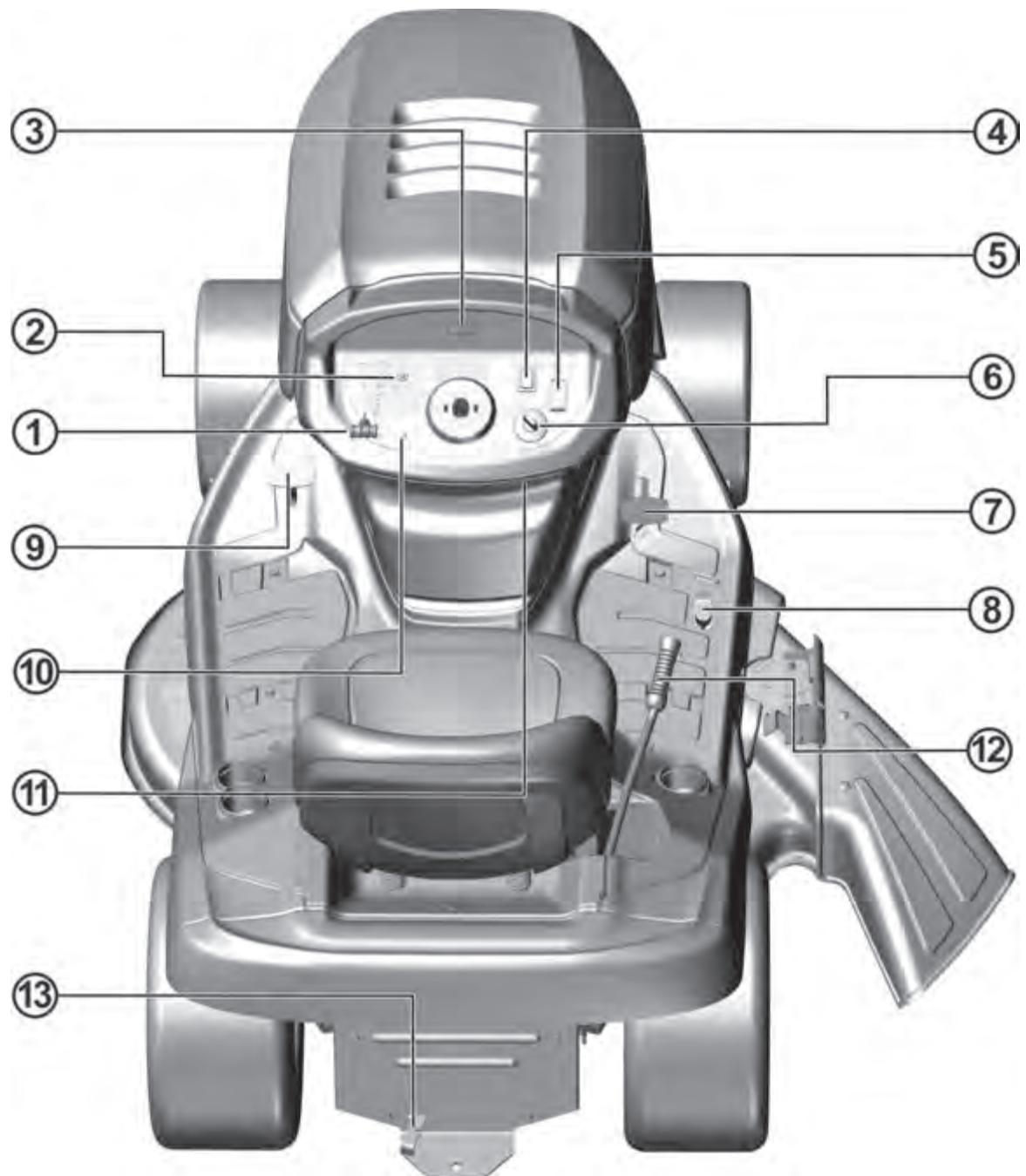
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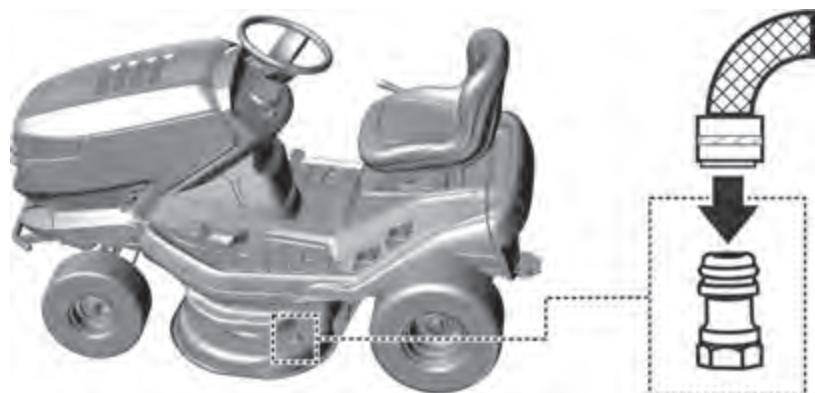
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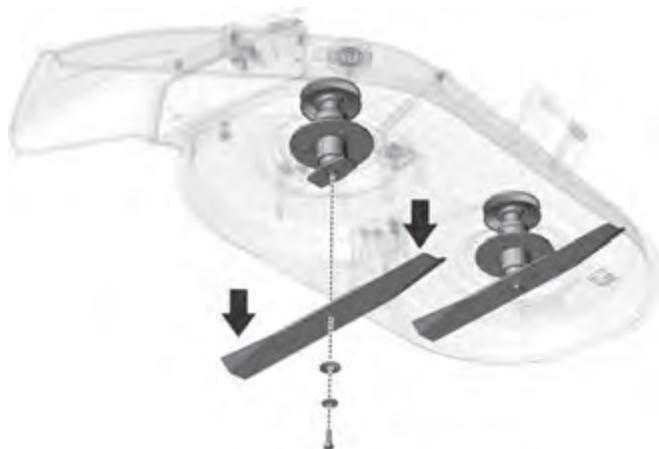
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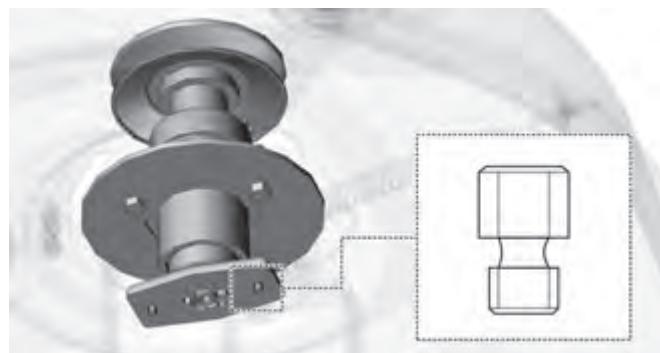
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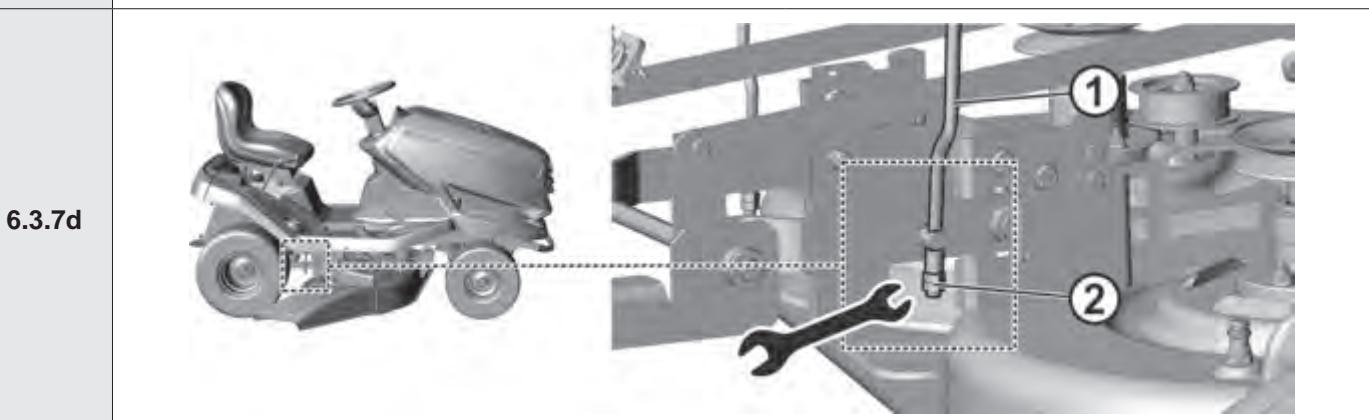
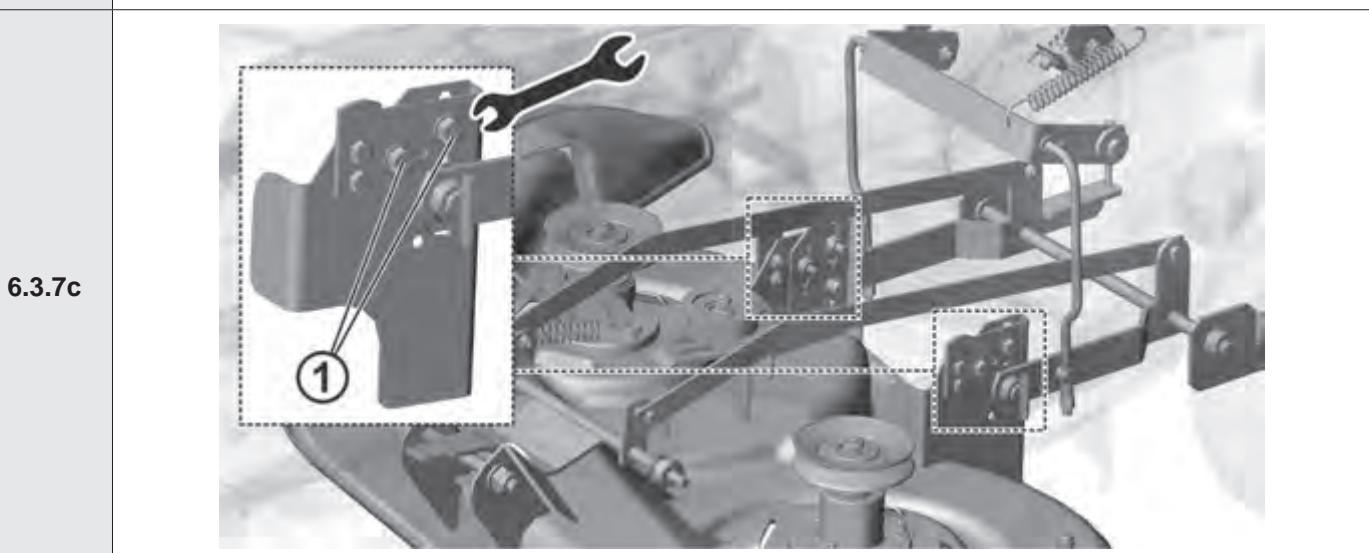
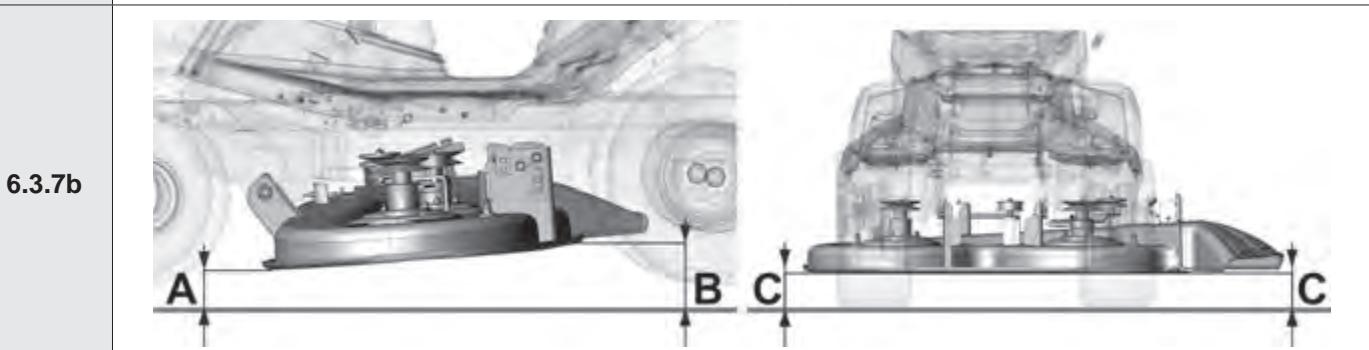
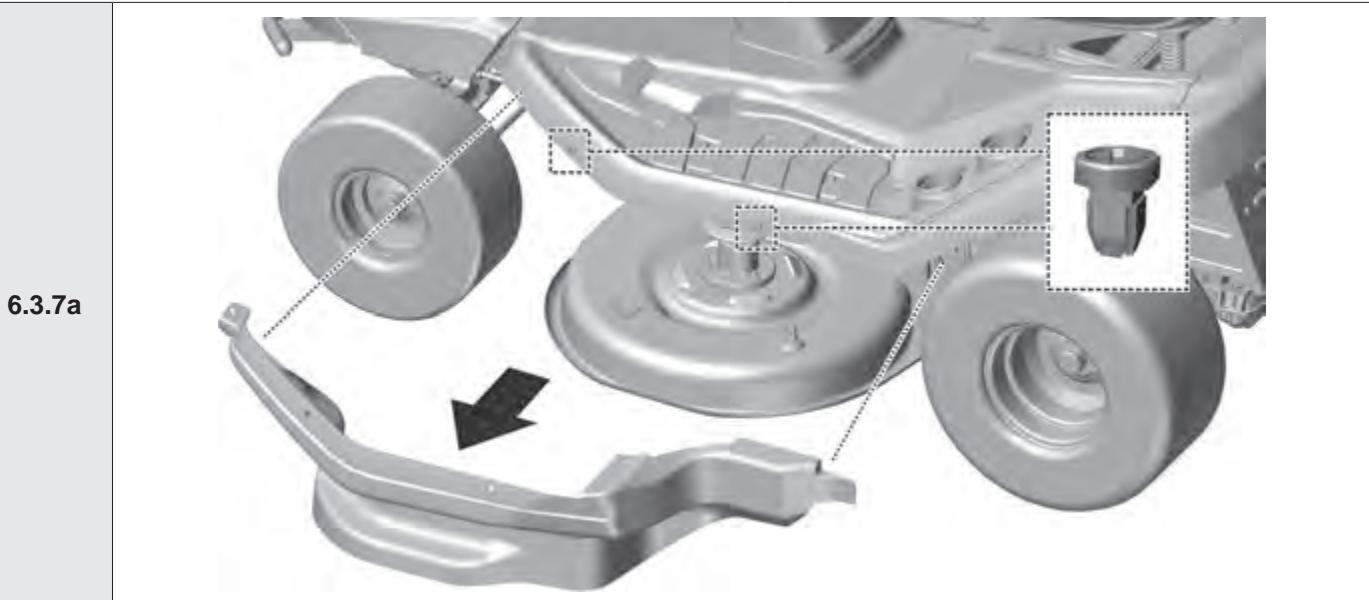


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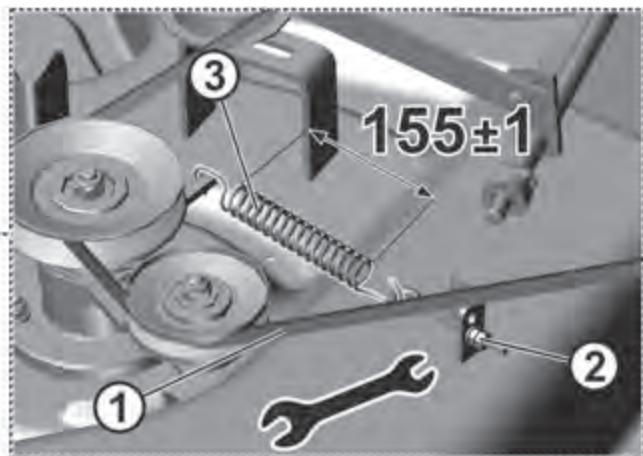
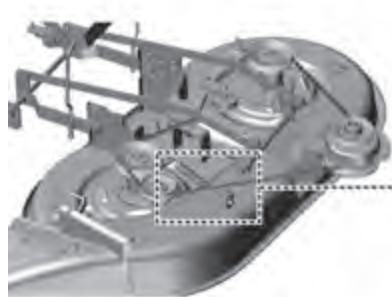


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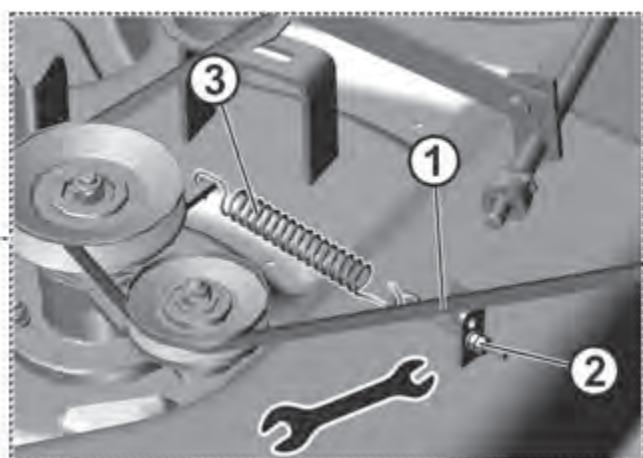
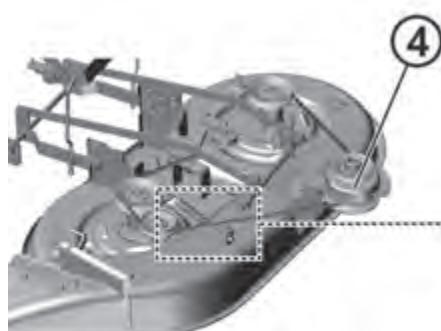




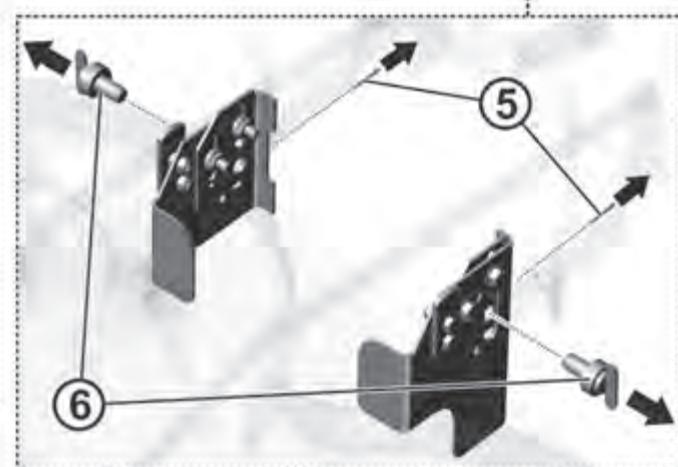
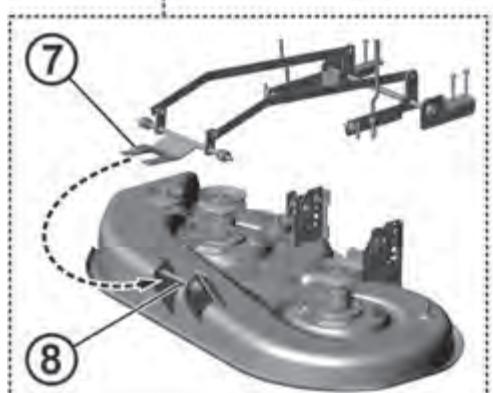
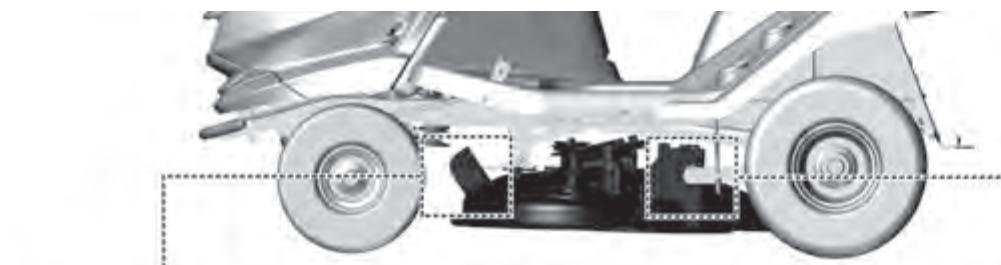
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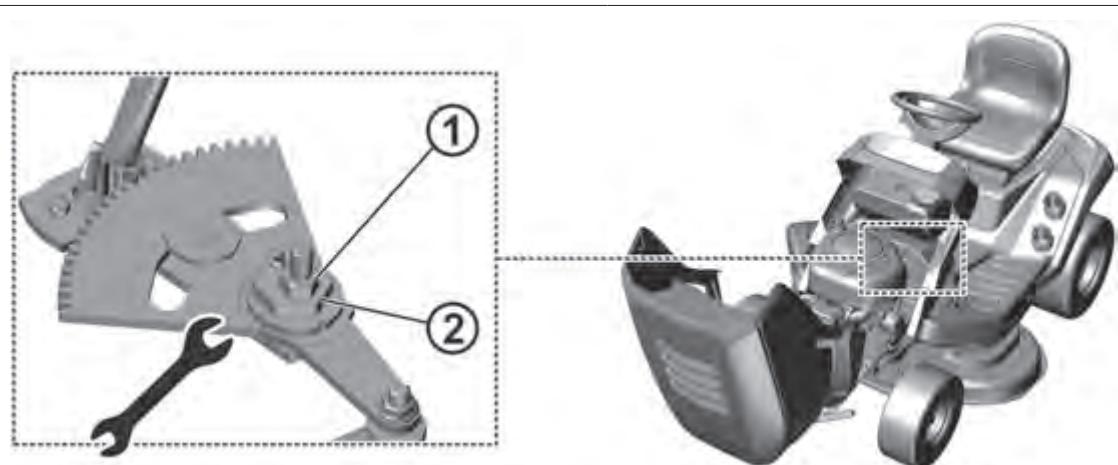
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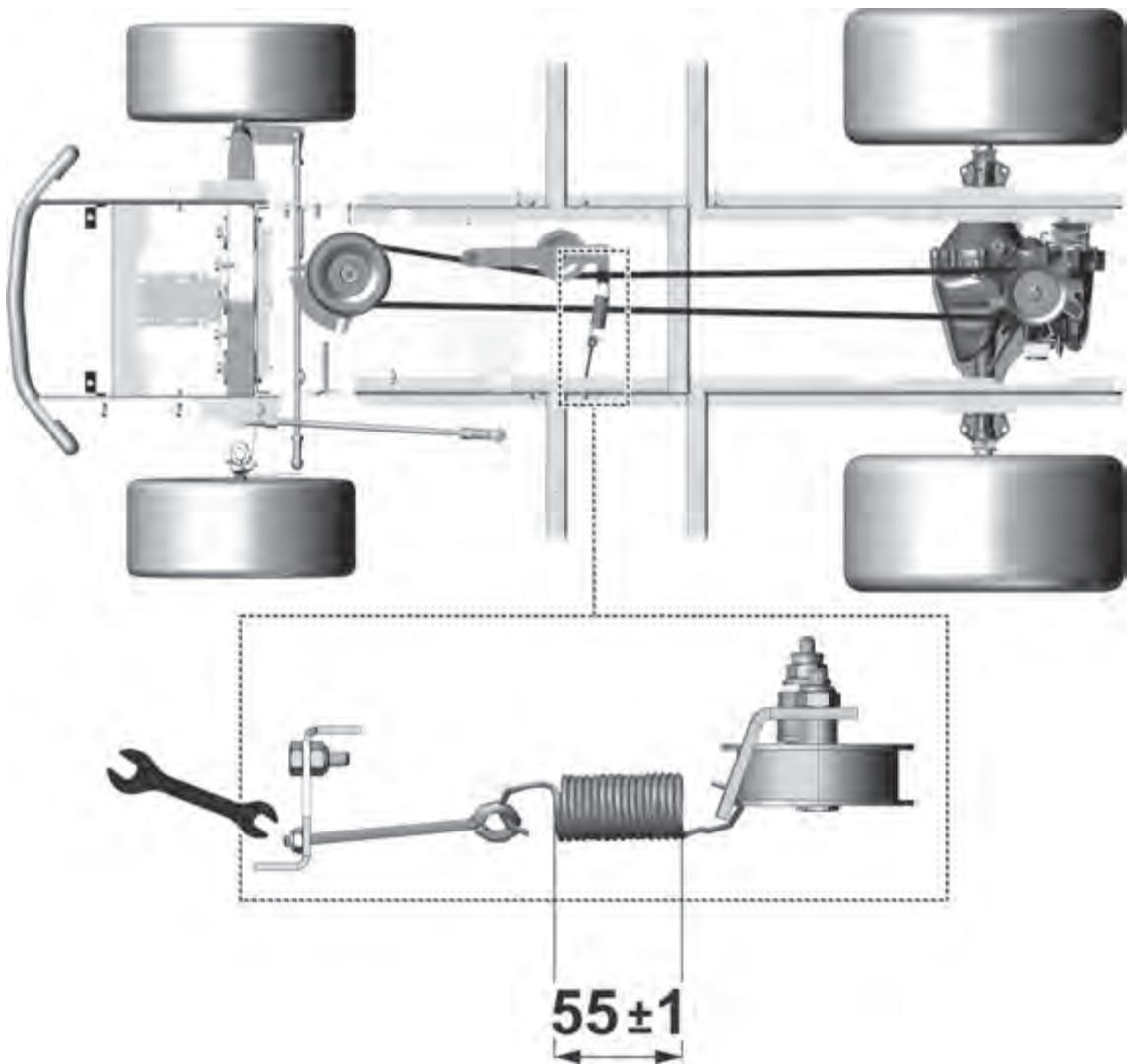
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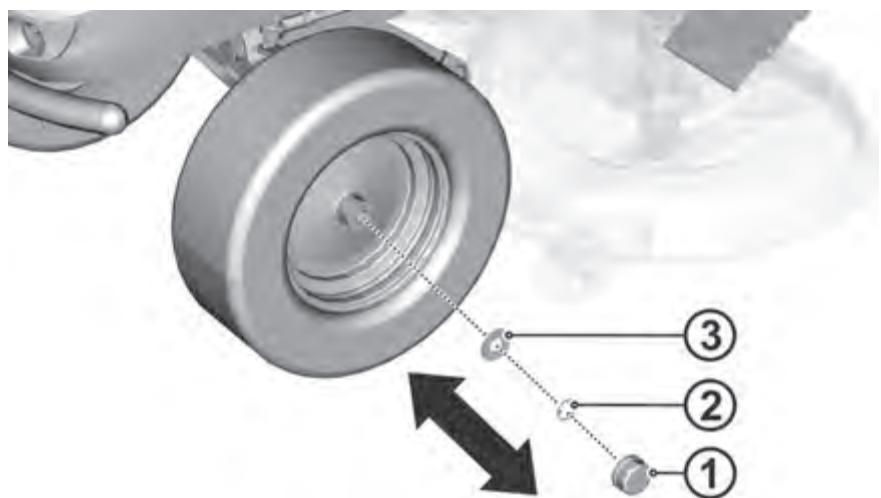
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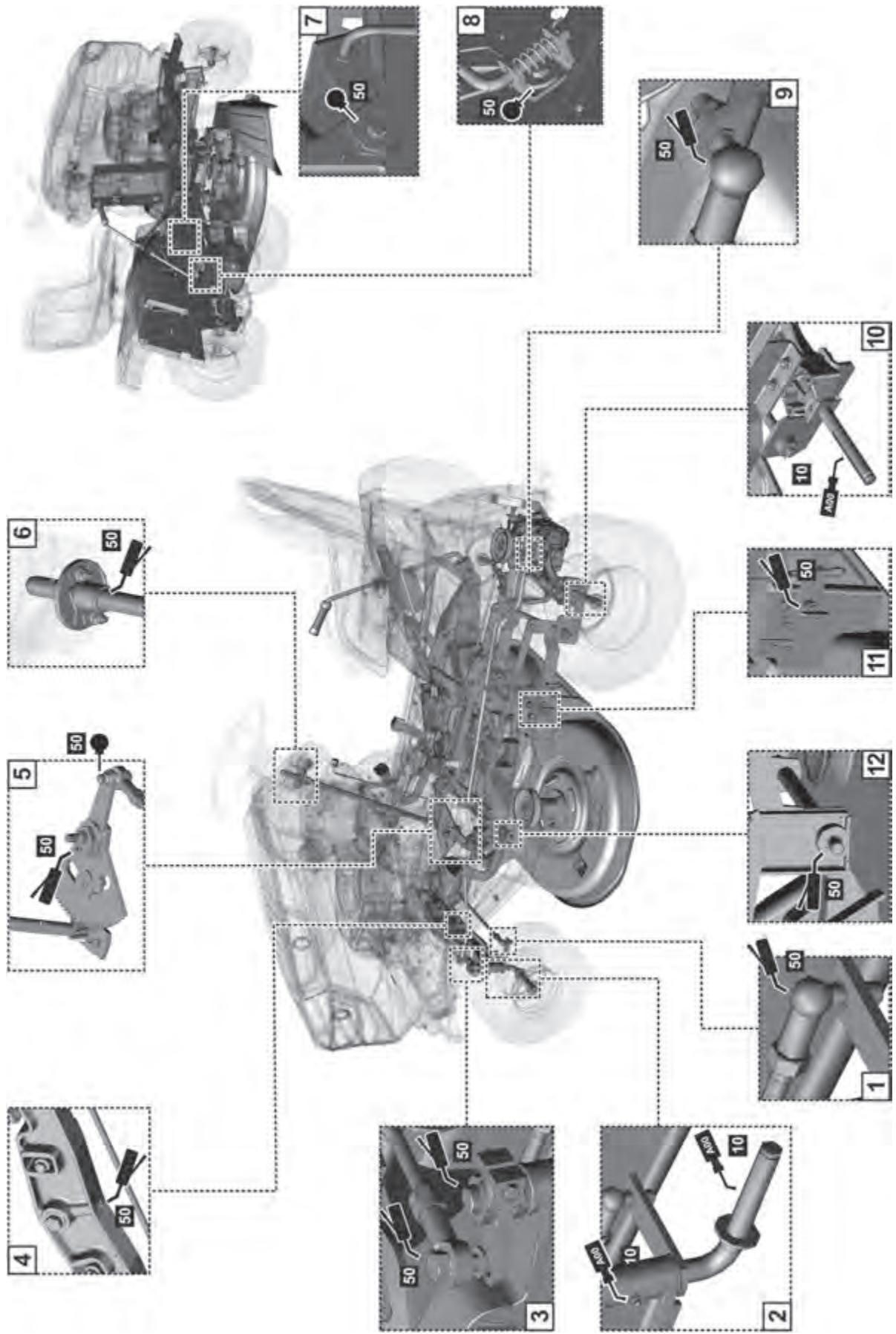
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6.3.15



6.4



ABOUT THIS MANUAL

This manual should guide you through, in the most simple way possible, the safe installation, operation and maintenance of your machine and provide information about its options and capabilities. It is therefore intended for all persons that will come into contact with the machine during its **installation, operation and maintenance**.

Please carefully study the manual before doing anything with the machine. Follow the instructions contained in this user's manual precisely so that operating the machine is easier and that it is used optimally and has a long lifetime.

► SYMBOLS USED IN THIS USER S MANUAL

In this user's manual you will find symbols with the following meaning:

SYMBOL	MEANING
	These symbols mean " ATTENTION " and " WARNING ", they inform you about things that may damage your machine and/or cause serious injury to the user.
	This symbol indicates an important instruction, property, procedure or issue, which you need to be aware of and adhere to during assembly, operation and maintenance of the machine.
	This symbol indicates useful information relating to the machine or to its accessories.
	This symbol is a reference to an image in the front part of the user's manual. It is always accompanied by the number of the image.
	This symbol is a reference to another chapter in this or another user's manual and most often it is shown together with the number of the chapter to which it refers.

► IMPORTANT INFORMATION

This user's manual is an integral part of the riding mower that must be included with the mower in the event that it is sold. Therefore, keep it for future use.

Do not put the machine into operation until you have thoroughly read all the instructions, restrictions and recommendations contained in this user's manual, paying particular attention to the chapter "Safety of operation".

The illustrations and pictures contained in this user's manual may not always correspond to reality, their purpose is the description of the main principles of the device.

► IF YOU ARE NOT SURE

In practice, unforeseeable situations frequently arise that cannot be included and described in this user s manual. Therefore, if you are ever unsure about a procedure or if anything is unclear or you have questions, do not hesitate to contact one of our more than 100 authorised, professionally-equipped service centres located all over Europe, where trained and tested experts will be ready to assist you.

1 | TECHNICAL INFORMATION

1.1 | USE

The AB107 CHALLENGE is a two-axle self-propelled riding mower designed for **mowing even, maintained grass areas with a maximum vegetation height of 10 cm**, e.g. in parks, gardens and sports fields, possibly on minor slopes, **on which there are no foreign objects** (fallen branches, rocks, solid items, etc.). **The incline of the slope must not exceed 12° (21%).**



Any use of this riding mower, which is not described in this user's manual and which goes beyond the use here described is considered to be in contradiction to its intended purpose or use. The manufacturer of the machine is not responsible for damages arising from such use; the risk is borne by its user. The user is also responsible for adhering to the conditions prescribed by the manufacturer for the operation, maintenance and repairs of this machine, which **may only be used, maintained and repaired by persons that know these conditions and have been informed about possible dangers.**

Only accessories, which have been **approved by the manufacturer** may be connected to the machine. **The use of other accessories will result in the warranty being immediately void.**

1.2 | MAIN PARTS OF THE RIDING MOWER

The AB107 riding mower consists of the following basic sections:

(1) Frame with a bumper

The frame with bumpers serves as a bearing element for most of the main parts of the machine.

(2) Front axle with wheels including steering

The front axle enables the wheels to turn. A steering wheel is used for steering.

(3) Mowing deck

The mowing deck mows the grass. It consists of a cover, main plate and two mowing blades.

(4) Side discharge cover

It is attached to the mowing deck and serves to eject grass clippings away from the mower.

(5) Gear box including rear-wheel drive

The grass catcher consists of a tubular metal frame, lid, textile sack and a dump lever handle.

(6) Driver's location

The comfortable seat enables easy access to all control elements on the machine.

(7) Fairing

The fairing is a combination of plastic and metal covers which appropriately cover the engine and electrical and mechanical components of the machine.

1.3 | PRODUCT IDENTIFICATION LABEL AND OTHER LABELS WITH SYMBOLS USED ON THE MACHINE

► MODEL IDENTIFICATION PLATE (A)

1. Machine model
2. Engine model
3. Year of production
4. Weight
5. Name and address of the manufacturer
6. EC codes used to assess the product's compliance
7. Compliance mark of the product
8. Logo of the manufacturer
9. Guaranteed noise level according to directive 2000/14/EC



The seller will write down the serial number on the other side of the front page of this manual when handing over the machine.

► **LABELS ON THE FAIRING UNDER THE SEAT (B) AND (C)**

1.3a		Danger		Do not touch during operation		Follow the manual when repairing		Do not leave the machine when driving
		Caution, deflected objects		Read the manual		Do not mow near other people		Do not take on passengers
		Do not drive perpendicular to the slope		Keep unauthorised persons at a safe distance		Maximum working incline		

► **LABELS ON THE LEFT AND RIGHT SIDE OF THE MACHINE (D)**

1.3a 1.3b		Careful Hot surface!		Danger of burns
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► **LABELS AT THE TRAVEL PEDAL (E)**

1.3a	R	Travel in reverse
	F	Travel forward
	N	Neutral
		Fast
		Slow

► **LABELS ON THE MOWING DECK (F)**

1.3.a 1.3.b		Danger		Do not step on
		Rotating tools		Guaranteed noise level

► **LABEL ON THE SIDE DISCHARGE COVER (G)**

1.3b		Caution, deflected objects		Caution, rotating blades
------	--	----------------------------	--	--------------------------

► **LABEL AT THE MOWING DECK ELEVATION LEVER (I)**

1.3b		Positions of the mowing deck
------	--	------------------------------

► LABEL AT THE BRAKE PEDAL (I)



It is strictly forbidden to remove or damage labels and symbols attached to the mower. In the event of damage or illegibility of the label, please contact the supplier or machine manufacturer and request a replacement.

1.4 | TECHNICAL PARAMETERS

BASIC PARAMETERS			UNITS	DIMENSIONS
	Dimensions (Length x Width x Height)		[mm]	1940 x 1420 x 1115
	Weight (without fuel, oil and driver)		[kg]	200
	Wheelbase		[mm]	1200
	Wheel gauge	Front	[mm]	750
		Rear		700
	Speed forward / reverse		[km/h]	9 / 7
	Mowing height		[cm]	30 - 90
	Cutting width		[cm]	107
	Wheel dimensions	Front	[▶]	15 x 6-6
		Rear		18 x 8.5-8
	Type of V-belts	Travel	---	Contitech 13 x 2475
		Mowing		BBT 17 x 1900
	Fuel tank capacity		Rear	7
	Type of battery (capacity - voltage)		---	12V - 24 Ah

Engine	rpm ±100 (min⁻¹)	Declared emission level of ac. pressure at the place of operation LpAd (dB) ČSN EN ISO 5395-1	Guaranteed emission level of acoustic power L _{WA} (dB)	Vibration values according to ČSN EN ISO 5395-1 (min.s⁻²)	
				Aggregate value of vibration acceleration on the hand-arm a _{hv}	Declared emission acceleration value of total vibrations a _{vd}
BS 4175	2700	87.0 + 4.0	100	5.5 + 2.2	0.9 + 0.5

The values measured according to ČSN EN ISO 5395-1 correspond to values according to ČSN EN 836+A4

2 | WORK SAFETY AND HEALTH

Riding mowers model number **AB107** under the brand name **CHALLENGE** are manufactured according to valid European safety norms. The machine's manufacturer confirms this fact in the **Statement of compliance**, which is included at the end of this user's manual (■ 10).

If this machine is used properly and according to the user's manual, it is **very safe**.



In the event that work safety is not adhered to and all warnings in this manual are not respected, this riding mower may cut off hands, legs or deflect objects and so may cause serious injury or death to persons, damage or destructions of the machine or one of its parts or accessories.

2.1 | SAFETY INSTRUCTIONS

The person primarily responsible for their own safety and the safety of others during the operation of the riding mower is its user. The manufacturer takes no responsibility for the injury of persons or damage to the machine and ecological damage resulting from the machine not being used and operated in accordance with all safety instructions included in this user's manual.

2.1.1 GENERAL SAFETY INSTRUCTIONS

- ! This machine may only be driven by a person over 18 years of age that has read this user's manual. Never allow this machine to be operated or serviced or maintained by persons that are not competent for the respective activity.
- ! The user of the machine is responsible for the safety of persons in the vicinity of the working area of the machine.
- ! It is not permitted to perform any technical modifications to the machine and its accessories without the manufacturer's written consent. Unauthorised modifications may lead to hazardous work safety conditions and void the warranty.
- ! Adhere to all requirements relating to fire safety (■ 2.4).
- ! Do not remove safety stickers or labels from the machine.
- ! Do not stay in the vicinity of the machine or under it, if it is lifted and is not sufficiently secured against falling or tipping over in the lifted position.
- ! Always turn off the mowing deck and engine and take the key out of the ignition, when:
 - you are cleaning the machine
 - you are removing grass clippings accumulated in the mowing deck or side discharge cover
 - you have driven over a foreign object and it is necessary to check whether the machine has been damaged or it is necessary to remedy the damage
 - the machine is vibrating with unusual force and it is necessary to identify the cause of the vibrations
 - you are repairing the engine or other moving parts (also disconnect cables from the spark plugs)

2.1.2 CLOTHING AND PROTECTIVE AIDS OF THE DRIVER

- ! When operating the machine, always use appropriate work attire. Never wear loose clothing and short pants.
- ! When operating the machine, always wear firm, closed footwear, ideally with non-slip soles. Never operate the machine when wearing sandals or barefoot.
- ! Usually the noise emitted during mowing does not exceed the acoustic pressure and acoustic power values specified in this user's manual (■ 1.4). In certain cases, however, it may under certain conditions and due to the condition of the terrain exceed the specified noise levels for a short time. Therefore, the machine manufacturer recommends the use of hearing protection when operating the machine because stressing the hearing organ with an excessive noise level or long term effects of noise may lead to permanent hearing damage.

2.1.3 BEFORE USING THE MACHINE

- ! Do not use the riding mower if it is damaged or if any of its protective elements are missing. All covers and other protective elements must always be in their place. Therefore, do not remove or put out of operation any of the machine's protective elements. Regularly check that these elements are working correctly.
- ! Do not work with the machine after consuming alcohol, drugs or medication affecting your perception.
- ! Do not work with the machine if you suffer from dizziness, fainting or if you are weakened or distracted in any other way.
- ! Before putting the machine into operation, thoroughly learn about all the control elements and ensure that you can control them in such a way that if necessary you can immediately stop or turn off the engine.
- ! Do not adjust the engine regulator or the engine speed limiter.
- ! Before you start working with the machine, remove from the surface of the area you will be mowing, all stones, pieces of wood, wire, bones, fallen branches and other items, which could be deflected during the mowing process. Always use protective gloves during this.
- ! Remedy all defects before further use. Before starting work, thoroughly check that the belts are tensioned, the blades are sharp and that the area inside the mowing deck is clear.
- ! Before using the machine, visually check that the machine parts are not damaged or missing or visibly loosened.
- ! Prior to using the machine check that the brakes work and if necessary have them adjusted or repaired.

2.1.4 WHILE OPERATING THE MACHINE

- ! The machine must not be used for work on slopes that have an incline greater than **12° (21%)**.
- ! Transport of other passengers, animals or loads directly on the machine is forbidden. Transport of loads is only permitted on trailers approved by the machine's manufacturer.
- ! Even when leaving the machine for a short time, always remove the key from the ignition.
- ! If you are driving the machine away from the work area where you are mowing, always disengage the mowing deck and lift it to the transport position.
- ! Do not mow near piles of material, holes or banks. The riding mower may suddenly roll over if the wheel goes over the edge of a hole, trench or an edge that may collapse.
- ! When working, avoid mole mounds, concrete supports, tree stumps, garden bed and footpath kerbs, which must not come into contact with the blades and so cause damage to the mowing deck, the side discharge cover and the machine's mechanism.
- ! In the event of an impact into a rigid object, stop and turn off the mowing deck and engine and inspect the entire machine, particularly the steering mechanism. If necessary perform repairs before starting up the engine again.
- ! Whenever possible avoid using the machine in wet grass. Reduced traction may lead to skidding.
- ! Avoid obstacles (e.g. sudden change in the incline of a slope, trenches, etc.) on which the machine could roll over.
- ! Do not attempt to maintain the stability of the machine by stepping on the ground.
- ! Only use the machine in daylight hours or with good artificial lighting.
- ! Lightning can cause serious injury or death. Do not use the machine when a storm is approaching and lightning flashes can be seen or thunder can be heard, find safe shelter.
- ! Driving the machine on public roads is not permitted.
- ! Do not leave the engine running in closed areas. The exhaust fumes contain substances that are odourless but are fatally poisonous.
- ! Do not put your hands or legs underneath the mowing deck cover or the side discharge cover. Never put any part of your body near the rotating or moving parts of the machine. Do not attempt to use your hands or other temporary items to stop or slow down moving cutting blades!
- ! Do not start the engine without an exhaust pipe.
- ! Always pay full attention to driving and other activities performed with the machine. The most common causes of loss of control over the machine are for example:
 - Loss of wheel traction.
 - Excessive speed, not adjusting speed to current conditions and terrain properties.
 - Sudden braking where the wheels lock up.
 - Using the machine for purposes for which it was not designed.

2.1.5 AFTER FINISHING WORK WITH THE MACHINE

- ! Always maintain the machine and its accessories clean and in good technical condition.
- ! The rotating blades are sharp and may cause injuries. Whenever handing the blades always use protective gloves or wrap the blades.
- ! Regularly check the nuts and bolts securing the blades so that they are tightened with the appropriate amount of torque (**■■ 6.3.6**).
- ! Pay special attention to lock nuts. After the nut is loosened a second time its locking capability is reduced and therefore it needs to be replaced with a new one.
- ! Regularly inspect all components and if necessary replace those that need to be replaced based on the manufacturer's recommendations.
- ! Regularly lubricate the recommended parts of the machine according to the lubrication plan (**■■ 6.4**).

2.2 | SAFETY INSTRUCTIONS FOR WORK ON SLOPES

Slopes are the main cause of accidents, loss of control over the machine or subsequent roll-overs, which may lead to serious injuries or death. Mowing on slopes always requires an increased level of attention. If you are not sure, or it exceeds your ability, do not mow on slopes.

- ! Riding mowers can be used on slopes with a maximum incline up to **12° (21%)** and only in the direction of the fall line, i.e. upwards or downwards. More information **■■ 5.5.4**.
- ! When changing direction increased care is needed. Do not turn on a slope unless it is absolutely necessary.
- ! Watch out for holes, roots, uneven terrain. Uneven terrain may cause the machine to turn over. High grass may conceal hidden obstacles. Therefore, remove all foreign objects from the area where you wish to mow in advance.
- ! Select such a speed so that you do not need to stop when on a hill.
- ! Perform all movements on a slope slowly and smoothly. Do not make sudden changes to speed or direction.
- ! Avoid starting up or stopping on a slope. In the event that the wheels lose traction, turn off the power to the blades and drive slowly down the hill.
- ! Start driving very carefully and slowly when on a slope so that the machine does not "skip". Always reduce the machine's driving speed before a slope, and especially when driving down a hill lower the driving speed to minimum to take advantage of the braking effect of the transmission.

2.3 | CHILD SAFETY

If the riding mower operator is not prepared for the presence of children then a tragic accident may happen. The movement of a riding mower attracts the attention of children. Never assume that children will remain in the location where you last saw them.

- ! Do not allow children without supervision in areas where you are mowing grass.
- ! Always be prepared - if children approach you then turn off the machine.
- ! Before and while reversing look behind you and at the ground.
- ! Never transport children, they may fall and seriously injure themselves, or they may dangerously interfere with the riding mower controls. Never allow children to operate the machine.
- ! Pay increased attention in places with limited visibility (near trees, bushes, walls, etc.).

2.4 | FIRE SAFETY

When reversing the riding mower it is necessary to adhere to fundamentals and regulations for work safety and fire protection relating to work with this type of machine.

- ! Regularly remove flammable substances (dry grass, leaves, etc.) from the area around the exhaust, engine, battery and anywhere, where they could come into contact with petrol or oil and subsequently catch on fire and so result in a fire on the machine.
- ! Allow the riding mower engine to cool down before parking it in an enclosed location.
- ! Pay increased attention when working with petrol, oil and other flammable substances. These are very flammable substances, the fumes of which are explosive. Do not smoke during this work. Never unscrew the petrol tank cap and refill with petrol while the engine is running, if the engine is hot or if the machine is in a closed location.
- ! Check the petrol lines before using and do not fill the petrol all the way up to the bottleneck of the tank. The heat generated by the engine, sun and the expansion of the fuel may lead to the petrol overflowing and a subsequent fire. For storing flammable substances use containers designed for this purpose. Never store a canister with petrol or the machine inside a building near any source of heat. Pay increased attention when working with the battery. The gas inside the battery is highly explosive, therefore do not smoke in the vicinity of the battery and do not use an open flame so as to avoid serious injuries.

3 | PREPARATION FOR PUTTING INTO OPERATION

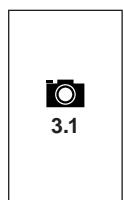
3.1 | UNPACKING AND INSPECTING THE CONTENTS

The riding mower is supplied wooden crate cover. For transportation reasons some machine assemblies are disassembled at the production plant and it is necessary to install them before putting the machine into operation. The unpacking and preparation for operation is performed by the seller within the scope of the pre-sale service.

! *Inspect immediately after delivery that the packed machine has not been damaged. In the event of damage inform the carrier. If the complaint is not lodged in time, no potential demands can be claimed.*

! *Check that the machine model is the same as you ordered. In the event of an irregularity do not unpack the machine and immediately report this discrepancy to the supplier.*

In the packaging you will find:



- (1) Crate cover
- (2) Steering wheel
- (3) Seat
- (4) Documentation (packed parts list, user's manual for the riding mower, user's manual for the engine, user's manual for the battery, service log book)
- (5) Side discharge cover

► UNPACKING

1. Using a suitable tool (e.g. crowbar or hammer, etc.) remove the crating (1), take out all the individually packed assemblies and remove all reinforcing elements and packaging materials.
2. Visually inspect the machine for damage that may have occurred during transport. Also unpack all individually packed assemblies and inspect them. In the event of any type of damage, immediately contact the supplier and do not continue with the installation of the machine.
3. Prepare suitable ramps (6) to drive the machine from the pallet. Ramps are not included. If you do not use ramps there is a **danger of damaging** parts of the machine.
4. Lift the mowing deck into the transport position by pulling the lever to the highest position (■ 4.2). If you do not lift the mowing deck, there is a risk of **seriously damaging** it.
5. Carefully drive the machine off the pallet and push it to the installation location.

3.2 | DISPOSAL OF PACKAGING MATERIALS



After unpacking everything, ensure that the packaging material is properly disposed of or recycled. The disposal must conform to relevant waste disposal laws valid in the user's country.



Disposal may be performed by a specialised company.

3.3 | ASSEMBLY OF THE SEPARATELY PACKED ASSEMBLIES



Due to the technical nature of this task, the machine is prepared for operation by the vendor of your riding mower (according to the following instructions).



Before starting the installation, remove all covering protective materials, locate the riding mower on an even surface and align the front wheels to face forward.

3.3.1 SEAT, STEERING WHEEL AND BATTERY



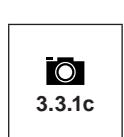
a) ATTACH THE SEAT:

- Tilt out the seat console (1) by approximately 90° upwards. Place the seat against it and secure it using four bolts, pre-mounted in the seat. Before tightening the bolts, set the desired position of the seat to match your body size.



b) CONNECT THE CABLE OF THE SAFETY SWITCH:

- Connect the electric cable to the switch connector on the underside of the seat.



c) INSTALL THE STEERING WHEEL:

- Seat the steering wheel on to the shaft (1) and turn it so that the holes in the steering wheel and the shaft align.
- The steering wheel has two height positions, select the appropriate height for your body size. Then insert the supplied pin (2) into the hole and knock it in using a hammer.



3.3.1d

d) CONNECT THE BATTERY:

- ▶ Loosen the bolts on the pole terminals of the battery.
 - ▶ Place the **red wire** on the (+) pole of the battery and secure in place with the bolt.
 - ▶ Place the **brown wire** on the (-) pole of the battery and secure in place with the bolt.
- ⚠**
- *Connecting the wires in opposite to that described above will damage the machine.*
 - *When disconnecting the battery, always disconnect the negative (-) pole of the battery first.*
 - *When putting the battery into operation and when performing maintenance on it, proceed according to the instructions in the user's manual for the battery. Also follow all safety instructions contained therein.*

In exceptional circumstances, it is possible that for transportation reasons the mowing deck is removed and packaged separately. In such a case, install it as follows:

3.3.1e
3.3.1f

e) REMOUNTING THE MOWING DECK:

- ▶ Take off both side covers by removing the quick coupler pins and slide the mowing deck under the machine.
- ▶ **Suspend the front side** of the mowing deck with pin (1) into the fork (2).
- ▶ On the **rear side of the mowing deck**, insert pins (3) into the suspension holes of the mowing deck and secure in place with cotter pins (4).
- ▶ On the front right side of the mowing deck, loosen nut (5) of the threaded rod with eye that is used for tensioning the travel belt. Slide the loosened belt on to the belt pulley (6) of the electromagnetic clutch and tighten the nuts so that the spring (7) has a length of **155±1 mm**.



3.3.1g

f) ATTACH THE SIDE DISCHARGE COVER:

- ▶ On the right hand side, screw the nuts off the bolts (1) of the mowing deck cover.
- ▶ Slide the side discharge cover (2) on to the bolts and secure in place with nuts (3).

3.4 | CHECKS PRIOR TO STARTING UP

3.4.1 CHECKING THE MOTOR OIL

The tractor must be in a horizontal position before the oil level can be checked. The oil cap is accessible after tilting open the hood. Screw out the oil dipstick, wipe it dry, reinsert it and screw in. Then again screw it out and take the oil level reading.



3.4.1

- Oil level dipstick:
 (1) - (ADD) low oil level
 (2) - (FULL) maximum oil level

The oil level must be between the two marks on the dipstick. If it is not, fill up with motor oil so that it reaches the "FULL" mark. The motor oil type is indicated in the user's manual of the engine.



- The oil level must be checked before every work session.*

3.4.2 CHECKING THE BATTERY

Check the battery charge level according to the user's manual of the battery. Respect all the manufacturer's instructions especially when checking and filling up the electrolyte and charging the battery.

3.4.3 FILLING THE FUEL TANK WITH FUEL

For safety reasons the riding mower is transported without fuel and before the first start up it is necessary to fill it up. Depending on the design of the machine the fuel tank is located under the front hood and has a fuel capacity of **7 litres**.



- ⚠**
- Use only petrol with the octane number specified in the user's manual of the engine. Defects caused by the use of incorrect fuel are not covered by the warranty!
 - Only fill the fuel tank with the engine turned off and when the engine is cold. Fill the fuel tank **in a well ventilated location**.
 - When handling fuel, do not eat, smoke or use an open flame.
 - For filling use a funnel designed for refilling fuel.
 - Respect the **maximum permitted fuel tank level**, i.e. the fuel level is in the lower level of the filler. Never fill up the fuel tank above this maximum level.
 - Ensure that fuel is not spilled when refilling. Spilled fuel can very easily catch on fire. If fuel does spill, thoroughly wipe dry.
 - Store fuels out of the reach of children.

Procedure for filling up:

- ▶ Open the fuel tank lid. Open it slowly because there may be overpressure in the fuel tank caused by petrol vapours.
- ▶ Insert a suitable funnel into the fuel tank opening and start to pour the fuel from the canister. The fuel level must under no condition be above the bottom level of the filler.
- ▶ After filling up the fuel tank always wipe dry the area around the fuel tank opening as well as the fuel tank opening itself. It is good to check the condition of the fuel lines.

It is recommended to regularly also clean out the actual fuel tank because impurities found in the fuel may cause an engine malfunction.



3.4.4 CHECKING THE AIR PRESSURE IN THE TYRES

Before putting the machine into operation, check the air pressure in the tyres.

The air pressure **in the front and rear** tyres must be in the range **80 - 120 kPa**.

The difference between the individual tyres may be **± 10 KPa**.



| Do not exceed the maximum pressure marked on the tyres that are being used.

4 | OPERATING THE MACHINE

4.1 | LOCATION OF THE MAIN CONTROL ELEMENTS AND INDICATORS

4.1a

- (1) Throttle lever
- (2) Brake pedal and parking brake indicator light
- (3) Motor hours counter
- (4) Deactivation of the mowing deck disengagement for reversing
- (5) Mowing deck engagement switch
- (6) Main power switch
- (7) Forward drive pedal
- (8) Reverse drive pedal
- (9) Brake pedal
- (10) Choke (optional accessory)
- (11) Parking brake
- (12) Mowing deck elevation adjustment lever
- (13) By-pass lever

4.2 | DESCRIPTION AND FUNCTIONS OF THE CONTROL ELEMENTS

(1) THROTTLE LEVER

Serves to regulate the engine speed. It has the following three positions:



CHOKE* Starting a cold engine



MAX Maximum engine speed

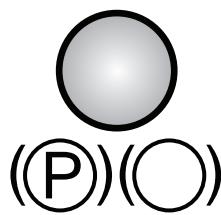


MIN Minimum engine speed (idle)

* Only on machines with BS15, BS17 and KO15 engines

(2) BRAKE PEDAL AND PARKING BRAKE INDICATOR LIGHT

The indicator light serves to signal correct and incorrect starting of the engine (■ 5.2), pushed down brake and engagement of the parking brake.



Parking brake engaged signal



Brake pedal applied signal

(3) MOTOR HOURS COUNTER

The motor hours counter implicitly displays the total number of motor hours.

If the counter is equipped with a Mode button, its function is as follows:

By pressing the Mode button you gradually switch between the following maintenance functions:

TMR 1 - individual trip counter. The value is reset by holding down the Mode button for 6 seconds.

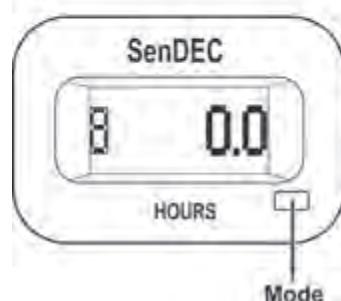
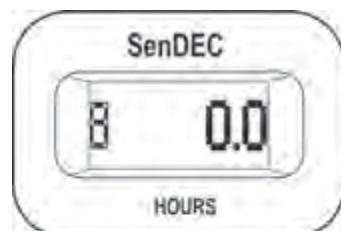
OIL CHG - oil change. The function has two oil change intervals. The first is after 5 hours (oil change after the engine has run itself in) and is shown only once. The second is after 25 hours (standard oil change).

AIRFILTER SVC - cleaning or changing the oil filter. The interval is set to 50 hours.

Two hours before the set interval has elapsed the display will show a message lasting 10 seconds.

After the interval has elapsed the display will show a message NOW.

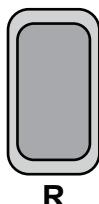
Any of the above mentioned alarms can be reset by holding down the Mode button for 6 seconds.



*Tampering with the counter will void the warranty – the motor hours connection is equipped with a tamper seal.
Immediately contact your service centre if the motor hours counter malfunctions.*

(4) DEACTIVATION OF THE MOWING DECK DISENGAGEMENT FOR REVERSING

Switch R serves to disengage the automatic mowing deck disengagement function when reversing (■ 5.5.1).



The switch needs to be pressed when the mowing deck has already been automatically disengaged but the blades have not yet stopped rotating (approx. 4 seconds) or when the mowing deck is started immediately before the reverse travel pedal is stepped on. Then with every subsequent change in the travel direction from reverse to forward, the disengagement of the mowing deck is again reactivated.

(5) MOWING DECK ENGAGEMENT SWITCH

Pressing the part with the symbol engages the mowing deck. Pressing the part without the symbol disengages the mowing deck.



ENGAGED

Engagement of the mowing deck / the mowing deck is engaged

1

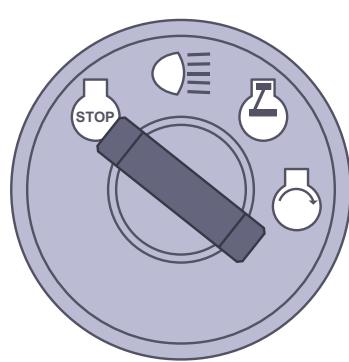
0

DISENGAGED

Disengagement of the mowing deck / the mowing deck is disengaged

(6) MAIN POWER SWITCH

Serves to start up / shut off the engine. It has the following 4 positions:



Ignition off / turn off the ignition



Turn on / turn off the headlights on the hood



Ignition on, the engine is running.



Start engine – starting position

(7) FORWARD TRAVEL PEDAL

The pedal controls the power going to the wheels and regulates the speed of the machine **forward**.



The more the pedal is pushed towards the floor, the faster the machine will be and vice versa.

When the pedal is released it will automatically return to the neutral position and the machine will stop.

More information 5.5.



Changing the travel direction forwards / reverse is only possible after stopping the machine!

(8) REVERSE TRAVEL PEDAL

The pedal controls the power going to the wheels and regulates the speed of the machine **backwards**.



The more the pedal is pushed towards the floor, the faster the machine will be and vice versa.

When the pedal is released it will automatically return to the neutral position and the machine will stop.

More information 5.5.



Changing the travel direction forwards / reverse is only possible after stopping the machine!

(9) BRAKE PEDAL



Stepping on the brake pedal will slow down the riding mower.

The pedal is also used when starting the machine – **it is only possible to start up with the brake pedal applied**.

(10) CHOKE (optional accessory)

Enables the starting of a cold engine. It is located on the dashboard next to the throttle lever.



Machines with BS17 and Loncin engines are equipped with a separate choke.

(11) PARKING BRAKE LEVER



The parking brake has two positions. In position **(0)** the brake is not active, after shifting to position **(1)** while stepping down on brake pedal the parking brake is activated (will brake).

Stepping on the brake pedal will deactivate the parking brake and the lever will automatically be released and shift to position **(0)**.

(12) MOWING DECK ELEVATION ADJUSTMENT LEVER

The lever serves to set the elevation height of the mowing deck from the ground.



The lever has **6** work positions, which correspond to a mowing height of **3 to 9 cm**.

The higher the number of the lever position, the higher vegetation height remains after mowing.

(13) BY-PASS LEVER

The by-pass lever serves to disengage the transmission for the rear wheel drive and is used to push or pull the machine without using the engine. The lever is located on the rear plate of the machine and has the following two positions:



Position	Rear wheel drive	Use
[0]	DISENGAGED	When pushing the machine, the engine is still
[1]	ENGAGED	When driving, the engine is running

5 | OPERATION AND HANDLING OF THE MACHINE

Information which it is good to know before the riding mower is first turned on:

- ▶ The riding mower is equipped with safety contacts, which are engaged by:
 - a switch located under the seat
 - a brake pedal switch
- ▶ **i** The motor will automatically shut off when the driver leaves the seat and the machine is not secured using the parking brake.
- ▶ The motor can only be started when the mowing deck is turned off and the brake pedal is pushed down.

5.1 | CHECKS PRIOR TO STARTING UP THE MACHINE

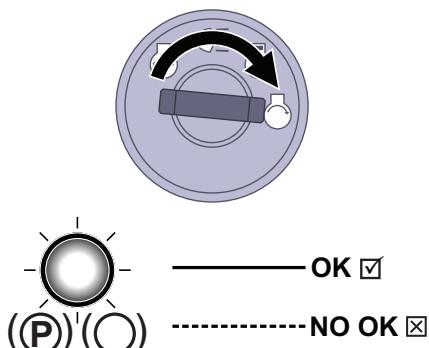
Before starting up the riding mower check the following:

- ▶ Oil level in the engine (■■ 3.4.1)
- ▶ Battery charge level (■■ 3.4.2)
- ▶ Fuel level (■■ 3.4.3)
- ▶ Air pressure in the tyres (■■ 3.4.4)
- ▶ That the by-pass lever is in position "1"

5.2 | STARTING UP THE ENGINE

The machine is equipped with a function that prevents the engine from starting if the following safety conditions are not met:

- ▶ The drive of the mowing deck is disengaged
- ▶ The travel pedal is not pushed down
- ▶ The driver is sitting on the seat of the machine
- ▶ The brake pedal is pushed down or the brake is engaged in the parking position



Meeting these conditions at the instant the engine is being started is indicated by the red brake pedal and parking pedal light being **permanently lit** (P)(O).

Not meeting these conditions at the instant the engine is being started is indicated by the red brake pedal and parking pedal light being **intermittently lit (flashing)** (P)(O).

After meeting the described conditions, start the engine as follows:

- 1) Push down the brake pedal.
- 2) Set the mowing deck elevation adjustment lever to position "6".
- 3) Set the throttle lever as follows:
 - On machines with a two-cylinder engine to position "**MAX**"
 - On machines with a single-cylinder engine to position "**CHOKE**"
- 4) Pull out the choke (*only on machines with a two-cylinder engine*)
- 5) Start up the engine by moving the ignition key to position "**Start engine**". After starting the engine, release the key. The key will automatically return to the position "**Ignition on**"

! As soon as the engine starts up, release the ignition key. *The duration of starting up must not exceed 10 seconds, otherwise there is danger of damage to the switch!*
Never use fixed external starters to start the machine. This could damage the electrical wiring. It is possible to connect a higher capacity 12V battery.

- 7) Push in the choke (*only on machines with a two-cylinder engine*)
- 8) Slowly move the throttle lever to position "**MIN**".

! Allow the engine to run several minutes before turning on the mowing deck.

! *Never leave a started engine running in a closed or poorly ventilated area. Exhaust fumes contain gases that are harmful to your health.*
Keep your hands, legs and clothing away from moving parts and the exhaust.

5.3 | TURNING OFF THE ENGINE

- a) Move the throttle lever to position "MIN".
- b) If the mowing deck is activated, deactivate it by pushing down the switch.
- c) Turn off the engine by moving the key to position "STOP" and take the key out of the ignition.



If the engine is overheated, allow it to run for a while at minimum speed.

Never stop the engine by merely getting off the seat, while leaving the key in the ignition in the position "ON" as this may result in an electrical defect.



Always turn the key to the "OFF" position and remove it from the ignition. This will prevent an undesirable start up of the machine by an unauthorised person or children.

Before turning off the ignition, lower the engine speed to slow for the event of self-ignition. Not following this instruction may result in damage to the engine and exhaust.

Never disconnect the battery cables while the engine is running! This could damage the engine regulator.

5.3.1 LEAVING THE MACHINE WHILE THE ENGINE IS RUNNING

If you want or need to leave the machine for a while (e.g. in order to remove obstacles, etc.) and you intend to then continue mowing, it is possible to **get off and leave the engine running**. This saves the machine's battery.

Conditions for getting off the machine with the engine running:

- the mowing deck is disengaged
- the throttle control lever is in position "MIN"
- the gear is in neutral and the hand brake is activated (the brake indicator light is on)

5.4 | CONTROLLING THE MOWING DECK

5.4.1 ENGAGING THE MOWING DECK

- Move the throttle lever to position "MAX".
- Using the mowing deck elevation adjustment lever set the position of the mowing deck and thereby the mowing height.
- Set the mowing deck activation switch to position "ACTIVATED".



Conditions for engaging the mowing deck:

- the driver is sitting in the seat of the machine

5.4.2 DISENGAGING THE MOWING DECK

- Disengage the mowing deck by pressing the rocker switch downwards.

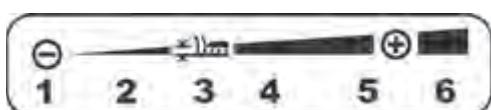
If the driver leaves the seat, the engine will automatically shut down and thereby the rotation of the mowing blades also.



However, never turn off the mowing deck by simply leaving the seat. If you do not move the key in the ignition from the position "ON" to position "STOP", then a part of the electrical installation will still be live and this may result in it being damaged. Also the motor hours counter remains activated.

5.4.3 SETTING THE ELEVATION OF THE MOWING DECK FOR MOWING

- If you wish to set the mowing deck **higher off the ground**, move the mowing deck elevation adjustment lever **upwards**.



- If you wish to set the mowing deck **closer to the ground**, move the mowing deck elevation adjustment lever **downwards**.

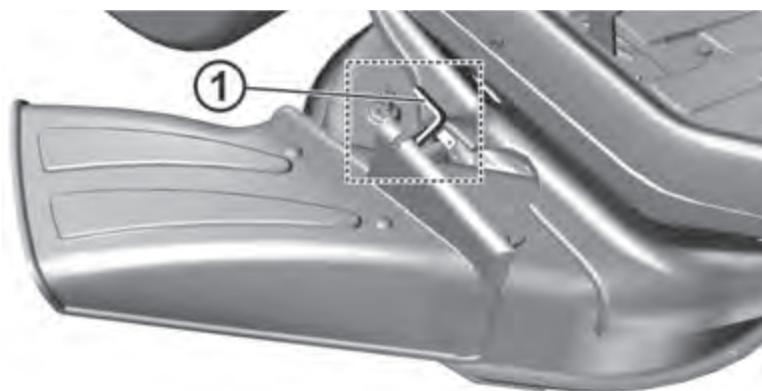


Position "1" is used to copy the unevenness of the terrain. Do not use this height permanently as this could lead to increased wear of parts on the mowing deck.

The mowing deck is fitted with four travel wheels, which in the event of uneven terrain lift the frame with the mowing deck and so protect the mowing blades against damage.

5.4.4 SETTING THE SIDE DISCHARGE COVER ON THE MOWING DECK

The side discharge cover has two work positions. The first position results in a shorter ejection distance of grass clippings, the second position in a longer ejection distance. The positions are set using the lever (1) on the side discharge cover. It is possible to lift the side discharge cover upwards to clean it out.



The mowing deck must always be disengaged when cleaning out the inside of the side discharge cover! Never place your hands under the side discharge cover when the mowing deck is in motion.

5.5 | DRIVING THE MACHINE

General warnings before driving:

- ▶ Make sure that the **parking brake is disengaged**. The parking brake lever must not remain in position (1), where the indicator light is lit (**4.2 (11)**). Stepping down on the operating brake automatically disengages the parking brake.
- ▶ The by-pass lever must be set to position "1", i.e. **by-pass** of the travel must be activated.
- ▶ When travelling to the mowing location, **the mowing deck must be disengaged and elevated to the highest position**, i.e. the mowing deck elevation adjustment lever is in position "6".
- ▶ **When travelling over obstacles higher than 8 cm** (kerbs, etc.) it is necessary to use **ramps** to avoid damaging the mowing deck and the gear box.
- ▶ **Avoid hard impacts** of the front wheels **against rigid obstacles**, this may result in damage to the front axle, particularly when the machine is travelling at a high speed.
- ▶ When travelling and particularly when turning to the right, always be aware of the position of the side discharge cover and take care not to damage it against obstacles.

5.5.1 TRAVELLING FORWARD / REVERSING

- ▶ **Slowly move the throttle lever to position "MIN"**. This will lower the engine speed.
- ▶ Slowly step on the drive pedal depending on the desired direction of travel (forward or reverse).



Caution - risk of injury if the pedal is pushed down quickly!



*Changing the direction of travel forward-reverse is possible only after stopping the machine. If the machine is not still, there is a danger of damaging the transmission.
Never use the travel pedal and the brake pedal at the same time – this may result in a malfunction of the transmission.*

The system is equipped with an **automatic mowing deck disengagement for reversing** function at a speed higher than 0.3 m/s (approx. 1 km/hour).

In the event of intentional and controlled reversing with the mowing deck engaged, it is possible to disengage this safety function by pressing the R button located next to the steering wheel (**4.2 (4)**). Then with every subsequent change in the travel direction from reverse to forward, the disengagement of the mowing deck is reactivated.



When using the disengagement of this function with the R button, pay exceptional attention to the area behind the machine when reversing.

5.5.2 STOPPING TRAVEL

The forward/reverse travel of the machine is stopped by **gradually taking your foot off the travel pedal** and subsequently **stepping on the brake pedal**.



In the event that cruise control is engaged and the brake pedal is stepped on, it automatically moves to the neutral position. The braking distance is shorter than 2 m.

5.5.3 TRAVELLING SPEED AND MOWING GRASS

- ▶ It generally applies that **the wetter, higher and more dense the grass is, the lower the travelling speed** that should be used. When the machine is travelling at high speed or when under large load, the rotation speed of the blades is reduced, the quality of the cut is worse and the ejection chute may become clogged. Under such conditions always set the engine to maximum power.
- ▶ If the **grass is very high**, it is necessary to **mow it several times**. First mow at maximum elevation and with narrower mowing coverage width if necessary. The second run can then proceed at the required mowing height.
- ▶ In the event that the 110 cm mowing deck is used for mulching, it is necessary to very **carefully adjust the speed** to the height of the mulched vegetation respecting the significant load that this can place on the engine in this mode! The higher the grass, the lower the travelling speed.
- ▶ We recommend mowing **in the parallel or cross direction**. Covering the previous coverage of the machine increases the effectiveness of the blades and will improve the appearance of the mowed area.
- ▶ When travelling over uneven terrain the travelling speed may fluctuate.

Recommended travelling speeds of the machine based on conditions:

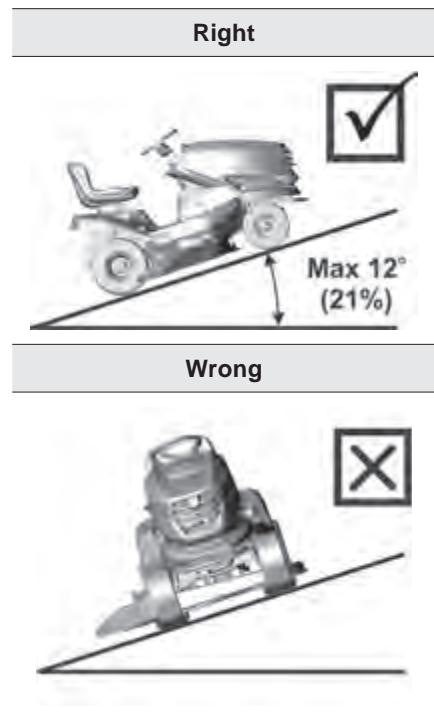
Condition of vegetation	Recommended speed
High, dense and wet	2 km/hour
Average conditions	3 – 5 km/hour
Low, dry vegetation	< 5 km/hour
Travelling without the mowing deck engaged	< 8 km/hour

5.5.4 TRAVELLING ON A SLOPE

The AB107 riding mower may work on slopes with an incline of up to **12° (21%)**.

When working on a slope it is necessary to adhere to the following fundamentals:

- ▶ Pay increased attention when travelling on a slope.
- ▶ Always use a slower travelling speed.
- ▶ Only travel perpendicular to the contour, i.e. up and down. Travelling in the direction of the contour is possible with extra attention only when turning the machine. If at all possible, avoid travelling along the contour.
- ▶ When turning ensure that a wheel does not drive over an elevated obstacle (rock, tree root, etc.)
- ▶ Travel slower when travelling down a slope or over obstacles. Pay special attention when turning and turning around on slopes.
- ▶ If you stop on a slope, always use the parking brake.



When overloading the machine by travelling on slopes over 12° (21%) there is a risk of serious damage to the gear box. The manufacturer is not responsible for damage caused in this way.

6 | MAINTENANCE AND ADJUSTMENT

Properly performed regular maintenance and inspection of the riding mower helps to increase its problem-free operating lifetime. Worn or damaged parts must be replaced in time. **When replacing parts use only original spare parts, using non-original parts may damage the machine, endanger the health of the driver or other persons and during the warranty period it voids the warranty.** To order spare parts always contact the machine's manufacturer or an authorised service centre.



Incorrectly performed or completely neglected maintenance may lead not only to problems with the operation of the riding mower, but may also cause injury to its operator.

All safety and protective elements that are removed during maintenance, must always be reinstalled to their correct location and tested for functionality.

6.1 | OVERVIEW OF CHECKS AND MAINTENANCE

INTERVAL	ASSEMBLY	Activity	
BEFORE EVERY USE	Engine and transmission	Check oil level	6.2.1 6.3.16
	Travel drive belt	Inspection and adjustment	6.3.12
	Brake	Inspection of controls	6.2.1
	Tyres	Inspection of pressure	6.2.1
	Cables	Inspection of mounting, inspection of quick coupler parts	6.2.1
	Bolt connections	Inspection, tightening if necessary	6.2.1
	Mowing deck	Inspection of tension of the cogged blade drive belt	6.3.9
		Inspection of the mowing deck drive V-belt tension	6.3.8
AFTER FIRST 2 HOURS	Safety switches and elements	Inspection of function	6.2.1
	Engine and transmission	Check oil level	6.2.1
AFTER FIRST 5 HOURS	Engine	Oil change	6.3.2 6.3.16
	Travel drive belt	Inspection and adjustment ⁴	6.3.12
		Inspection of tension of the cogged blade drive belt ⁴	6.3.9
	Mowing deck	Inspection of the correct tension of the mowing deck drive V-belt ⁴	6.3.8
AFTER EVERY USE	Mowing deck	Cleaning and washing	6.2.2
		Inspection of the correct tension of the mowing deck drive V-belt	6.3.8
	The entire machine	Cleaning	6.2.2
AFTER 25 HOURS	Bolt connections	Inspection, tightening if necessary	6.2.1
	Engine	Changing the oil ^{1,2}	6.3.2
	Battery	Inspection of electrolyte and cleaning	6.3.1
	Bolt connections	Inspection, tightening if necessary	6.2.1
	Travel drive belt	Inspection and adjustment	6.3.12
	Front axle and steering	Inspection and adjustment of play	6.3.11
	Mowing deck	Inspection of play, alignment of shafts, inspection and sharpening of blades ³	6.3.6 6.3.7
	Lubrication	Lubrication of parts according to lubrication plan	6.4

(continued)

INTERVAL	ASSEMBLY	ACTIVITY	
AFTER 50 HOURS	Air filter and spark plugs	Inspection, replacement if necessary ^{1,2}	6.3.2
	Lubrication	Lubrication of parts according to lubrication plan	6.4
AFTER 100 HOURS	Engine, transmission, electromagnetic transmission	Inspection and adjustment of motion	N
MONTHLY	Tyres	Inspection of pressure	6.2.1
	Mowing deck	Inspection of tension of the cogged blade drive belt	6.3.9
BEFORE THE SEASON	Fuel filter	Replacement	N
	Battery	Inspection of electrolyte and cleaning	6.3.1
	Travel drive belt	Inspection and adjustment	6.3.12
	Mowing deck	Inspection of tension of the cogged blade drive belt	6.3.9
	Front axle and steering	Inspection of the correct tension of the mowing deck drive V-belt	6.3.8
AFTER THE SEASON (PUTTING OUT OF OPERATION)	Engine	Oil change	6.3.2
	Cables	Inspection of mounting, inspection of quick coupler parts	6.2.1
	Mowing deck	Cleaning	6.2.2

Explanations for table:

1 = Replace the oil more frequently if the riding mower is under greater load or works in outdoor temperatures around 35°C or higher.

2 = If the machine works in a dusty environment, perform the inspection more frequently.

3 = Perform the inspection more frequently if the machine works in a sandy environment.

4 = Perform the inspection more often if a new belt has been fitted.

N = Manual of the manufacturer, supplied with the machine.

6.2 | DAILY CHECKS AND MAINTENANCE

Before starting any maintenance or repair works, thoroughly reacquaint yourself with all instructions, restrictions and recommendations in this user's manual.

Always remove the key from the ignition and disconnect the spark plug cables before performing any cleaning, maintenance or repairs.



When working use suitable work clothing and work footwear. Use suitable gloves when handling a mowing blade or for activities where there is a risk of cuts.

Avoid spilling fuel, oils or other harmful substances.

Do not perform any major repairs if you do not have the necessary tools and a good knowledge about repairs of combustion engines!



Dispose of used oil, fuel or other hazardous substances and materials in accordance environmental protection regulations in force.

6.2.1 BEFORE STARTING WORK

► CHECK THE TYRE PRESSURE

Maintain the prescribed tyre pressure and check it regularly. Maintaining the prescribed tyre pressure is important for even mowing. Different pressure values may cause difficulty in driving, or even loss of control over the machine.

The air pressure in the front and rear tyres must be in the range **80 - 140 KPa**, whilst the differences between individual tyres may be $\pm 10 \text{ KPa}$.

► CHECK THE OIL LEVEL IN THE ENGINE

Park the riding mower on a horizontal surface. Open the hood and unscrew the cap of the filling opening. Screw out the oil dipstick, wipe it dry, reinsert it and screw in. Then again screw it out and take the oil level reading.

The oil level must be between the two marks on the dipstick. If it is not, fill up with motor oil so that it reaches the "**FULL**" mark.



Further details about checking and filling of oil are included in a separate user's manual supplied by the engine's manufacturer.

► CHECK CABLES AND BOLT CONNECTIONS

Visually inspect the condition of cables and manually check the tightness of bolt connections.

► CHECK WORKING ORDER OF BRAKES

Check that the brakes work properly. Proceed as follows:

- Park the machine on an even surface and turn off the engine.
- Step on the brake pedal and engage the parking brake.
- Using the by-pass lever disengage the rear wheel drive.
- Try to push the machine forward. If the rear wheels rotate, then the brakes need to be serviced. Contact an authorised service centre to have them adjusted.

► INSPECTION OF THE WORKING ORDER OF SAFETY ELEMENTS

Before every use of the riding mower, check the working order of safety elements:

- switch under the seat
- "R" switch for deactivation of the mowing deck disengagement for reversing

6.2.2 AFTER FINISHING WORK

► SETTING UP THE MACHINE

After finishing mowing, elevate the mowing deck to the highest position and disable the drive for the mowing blades.

Turn off the ignition, step on the brake pedal and secure the machine in position with the parking brake. On machines with a single cylinder engine (BS15, 15.5 HP) close the fuel supply.

► CLEANING THE MACHINE

Remove all dirt and grass remains from the surface of the tractor, the ejection chute and the mowing deck.

Thoroughly clean the textile sack of the grass catcher. When it is clogged with grass, the ability of the machine to fill the grass catcher is reduced.

► WASHING THE MACHINE

Before washing, park the machine on a suitable even surface.

- Plastic parts on the machine:
 - clean using a sponge and soapy water

- Mowing deck:
 - wash the outer and inner parts of the side discharge cover
 - slide a hose of a suitable diameter on to the fittings on the mowing deck cover. Start the engine, engage the mowing deck and flush out the mowing deck with a current of water for 10 minutes.
- This flushing procedure needs to be performed at the end of every mowing session.



Avoid washing with water in the vicinity of electrical accessories on the control panel, battery, etc.

Do not spray pressurised water on to bearings or pulleys!

We do not recommend cleaning the machine and particularly the mowing deck using pressurised water. This can reduce the lifetime of bearings and other moving parts!

6.3 | REGULAR CHECKS, MAINTENANCE AND ADJUSTMENT

6.3.1 BATTERY

Correct and regular maintenance of the battery will extend its lifespan. Therefore regularly check its condition according to the manual supplied by the battery's manufacturer.

- Keep the battery contacts clean. If dirt accumulates on them, or they are rusty, clean them according to the recommendations of the battery's manufacturer. Interruption of the circuit caused by the oxidation of the contacts may lead to the malfunction of the recharging function of the engine!

- Regularly check the condition of the electrolyte. The level must be in the range MIN - MAX. In the event of filling up the electrolyte, use only distilled water.



- A flat battery needs to be recharged as soon as possible, otherwise its cells may be irreparably damaged.

- It is always necessary to charge the battery before:

- first use
- when not planning on using it for a long time
- before starting up after a longer break

- If it is necessary to replace the battery, always use a battery of the same size and type.

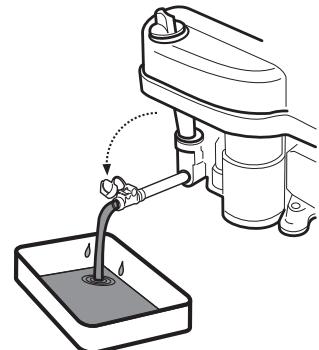
 *Further details about checking and maintaining batteries are included in a separate user's manual supplied by the battery's manufacturer.*

6.3.2 ENGINE

► CHANGING OIL

Before changing the oil, prepare a container with a volume of at least **2 litres**. So that all the oil flows out of the engine we recommend that you place something (e.g. wooden blocks) under the side opposite the drain screw. Drain the oil while it is still warm.

- Unscrew the filler opening of the oil so that the oil flows better and faster out of the engine.
- Clip out the drain hose from the holder on the side of the engine and screw out the plug.
- Tilt the hose towards the prepared container and allow the oil to drain completely.
- Screw the plug back on and clip in the hose. Fill the engine with the correct amount of the recommended oil ( **User's manual for the engine**) and close the oil filler cap.
- Use the dipstick to check the correct oil level. If necessary fill up the oil so that the oil is at the correct level.



 *Further details about replacing oil as well as its type and amount are included in a separate user's manual supplied by the engine's manufacturer.*

 *If you come into contact with used oil, we recommend that you thoroughly wash your hands with soap and water.*

 *Dispose of used oil according to environment protection laws. It is appropriate to deliver the oil in a closed container to a used oil collection point. Under no circumstances should dispose of the used oil with other waste or pour it down the drain, on to waste or on the floor.*

► MAINTENANCE OF THE AIR FILTER

Never allow the engine to run without an air filter. This rapidly wears out the engine.

 *Maintain the air filter according to the instructions contained in the user's manual for the engine supplied by its manufacturer.*

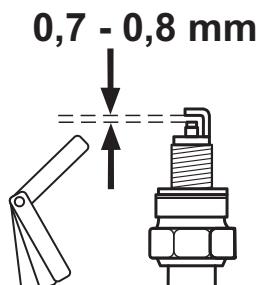
► MAINTENANCE OF THE SPARK PLUG

For the engine to run perfectly the spark plug must be correctly set and clean from deposits.



- Always use only the spark plug specified by the engine's manufacturer!
- If the engine was running shortly before the inspection or replacement, then the spark plug will be very hot. So be very careful not to burn yourself.

- Take off the spark plug cable and remove the spark plug using a wrench key.
- Visually inspect the exterior appearance of the spark plug. If the spark plug is visibly significantly worn out or if the insulator is cracked or it is peeling, it is necessary to replace it.
- If the spark plug is soiled or only slightly worn, it is necessary to carefully clean it with a suitable wire brush (copper).
- Using a gauge measure set the distance of the electrodes (User's manual for the engine).
- After performing maintenance on or replacing the spark plug, pull it tight in position. An incorrectly tightened spark plug heats up significantly and may cause serious damage to the engine.



Check, maintain and replace spark plugs according to the instructions contained in the user's manual for the engine supplied by its manufacturer.

► REPLACEMENT OF THE FUEL FILTER

Never allow the engine to run without an air filter. This rapidly wears out the engine.



Replace the fuel filter according to the instructions contained in the user's manual for the engine supplied by its manufacturer.

6.3.3 REPLACING LIGHT BULBS

Light bulbs are seated in a reflector and are accessible after lifting the hood. The individual types of light bulbs are as follows:

Type of light bulb:	Socket/reflector:	Replace with:
Halogen light bulbs 10W / 12V	Reflector M Light, type HLRG-510F, diameter 51 mm (cap GU5.3)	M light type HSS-510 or equivalent of another manufacturer



- 6.3.3 ▶ When replacing the **halogen light bulbs** first press the tab (1) and slide the bulb out of the socket (2). For installation proceed in the reverse sequence.

6.3.4 REPLACING A FUSE

If a fuse is damaged the engine will immediately shut off, the mowing deck will stop and all indicator lights on the dash board will turn off. In this case it is necessary to find the faulty fuse and replace it with a new one. Under no circumstances should you replace a faulty fuse with a fuse that has a higher current rating!

Fuses are accessible after removing the battery cover located under the steering wheel and removing the fuse cover.

- Remove the fuse and insert a new fuse with the same rating as the initial fuse, i.e. **15A** or **10A**. If even after replacing the fuse the engine or the mowing deck will not work, contact an authorised service centre.
- Certain machine models are equipped with a central switchboard. Under no condition should you tamper with the switchboard! The only exception is the replacement of fuses.



6.3.5 LIFTING THE MACHINE

For quick and simple lifting of the machine, we recommend the use of a cradle-type mower jack from SECO or another universal mower lift. The mower jack is placed underneath the front axle and provides good access to the underside of the machine when lifted.

For more information regarding the mower jack, please contact the supplier of your machine or SECO.

Another option is to use a service workshop equipped with a garage pit suitable for riding mowers.



6.3.6 MOWING DECK - SHARPENING AND REPLACING THE BLADES

► SHARPENING THE BLADES

The mowing blades must be sharp, statically balanced and straight. Blunt, incorrectly sharpened or damaged mowing blades cause grass to be torn out of the ground, damage to lawns and mediocre collection of mowed grass in the grass catcher.



Do not repair a blade that is deformed or otherwise damaged, replace it immediately.

Whenever handling the mowing blades, always use heavy-duty work gloves.

Sharpening procedure:



- ▶ Locate the machine so that you have access under the mowing deck. You can either lift up the machine using a cradle-type mower jack or transport it to a service workshop equipped with a suitable garage pit (6.3.5).
- ▶ Unscrew both blades and clean them.
- ▶ First sharpen with a grinder and then with a file.



Do not sharpen directly on the mowing deck.

- ▶ After sharpening the blades, do not install them yet, but check their balance, see procedure below.
- ▶ Prior to reinstalling the blades, check the condition of the break pins which serve as protection of the mowing deck. If the break pins are damaged, replace them immediately. Spare pins are supplied with the machine.
- ▶ After checking the balance and the brake pins, screw the blades back in position. During installation, ensure that the bend of the blades points upwards into the mowing deck body. Do not interchange the left and right blades. The right blade has a bolt with a left thread.
- ▶ Carefully tighten the fastening bolts using a torque wrench using the prescribed tightening torque of 30 ± 3 Nm. This torque is achieved the moment when the tangential (convex) spring under the fastening bolt is fully compressed and from this point on the bolt is not tightened.



► BALANCING THE BLADES

Pay increased attention to levelling and balancing the blades. The vibration of blades that are not levelled and balanced may damage the engine or the mowing deck.

When balancing, insert the screwdriver into the centring hole and set the blade into a horizontal position. If the blade remains in this position, it is balanced. If one of the ends is weighs down, grind this side until it is balanced. When balancing by grinding, do not shorten the length of the blade! The permitted static imbalance may not exceed 2g.



If you are not certain about the procedure, please contact an authorised service centre, where they will gladly provide advice.

► REPLACING BLADES

If due to frequent use the blades are damaged, they cannot be balanced or sharpened properly, it is necessary to replace them. Proceed as follows:

- ▶ Lift up the machine using a cradle-type mower jack or drive over a suitable garage pit (6.3.5) so that you have access to the mowing deck.
- ▶ Screw out both blades (6.3.6a).
- ▶ Prior to installing new blades, check the condition of the brake pins which serve as protection of the mowing deck. If the break pins are damaged, replace them immediately (6.3.6b).
- ▶ Check that the blades are balanced, see above.
- ▶ Screw on the new blades. During installation, ensure that the bend of the blades points upwards into the mowing deck body. Do not interchange the left and right blades. The right blade has a bolt with a left thread.
- ▶ Carefully tighten the fastening bolts using a torque wrench using the prescribed tightening torque of 30 ± 3 Nm. This torque is achieved the moment when the tangential (convex) spring under the fastening bolt is fully compressed and from this point on the bolt is not tightened.

When the blades impact a solid obstacle, immediately stop the engine and check the blades! The break pins may be damaged or broken.



Whenever handling the mowing blades, always use heavy-duty work gloves.

Always only use blades recommended by the manufacturer or supplier of the riding mower. The use of blades and/or fastening parts that are not recommended may result in improper mowing results, damage to the machine and in the event that they come off during operation also injury to people.

6.3.7 MOWING DECK - INSPECTION AND BALANCING



The mowing deck is equipped with plastic covers which prevent hand access to moving parts and to the machine drive parts of the machine.



The covers can be very quickly and easily removed using the quick coupling pins on the sides of the covers. Slide a screwdriver into the pin groove and turn it anticlockwise. Then take the cover off the machine.

► CHECKING AND ADJUSTING THE ABOVE-GROUND HEIGHT OF THE DECK

To achieve the best mowing results the mowing deck must be set at the correct mowing height and both sides of the deck must be level. Therefore, regularly check the distances **A**, **B** and **C** (6.3.7b).

Before performing measurements or adjustments, do the following:

- ▶ Place the machine on an **optimally even surface**, **inflate all the tyres to the prescribed pressure** (80 -140 Kpa, ± 10 Kpa difference between the individual tyres) and **secure the entire machine against movement** (e.g. using a suitable wedge, etc.).
- ▶ Move the mowing deck elevation adjustment lever to position **1**.
- ▶ On both sides of the mower, slide a screwdriver into the groove of the pin, turning it anticlockwise, to release the safety pins of the plastic side covers of the mowing deck. Take the covers off the machine.
- ▶ Distance **A** is the front edge of the mowing deck in the travel direction and it should be **20-24 mm** above the ground. Check it on both sides of the mowing deck.
- ▶ Distance **B** is the rear edge of the mowing deck in the travel direction and it should be **30 -34 mm** above the ground, i.e. the rear edge must be 510 mm higher than the front edge. Check it on both sides of the mowing deck.
- ▶ Distance **C** represents the setting of the mowing deck in the side direction and the distance between the left and right side should not be more than **5 mm**.

 6.3.7b
6.3.7c

If distance **A**, **B** or **C** is different, loosen the nuts (1), set all the edges of the mowing deck to the correct height and tighten the nuts using a torque of **55 – 65 Nm**.



When adjusting distance C it is recommended to place something under both sides of the mowing deck cover, use overlays of the same size (e.g. wooden boards, etc.) and use them to level the deck so that the distance from the ground is the same on both the left and right hand side.

If you are not certain about the adjustment procedure, have it performed by a service centre.

► ADJUSTING THE MOWING DECK ELEVATION HEIGHT

If you wish to adjust the elevated and lowered height of the mowing deck, it is necessary to set the draw rods that determine this height. Proceed as follows:

 6.3.7d

- ▶ Remove both plastic side covers by taking out the quick coupler pins.
- ▶ Loosen the lock nuts (2) on the respective draw rod (1) and set the required height. Tighten the lock nut (2).
- ▶ Reattach both plastic side covers.

6.3.8 MOWING DECK - CHECKING AND ADJUSTING THE V-BELT

 6.3.8

Because of the demands placed on it, the tension of the mowing deck drive belt (1) declines over time and it is necessary to tension this belt. The belt is tensioned using bolts and a spring.

- ▶ Set the mowing deck to position 1.
- ▶ Remove both plastic side covers by taking out the quick coupler pins.
- ▶ Using a suitable wrench, turn nut (2) so that spring (3) is tensioned to a value of **155 \pm 1 mm**.
- ▶ Reattach both plastic side covers.



Do not tension the spring and thereby the belt above the prescribed value as this will shorten the lifetime of the belt and may result in damage to the transmission!

6.3.9 MOWING DECK - REMOVING IT FROM THE MACHINE

- ▶ Set the mowing deck to the highest position by moving the elevation adjustment lever to position 6.
- ▶ Remove both plastic side covers by taking out the quick coupler pins.

 6.3.9a

- ▶ Using a wrench, turn nut (2) so that the tension on the spring (3) is completely released. Then remove the belt (1) from the belt pulley of the electromagnetic engine transmission (4).

 6.3.9b

- ▶ Slide the spring pins (5) from both the rear mowing deck suspension shaft pins (6). Screw out the nut (6) from the front shaft pin and pull out the shaft pin (7). Using pliers, slide out both pins (5).
- ▶ Slide the front side of the mowing deck with pin (8) off the fork (7). It is not necessary to remove the bolts.

 6.3.9c

- ▶ Slowly pull out the mowing deck to the right side of the machine.

Reinstallation of the mowing deck on to the mower is performed according to chapter 3.3, point e).

6.3.10 MAINTENANCE OF STEERING



Regularly check that there is not excessive looseness between the cogged steering segment and the steering wheel pinion. If higher looseness is identified, it is necessary to limit it. Procedure for limiting (adjusting) looseness:

- ▶ Lift the hood.
- ▶ Loosen nut M12 (1) on the bolt of the eccentric.
- ▶ Place a suitable wrench on to the hexagon of the eccentric (2) and turn it until looseness is limited to a minimum.
- ▶ Tighten nut M12 (1) using a torque of **35 - 45 Nm**.



Neglecting this maintenance may result in damage to steering components.

6.3.11 CHECKING AND ADJUSTING THE TRAVEL DRIVE BELT

Regularly check the condition and tension of the travel drive belt. As soon as the belt starts to slip through or even produce an odour, it is necessary to tension or replace it.

- ▶ Take off the mowing deck cover (6.3.7a).



- ▶ By tightening the nut on the bolt, set the spring to a length of **55 ± 1 mm**.



Do not over-tension the belt above this level, this will reduce its lifetime and may also cause damage to the transmission!

6.3.12 REPLACING BELTS

Replacing drive belts is a relatively demanding operation, which needs to be performed by an authorised service centre.

6.3.13 REPLACING WHEELS

Before replacing one of the wheels, park the machine on a horizontal and rigid surface, turn off the engine and remove the key from the ignition. Perform the replacement as follows:



- ▶ Lift the machine using an appropriate jack on the side where you will perform the replacement. Locate the jack under a solid part of the frame or on the arm of the transmission. Using a wooden block, secure the machine to prevent it rolling off. **CAUTION** – when lifting the machine on the left side, take care not to lift it too high. The side discharge cover on the right side of the mowing deck could be damaged.
- ▶ Remove the protective cover (1) from the wheel (only the front wheels).
- ▶ Using a suitable screwdriver remove the retaining ring (2) and remove the washer (3).

When reattaching the wheel proceed in the reverse sequence to its removal. Before attaching the wheel clean all parts and lightly grease the shaft with a plastic lubricant. Especially for wheels on the rear axle this **lubrication is essential for the subsequent removal of the wheel**. **In the event that lubrication is not performed the subsequent attachment may be very difficult.**

When attaching the rear wheel pay attention to the mutual alignment of the pin on the shaft and the groove on the wheel.

6.3.14 REPAIRING A TYRE PUNCTURE

The machine is equipped with tubeless tyres. In the event of a puncture have it repaired at a specialised tyre repair shop or at an authorised Seco machine service centre.

6.3.15 MAINTENANCE OF THE HYDROSTATIC TRANSMISSION

For the reliable operation of the transmission it is necessary to maintain the correct oil level. The filling opening of the transmission is shown in figure 6.3.15. Details are included in the manual of the manufacturer that supplied the machine part.



In the event of problems with the transmission immediately seek the help of an authorised service centre, there is a risk of serious damage.

6.3.16 OVERVIEW OF THE TIGHTENING TORQUE OF BOLT CONNECTIONS

	Torque
Mowing deck:	
Central blade bolt	30 ± 3 Nm
Nuts M12 on the mowing drive pulleys	45 - 55 Nm
Steering:	
Bolt M8x30 of the steering segment	15 - 25 Nm
M12 nut of steering segment	45 - 55 Nm
Engine:	
Bolt of the electromagnetic clutch	60 - 70 Nm
Bolt of the travel belt pulley holder	25 - 35 Nm



When lock nuts are removed and then returned they need to be replaced with new ones.

6.4 | LUBRICATION

Lubricate the machine according to figure 6.4 and the table below. In the event that the machine is operated in very dusty or sandy operating conditions, lubricate more frequently.

Ball bearings of the tension pulleys, guide pulleys and bearings on the mowing deck are self-lubricating.

Prior to starting lubrication, the engine must be turned off and all moving parts of the machine must be still.



The minimum lubrication interval is given by the lubrication interval contained in the table below. If you use the mower very infrequently, it is necessary to lubricate the designated parts always once per year!

Symbol	Explanation	Activity
	Plastic lubricant	---
	Plastic lubricant A00	---
	Oil SAE 30	---
	Interval in hours	---
(1)	Forward travel draw rod ball pan	Remove and lubricate
(2)	Front wheel pins and the axle housing pins	Take off the wheel; lubricate via the lubricating nipple
(3)	Angle joints of connecting steering draw rod	Lubricate without removing
(4)	Rotating central pin of the axle housing	Lubricate through oiler
(5)	Eccentric and angle joint of connecting steering draw rod	Lubricate without removing
(6)	Turning point under the steering wheel	Lubricate without removing
(7)	Rotating points of the mowing deck elevation mechanism	Lubricate without removing
(8)	Bolt of the mowing deck elevation draw rod	Lubricate without removing
(9)	Steering draw rod ball pan in the rear	Lubricate without removing
(10)	Half axles of the rear wheels (transmissions)	Remove the wheel and lubricate
[11]	Rotating points of the mowing deck elevation mechanism	Lubricate without removing
[12]	Rotating points of the mowing deck elevation mechanism in the front	Lubricate without removing



6.4

Do not allow oil and lubricants to come into contact with the drive belts and their pulleys. Thoroughly wipe the area around the lubricated parts before and after lubricating.



Prior to putting the machine out of operation for an extended period of time, thoroughly lubricate all locations shown on the picture, particularly however the half shafts of the front and rear axles.

7 | REPAIRING MALFUNCTIONS AND DEFECTS

Do not perform any repairs if you do not have the appropriate technical equipment and qualifications. The repairs described below may be performed by the user of the machine. Other repairs performed by the user that are not specified here will void the warranty. The manufacturer takes no responsibility for damages resulting from poorly performed unapproved repairs by the user.

ENGINE PROBLEMS		
PROBLEM	POSSIBLE CAUSES	REMEDY
ENGINE WILL NOT START	Not enough or no fuel in the fuel tank	<ul style="list-style-type: none"> ▶ Add fuel
	Incorrect engine starting procedure	<ul style="list-style-type: none"> ▶ Check the procedure according to ■ 5.2
	Burned fuse	<ul style="list-style-type: none"> ▶ Replace the fuse
	Flat or defective battery	<ul style="list-style-type: none"> ▶ Check the voltage on the battery terminals – must be 12 V. If it is not, charge the batter or install a new one. ▶ On a new machine: <ul style="list-style-type: none"> - check whether the batter was activated and charged. - replace the spark plug and check that, as a result of poor handling, oil has accumulated on the cylinder
	Defective or clogged spark plug or incorrect gap between the electrodes	<ul style="list-style-type: none"> ▶ Clean the spark plug, adjust the gap between the electrodes (■ 6.3.2).
	Loose or damaged electrical conductors, faulty switches of the electrical system	<ul style="list-style-type: none"> ▶ Check that the conductors are tightened and tighten if necessary. ▶ Replace damaged conductors or faulty switches.
	Malfunction of engine or electrical system of the machine	<ul style="list-style-type: none"> ▶ Check the engine again exactly according to the instructions in the User's manual of the engine manufacturer. ▶ Have the electrical system checked at a specialised workshop.
THE ENGINE IS TURNING BUT WILL NOT START UP	Incorrect engine starting procedure	<ul style="list-style-type: none"> ▶ Check that the prescribed procedure for starting the engine was followed (■ 5.2). Check that the petrol in the petrol tank is clean.
	Clogged fuel filter	<ul style="list-style-type: none"> ▶ Check the fuel filter and clean it if necessary
	Closed fuel tap	<ul style="list-style-type: none"> ▶ Check whether the fuel tap is open (only on machines with a two-cylinder engine)
	Choke was not pulled out	<ul style="list-style-type: none"> ▶ Move the throttle lever to position "CHOKE".
	Malfunction of engine or electrical system of the machine	<ul style="list-style-type: none"> ▶ Check the engine again exactly according to the instructions in the User's manual of the engine manufacturer. ▶ Have the electrical system checked at a specialised workshop.
THE ENGINE IS RUNNING, BUT THE MACHINE DOES NOT MOVE WHEN THE TRAVEL PEDAL IS PUSHED	Travel belt is loose	<ul style="list-style-type: none"> ▶ Check the tension of the belt and tension it if necessary (■ 6.3.11)
	Cut off or damaged grooves on the engine and transmission belt pulley	<ul style="list-style-type: none"> ▶ Check the belt pulley of the engine and transmission, replace defective parts
	The parking brake is activated	<ul style="list-style-type: none"> ▶ Deactivate the parking brake by pushing on the brake pedal.
THE ENGINE IS RATTLING OR KNOCKING	Insufficient amount of oil or incorrect type of oil	<ul style="list-style-type: none"> ▶ Check the oil level in the engine (■ 3.4.1)

PROBLEMS WITH TRAVEL

PROBLEM	POSSIBLE CAUSES	REMEDY
A "SCREECHING" SOUND IS MADE WHEN TRAVELLING	Worn out or damaged belts, guide or tensioning pulleys	▶ Check the condition of the belts and the tensioning pulleys. If the problem persists, immediately contact an authorised service centre.
EXTREME VIBRATIONS OCCUR WHEN TRAVELLING	Damaged or deformed belt pulleys	▶ Check the condition of the belt pulleys. Replace them if necessary.
	The travel drive belt is damaged	▶ Check whether the belt has any burned spaces or other irregularities. Replace it if necessary.
	Travel belt is loose	▶ Check the tension of the belt (■ 6.3.11). Replace it if necessary.
	Unbalanced mowing blades	▶ Check that the mowing blades are balanced. Balance or replace them if necessary.

BELT PROBLEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
THE TRAVEL DRIVE BELT OF THE MACHINE IS SLIPPING	The travel drive belt is insufficiently tensioned	▶ Check the tension of the belt and tension it if necessary (■ 6.3.11)
	The travel drive belt is damaged or worn out	▶ Check the condition of the belt - replace it if necessary.
	The engine belt pulley or transmission belt pulley is damaged.	▶ Check its condition and replace it if necessary.
	The clutch mechanism is blocked by a foreign object	▶ Check the clutch and remove any foreign objects
THE TRAVEL DRIVE BELT OF THE MACHINE IS CREAKING	The travel drive belt is insufficiently tensioned	▶ Check the tension of the belt and tension it if necessary (■ 6.3.11) ▶ Check the working order of the brakes. If they are not in order have them adjusted at an authorised service centre.
THE TRAVEL DRIVE BELT JUMPS OUT DURING OPERATION	The travel drive belt is insufficiently tensioned	▶ Check the tension of the belt and tension it if necessary (■ 6.3.11)
	The route of the travel drive belt is incorrect	▶ Check the route of the belt. Adjust if necessary.
	Damaged belt pulleys	▶ Check whether the pulleys are damaged. Replace them if necessary.
	Large gap in the travel clutch mechanism	▶ Check the gap of the travel clutch mechanism. Deviations may result in the clutch bearing holder being bent out of shape. Replace it if necessary.
THE STEERING IS SLIPPING THROUGH OR LOOSE	The space between the segment and the pinion is too great	▶ Check that the space between the pinion and the segment is not too large. If yes, adjust the cogged segment.
	Worn out ball and socket joints	▶ Check for wear on the ball and socket joints. Replace the joints if necessary.

MOWING DECK PROBLEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
THE MOWING DECK MOWS UNEVENLY	Grass and dirt accumulated inside the mowing deck	▶ Remove the dirt from the underside of the mowing deck.
	Blunt or deformed blades	▶ Check the condition of the blades and sharpen or replace as necessary (■ 6.3.6)
	Damaged or worn out blade shaft	▶ Check the condition of the shaft.
	The belt is insufficiently tensioned	▶ Check the tension of the belt and tension it if necessary (■ 6.3.8).
AN UNMOWED STRIP REMAINS BETWEEN THE BLADE ROTORS	Blunt or deformed blades	▶ Check the condition of the blades and sharpen or replace as necessary (■ 6.3.6)
	Damaged bearing housing	▶ Check the condition of the bearings and based on findings perform a repair or replacement. When mowing thick grass or grass that is too wet, an unmowed strip may remain. The travel speed should be adjusted to respect the mowing conditions by shifting into a suitable gear. The engine should not run with the throttle valve fully open.
THE MOWING DECK IS RIPPING OUT TURF	Bent blades	▶ Check the condition of the blades and replace as necessary (■ 6.3.6)
	Damaged bearing housing	▶ Check the condition of the bearings and based on findings perform a repair or replacement.
	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ 6.3.8) and tension it if necessary.
	Inappropriate mowing height	▶ Check the mowing height and adjust if necessary. Turf is ripped out more frequently on uneven terrain.
THE MOWING DECK DOES NOT EJECT GRASS	Grass has accumulated in the mowing deck or the side discharge cover	▶ Remove grass from the underside of the mowing deck or the inside of the side discharge cover. In wet conditions, the ejection chute and the lower side of the outlet from the mowing deck may clog up with grass. Do not mow wet grass.
	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ 6.3.8) and tension it if necessary.
	Inappropriate travel speed	▶ The travel speed should be adjusted to respect the mowing conditions by shifting into a suitable gear. The engine should not run with the throttle valve fully open. When mowing high grass, first mow once at a high mowing height, then once more at the normal height. Follow the information in chapter 5.5.3.
	Incorrectly installed blade	▶ Check, particularly after replacing blades, that the blade is installed correctly.

MOWING DECK PROBLEMS (continued)

PROBLEM	POSSIBLE CAUSES	Remedy
THE MOWING DECK DRIVE BELT STOPS DURING OPERATION	Damaged mowing deck drive belt	▶ Check the condition of the belt. Perhaps the belt jumped out of the belt pulley or it was damaged. Replace it if necessary.
	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ ■ 6.3.8) and tension it if necessary. Also check the route of the belt.
	Inappropriate mowing height	▶ Check the set mowing height, adjust if necessary.
	A foreign object is preventing the movement of the belt	▶ Check the movement of the belt and remove all foreign objects or dirt if necessary.
	Damaged belt pulleys	▶ Recheck all the belt pulleys. Buckled or cracked pulleys may cause problems. Replace if necessary. Also check the inside surface of the pulley on the engine. If it is coarse or has cracks, it is necessary to replace the pulley.
	Worn out parts of the tensioning mechanism	▶ Check the parts of the tensioning mechanism for wear and replace if necessary.
THE MOWING DECK DRIVE BELT IS SLIPPING THROUGH	The grass is too high or wet	▶ If the grass is too tall or wet, the mowing deck drive belt may slip through. Check that the belt is not worn out. If it is, replace it.
	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ ■ 6.3.8) and tension it if necessary.
	Worn out or damaged mowing belt tensioning spring	▶ Check the tensioning spring of the mowing belt tensioning mechanism. Replace the spring if it is overstretched or damaged.
THE MOWING DECK DRIVE BELT IS BEING EXCESSIVELY WORN OUT	A foreign object is preventing the movement of the belt	▶ Check all the points along the route of the belt. Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object.
	Damaged belt pulleys	▶ Check the pulleys, if they are damaged, replace them.
	Inappropriate mowing height	▶ Check the set mowing height, adjust if necessary.
	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ ■ 6.3.8) and tension it if necessary.
THE BLADES CANNOT BE PUT INTO MOTION	Damaged or worn out blade drive belt	▶ Check the condition of the belt - replace it if necessary. If it is loose, tension it.
	Damaged spring of the tensioning mechanism	▶ Check the condition of the spring of the tensioning mechanism and replace if necessary.
	A foreign object is preventing the movement of the belt	▶ Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object.
THE BLADES STOP WITH A DELAY	The drive belt is insufficiently tensioned	▶ Check the tension of the drive belt (■ ■ 6.3.8) and tension it if necessary. If the belt cannot be tensioned due to its considerable wear, replace the belt.
	A foreign object is preventing the movement of the belt	▶ Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object.
	Incorrectly functioning electromagnetic clutch	▶ Check that the electromagnetic clutch switches off properly. If the clutch is not working properly have it replaced or repaired at an authorised service centre.

OTHER PROBLEMS

THE MACHINE CANNOT BE PUSHED OR ONLY WITH DIFFICULTY	The by-pass lever is in the incorrect position	► Check the position of the by-pass lever (must not be in position "0").
THE MACHINE IS HARD TO STEER OR CONTROL	Incorrect pressure in the tyres	► Check the tyre pressure ( 3.4.4)

7.1 | ORDERING SPARE PARTS

We recommend that you use exclusively original spare parts, which ensure safety and compatibility. Always order spare parts from an authorised distributor or service organisation, which is informed about the current technical changes performed on the products during manufacture.

For easy, fast and exact identification of the necessary spare part always provide in your order the serial number found on the second side of the cover of this publication. Also provide the year of manufacture as shown on the product identification label under the seat.

7.2 | WARRANTY

Warranty conditions are provided on the warranty card, which is always provided together with the product by the seller.

8 | POST-SEASONAL MAINTENANCE, PUTTING THE MACHINE OUT OF OPERATION

After the end of the season or if you will not be using your riding mower for more than 30 days, make sure to prepare your machine for storage as soon as possible. If fuel remains in the petrol tank without movement for more than 30 days, a sticky deposit may form, which can have a negative effect on the carburettor and cause poor engine operation. For this reason empty the petrol tank.



Never store the riding mower with a full petrol tank inside of buildings or poorly ventilated areas, where there are fuel vapours, open flames, sparking or lighting flames, furnaces, central heating, dry rags, etc. Handle fuels and lubricants with care, they are highly flammable and careless handling may lead to serious burns or damage to property.

Only empty the petrol tank into approved containers outdoors away from open flames.

Recommended procedure for preparing the riding mower for storage:

- ▶ Thoroughly clean the entire machine, especially inside the mowing deck (**■■ 6.2.2**).
- ▶ Repair and paint dented places to prevent corrosion from occurring.
- ▶ Replace faulty or worn out parts and tighten all loose nuts and bolts.
- ▶ Prepare the engine for storage according to the user's manual for the operation and maintenance of the engine.
- ▶ Lubricate all lubrication locations according to the lubrication diagram (**■■ 6.4**).
- ▶ Release the V-belt driving the mowing deck (**■■ 6.3.8**).
- ▶ Take out the battery, clean it, fill it up with distilled water all the way to the bottom parts of the rings of the filling openings and charge fully. A battery that is not charged may freeze and crack. Store the battery in a cool, dry location, as necessary. Charge the battery every 30 days and regularly check its voltage.
- ▶ Store the riding mower covered in a clean and dry environment.



The best way to ensure the riding mower's ideal operating condition for the next season is to have it inspected and tuned at an authorised service centre every year.

9 | DISPOSAL OF THE MACHINE

After the operational life of the machine is over, the owner of the machine is responsible for its disposal. This may be performed in two ways:

- a) Hand the machine over to a specialised company (scrap yard, secondary waste collection point, etc.). You will receive documented confirmation of the handover for disposal.

- b) Dispose of the machine yourself. In this case we recommend the following procedure:

- ▶ Dispose of the product utilising recyclable material according to the applicable waste disposal law.
- ▶ Disassemble the entire machine.
- ▶ Parts that can be reused should be cleaned, preserved and stored for further use.
- ▶ Separate the remaining parts into those that are and are not environmentally friendly, e.g. rubber parts (gaskets), lubricant remains in the bearings or on gears. The environmentally harmful components must be handled according to the relevant waste disposal law applicable in the country of the user, e.g. in the Czech Republic it is the Waste Act No. 185/2001 Coll.
- ▶ Sort the waste according to the Wastes Catalogue in accordance with the relevant ordinance. Ecologically friendly waste shall be treated as reusable material.

