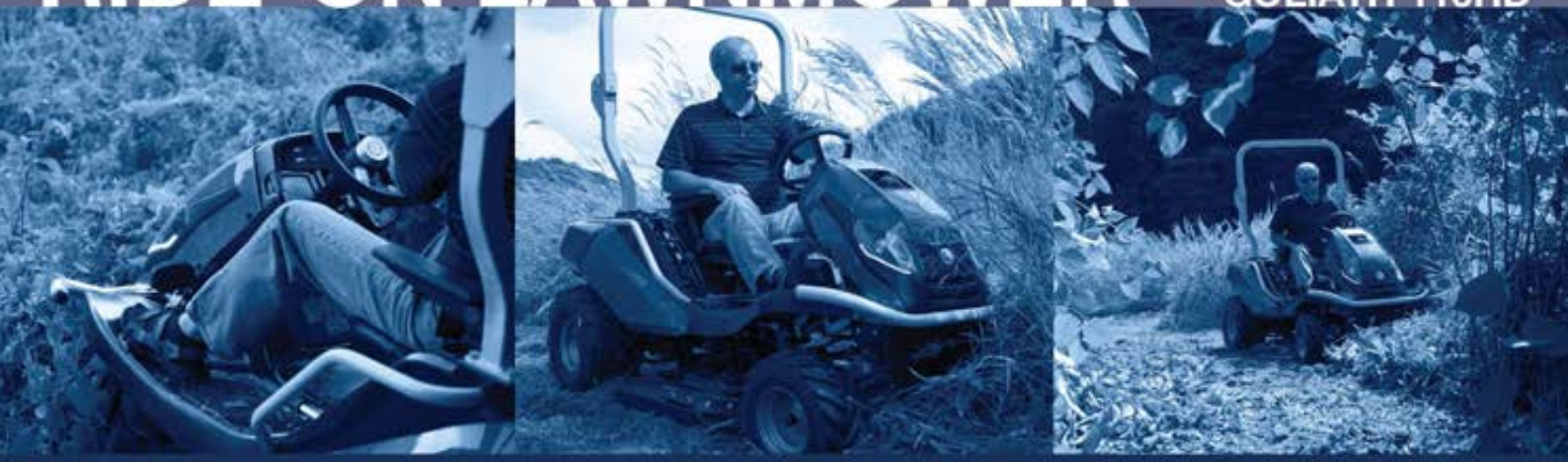
Masport®

RIDE-ON LAWNMOWER

GOLIATH 92HD
GOLIATH 110HD



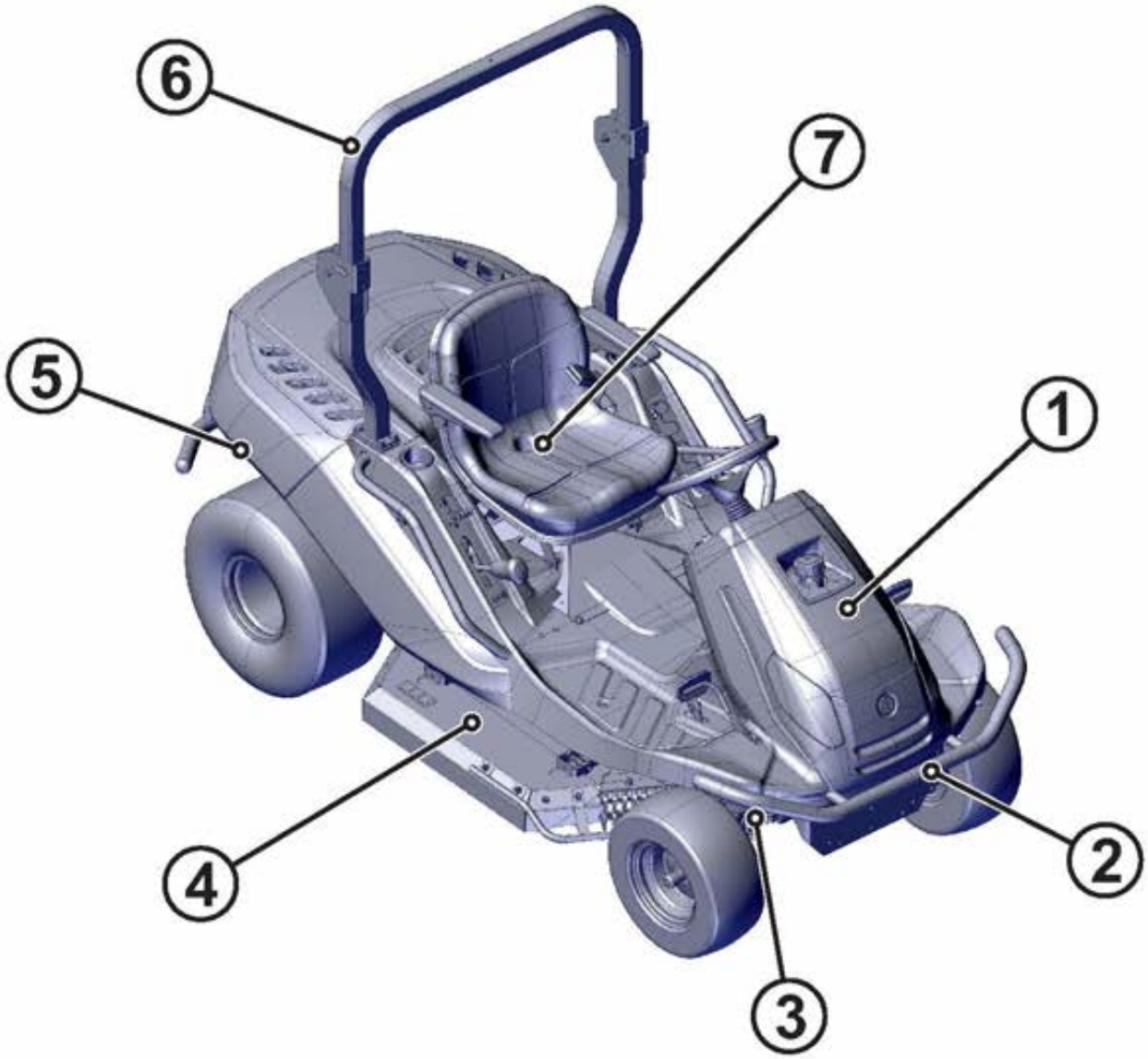
OWNER'S MANUAL

www.masport.com

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

Part No: 554411

1.2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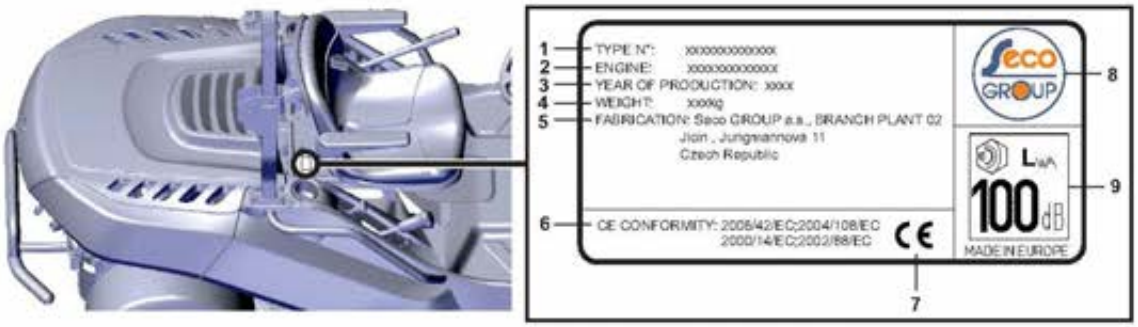
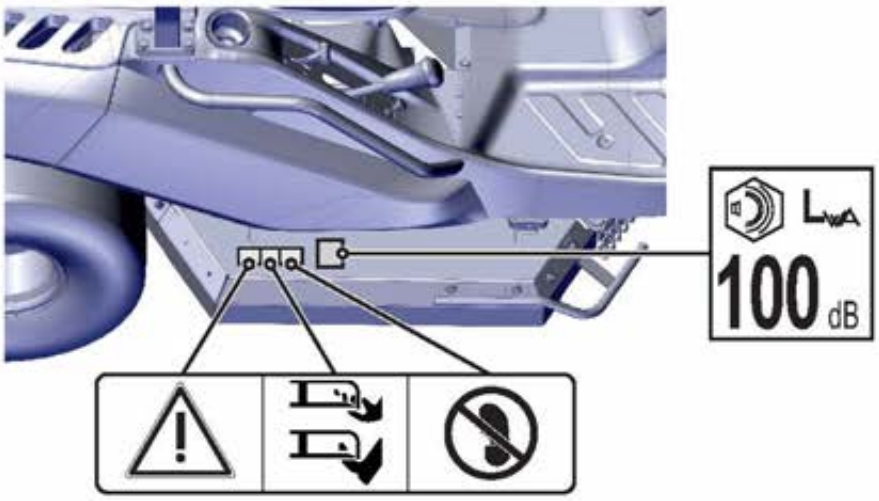
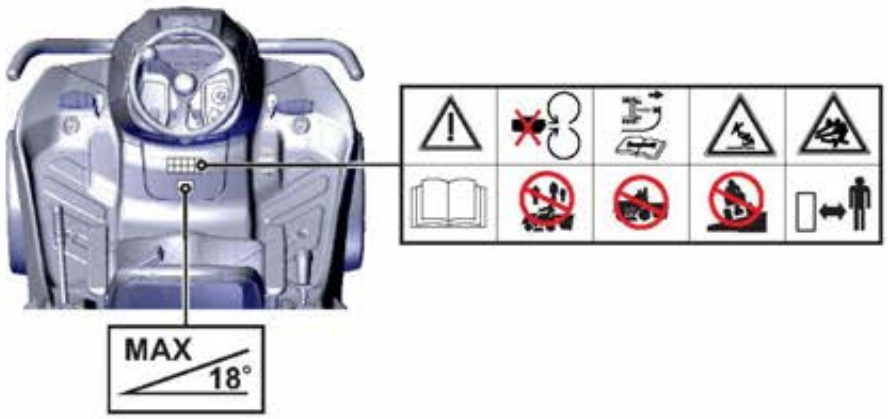
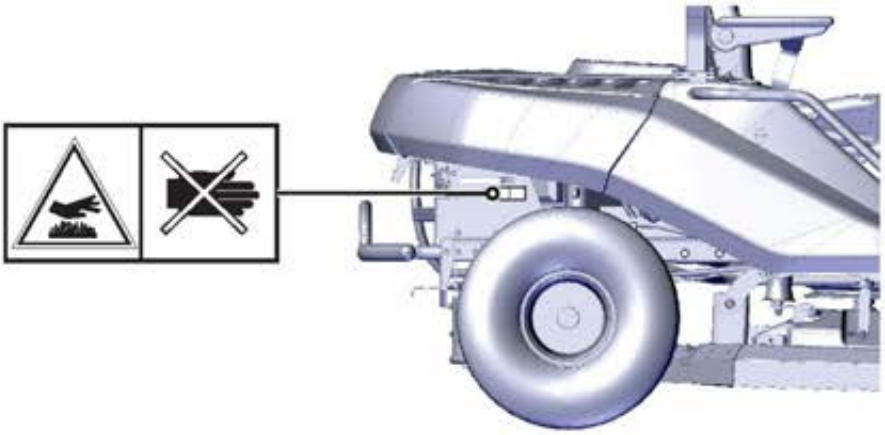
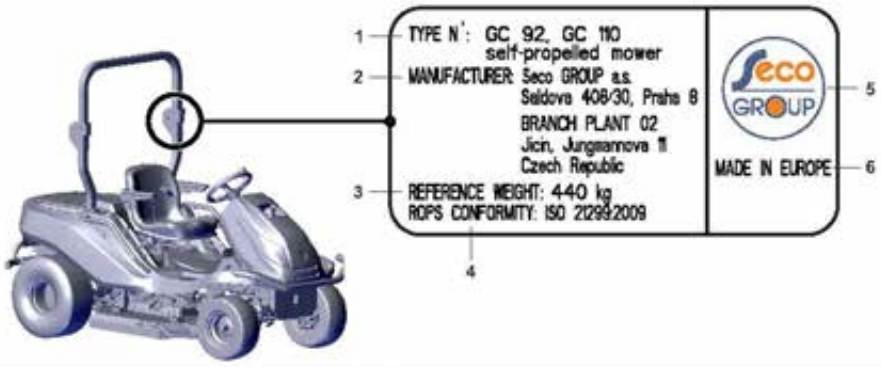
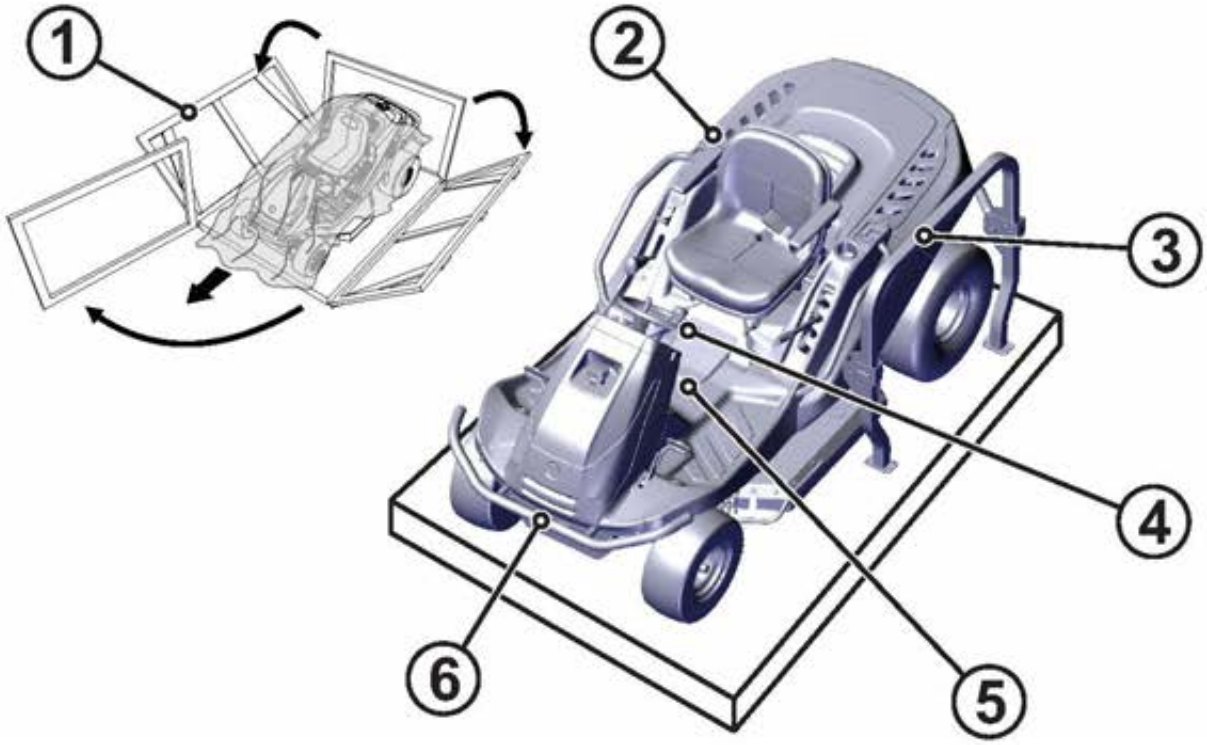
1.3.1


1 TYPE N°: xxxxxxxxxxxx
2 ENGINE: xxxxxxxxxxxx
3 YEAR OF PRODUCTION: xxxx
4 WEIGHT: xxxkg
5 FABRICATION: Seco GROUP a.s., BRANCH PLANT 02
Jicin , Jungmannova 11
Czech Republic
6 CE CONFORMITY: 2006/42/EC;2004/108/EC
2000/14/EC;2002/88/EC
CE
7
8
GROUP
LWA
100dB
9
MADE IN EUROPE

1.3.2a


LWA
100 dB

1.3.2b	
1.3.2c	
1.3.2d	
3.1	

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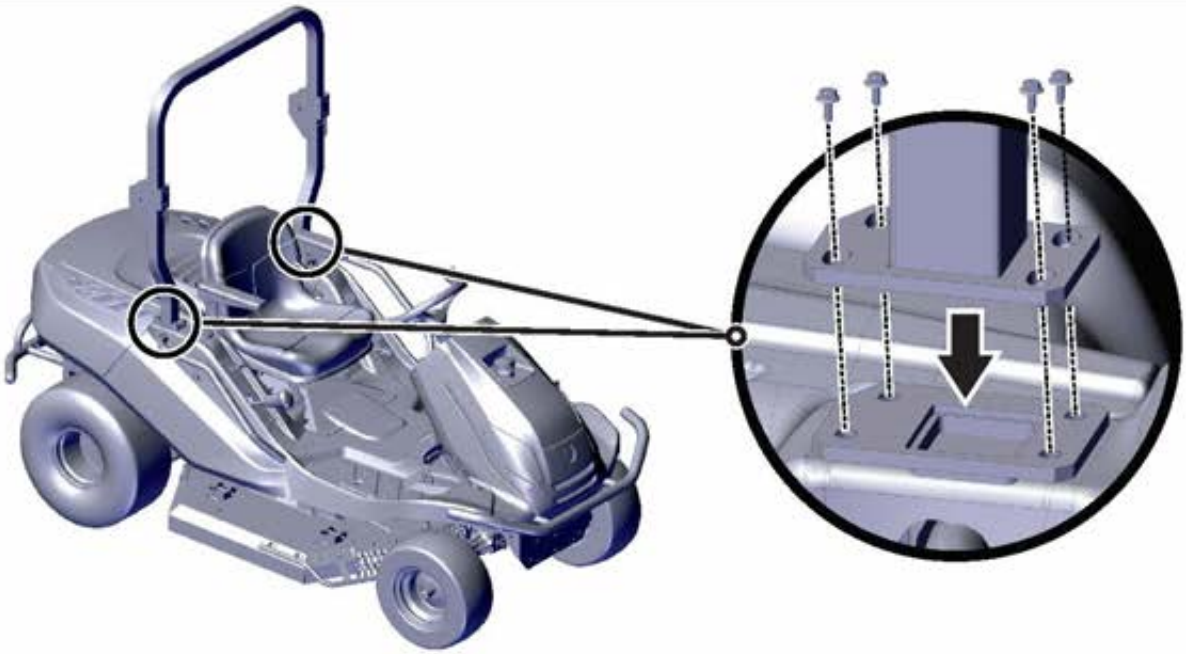
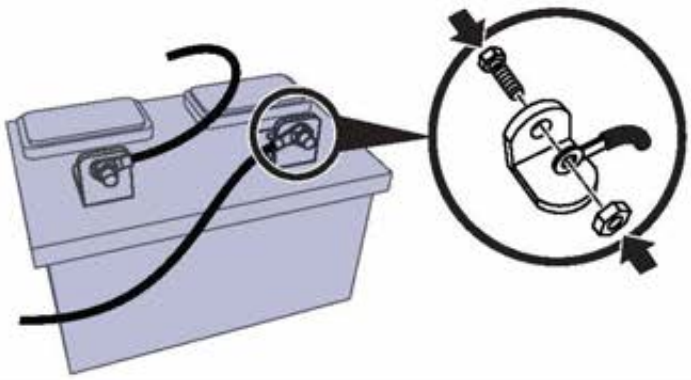
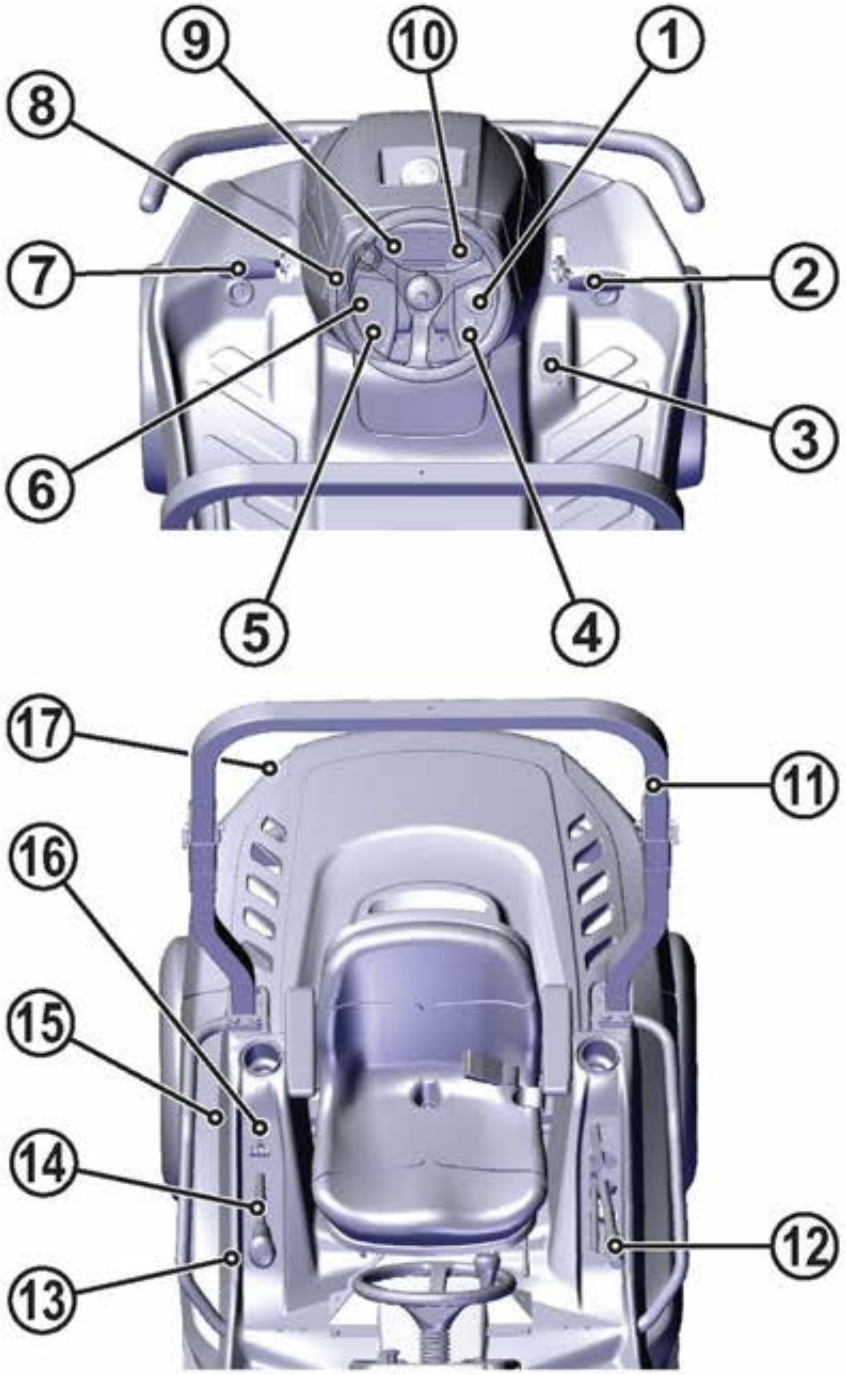
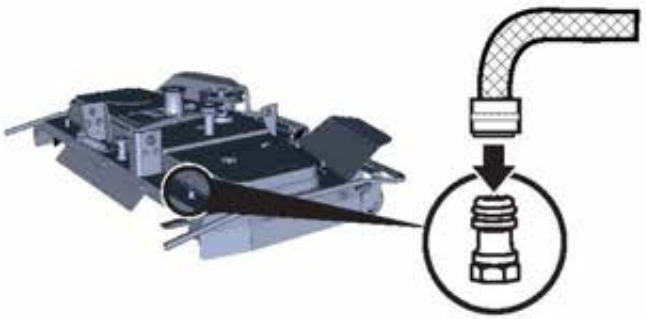
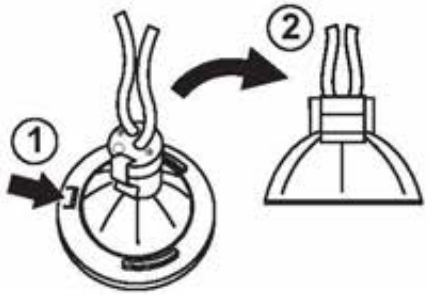
3.3c	
3.3d	

4.1	 9 10 1 8 7 2 6 3 5 4 17 11 16 15 14 12 13
6.2.2	
6.3.3a	 1 2

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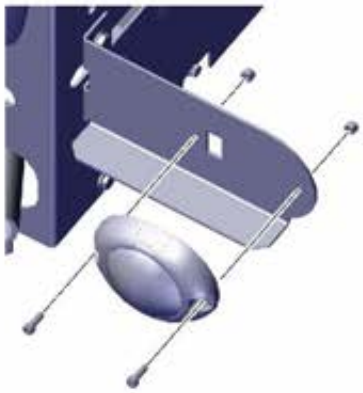

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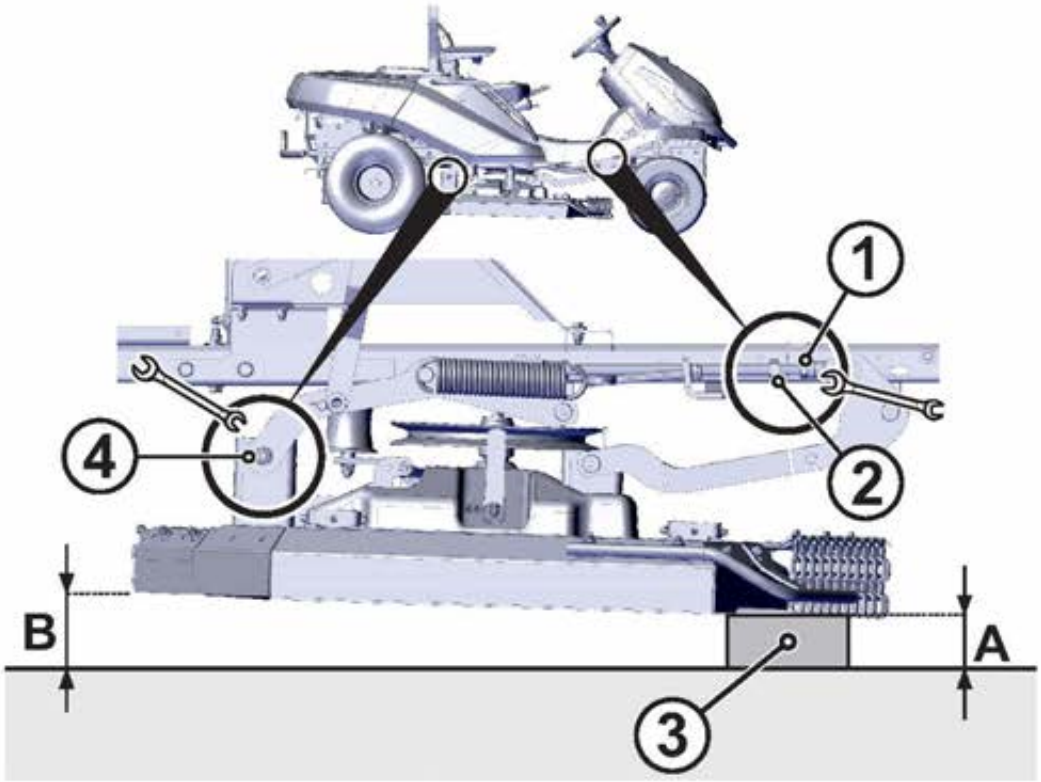

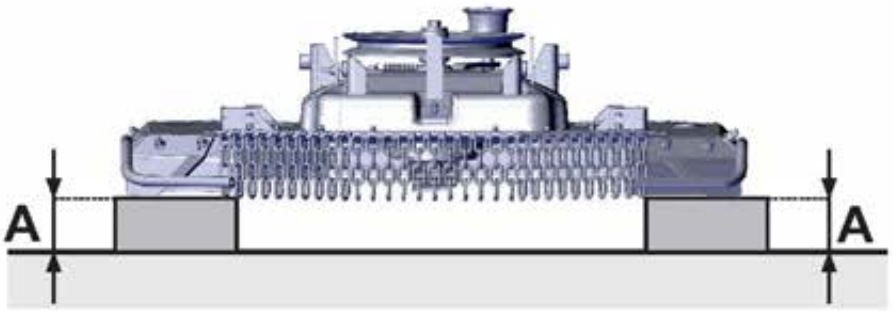

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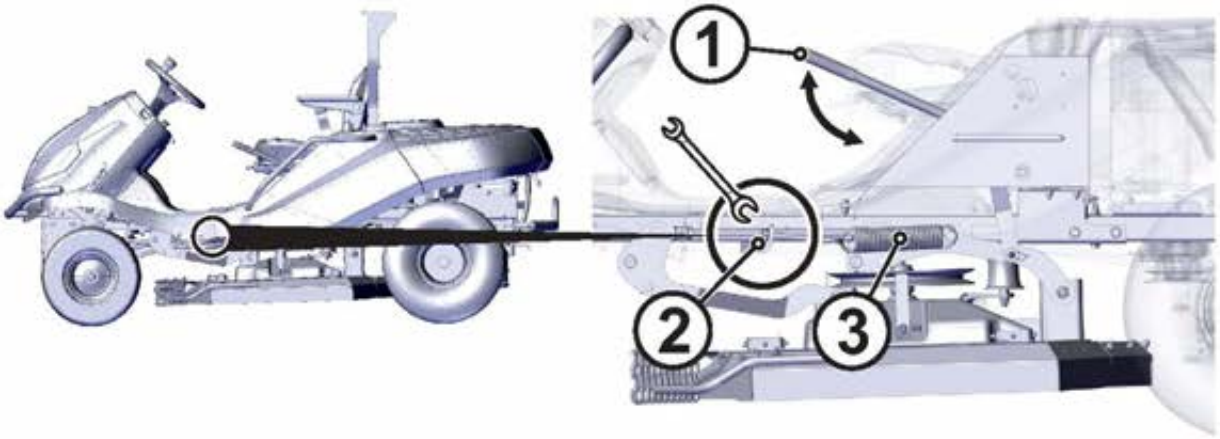

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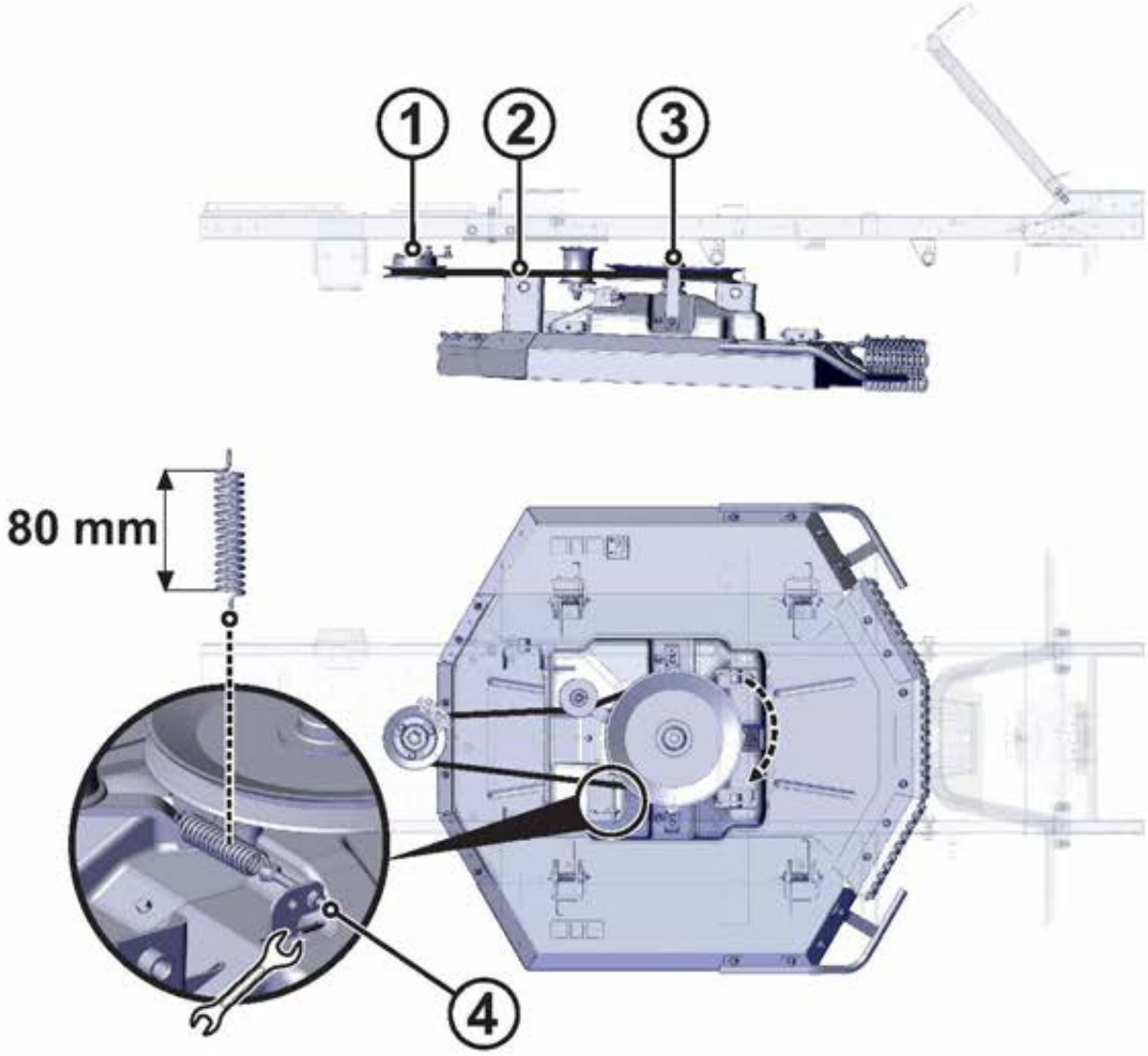

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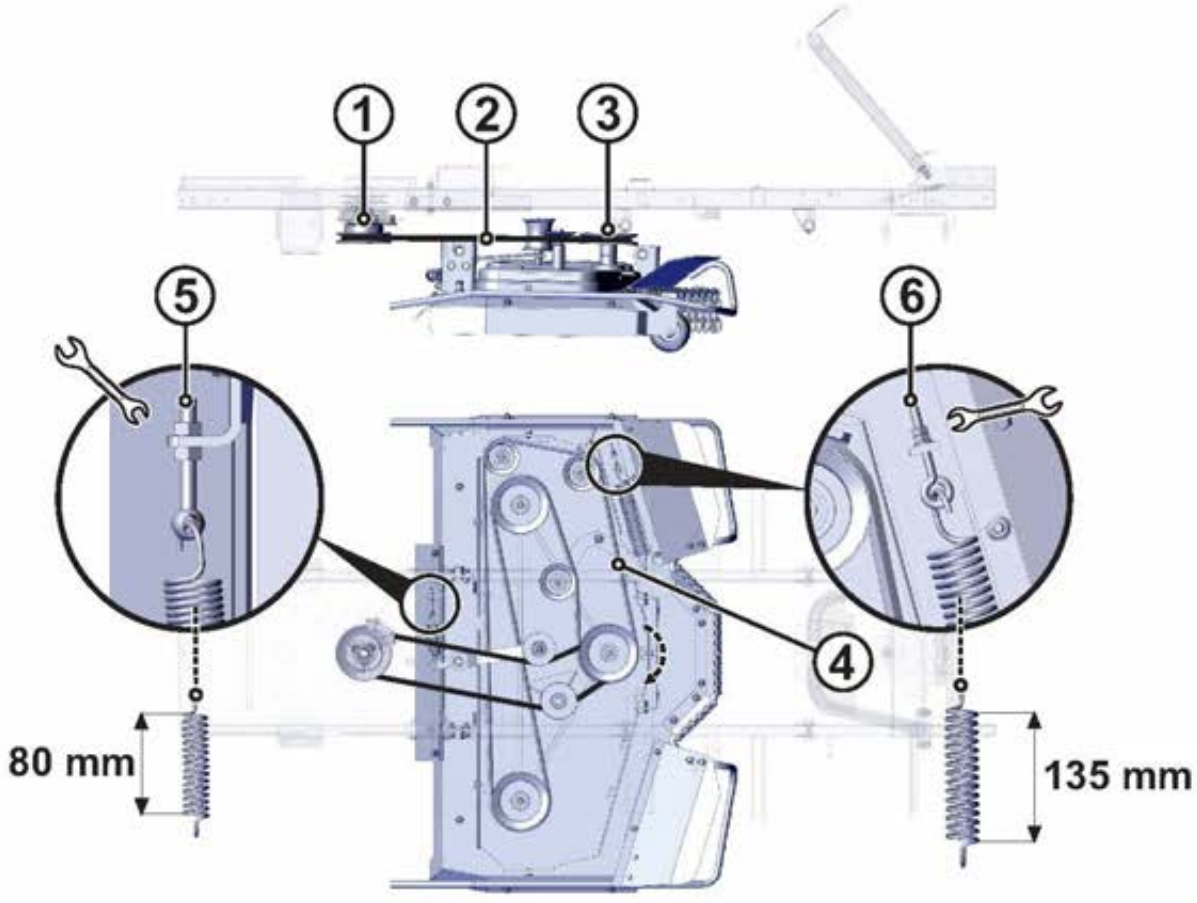
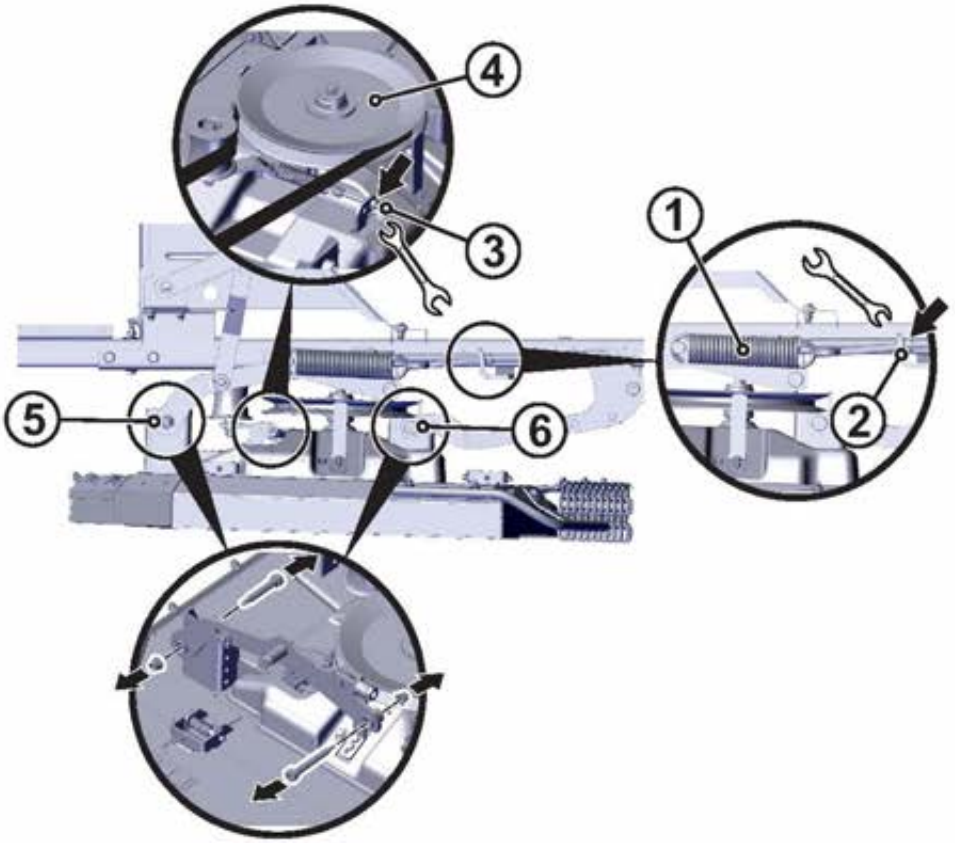
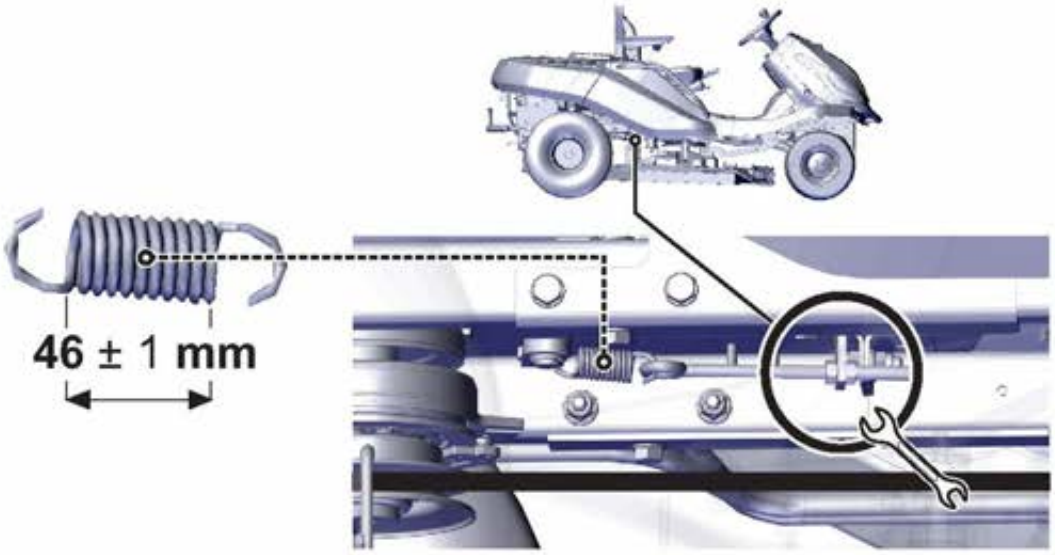
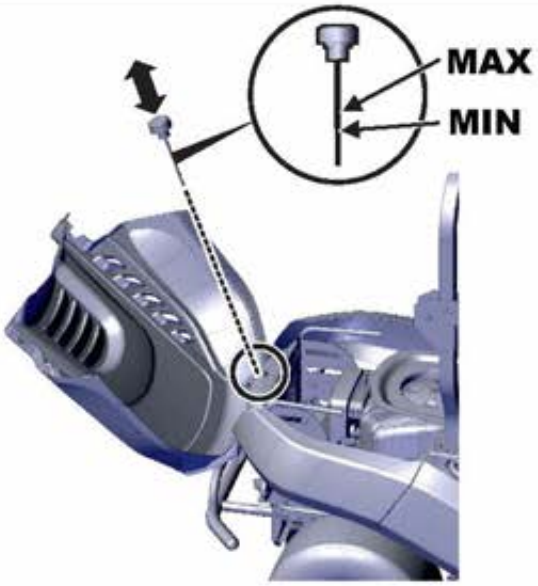


6.3.11	
6.3.12	
6.3.16	

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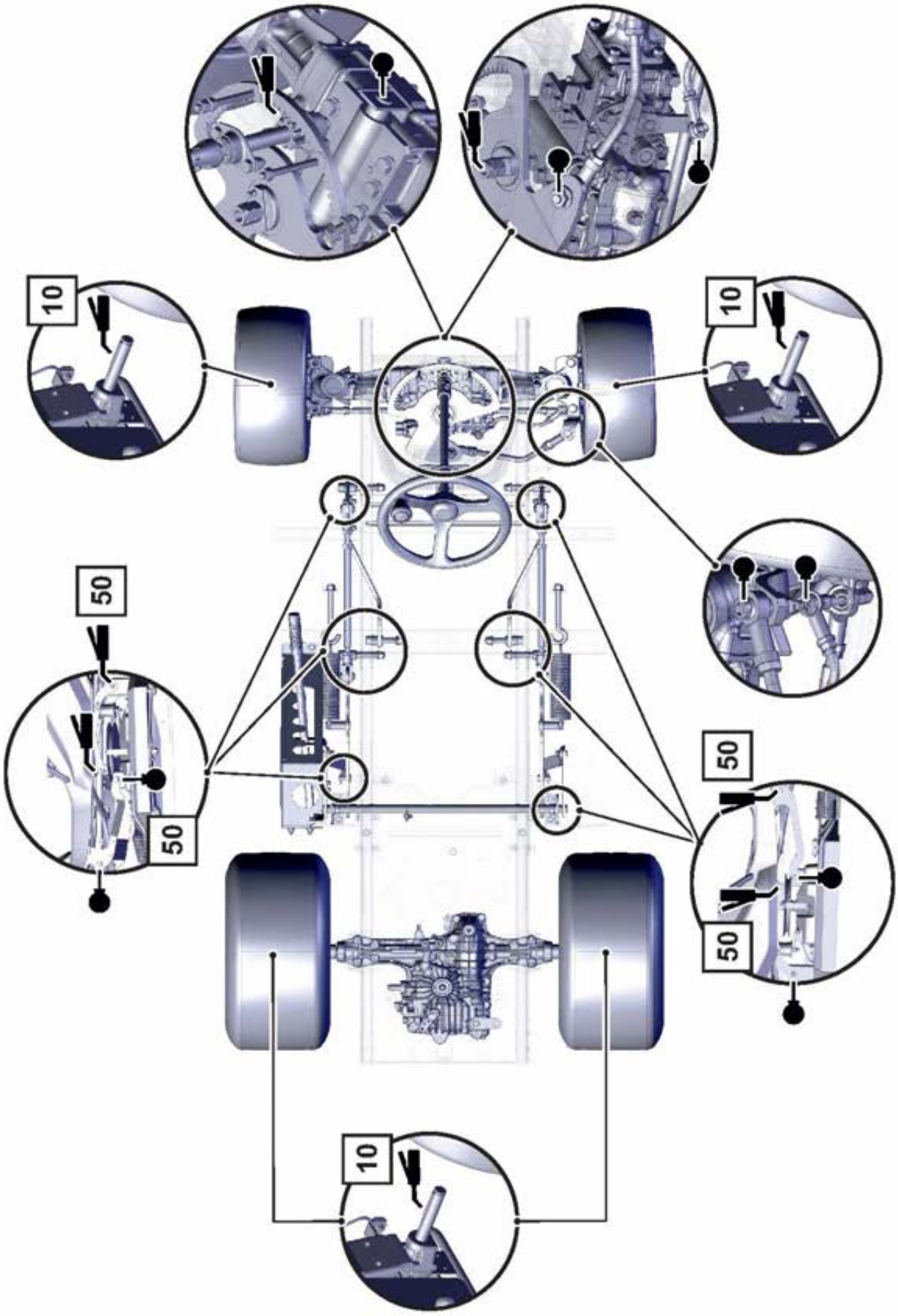


FOREWORD

Dear customer,

Thank you for purchasing this riding mower from **Seco GROUP a.s.**, a company renowned both in Europe and internationally as a manufacturer of quality machines and accessories for the maintenance of grass areas.

This user's manual includes instructions about the safe assembly, operation and maintenance of your machine.

Study this user's manual carefully. 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. ***Do not use the machine until you have thoroughly read all instructions, restrictions and recommendations contained in this user's manual.***

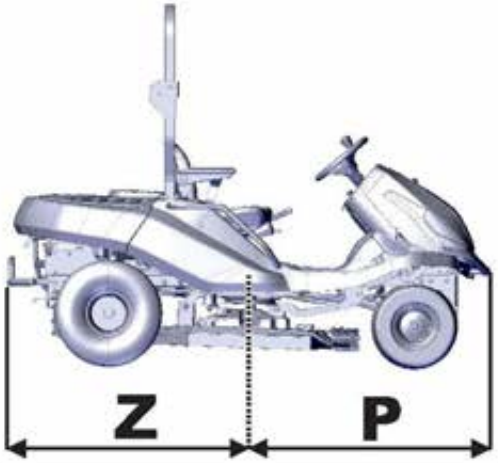
Keep the user's manual for future use. This user's manual needs to be considered a part of the riding mower that must be included with the tractor in the event that it is sold.

If anything is unclear or you have questions, do not hesitate to contact one of our more that 100 authorised, professionally-equipped service centres located all over Europe, where trained and tested experts will be ready to assist you.

Symbols used in this user's manual

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.
	The 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.

References to directions

Left and right side	Front and rear side
	
L = Left side, R = Right side	R = Rear side, F = Front side

1. TECHNICAL INFORMATION

1.1 Use

The machine model **GC 92 4x4** or **GC 110 4x4** under the brand name **GOLIATH** is a dual-axle terrain riding mower designed for **mowing maintained and unmaintained grass-covered level and sloped areas** up to an incline of **18° (32%)**, that are free of foreign objects (stones, fallen branches, bones, hard items, etc.). It can be used to mow multi-year vegetation, intertwined with raspberries, blackberries and various other weeds.

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

Lawnmower model **GC 92 4x4** or **GC 110 4x4** comprise of the following main parts:

1.2

(1) Hood with storage space

The hood is a combination of plastic and metal covers, which contain storage space for the battery and the fuel tank.

(2) Frame with bumpers

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

(3) Front axle with wheels including steering*

The front powered axle enables the wheels to turn. The wheels are turned by the steering wheel by means of a comb mechanism. All-wheel drive is engaged automatically, with power distributed to the individual axles depending on the current traction conditions and the travel mode (forward or reverse).

(4) Mowing deck

The mowing deck mows the grass. It is located under the machine. It consists of a cover, main plate, blade holders and mowing blades. The deck is powered by the machine's engine through an electromagnetic clutch and a V-belt.

(5) Engine, gear box including rear-wheel drive via a by-pass

The four-stroke petrol engine is mounted to the frame in the rear part of the machine. The gear box with hydrostatic power transmission serves to change gears while driving. The by-pass lever is located on the machine's rear plate. It serves to engage and disengage the gear box for the rear wheels.

(6) Folding frame of the machine

The folding frame is intended to prevent the machine from rolling over by 180° if for any reason it loses stability and rolls on to its side.

(7) Driver's location

The comfortable seat enables easy access to all control elements on the machine. The seat used ensures safe and comfortable operation.

***ATTENTION:** Due to construction design reasons the machine does not permit the **disconnection of the front axle drive** – the hydraulic system is not equipped with a by-pass valve, which significantly limits the option of moving the machine when the engine is not running. During such movement the front axle is significantly overloaded and may be damaged. The by-pass lever on this machine is primarily used to bleed the hydrostatic system.*

The machine must not be used (gear shifted into drive) if the by-pass lever is in the disengaged position - there is a danger of damage to the transmissions!!

1.3 Product identification label and other labels with symbols used on the machine

1.3.1 Product identification label

Every riding mower is marked with a product identification label, located **behind** the seat. It can be accessed by moving the seat forward.

1.3.1

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.

1.3.2 Other labels and their meanings

The following labels and stickers are attached to the machine:

▶ **Labels on the mowing deck:**

1.3.2a		Danger		Do not step on
		Rotating tools		Guaranteed noise level

▶ **Labels on the fairing under the steering wheel:**

1.3.2b		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 front side of the machine:**

1.3.2c		Careful Hot surface!		Danger of burns

▶ **Labels on the protective frame:**

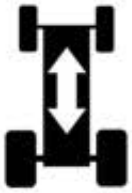
1.3.2d	1. Machine model 2. Information about the manufacturer 3. Weight 4. EC codes used to assess the product's compliance 5. Name and address of the manufacturer 6. Logo of the manufacturer 7. Place of manufacture

▶ **Labels at the drive lever:**

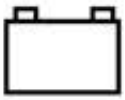
1.3.2b		Fast
		Slow
		Differential lock engaged
		Differential lock
		Differential lock disengaged
		Choke

*It is strictly **forbidden to remove** or **damage labels and symbols** attached to the riding 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	GC 92 4x4	GC 110 4x4
	Dimensions of the machine (length x width x height)		[mm]	2350 x 1040 x 1740	2350 x 1160 x 1740
	Wheelbase		[mm]	148	
	Wheel gauge	Front	[mm]	814	
		Rear		790	
	Weight of the machine		[kg]	390	401
	Speed forward / reverse		[km/h]	0-9.5 / 0-6	
	Mowing height		[mm]	50 - 135	40 - 125
	Mowing coverage		[cm]	92	110
	Wheel dimensions	Front	[„]	16x6.5-8	16x6.5-8
		Rear		20x10.0-8	20x10.0-8
	Fuel tank capacity		(l)	16	
	Fuel type		---	Lead-free petrol Natural 95	
	Folding frame		---	ROPS certified	
	Guaranteed emission level of acoustic power L_{WA}		[dB]	<100	
	Declared emission level of acoustic pressure at the place of operation L_{pAd} according to EN ISO 11201		[dB]	<100	

(continued)

BASIC PARAMETERS		UNITS	GC 92 4x4	GC 110 4x4
	Type of battery	---	12V 32Ah	
	Wheelbase	---	2x220W LED diodes	

* - for specific values see the table below.

Riding mower GC 110 (information according to ČSN EN 836+A4)

Engine	rpm±100 (min^{-1})	Declared emission level of ac. pressure at the place of operation L_{pAd} (dB) EN ISO 11201	Guaranteed emission level of acoustic power $L_{WA,G}$ (dB)	Aggregate acceleration value of Vibrations ($m.s^{-2}$) according to EN 1032+A1	
				total vibrations a_{vd}	transferred to the arm a_{hvd}
BS 3867 23 HP	3100	84 + 4.0	100	0.8+0.4	<2.5

Riding mower GC 92 (information according to ČSN EN 836+A4)

Engine	rpm±100 (min^{-1})	Declared emission level of ac. pressure at the place of operation L_{pAd} (dB) EN ISO 11201	Guaranteed emission level of acoustic power $L_{WA,G}$ (dB)	Aggregate acceleration value of Vibrations ($m.s^{-2}$) according to EN 1032+A1	
				total vibrations a_{vd}	transferred to the arm a_{hvd}
BS 3867 23 HP	3100	84 + 4.0	100	0.8+0.4	2.7+1.4

2. WORK SAFETY AND HEALTH

Riding mowers models **GC 92 4x4** or **GC 110 4x4** under the brand name **GOLIATH** 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 fingers, 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.

! 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 accumulated grass from the mowing deck
- 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 vibration with unusual force and it is necessary to identify the cause of the vibrations
- you are repairing the motor or other moving parts (also disconnect cables from the spark plugs)

2.1.2 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.

! Remove 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.

2.1.3 While operating the machine

! As this machine is intended for mowing grass on unmaintained areas where the operator may not always have full visibility and knowledge of the condition of the area being mowed (trenches or holes), the machine is equipped with a folding frame. For this reason, always have the frame in the working position when working and not in the folded position.

! Always use the seat belt when operating the machine.

! The machine must not be used for work on slopes that have an incline greater than 18° (32%).

! 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 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 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.

! If mowing is disengaged, the mowing deck must always be in the transport position.

! 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.

! Driving the machine on public roads is not permitted.

! When operating the machine do not wear loose clothing and short pants, use solid fully-closed footwear. Never operate the machine when wearing sandals or barefoot.

! 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. Never put any part of your body near the rotating or moving parts of the machine.

! Do not start the engine without an exhaust pipe.

! 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.

! 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.

! 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 breaking where the wheels lock up.
- Using the machine for purposes for which is was not designed.

2.1.4 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.

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.

! The riding mower can be used on slopes with a maximum incline of up to **18°** (**32%**). 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.

! Be very careful when attaching various hitch attachments. It may lead to a reduced stability of the machine.

! 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 attentive, prepared and 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. Never 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 an enclosed location.

! Check the petrol lines before using, 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. PREPARING THE MACHINE FOR OPERATION

3.1 Unpacking and inspecting the contents

The riding mower is supplied wrapped and in crate packaging. 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.

3.1

1. Crate packaging
2. Riding mower
3. Folding frame
4. Steering wheel
5. Documentation
6. Front bumper bar

Using a suitable tool (e.g. crowbar or hammer, etc.) remove the crate (**1**) and the packaging on the machine.

Visually inspect the machine and assemblies for damage that may have occurred during transport. Unpack all separately packed assemblies and inspect them.

The following assemblies are supplied in every package:

- Riding mower (**2**)
- Assembled folding frame, separate from the machine (**3**)
- Steering wheel (**4**)
- Documentation (**5**) (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 and joining material)
- Front bumper bar (**6**) is loosened and slid into the frame of the machine.

3.2 Disposal of the packaging

After unpacking the machine, 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 seller of your riding mower (according to the following instructions).

Before starting installation, remove all covering, protective and fastening materials.

a) Install the steering wheel:

- Using a hammer and a suitable rod, knock out the pin (**2**), which is inserted in the rod hole (**1**).
- The steering wheel is set it two height positions, which are set by two holes in the steering wheel rod. Select the optimal steering wheel position, attach it on to the rod (**1**) and turn it so that the holes in the steering wheel and the rod align.
- Reinsert the pin into the hole and knock it in using a hammer.

3.3a

b) Set the appropriate tilt angle of the steering wheel:

- Set the appropriate tilt angle of the steering wheel by holding back the lever (**3**).

3.3b

c) Screw the folding frame into the correct position on the machine:

- Screw out the screws for the attachment of the frame that are screwed into the washer on both sides of the mower body.
- Seat the frame on the washers. Make sure that the frame is facing in the correct direction – must tilt towards the rear side of the machine.
- Screw the frame to the washers and fully tighten the screws.

3.3c

d) Connect the battery:

- Open the storage area under the steering wheel and loosen the bolts on the battery pole terminals.
- **Black wire** Place on the (+) pole of the battery and secure in place with the bolt and nut.
- **Brown wire** Place on the (-) pole of the battery and secure in place with the bolt and nut.

3.3d

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.

e) Screw the front bumper bar into the correct position on the machine:

- Slide the front bumper bar forwards from the frame of the machine so that the holes in the frame are in alignment with the holes in the bumper bar.
- Screw the bumper bar in on both sides of the frame using two bolts and nuts. The bolts and nuts are found in the plastic bag containing the machine's documentation.

3.3e

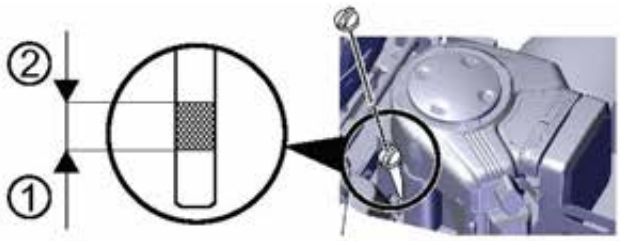
Now prepare the machine for the first start up according to the following chapter.

3.4 Checks prior to starting up

Due to the technical nature of this task the machine is put into operation by the seller of your riding mower (according to the manufacturer's instructions).

3.4.1 Checking the motor oil

The tractor must be in a horizontal position before the oil level can be checked. The cap of the filling opening is located on the engine covers at the rear side of the machine. Screw out the oil dipstick, wipe it dry, reinsert it and screw in. Then again screw it out and take the oil level reading.



Oil level measure:

(**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. This manual is included with the machine.

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. The fuel tank is located at the front side of the machine and has a capacity of **16 l** of fuel.

*Use only petrol with the octane number specified in the user's manual of the motor, i.e. lead-free petrol **NATURAL 95**. 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 up 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.

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 funnel into the fuel tank opening and start to pour the fuel from the canister.
- 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.

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** tyres must be **150 kPa**.

The air pressure **in the rear** tyres must be **80 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.

3.4.5 Checking the oil level in the hydraulic circuit

The machine is supplied with a bled hydraulic circuit and with an equalisation tank with the prescribed amount of oil. The oil level in the tank may decline during transport.

The equalisation tank is located in the rear part of the machine under the engine cover.

- Check that the oil level is between the two marks on the measure of the closing lid, if necessary fill up with the necessary amount of the prescribed oil.
- Wipe clean the area around the tank opening and the tank opening itself. Also regularly clean the entire tank, because any dirt in the oil reduces the lifespan of the oil filter and may possibly cause a malfunction.

The system is fully bled during the first couple of hours of driving the machine – we recommend that you "run the machine in" with a mild load for 1 to 2 hours.

3.4.6 Performing a leak test on the hydraulic circuit

Visually check the hydraulic circuit for oil leaks, namely the locations where fittings are connected to the transmissions. If you discover any leaks, inform your service centre.

3.5 Driving the machine from the pallet

- Prepare two suitable ramps and place them next to the pallet so that the machine's wheels can ride on to them. If you drive off the pallet without ramps, there is a danger of damaging the underside of the machine, particularly the mowing deck!
- Lift the mowing deck into the transport position by pulling on the mowing deck elevation lever. (🕮 ***4.2.1 (12)***).
- Move the throttle lever from position 🐢 approximately half way (🕮 ***4.2.1 (16)***).
- Pull out the choke lever (🕮 ***4.2.1 (13)***).
- Set the by-pass lever to position "1" (🕮 ***4.2.1 (17)***).
- Start up the machine by turning the key to position ⏲ (🕮 ***4.2.1(1)***) and slowly drive the machine down off the pallet.

Further details about starting up and stopping the engine are provided in 🕮 **5.2** and 🕮 **5.3**.

4. OPERATING THE MACHINE

4.1 Location of the main control elements and indicators

4.1

(1) Main power switch
(2) Forward drive pedal
(3) Reverse drive pedal
(4) Mowing deck engagement switch
(5) Cruise control
(6) Switch for permitting the operation of the mowing deck while reversing (optional)
(7) Brake pedal
(8) Parking brake controller
(9) Information panel
(10) Motor hours counter
(11) Folding frame
(12) Mowing deck elevation adjustment lever
(13) Choke
(14) Differential lock lever
(15) Socket 12V
(16) Throttle lever
(17) By-pass lever

4.2 Description and functions of the control elements

(1) 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

** The LED lights on the front and rear of the machine will automatically turn on when the machine is started.*

(2) Forward drive 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.

⚠ ***ATTENTION: Changing the travel direction forwards / reverse is only possible after stopping the machine!***

(3) Reverse drive pedal

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

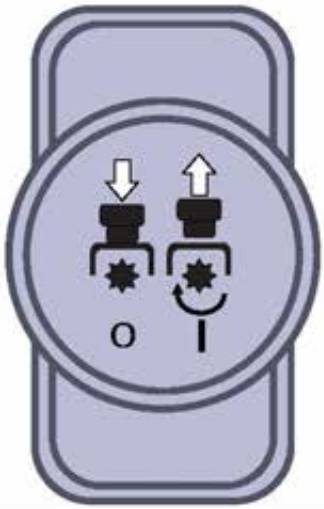
The more the pedal is pushed towards the floor, the faster the machine will be and vice versa.

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

⚠ ***ATTENTION: Changing the travel direction forwards / reverse is only possible after stopping the machine!***

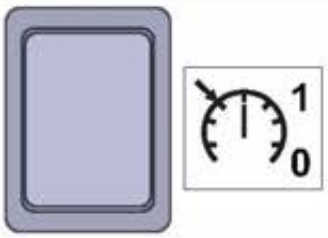
(4) Mowing deck engagement switch

Pulling out the engagement switch upwards engages the mowing deck. Pushing it down disengages the mowing deck.

		DISENGAGED	Disengagement of the mowing deck / the mowing deck is disengaged
		ENGAGED	Engagement of the mowing deck

(5) Cruise control

Cruise control is only used when travelling in a long straight line. Before any change in direction it is necessary to deactivate the cruise control.



Cruise control is active only when the ignition is turned on.

Cruise is disengaged by stepping down on brake pedal or turning off the switch.

(6) Switch for permitting the operation of the mowing deck while reversing (optional)

Turning the key of the switch makes it possible to leave the mowing deck running even when reversing. If you do not permit the function and step on the reverse pedal (**3**), the entire machine will turn off (the motor will shut down).

When the key is turned, it is possible to use the reversing motion until such a time as the mowing deck is disengaged. Every time that the mowing deck is engaged, reversing of the machine is again not possible and the function must be reengaged.

The engagement of the function is indicated by a lit red diode.

(7) Brake pedal

Pressing the brake pedal will slow down the riding mower.

Never use the brake at the same time as the drive function – there is a danger of damaging the transmission!

(8) Parking brake controller

The parking brake has two positions. In position (**1**) the brake is not engaged, after shifting to position (**2**) while stepping down on brake pedal the parking brake is engaged (will brake).

Stepping on the brake pedal will disengage the parking brake and the lever will automatically be released and shift to position (**1**).

(9) Information panel

The information panel contains indicator lights, that serve to signal the status of the machine's basic functions.

	**Mowing deck run down indicator** It is lit: the mowing deck is engaged Flashing: the mowing deck is disengaged, but the blades are still rotating (the indicator flashes for approx. 10 seconds)
	**Motor oil pressure** When oil pressure in the engine falls, the indicator light is lit red
	**Park brake and driving brake** When the brake pedal is pushed or the hand brake engaged, the indicator light is lit red
	**Charging the battery *** The colour of the indicator light changes depending on the battery voltage. It can have the following states: - permanently lit green = battery is OK (12.6 - 14 V) and is recharging correctly - quickly flashing red = low battery voltage (below 12.6 V) - slowly flashing blue = battery voltage is over 14 V
	**Cruise control** When engaged the indicator light is lit green
	**Fuel reserve** When the fuel level in the tank falls below 5 l the indicator light is lit orange

** In the event that after starting the motor and running the machine at maximum rpm without the mowing deck engaged and the lights turned on, and after approximately 1 minute of operation the colour of the indicator light does not change from red to green, possibly blue, then this indicates a malfunction of the recharging circuit and it is necessary to seek out a professional service centre.*

(10) Motor hours counter

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

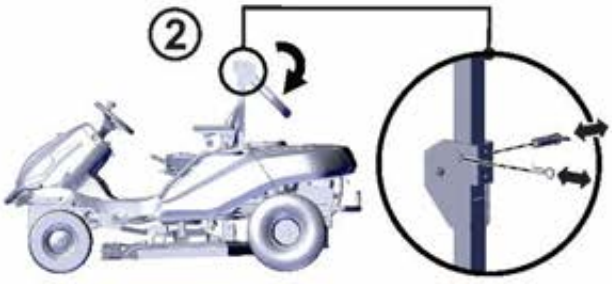
Immediately contact your service centre if the motor hours counter malfunctions.

(11) Folding frame

The folding frame is intended to prevent the machine from rolling over by 180° if for any reason it loses stability and rolls on to its side. The folding frame has 2 positions:

(1) Working

Always use this position during work and when travelling to/from the work location.



(2) Auxiliary for handling the machine

To tilt the frame, first take the cotter pins out of the pins, remove the pins and tilt the top part of the frame downwards. Reinsert the pins and secure in place with cotter pins.

Under no circumstances is it permitted to demount the machine's protective frame!

(12) Mowing deck elevation adjustment lever

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

The lever has **4 working positions**. The higher the lever position, the higher the vegetation height that remains after mowing. The position values based on the mowing deck model are:

Machine **GC 92 4x4**:
55 - 82 - 110 – 138 mm, which corresponds to the mowing height of **5 to 13.8 cm**.

Machine **GC 110 4x4**:
45 - 70 - 98 – 130 mm, which corresponds to the mowing height of **4.5 to 13 cm**.

There is also **1 transport position**, which is:
- **165 mm** above the ground for machine **GC 92**
- **158 mm** above the ground for the **GC 110** machine.

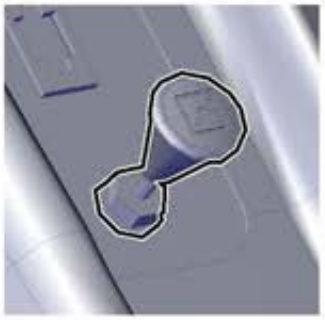
When the lever is set to the transport position it is not possible to engage the mowing deck as a safety switch is built into this position.

When travelling without mowing the lever must be set to the transport position!

The mulching function can be improved on GC 92 4x4 machines by using a special accessory, a so-called „mulching set", which is supplied separately as a special accessory for mowing maintained lawns.

(13) Choke

For starting a cold engine:



	CHOKE	Starting a cold engine

(14) Differential lock lever

The lever is used only if necessary and only when driving directly forward. It has two positions:

Pulling the lever upwards and holding it there will engage the lock.

When the lever is released the lock is automatically disengaged

Use the lock only when driving directly forward and only if necessary (loss of traction). Never use the differential lock when changing travel direction. Otherwise there is a risk of serious damage to the transmission!

(15) 12V socket

The 12V socket is located on the right side of the machine cover.

The socket can, for example, be used for the following tasks:

- connecting/recharging a mobile telephone
- connecting a portable flashlight

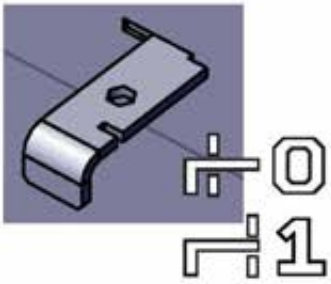
(16) Throttle lever

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

	MAX	Maximum engine speed
	MIN	Minimum engine speed (idle)

(17) By-pass lever – free movement of the rear wheels

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 side of the machine and has the following two positions:



Position	Rear wheel drive	Use
(0)	DISENGAGED	Lever is extended - for pushing the machine
(1)	ENGAGED	Lever is inserted - for driving the machine

⚠ **ATTENTION!** The by-pass lever is primarily used to bleed air from the hydrostatic system. Due to the high demands on equipment, have this procedure performed by a specialised service centre.

The machine must not be used (gear shifted into drive) if the by-pass lever is in the disengaged position - **there is a danger of damage to the transmissions!**

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 connected by a switch located under the seat.
- 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, the mowing deck elevation adjustment lever is in the transport position 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 motor (🕮 ***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

a) Set the mowing deck elevation adjustment lever to the transport position.

b) Move the mowing deck engagement switch to position "**DISENGAGED**".

c) Apply the brake pedal.

d) Move the throttle lever to maximum engine speed (🐇).

e) Pull out the choke.

f) 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".

g) Release the brake pedal

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.

h) Push in the choke (depending on circumstances - ambient temperature, etc.).

i) Lower the speed of the motor, i.e. slowly move the throttle lever to the idle position (🐢).

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 pipe.*

j) Step on the forward drive pedal.

5.3 Turning off the engine

a) If the mowing deck is engaged, disengage it by pushing down the switch.

b) 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.*

5.4 Engaging and disengaging 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 engagement switch to position "**ENGAGED**".

Conditions for engaging the mowing deck:

- the driver is sitting in the seat of the machine
- the mowing deck elevation adjustment lever is not in the transport position

5.4.2 Disengaging the mowing deck

- Disengage the mowing deck by pushing down the engagement switch.

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 height 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** to the two upper positions. These two positions are used for mowing high and large vegetation to a height of **11** and **14 cm** (GC 92 4x4) and **10** and **13 cm** (GC 110 4x4).

- If you wish to set the mowing deck **closer to the ground**, move the mowing deck elevation adjustment lever **downwards** to the two lower positions. These two positions are used for mowing even and maintained surfaces to a height of **5.5** and **8 cm** (GC 92 4x4) and **4.5** and **7 cm** (GC 110 4x4).

5.5 Driving the machine

General warnings before driving:

- Make sure that the **parking brake is disengaged**. The parking brake must not remain in position "**2**" (🕮 ***4.2.1 (8)***). 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 drive **must be engaged**.
- When travelling to the mowing location, the **mowing deck must be disengaged and raised in the transport position**.
- **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.

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).

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 drive pedal and the brake pedal at the same time *– this may damage the transmission.*

5.5.2 Stopping travel

The forward/reverse drive of the machine is stopped by **gradually taking your foot off the drive pedal** a 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 too fast or higher demands are place on it, the blade rotation speed declines as does the mowing quality. 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 height and with narrower mowing coverage width if necessary. The second run can then proceed at the required mowing height.
- 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.

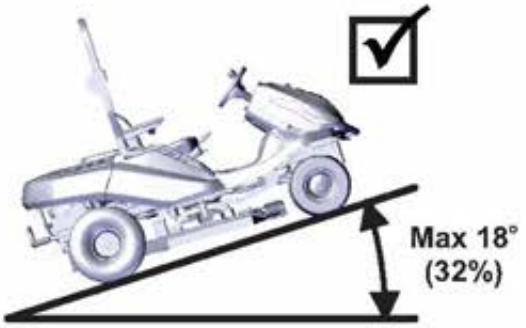
5.5.4 Travelling on a slope

Riding mowers models **GC 92 4x4** and **GC 110 4x4** can work on slopes with an incline of up to **18° (32%)**.

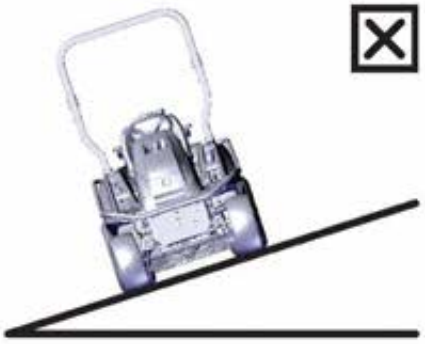
When working on a slope it is necessary to adhere to the following fundamentals:

- Pay increased attention when travelling on a slope.
- Always use a lower travelling speed and regulate the travelling speed by moving the driving lever
- 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.

Right



Wrong



When overloading the machine by travelling on slopes over 18° 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.

6.1 Overview of checks and maintenance

PART	INTERVAL			NOTE
	Before every use	After every 50 hours of operation or 1x per year	Every 100 hours or 1x per year	
BATTERY	---	Check the level of the electrolyte	---	Check the connection
FUEL FILTER	---	---	Replacement	---
BLADE HOLDER	Check	---	---	---
ELECTRICAL CIRCUIT	Check safety switches	Check cable bundles	---	---
HYDRAULIC CIRCUIT	Check for leaks	---	---	---
ENGINE COOLING	Remove grass from the engine grill and from the exhaust	Cleaning	---	---
DRIVE V-BELT	Check for wear, tension	---	---	---
MOWING V-BELT	Check for wear, tension	---	---	---
MOTOR OIL	Check the level, fill up	Oil change	---	---
V-BELT TENSIONING MECHANISM	Check if working	Check condition	---	---
OIL IN THE HYDRAULIC CIRCUIT	---	---	---	Replacement after 200 hours of operation
OIL FILTER	---	---	Replacement	
OIL FILTER OF THE TRANSMISSION	---	---	---	Replacement after 200 hours of operation
PARKING BRAKE	Check if working	Check mechanism	---	
TYRES	Check pressure and condition	---	---	Front 150kpa Rear 80kpa
CONTROL ELEMENTS	---	Check	---	---
RUBBER COVERS	Check condition	---	---	---
FRONT DRIVE AXLE	Check condition and fastening of all ball joints and check the steering connection rod	---	---	The ball joints must have minimum looseness. The connecting rod must not show signs of damage (cracks)
FRONT AXLE	Check the condition of the joints and wheels	Lubrication of vertical joints	---	---
GEAR BOX	Check for leaks	Check condition of pulley	Check oil level	Oil SAE 10w-40 5w-50 (4x4)
GEAR STICK	Check if working	Check belt tension	---	---
STEERING	---	Check if working	---	---
SPARK PLUGS	---	---	Clean and adjust or replace	---
FAN, ENGINE RADIATOR FINS	---	---	Cleaning	---

(continued)

PART	INTERVAL			NOTE
	Before every use	After every 50 hours of operation or 1x per year	Every 100 hours or 1x per year	
ALL PULLEYS	*Check condition and working order*	---	---	---
MOWING HEIGHT	*Check, lubrication of pins*	---	---	---
AIR FILTER		*Cleaning*	*Replacement*	*Depending on nature of use - more often*
MOWING BLADES	*Check condition and fastening*	---	---	---
MOWING DECK	*Check condition and fastening*	---	---	---

For the replacement of all parts or for repairs, which require disassembly and which are not described in this user's manual, contact your seller or an authorised service centre. Contact your seller also for the following adjustments and maintenance:

- **adjustment of the electromagnetic clutch**
- **adjustment of the brake**
- **adjustment of the engine**
- **replacement of V-Belts**
- **bleeding air from the hydraulic circuit**
- **adjustment of the front powered axle**
- **other problems with the hydraulic circuit**
- **in the event of other difficulties**

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.

Air pressure in the front tyres: **150 kPa**

Air pressure in the rear tyres: **80 kPa**

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

▶ **CHECK THE OIL LEVEL IN THE ENGINE**

Park the riding mower on a horizontal surface. Open the rear 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.

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.

▶ CLEANING THE MACHINE

- Remove all dirt and grass remains from the surface of the tractor.
- Also remove grass, dust and other flammable materials from the edge of the exhaust.

▶ CLEANING THE MOWING DECK

The mowing deck must be carefully cleaned after every use, namely the inside walls of the deck. Use a scraper, spatula or a current of water for cleaning. Proper maintenance and treatment of the mowing deck improves work quality and the machine's lifespan. Proceed as follows:

- Secure the machine against movement.
- Elevate the mowing deck to the transport position.

Machine GC 92 4x4 (mowing deck with a mowing coverage of 92 cm):

- Lift (tilt out) the protective metal cover on the right or left side of the chamber. Clean out the entire area of the mowing deck.
- While cleaning also check the condition of the blades (🕮 *6.3.6*).

Machine GC 110 4x4 (mowing deck with a mowing coverage of 110 cm):

▸ Slide a hose of a suitable diameter on to one of the fittings on the mowing deck cover. ▸ Start the motor, 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.	 **6.2.2**

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

▶ WASHING THE MACHINE

We do not recommend cleaning the machine using pressurised water! *If despite this you do clean in this way, ensure that water does not enter the carburettor, air filter, ignition, exhaust, battery and other electrical components.*

Never direct the water current at the ball bearings (bearings in the blade holder, wheels) or on to parts in which there is oil (oil filter, filler neck, etc.)

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

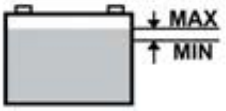
- Plastic parts on the machine:
  - clean using a sponge and soapy water

6.3 Regular checks, maintenance and adjustments

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.
- Unscrew the drain screw and allow the oil to fully flow out into the prepared container.
- Screw the drain screw back on and 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.

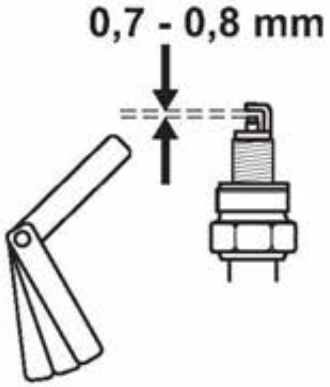
▶ MAINTENANCE OF THE SPARK PLUG

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 visibility 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 a fuel 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.

▶ MAINTENANCE OF THE ENGINE COOLING

Before each use or during work check that the grill on the engine is not clogged with grass remains or other objects. Clean the grill if necessary!

After every 100 hours of operation or once a year remove the fan cover and clean soiled and clogged areas and the cooling fins of the engine. This will avoid the engine from overheating or being damaged. Clean more frequently if necessary.

6.3.3 Replacing lights

▶ Front light bulbs

Light bulbs are seated in a holder and are accessible after lifting the hood.

- Screw out the fuel tank cap.
- Click out the plastic front hood fastening pins.

▸ Press the beak (**1**) and slide the light bulb out of the socket (**2**). For installation proceed in the reverse sequence.	**6.3.3a**

When replacing a light bulb, always use the same type of light bulb or an equivalent recommended by the light bulb vendor!

- After replacement, click the pins back in and screw on the fuel tank cap.

▶ FRONT LED lights

The front LED light bulbs for the main headlamps are supplied as a set.

- Screw out the fuel tank cap.
- Click out the plastic front hood fastening pins.
- Disconnect the connector of the respective strip of LED light bulbs.
- Tear out the entire strip of LED light bulbs.
- Stick in a new strip and connect the connector. For sealing, use a standard silicone sealant.

▶ **Rear LED lights**

The rear LED light bulbs are supplied as a set also with a coloured cover.

▸ Open the rear hood. ▸ Disconnect the connector of the respective rear LED light. ▸ Unscrew the nuts and remove the light from the holder. ▸ Screw in the new LED light and connect the connector.	**6.3.3b**

6.3.4 Replacing fuses

▶ **Fuses on the machine**

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!

- ▸ Take the plastic pin out of the cover under the steering wheel and remove the protective fuse cover.
- ▸ Remove the old 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.

Under no circumstances should you attempt to remove the control unit of the electrical system!

▶ **Fuse of the 12V socket**

The fuse for the 12V socket is located between the differential lock lever and the choke and has a rating of 5A. To replace it, first remove the protective cover and then replace the fuse with a new one.

6.3.5 Lifting the machine

If you wish to lift the riding mower, use a jack and supports.

Proceed as follows:

- ▸ Place the jack underneath the gear box on the rear axle and lift the rear part of the machine.
- ▸ Insert two supports underneath the ends of the axles from the inner side of the rear wheels.
- ▸ Lift the front part of the machine and insert two supports under both ends of the front wheel axles.

Never lean the machine to the side where the carburettor is located. Oil could enter the air filter!

6.3.6 Mowing deck – checking and maintenance of the mowing blades

Before each use of the riding mower check the condition of the blades (damage, wear, condition of the cutting edge). If the blades are blunt, bent or broken it will negatively affect mowing quality. Damaged blades are very dangerous.

A part of the material could break off and be deflected from the work area of the machine.

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

▶ **REPLACING BLADES**

If due to frequent use the blades are worn or damaged, they cannot be balanced or sharpened properly, it is necessary to replace them immediately.

Machine GC 92 4x4 (mowing deck with a mowing coverage of 92 cm):

Always completely replace both blades and use new M16 lock nuts for attachment. This will ensure that the mowing deck is balanced and that the blades are securely attached. Proceed as follows:

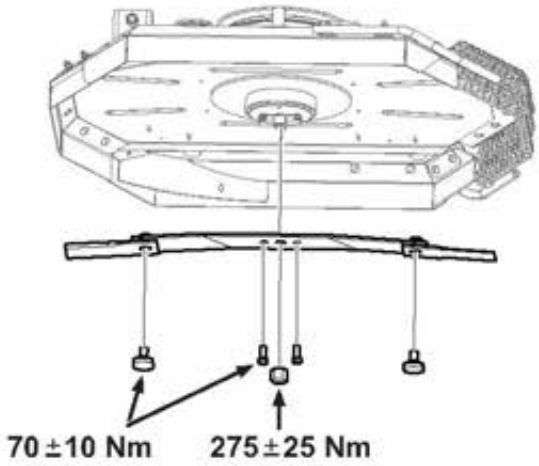
- Turn off the engine and take the key out of the ignition.
- Secure the machine against movement.
- Elevate the mowing deck to the transport position.
- Open the metal cover on the right of the mowing deck chamber.
- Screw out the M16 lock nut.
- Take off the fasting bolt, O-ring and blade.

Install a new or sharpened blade proceeding in the reverse sequence.

- Use new, unused M16 lock nuts.
- Before replacing the second blade turn the blade holder with your hand by 180°.

Replace the second blade following the same procedure as for the replacement of the first blade.

When reinstalling the blades, ensure that they are correctly fastened and secured in place!



The blades are sharpened from both sides so in the event that one side is blunt, it is possible to turn the blade around.

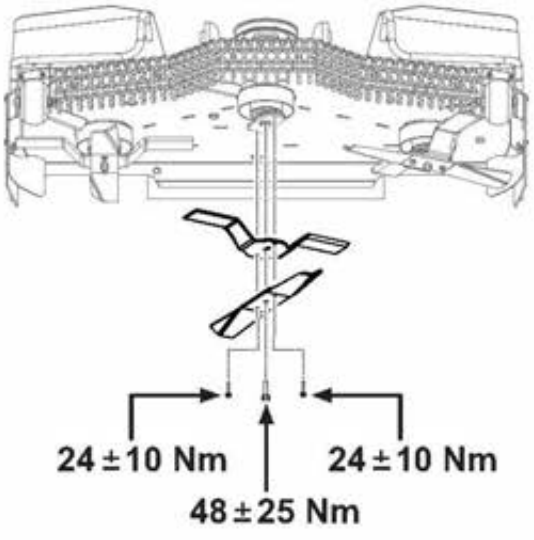
Machine GC 110 4x4 (mowing deck with a mowing coverage of 110 cm):

- Turn off the engine and take the key out of the ignition.
- Secure the machine against movement.
- Elevate the mowing deck to the transport position.
- Tilt the machine to the right side and prop it up using suitable supports. It is recommended to invite another person to help with tilting the machine in order to prevent damaging a part of the machine or an injury.
- Screw out three fastening bolts and take out both parts of the blade.

Install a new or sharpened blade proceeding in the reverse sequence.

Replace the other blades following the same procedure as for the replacement of the first blade.

When reinstalling the blades, ensure that they are correctly fastened and secured in place!



▸ 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.

If the blades are merely blunt and do not exhibit any other damage, then they may be sharpened. After sharpening the pair of blades must be balanced. Balancing will prevent vibrations of the mowing deck. **The weight difference between the individual blades may not exceed 2g**. During replacement always also check the wear on the distance sleeves and mounting bolts, ensuring they are in perfect condition. If serious damage to the mowing deck is discovered it is necessary to have the machine thoroughly inspected at an authorised service centre.

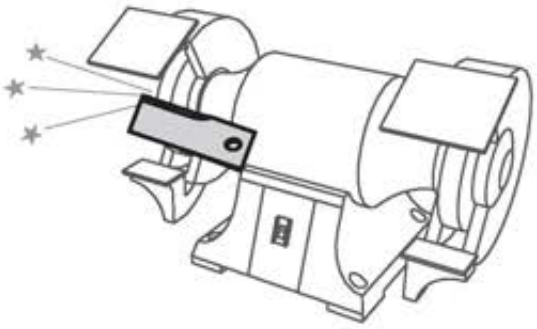
Always use a new, unused M16 lock nut. Never reuse a lock nut that has already been used, because safe attachment of the blade cannot be guaranteed!

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:

To remove the blades follow the instructions in the previous chapter



- Take out the blades according to the procedure described in the previous chapter
- Clean the blades.
- First sharpen with a grinder and then with a file.

Do not sharpen directly on the mowing deck.

Install the sharpened blade proceeding in the reverse sequence.

▸ 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 motor 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.

6.3.7 Mowing deck – checking and adjusting the height

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.

Before carrying the adjustment:

- Place the machine on an **optimally even surface**, **inflate all the tyres to the prescribed pressure** (80 -150 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 the **lowest** position.

When checking and adjusting, proceed as follows:

For mowing decks with a mowing coverage of 92 cm and 110 cm:- ▸ Check the difference between the height of the front edge **A** and the height of the rear edge **B**. The measured difference must be in the range **5-10 mm** and must **be the same on both sides of the front edge**. ▸ If the height difference is different, loosen the lock nuts (**1**) on both sides of the machine and adjust the height by turning nut (**2**). Do not forget to tighten the lock nuts (**1**). Only for riding mowers with a mowing coverage of 110 cm: ▸ Check the height of the **rear edge B**. Place an appropriate support (**3**) under the front edge of the deck and measure the height **B**. The difference between height **A** and height **B** must be in the range of **3-6 mm** ▸ If the measure **B** is different, adjust its height by loosening bolts (**4**) on both sides of the deck and set the deck to the correct height. Tighten the bolts (**4**)	 **6.3.7**

6.3.8 Mowing deck – adjusting the control force of the mowing deck elevation lever

In the event that more force is required to lift the mowing deck than usual, it is possible to adjust the control force of the elevation lever (**1**). Proceed as follows: ▸ Turn nut (**2**) to set spring (**3**) to the length: - **280 mm** for the mowing deck with a mowing coverage of 92 mm (**GC 92 4x4**) - **300 mm** for the mowing deck with a mowing coverage of 110 mm (**GC 110 4x4**)	 **6.3.8**

It is necessary to set the spring on both sides of the machine!

6.3.9 Mowing deck - checking the drive belt pulley of the deck

Before every use of the machine, check the fastening bolt of the pulley. The bolt should be pulled tight with a torque of **80 Nm**.

The belt pulley is accessible after lowering the mowing deck to the lowest position.

6.3.10 Mowing deck - checking and adjusting the blade drive belts

*When working on various parts of the machine's drive always **turn off the engine** and take the key out of the ignition.*

▸ **Machine GC 92 4x4 (mowing deck with a mowing coverage of 92 cm):**

The drive for the mowing deck blades is provided by the belt pulley (**2**) via an electromagnetic transmission (**1**) and belt pulley (**3**). Because of the demands placed on it, the tension belt declines over time and it is necessary to re-tension it. ▸ Move the mowing deck elevation adjustment lever to the **lowest** position. ▸ Tension belt (**2**) using the tensioning draw bar with nut (**4**) so that the spring has a length of **80 mm**.	 **6.3.10a**

▶ **Machine GC 110 4x4 (mowing deck with a mowing coverage of 110 cm):**

The drive of the mowing deck blades is provided by belt (**2**) via an electromagnetic transmission (**1**) and belt pulley (**3**) and furthermore belt pulley (**4**) under the mowing deck cover. Because of the demands placed on them, the tension of belts declines over time and it is necessary to re-tension them. ▸ Move the mowing deck elevation adjustment lever to the **lowest** position. ▸ Tension belt (**2**) using the tensioning draw bar with nut (**5**) so that the spring has a length of **80 mm**. ▸ Tension belt (**4**) using the tensioning draw bar with nut (**6**) so that the spring has a length of **135 mm**.	 **6.3.10b**

6.3.11 Mowing deck - removing it from the machine

The following procedure applies for both mowing deck models, i.e. for mowing decks with a mowing coverage of 92 cm and 110 cm.

▸ Lower the mowing deck to the lowest position. ▸ Loosen nut (**2**) to fully loosen spring (**1**) on both sides of the machine. The spring must be completely loosened, otherwise there is a risk of a part of the mowing deck being ejected and causing injury! ▸ Loosen the tension of the mowing deck drive belt by loosening nut (**3**). Slide the belt out of the belt pulley (**4**). ▸ On both sides screw out bolts and nuts (**5**) and (**6**), connecting the suspension brackets to the mowing deck. ▸ Slowly pull the mowing deck to one of the sides out of the machine.	 **6.3.11**

When remounting the mowing deck on to the machine, proceed in reverse order to the demounting procedure.

*After remounting the mowing deck on to the machine, do not forget to set its correct above ground height (🕮 **6.3.7**), tension the deck elevation spring (🕮 **6.3.8**) and correctly tension the mowing blade drive belt (🕮 **6.3.10**).*

6.3.12 Checking and adjusting the travel drive belt

The following procedure applies for both mowing deck models, i.e. for mowing decks with a mowing coverage of 92 cm and 110 cm.

Because of the demands placed on it, the tension of the travel drive belt declines over time and it is necessary to re-tension it. Therefore, regularly check the level of tension.

When the amount of bend increases, it is necessary to adjust the tension. The belt is tensioned by a pulley and spring from the underside of the machine. Perform the belt tension adjustment by tightening the nut on the bolt of the tensioning draw spring so that the spring is tensioned to a length of **46±1 mm**.	 **6.3.12**

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

6.3.13 Replacing belts

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

When attaching a new belt pay special attention when working with the machine because the belt is not yet sufficiently run-in.

Type of belts used:

Machine	Mowing deck blade drive belt – from elmag. transmission	Mowing deck blade drive belt – from main belt pulley	Travel drive belt
GC 92 4x4x	5L690 Roflex Garden	(none)	X13x830 OPTIBELT
GC 110 4x4	5L650 Roflex Garden	Continental 312 AA126	

6.3.14 Replacing wheels

Before replacing one of the wheels, park the tractor on a horizontal and rigid surface, turn off the engine and remove the key from the ignition. Secure the machine against movement. Do not replace the wheel if the machine is not sufficiently secured in the elevated position!

If you do not have suitable tools or the necessary knowledge, contact your seller.

Perform the replacement as follows:

- Place the jack underneath the front or rear bumper near to the wheel which you wish to replace. Always place the jack against the frame, do not lean it on the transmission - risk of damaging it!
- Keep lifting the machine until the wheel, which you wish to change no longer touches the ground.
- Remove the protective cover from the wheel.
- Using a suitable screwdriver remove the retaining ring and remove the washer.
- Pull the wheel off the shaft.

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.

Finally check the tyre pressure.

6.3.15 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.

6.3.16 Maintenance of the hydrostatic transmission

For the reliable operation of the transmission it is necessary to maintain the correct oil level. In the event of problems with the transmission immediately seek the help of an authorised service centre, there is a risk of serious damage to the transmission.

The oil tank is accessible after tilting out the rear hood and screwing out the oil dipstick. Wipe the dipstick dry, reinsert it and screw it 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 "**MAX**" mark. The motor oil type is indicated in the user's manual of the transmission.	 **6.3.16**

Oil type	Oil level
SAE 5W-50 synthetic oil	Between the marks on the dipstick in the tank cap (total oil volume in the hydraulic system is 6l)

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

6.3.17 Overview of the tightening torque of bolt connections

Controls:	**Torque**
M14 nut of steering segment	**92 - 132 Nm**
M14 nuts of the angle pins on the steering	**60 - 83 Nm**
Engine:	
Bolt of the electromagnetic clutch	**60 - 70 Nm**
Mowing:	
M10 nut of the tensioning mowing pulley	**33 - 48 Nm**
M20 nut of the blade mount (only machine GC 92 4x4)	**250 - 300 Nm**
M16 nut for fastening the blade to the blade mount (only machine GC 92 4x4)	**150 - 200 Nm**
M12x30 bolt on the mowing belt pulley (only machine GC 92 4x4)	**60 - 80 Nm**
Driving controls:	
M10 nut on the travel belt pulley	**35 - 45 Nm**

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

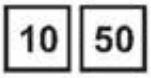
6.4 Lubrication

Lubricate the machine according to the following lubrication diagram.

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

Before putting the machine out of service for an extended period, thoroughly lubricate all places shown on the diagram. **Namely the half axle of the front and rear axle** (it is necessary to remove the rear wheels).

6.4

Symbol	Explanation
	Plastic lubricant and grease
	Oil SAE 30
	Interval in hours

Plastic lubricant is used to lubricate:

- steering segment - using a lubricating nipple
- mowing deck lifting arms - using a lubricating nipple
- tensioning pulley - remove, lubricate
- central pivot pin of the front axle - using a lubricating nipple
- angle joints connecting the steering draw bars - remove, lubricate
- front wheel half axles - the interval is **10 hours!**

Pivot points are lubricated with oil:

- differential lock pedal
- brake pedal
- travel levers

Grease is used to lubricate:

- front and rear wheel half-axles – grease A00

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.

Malfunction, defect	Remedy
The mowing deck mows unevenly	▸ Remove grass that has accumulated on the underside of the mowing deck. ▸ Make sure that the blades are sharp, are not deformed or damaged. ▸ Check that the blades are properly fastened. ▸ Check the blade shafts and the seating of the bearings. Replace them if they are damaged or overly worn.
When mowing, some vegetation remains uncut	▸ Check the bearing housings for damage. Based on your findings either repair or replace them. 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. ▸ Check that the blades are sharp and undamaged. Replace the blades if necessary. ▸ Check the tension and condition of the V-belt of the mowing drive
The mowing deck drive belt stops during operation	▸ The mowing deck drive belt may be damaged, when it jumps out of the pulley while the machine is running. If it jumps out even after rechecking according to the following steps, it is necessary to replace the belt. ▸ Check the tension of the belt (🕮 ***6.3.9***). If necessary adjust the tension. ▸ Check the belt guide pulleys. ▸ Check the set mowing height, adjust if necessary. ▸ Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object. ▸ Recheck all the belts. Buckled or cracked pulleys may cause problems. Replace if necessary. ▸ Check the inside surface of the pulley on the engine. If it is coarse or has cracks, it is necessary to replace the pulley. ▸ Check the parts of the tensioning mechanism for wear, replace the worn out parts if necessary. ▸ Change the travelling speed (e.g. slow down) ▸ Lift the mowing deck to a higher position
The mowing deck drive belt is slipping through	▸ 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. ▸ Reduce the speed of the machine. ▸ Increase the mowing height. ▸ Check belt tension. If necessary adjust the tension. ▸ Check the tensioning mechanism (spring, pulley). Replace the spring if it is overstretched or damaged.
The mowing deck drive belt is being excessively worn out	▸ Check the belt guide pulley. ▸ Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object. ▸ Check the pulleys, if they are damaged, replace them. ▸ Check the set mowing height, adjust if necessary. ▸ Check the tension of the belt (🕮 ***6.3.9***). If necessary adjust the tension.

(continued)

Malfunction, defect	Remedy
The mowing deck cannot be started	▸ Check that the belt is not worn out or damaged. If it is, replace it. If it is loose, tension it. ▸ Check the tensioning mechanism spring. Replace the spring if it is cracked or damaged. ▸ Check whether the movement of the belt is not prevented by a foreign object. If yes, remove the foreign object. ▸ Check the position of the mowing height lever. The safety switch prevents the engagement of the electromagnetic clutch when in the transport position. Move the lever to the work position. ▸ Check the setting of the mowing deck switch
Belts vibrate extremely when turning on the mowing deck	▸ Check that the blades are not bent or twisted, also check that they are balanced. If they are deformed, replace them. ▸ Check that the belt does not have burned areas or irregularities, which could cause the vibrations. If the belt is damaged, replace it. ▸ Check that the blades are not worn out or damaged. Replace them if necessary. ▸ Check that the electromagnetic clutch switches properly. If the clutch is not working properly have it replaced or repaired at an authorised service centre. ▸ Check the inside surface of the pulley on the engine. If it is coarse or has cracks, it is necessary to replace the pulley. ▸ Check whether grass has accumulated on the underside of the mowing deck. It is necessary to remove this grass. ▸ Check whether the defect is not in the engine mount. Tighten bolts or replace as necessary. ▸ Check the tension of the belt (🕮 ***6.3.9***). If necessary adjust the tension.
The travel drive belt of the machine is slipping	▸ Check the tension of the travel drive belt (🕮 ***6.3.10***). If necessary adjust its tension. Also check the tension spring, replace it if necessary. ▸ Check whether the belt is damaged or worn out. ▸ Check whether the movement of the clutch mechanism is blocked by a foreign object. If yes, remove the foreign object. ▸ Check the engine belt pulley or transmission belt pulley for damage. Replace if necessary.
The travel drive belt is being excessively worn out	▸ Check belt tension. ▸ Check the tensioning mechanism, replace the damaged spring ▸ Check whether a foreign object is blocking the movement of the belt. If yes, remove the foreign object. ▸ Check the condition of the belt pulleys - replace the belt pulleys if necessary.
The machine does not travel after shifting into gear	▸ Check the gear shifting mechanism - attachment of the draw bar of the travel direction lever. ▸ Check the oil level in the equalisation tank
The machine is unusually loud after shifting into gear	▸ Check the oil level in the equalisation tank and fill it up if necessary. ▸ There are air pockets in the hydraulic circuit – drive the machine on level ground forward and back for several minutes. Contact your service centre.

(continued)

Malfunction, defect	Remedy
The machine loses power when travelling up a hill	▸ When the machine is under a high load and the ambient temperature is high, then the maximum working temperature of the oil may be exceeded. Lower the work demands on the machine.
Extreme vibrations occur when travelling	▸ Check whether any pulleys are damage or deformed. Replace them if necessary. ▸ Check whether the belt has any burned spaces or other irregularities. Replace it if necessary. ▸ Check the tension of the travel drive belt (🕮 ***6.3.10***). If necessary adjust its tension. ▸ Check that the mowing blades are balanced. Balance or replace them if necessary.
The steering is slipping through or loose	▸ Check that the space between the pinion and the segment is not too large. If yes, adjust the cogged segment. Check for wear on the ball and socket joints. Replace the joints if necessary.
The engine does not run	▸ Check that there is petrol in the petrol tank. ▸ Check that the prescribed procedure for starting the engine was followed (🕮 ***5.2***) ▸ Check the fuse. Replace if necessary. ▸ Check whether the voltage on the battery terminals is 12 V. On a new machine check whether the battery was activated and charged. On new machines replace the spark plug and check that there is not oil accumulated on the cylinder due to incorrect handling. ▸ Check that all wire connections are in order and that the electrical system switches work. ▸ 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 rotating but will not start up	▸ Check that the prescribed procedure for starting the engine was followed (🕮 ***5.2***) Check that the petrol in the petrol tank is clean. ▸ Check that the fuel filter is not clogged. ▸ Make sure that the throttle lever is in the position "CHOKE". ▸ Check the engine again exactly according to the instructions in the User's manual of the engine manufacturer. Have the cabling and switches checked at a specialised workshop.

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***).

Never use petrol for cleaning. Use degreasing agents and warm water.

- Repair and paint dinted 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 (🕮 ***6.3.9***)
- 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.
- Sort 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.

10. ES STATEMENT OF COMPLIANCE (original)

pursuant to: **Council Directive No. 2006/42/EC (Government directive NV 176/2008 Coll.)**
Council Directive No. 2004/108/EC (Government directive NV 616/2006 Coll.)
Council Directive No. 2000/14/EC (Government directive NV 9/2002 Coll.)

A. We: Seco Group a.s., Šaldova 408/30, Prague 8
branch: 02 Jičín, Jungmannova 11
Corporate number: 60193450

issue the following statement:

B. Mechanical equipment
- name : Riding mower
1. model : **GC 92**
2. serial number :

Description:
GC 92 is a four-wheel self-propelled riding mower with a Briggs & Stratton 23HP engine. The power from the engine is transferred by a V-Belt to the travel drive transmission delivering power to all 4 wheels with a continuously variable gear and through an electromagnetic clutch to the mowing deck. The mowing deck is a single-rotor assembly with a vertical axis of rotation and a coverage width of 92 cm. It has two rotating blades on a single carrier. The mowed material is dispersed on the ground.

C. Legislation forming the basis for assessment of compliance:
EN 836+A4, EN ISO 3767-1;3, ISO 11684, EN ISO 11201, EN ISO 12100-2
Council Directive No. 97/68/EC (2002/88/EC), ISO 21299 (ROPS)

D. Assessment of compliance was performed according to the designated procedure in:
- Council Directive No. 2006/42/EC, Article 12, (eqv. §5, para. 2 a), NV No. 176/2008 Coll.)
- Council Directive No. 2004/108/EC, Article 7, (eqv. §4, para. 1, NV No. 616/2006 Coll.)

E. Compliance assessment performed by an accredited laboratory:
Authorised entity no. 255, Notified entity no. 1016
Státní zkušebna zemědělských, lesnických a potravinářských strojů a.s. (SZZPLS)
Molákova 622/11, 163 04 Prague 8, Czech Republic
Final Report No. 33973

F. We confirm that:
- this mechanical equipment defined above complies with the requirements in the above technical regulations and under normal operating conditions it is s a f e.
- measures have been taken to ensure the compliance of all products introduced to the market with the technical documentation and the requirements contained in technical regulations.

Technical Documentation in the scope pursuant to annex VII for the Directive 2006/42/EC is kept at the place of business of the manufacturer at the address:

Seco GROUP a.s.
plant 02 Jičín
Jungmannova 11
506 48 Jičín

In Jičín, on 1. 10. 2013

Bc. Bořek Kučera
Member of the Board of Directors

Seco GROUP, a.s.
Šaldova 408/30
186 00 Praha 8
CZECH REPUBLIC