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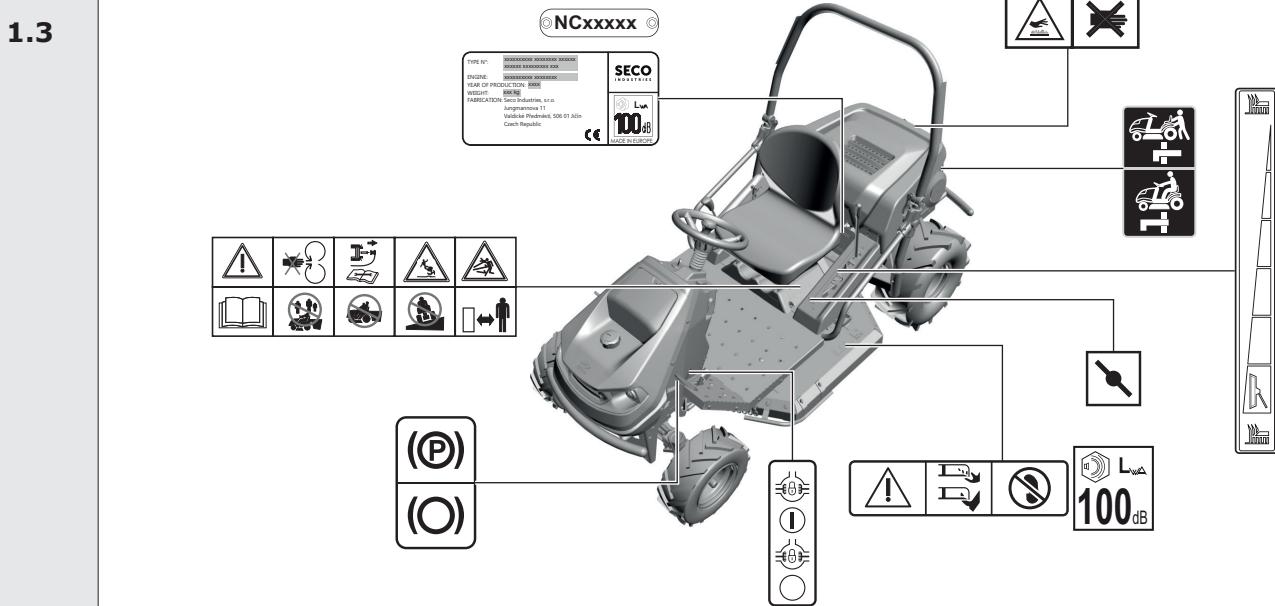
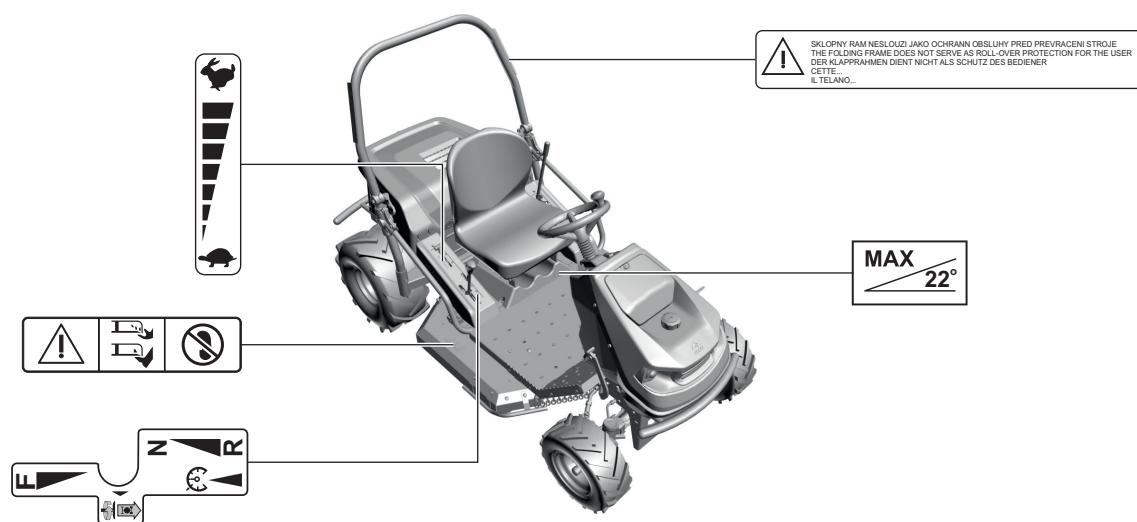
## **DAYTONA 2WD (AC 92 4x2) DAYTONA 4WD (AC 92 4x4)**

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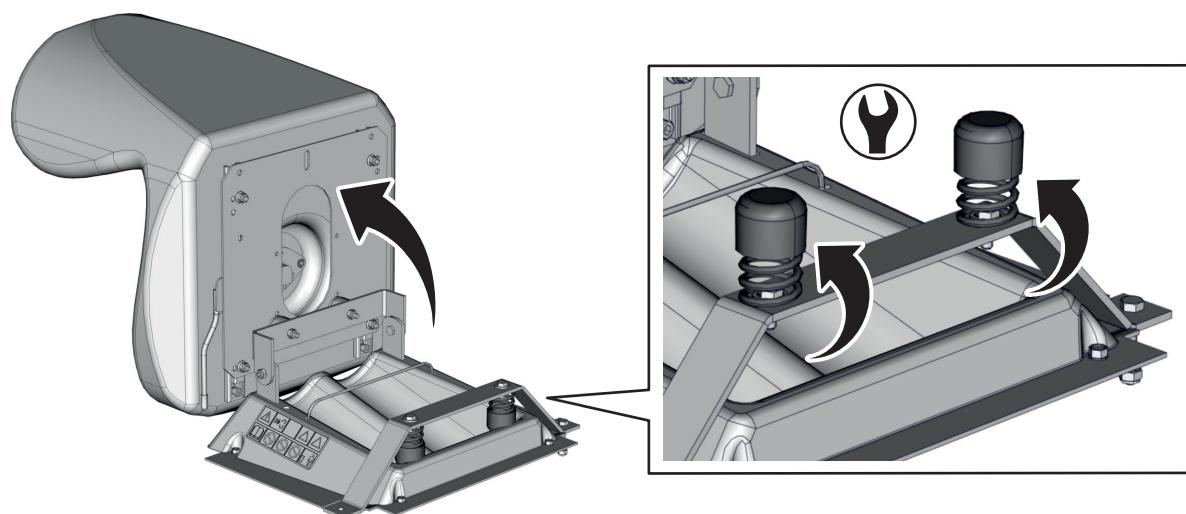


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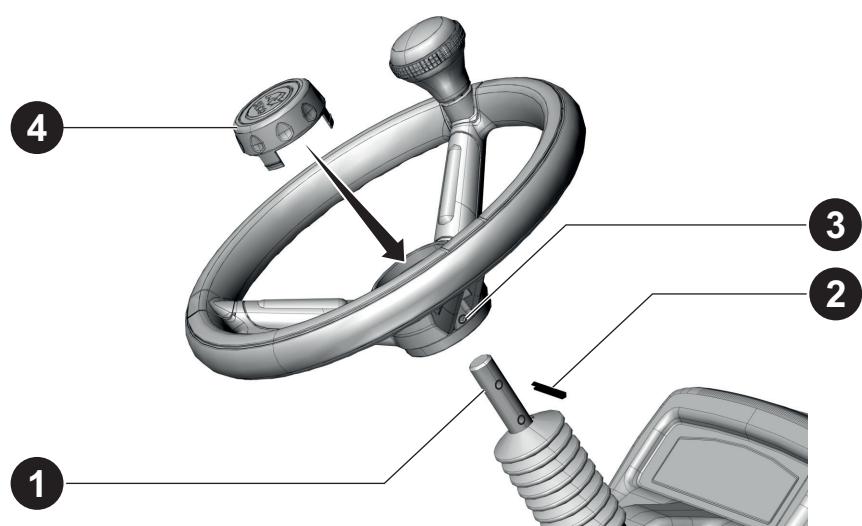
**EN User's manual**  
(Translation of the original user's manual)



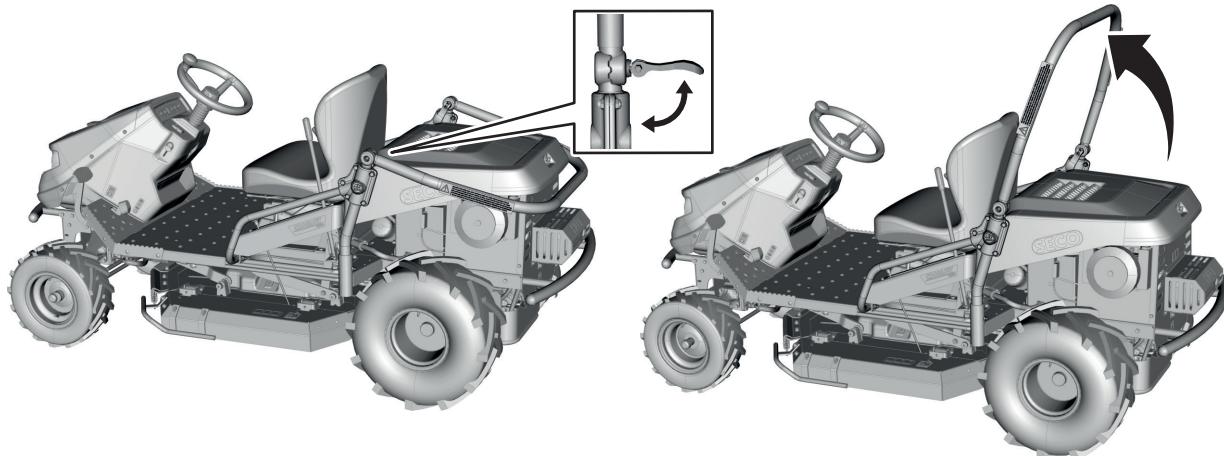
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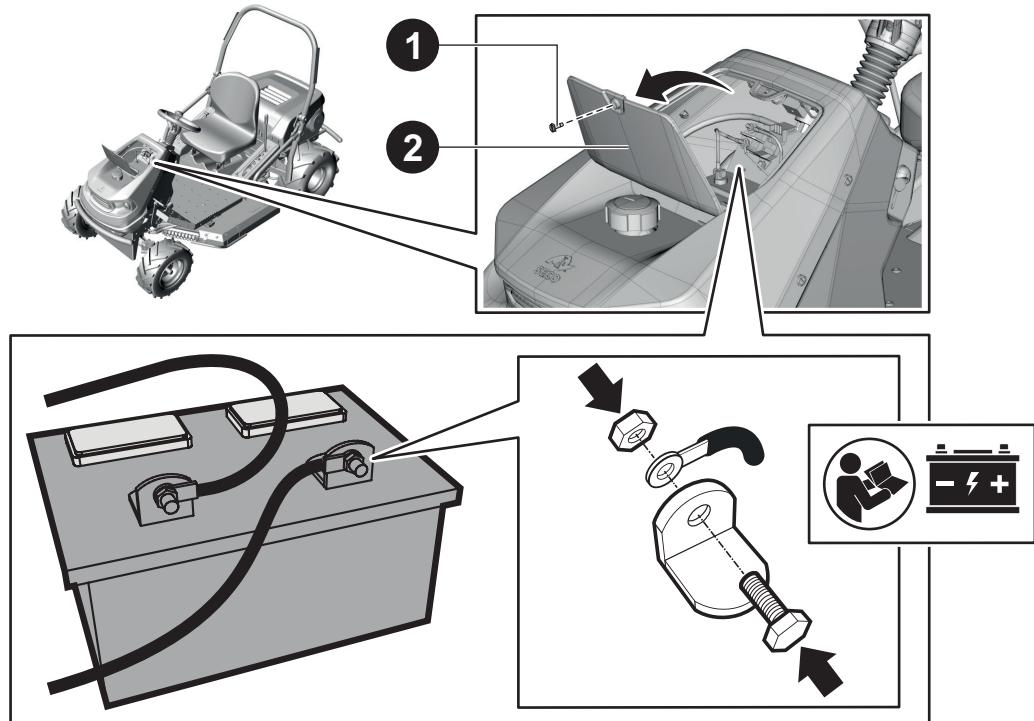
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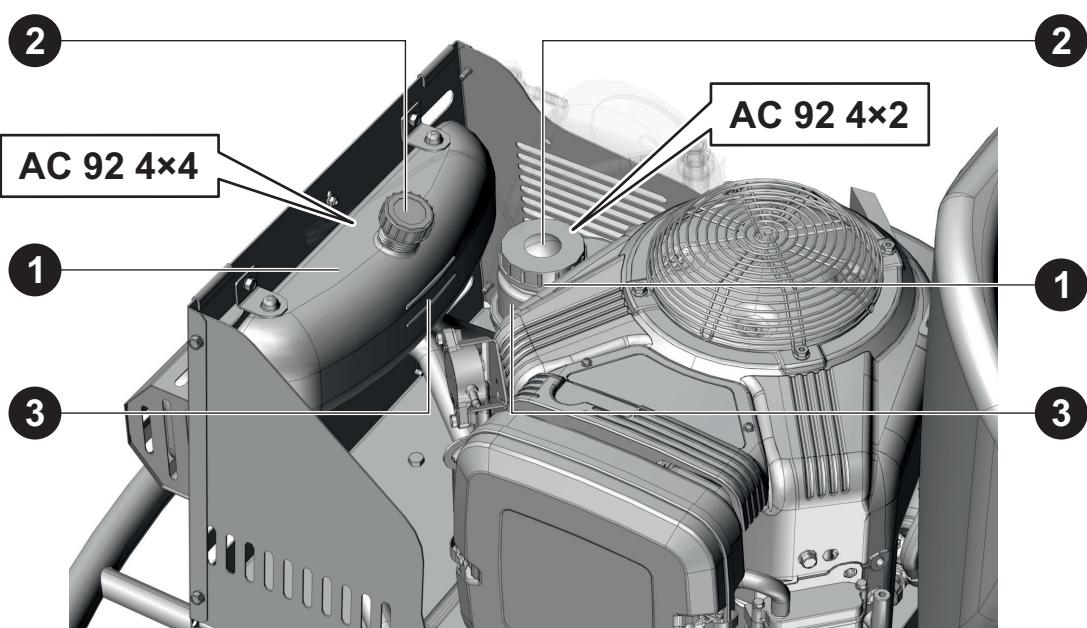
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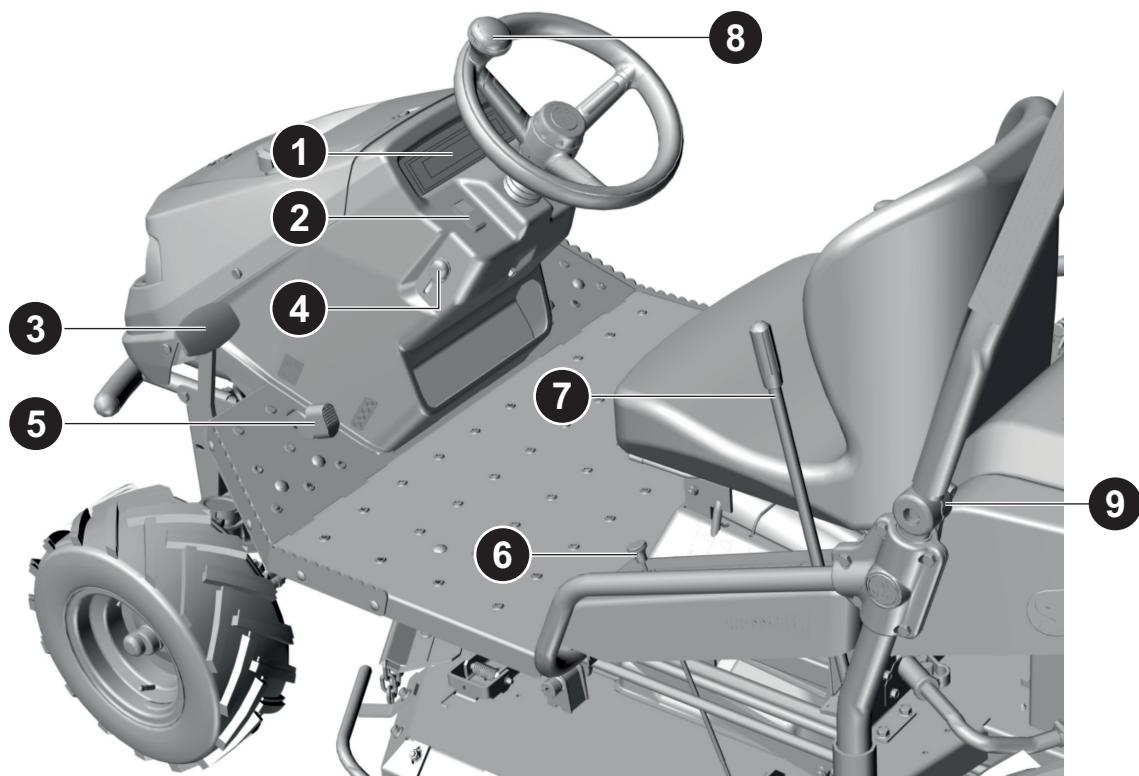


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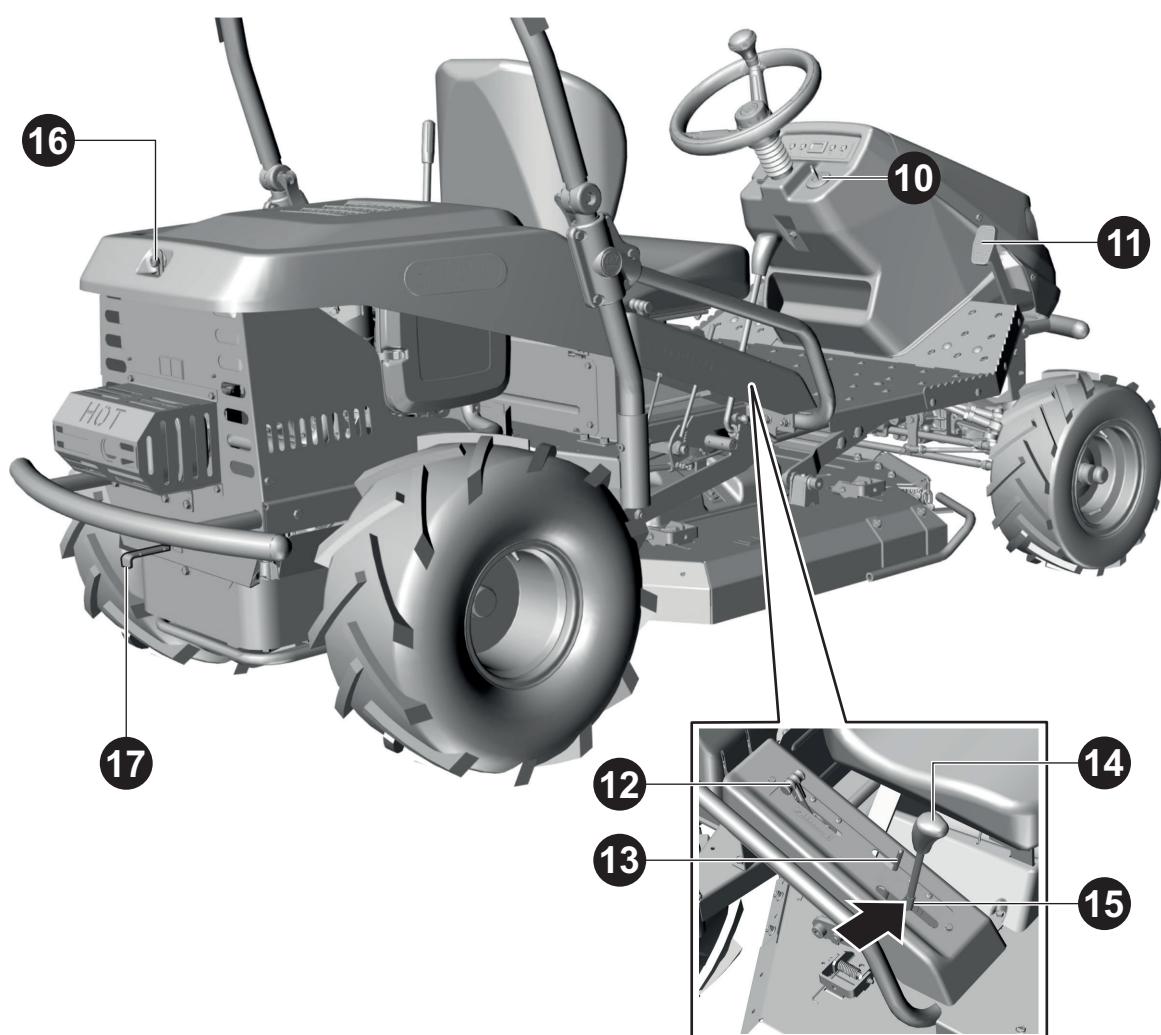


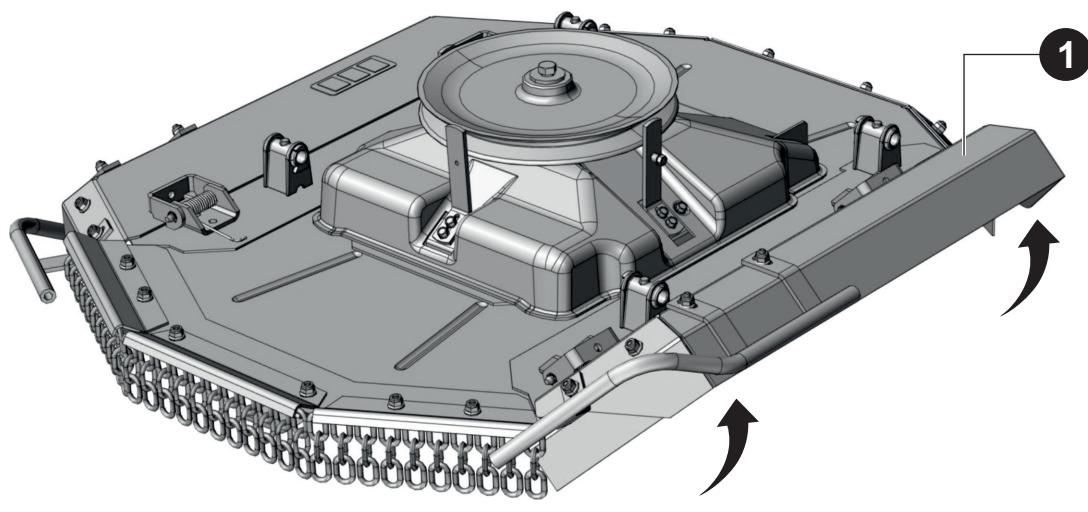
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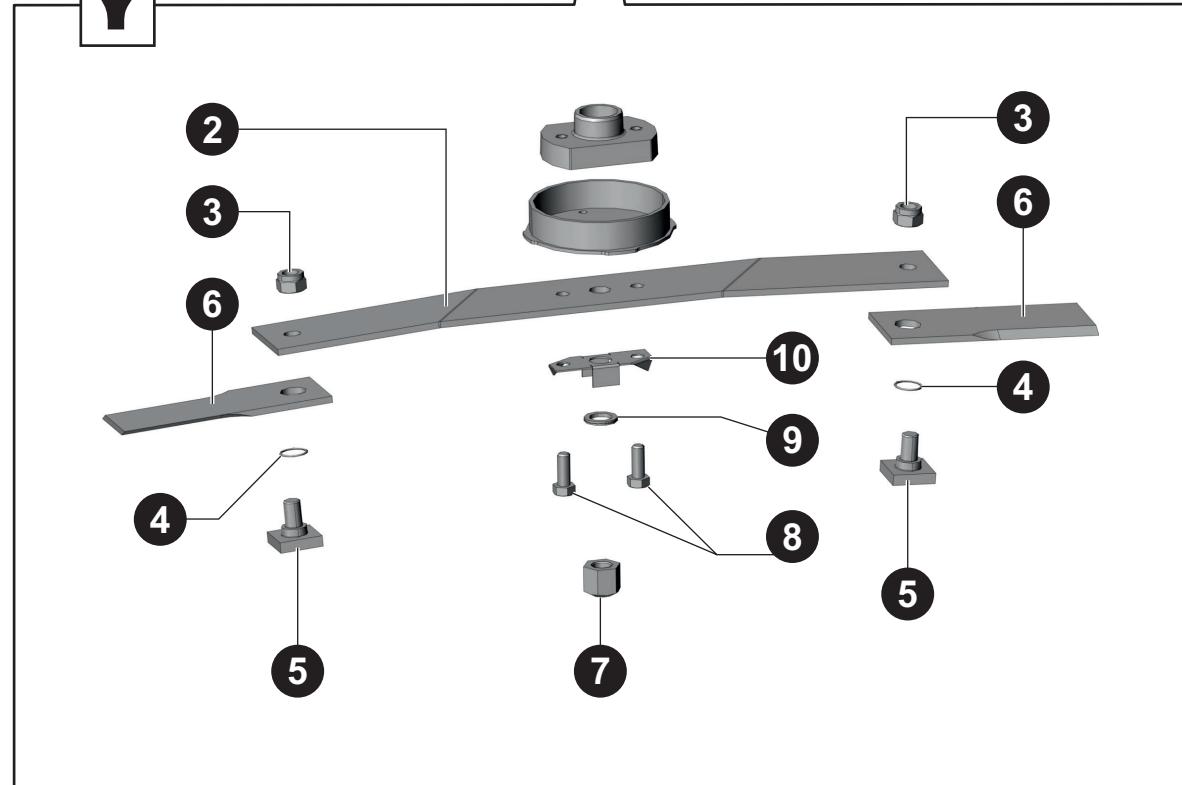


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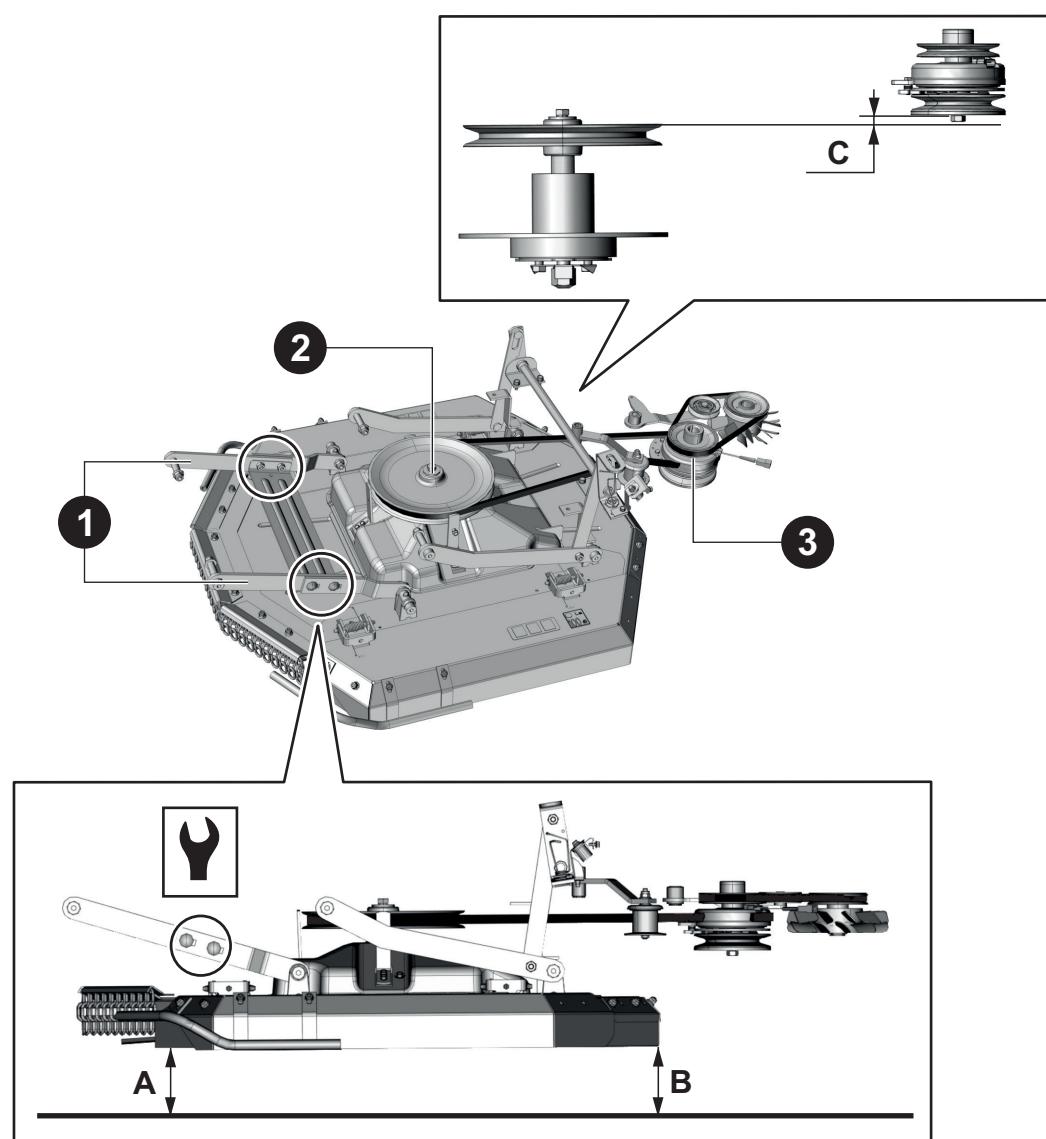




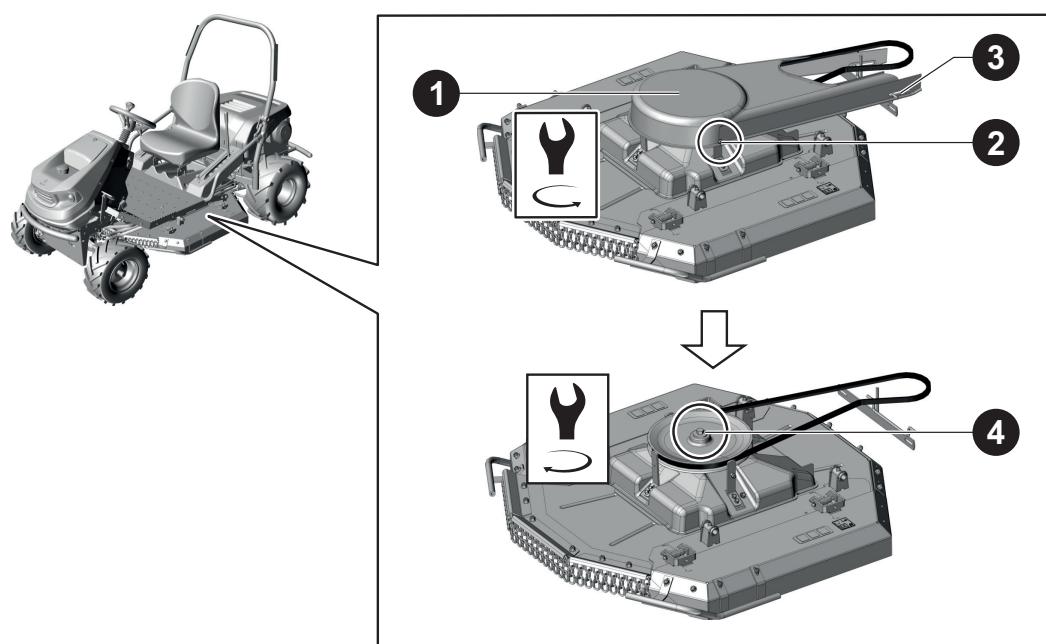
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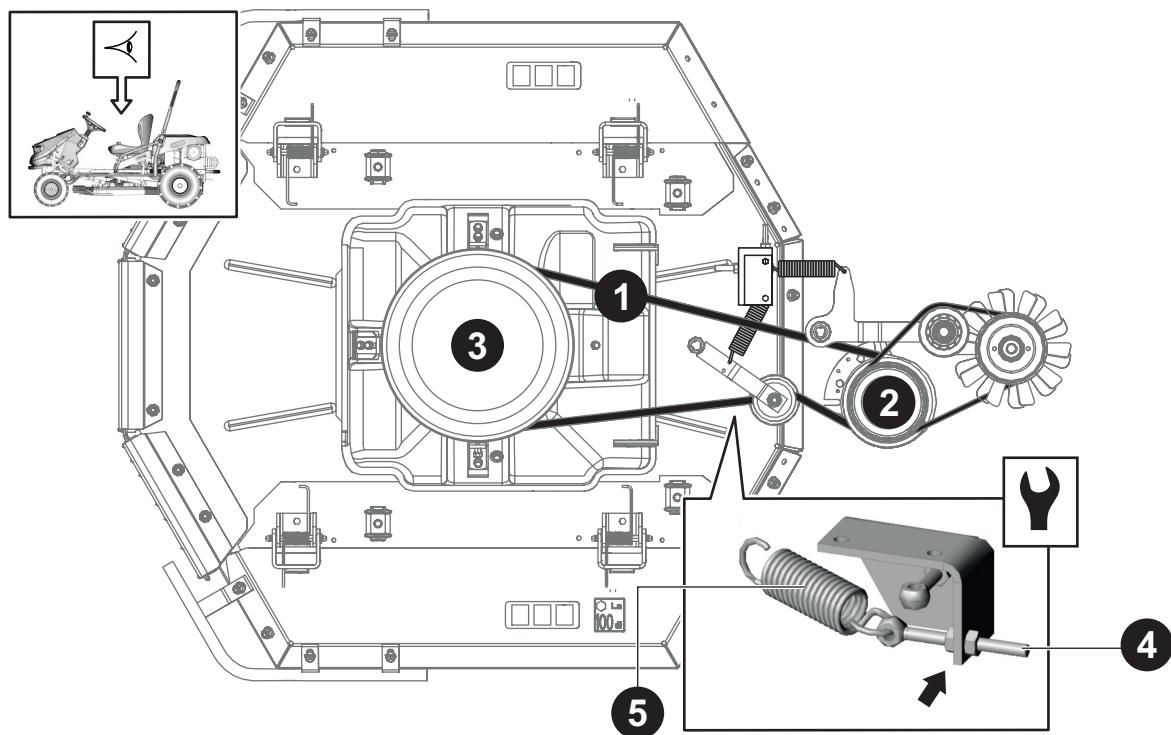
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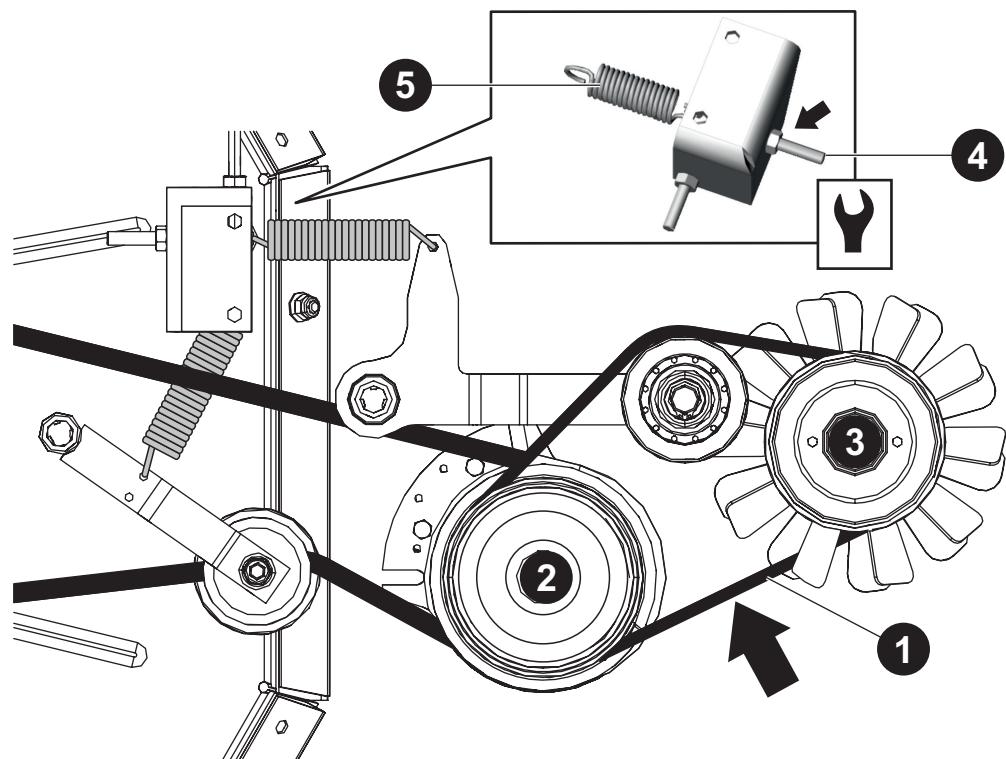
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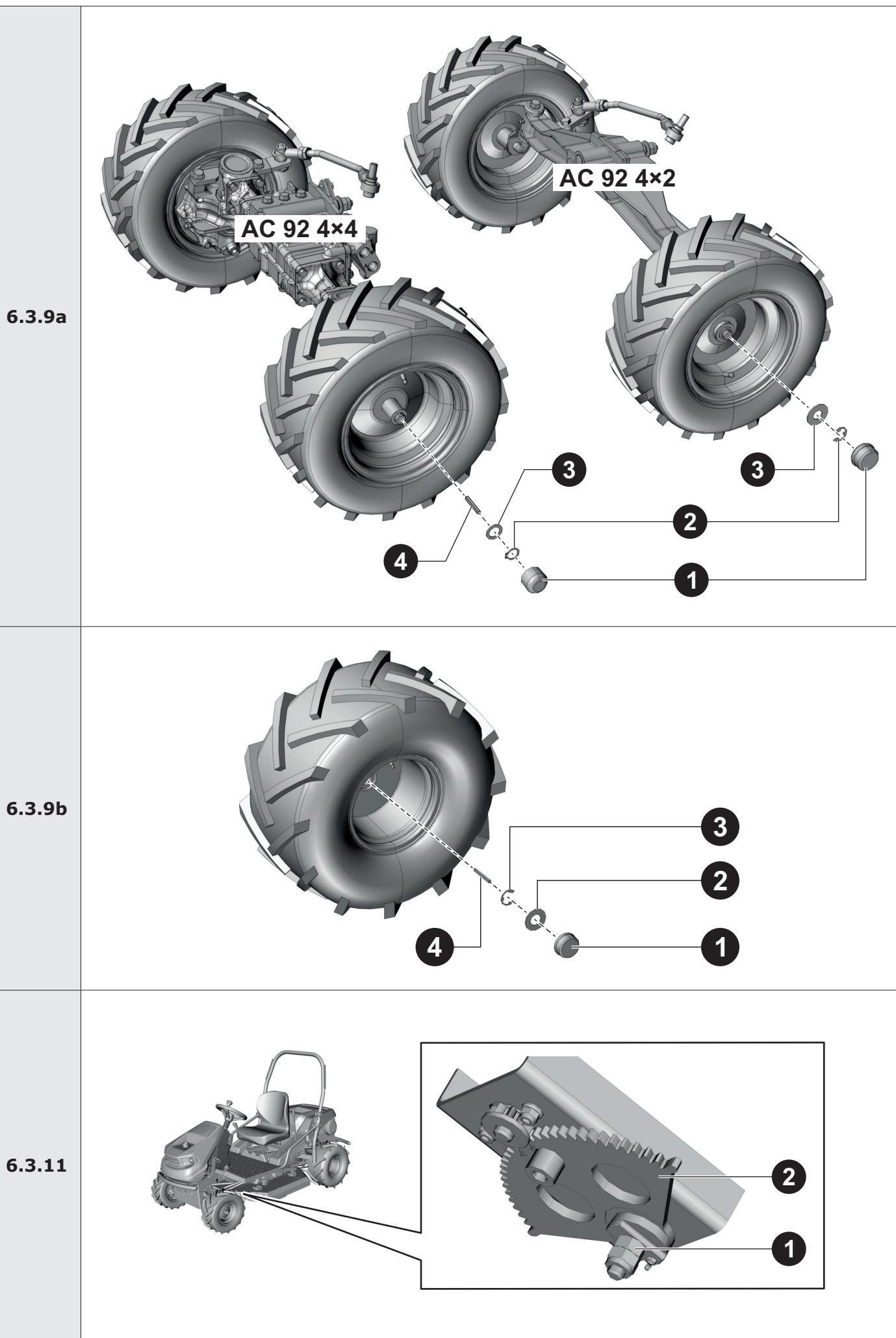


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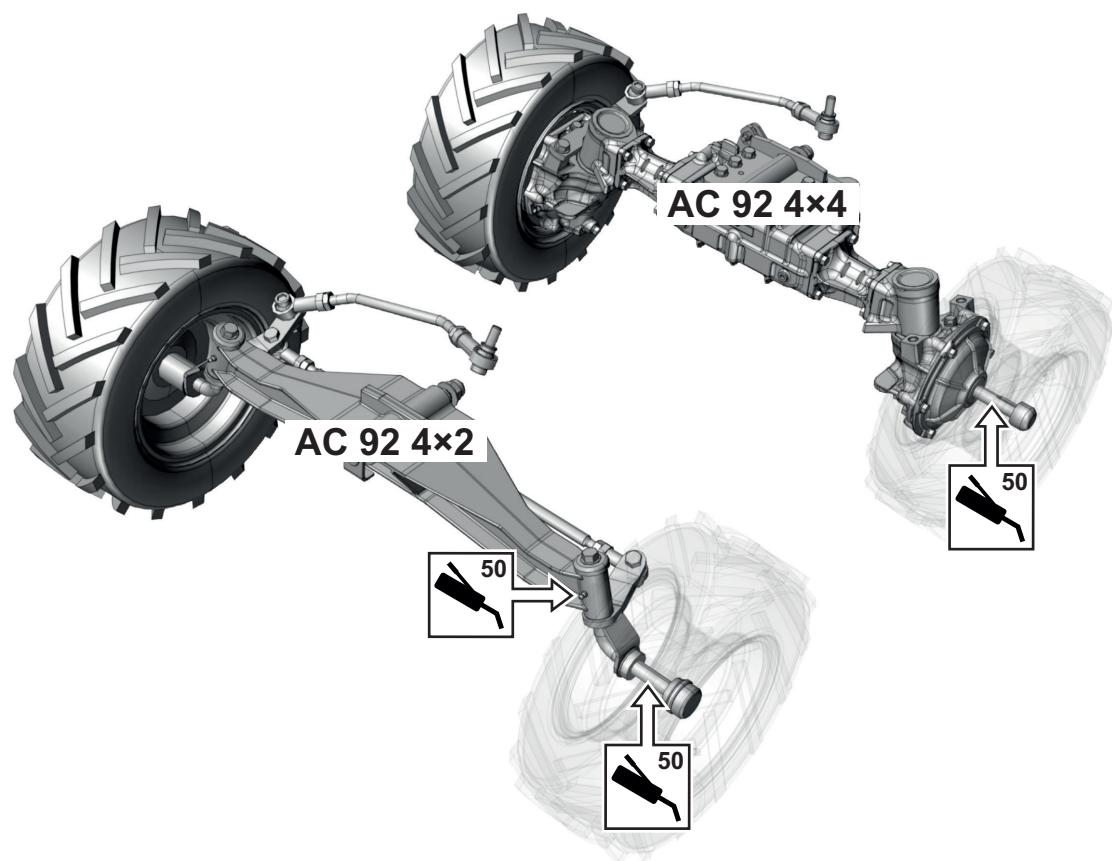


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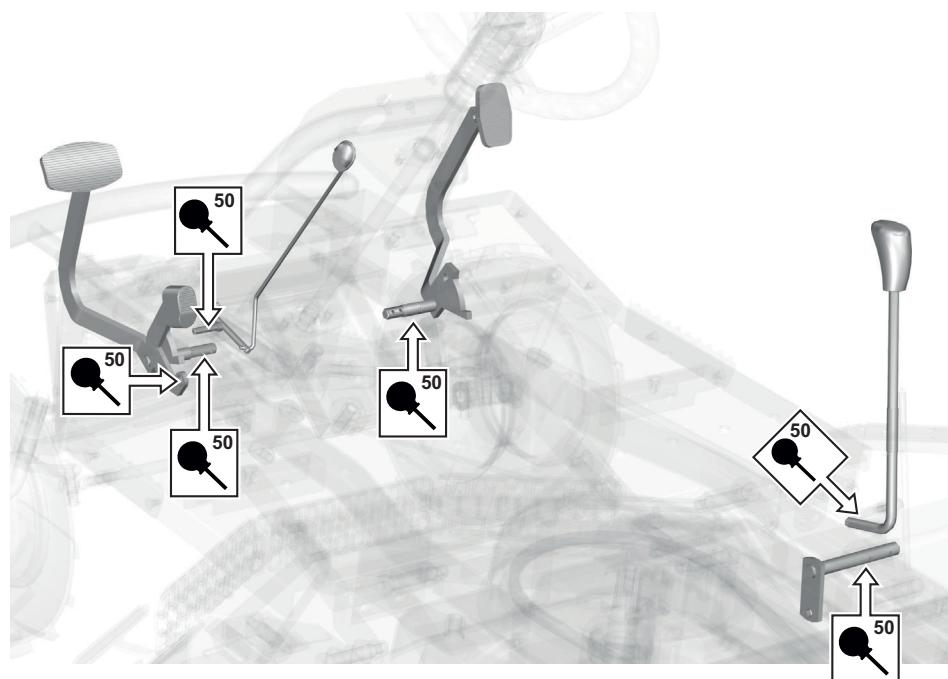




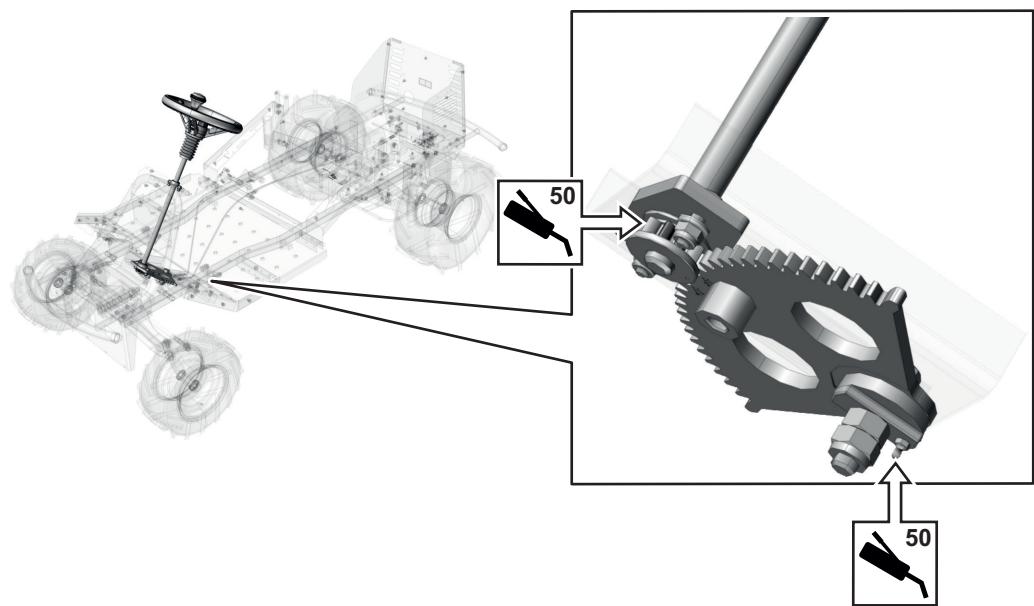
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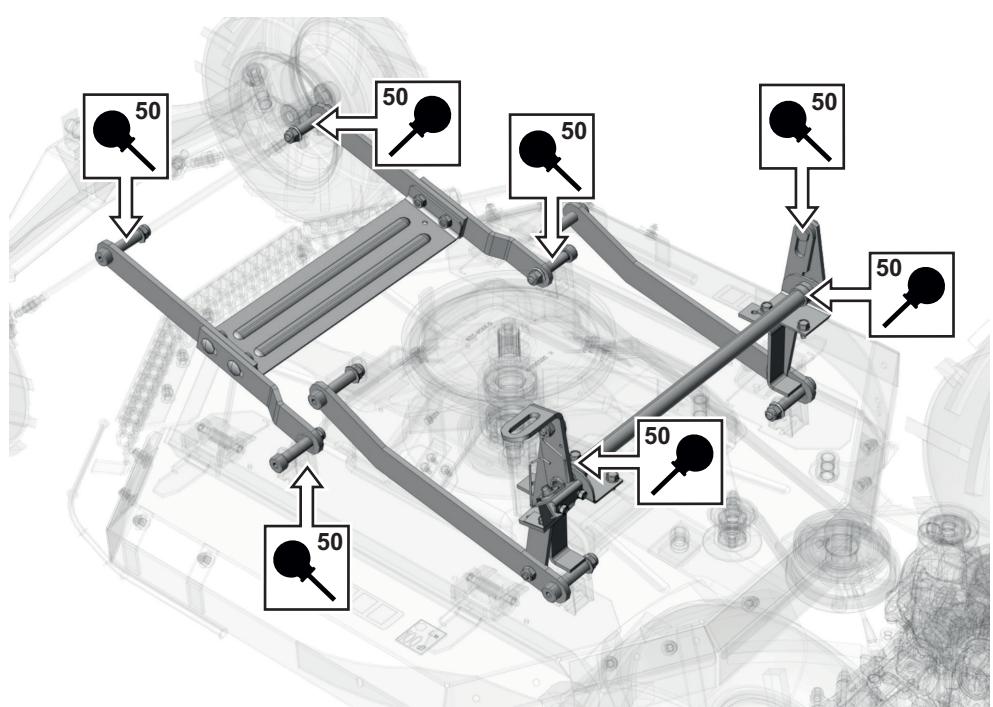
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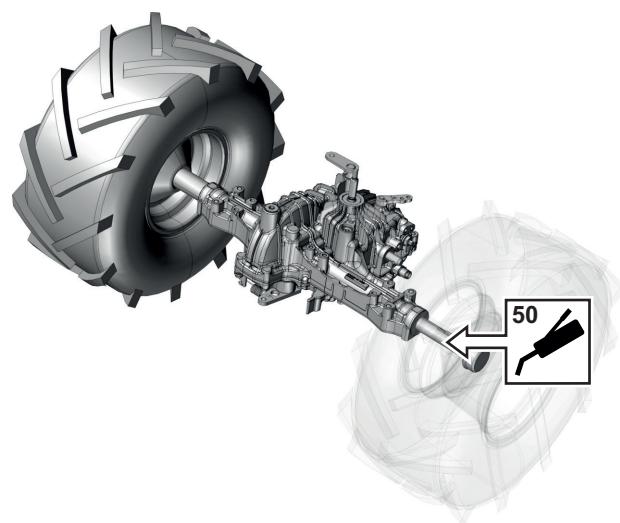
**6.4c**



**6.4d**



**6.4e**



# ABOUT THIS MANUAL

## PURPOSE OF THE MANUAL

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

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

## VALIDITY OF THE MANUAL

The manual is valid for the following mower models:

- CROSSJET AC 92 4x2
- CROSSJET AC 92 4x4

The differences between the models are provided in the technical specifications.

## SYMBOLS USED IN THIS MANUAL

In this manual, you will find symbols with the following meanings:

SYMBOL	MEANING
	These symbols mean "ATTENTION" and "WARNING", they inform you about things that may damage your mower 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 mower.
	This symbol indicates useful information relating to the mower or to its accessories.
	This symbol is a reference to an image in the front part of the user's manual. It is always accompanied by the number of the image.
	This symbol is a reference to another chapter in this or another user's manual and most often it is shown together with the number of the chapter to which it refers.

## IMPORTANT NOTICES

Before putting the mower into operation for the first time, carefully read the user's manual. It is essential that the manual is considered as a part of the riding mower, which must not be separated from it. Therefore, keep it for future use.

**Do not put the riding mower into operation until you have thoroughly read all the instructions, restrictions and recommendations contained in this user's manual, paying particular attention to chapter 2 of this user's manual.**

**Also adhere to the instructions provided in the other user's manuals supplied with this mower.**

The illustrations and pictures contained in this user's manual may not always correspond to reality, their purpose is the description of the main principles of the device. Texts, drawings, photographs and other elements here provided are protected by copyright. Each misuse or non-permitted copying is a criminal offence.

## **RELATED DOCUMENTATION**

In addition to this manual, the mower comes with further documentation drawn up by the manufacturer of the mower and the manufacturers of certain mower parts. The full list of documentation is provided in chapter MOWER DOCUMENTATION.

## **WHEN IN DOUBT**

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

## **VERSION OF MANUAL**

Revision A

# 1 TECHNICAL INFORMATION

## 1.1 USE

### CORRECT USE

This dual-axle terrain riding mower is designed for mowing both kempt and unkempt grass areas on planes and slopes with an inclination up to 22° (40%) free of foreign objects (stones, fallen branches, bones, hard items etc.). The mower can be used to mow multi-year vegetation, intertwined with raspberries, blackberries and various other weeds.

### IMPROPER USE

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 mower is not responsible for damages arising from such use; the risk is borne by its user.

This mower is not approved for travel on public roads.

Incorrect use of the mower also includes its operation, maintenance and repairs by untrained or unauthorised persons, the use of unapproved accessories, operation of the mower with a malfunction or fault, and operating it with removed, modified or non-functioning safety elements. The use of unauthorised accessories will, furthermore, result in the warranty becoming immediately null and void.

## 1.2 MAIN PARTS AND DESCRIPTION

The riding mower consists of the following basic sections:

### **(1) FRONT HOOD**

The front hood is a combination of plastic moulded parts and metal covers that cover the battery compartment, the fuel tank, the electrical and mechanical components of the mower, whilst concurrently providing outstanding visibility for the driver. The front hood also includes a personal items tray.

### **(2) FRAME WITH A BUMPER**

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

### **(3) FRONT AXLE WITH WHEELS INCLUDING STEERING**

The front axle enables the wheels to be turned using the steering wheel via a cogged segment and a pinion with fully adjustable tolerances.

The AC 92 4x4 riding mower is equipped with front-wheel drive. The all-wheel drive is constant with power distributed across the axles based on the directional requirements (straight line travel / turning).

### **(4) MOWING DECK**



1.2

The mowing deck beneath the mower mows the grass. It consists of covers, a main plate and mowing blades. The deck is powered by the mower's engine through an electromagnetic clutch and a V-belt.

### **(5) ENGINE, DRIVE AXLE WITH HYDROSTATIC DRIVE AND A BY-PASS**

The hydrostatic transmission transfers power to the rear wheels and serves to change travel speed. The lever is located on the rear plate of the mower and serves to engage and disengage the drive to the rear wheels.

### **(6) REAR FAIRING**

Openable rear fairing from plastic moulded parts covers the engine and the oil tank.

### **(7) TILTING FRAME**

The tilting frame is a design element that is intended as possible protection for the driver against tree and bush branches.

### **(8) DRIVER'S LOCATION**

The comfortable seat enables easy access to all control elements on the mower. The floor comprises of a metal sheet with anti-slip elements. The location has a storage location for plastic PET bottles (underneath the seat) and for other personal items.



A more detailed description of the mower is provided in ➔ 4 CONTROL AND SIGNALLING ELEMENTS OF THE MOWER

## 1.3 LABELS ON THE MOWER



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



The locations of the labels on the mower are shown in figure 1.3.

### TYPE PLATE



The type plate is located on the frame behind the driver's seat and contains basic identification details and technical specifications for the mower.

### MODEL IDENTIFICATION PLATE



The model identification plate is located on the frame behind the driver's seat and contains the serial number of the mower.

### WARNING LABELS

Danger	Caution, deflected objects!	Do not leave the mower while driving it	Attention! Hot surface!	Do not touch

Do not touch during operation!	Rotary tools! Limb injury hazard!

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Warning relating to the tilting frame	

### PROHIBITORY LABELS

Do not mow near other people	Do not take on passengers	Do not ride perpendicular to the slope	Do not step on

## COMMAND LABELS

Follow the manual when repairing	Keep unauthorised persons at a safe distance

## INFORMATION LABELS

Read the user's manual and follow the instructions	Maximum working incline	Guaranteed acoustic power level according to directive 2000/14/EC	Parking brake Engaged / pedal pushed down	By-pass

<b>F</b>	<b>R</b>			
Travel forward	Travel reverse	Cruise control	Fast	Slow

Differential lock engaged	Differential lock disengaged	Choke	Mowing height	Transport position of the mowing deck

Reversing with the mowing deck engaged

## 1.4 TECHNICAL PARAMETERS

PARAMETER	AC 92 4×2	AC 92 4×4
<b>MOWER</b>		
Dimensions of the mower (length × width × height)	2210 × 1027 × 1455 mm	2210 × 1027 × 1455 mm
Weight of the mower (without fuel, oil and driver)	317 kg	342 kg
Wheelbase	1,477 mm	1,489 mm
Wheel gauge (front / rear)	83 / 79 mm	83 / 79 mm
Wheel dimensions (front / rear)	16×6.50-8 4PLY / 20×10.00-8 4PLY	16×6.50-8 4PLY / 20×10.00-8 4PLY
Travel speed forward / reverse	8 / 5 km/h	8 / 5 km/h
Tyre pressure (front and rear)	1.5 ± 0.1 bar	1.5 ± 0.1 bar
Fuel tank capacity	19 l	19 l
Fuel type	Lead-free petrol Natural 95	

<b>MOWING DECK</b>		
Mowing height (transport position)	50-100 (120) mm	50-100 (120) mm
Mowing width (coverage)	920 mm	920 mm

<b>ELECTRICAL SYSTEM</b>		
Type of battery (capacity / voltage)	12 V 32 Ah	12 V 32 Ah
Headlight bulbs	2× LED 5 W / LED 1 W	
Fuses under the front hood	The mowing deck – 10 A	Engine – 20 A

<b>OIL FLUIDS</b>		
Hydraulic circuit	SAE 10W-40, API CD	SAE 5W-50 synthetic oil
Motor oil	SAE 15W-40, SJ	SAE 15W-40, SJ

TIGHTENING TORQUE OF BOLT CONNECTIONS		AC 92 4x2	AC 92 4x4
<b>STEERING</b>			
M14 nut of steering segment		92 – 132 Nm	92 – 132 Nm
M14 nuts of the angle pins on the steering		60 – 83 Nm	60 – 83 Nm
Securing pins on the front axle		40 – 50 Nm	-
<b>ENGINE</b>			
Bolt of the electromagnetic clutch		60 – 70 Nm	60 – 70 Nm
<b>MOWING DECK</b>			
M20 nut of the blade holder		250 – 300 Nm	250 – 300 Nm
M16 nut securing the blades to the blade holder		150 – 200 Nm	150 – 200 Nm
M12x30 bolt on the mowing pulley		60 – 80 Nm	60 – 80 Nm
Bolt M12x30 of the mowing deck beam		60 – 80 Nm	60 – 80 Nm



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

TENSIONING SPRINGS		AC 92 4x2	AC 92 4x4
Mowing blade drive belt spring		78±3 mm (across threads)	78±3 mm (across threads)
Travel drive belt spring		73±2 mm (across threads)	73±2 mm (across threads)

## NOISE AND VIBRATION LEVEL

AC 92 4x2 / AC 92 4x4					
Engine	Speed (min <sup>-1</sup> )	Declared emission level of acoustic pressure at the place of operation L <sub>pAd</sub> (dB) EN ISO 5395-1	Guaranteed acoustic power level L <sub>WAG</sub> (dB) according to directive 2000/14/EC	Declared vibration level ( m.s <sup>-2</sup> ) EN ISO 5395- 1	
				total vibrations a <sub>wd</sub>	transferred to the hand – arm a <sub>hvd</sub>
B&S 23 Vanguard	3000	87 + 4	100	1.5 + 0.6	< 2.5
BS 7220 Pxi	3000	85 + 4	100	1.3 + 0.5	< 2.5
Loncin LC2P77F	3000	85 + 2	100	1.0 + 0.4	2.9 + 1.5
Kawasaki FS651V	3000	84 + 4	100	<0.5	<2.5

## 2 WORK SAFETY AND HEALTH

This riding mower is designed and built in accordance with international norms and regulations that are valid for the production of such machines. Electrical elements conform to international regulations for protection against dangerous contact voltage. All electrical elements either have the respective protection class prescribed by norms or are located in enclosed areas that by their cover meet the directives of these norms.

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

### 2.1 SAFETY INSTRUCTIONS

Always use this mower with reason and a sense of responsibility. Remember that the person primarily responsible for their own safety, the safety of others and damage to property during the operation of the riding mower is its user.

The manufacturer takes no responsibility for the injury of persons or damage to the mower and ecological damage resulting from the mower not being used and operated in accordance with all safety instructions included in this user's manual.



#### WARNING!

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

#### 2.1.1 GENERAL SAFETY INSTRUCTIONS

##### Requirements pertaining to the user/driver

- ! This riding mower may only be driven by a person over 18 years of age that has read this user's manual.
- ! As the owner, user or operator of the mower, never allow this mower to be operated or serviced or maintained by persons that are not competent for the respective activity. Ensure that the worker operating the mower is physically, sense-wise and mentally able to work with the mower and to service it.
- ! Every driver must know all the control and signal elements (indicators) on the mower, and most importantly how to quickly stop the mowing deck and engine of the mower.
- ! The user/driver of the mower is responsible for the safety of persons in the vicinity of the working area of the mower.
- ! The maintenance, repair and adjustment of this mower may only be performed by a knowledgeable person, i.e. a person with corresponding technical education, professional training and/or experience enabling the identification of risks and avoidance of hazards that may arise during the maintenance of this type of equipment.

##### Outfitting of the user/driver and protective equipment

- ! when operating the mower, always use appropriate work attire. Never wear loose clothing and short pants.
- ! When operating the mower, always wear firm, closed footwear, ideally with non-slip soles. Never operate the mower when wearing sandals or barefoot.
- ! When performing maintenance and adjustment of the mowing deck elements, use work gloves.

Noise and vibration values at the location of the operator provided in this manual are closely related to the requirements of directives EU 2003/10/ES (exposure to noise) and 2002/44/ES (exposure to vibrations), that regulate the conditions for use of personal protective aids against noise and vibrations and also the reduction of exposure time of the operator by means of appropriate work breaks. **The mower manufacturer recommends always using hearing protection when operating the mower. Not adhering to these instructions may result in permanent health damage!**

### **Malfunctions and technical changes to the mower**

- ! The driver must not disable any protective elements of the mower.
- ! In the event that the mower is operated by a company, faults arising during the operation of the mower must be immediately reported by the driver to his manager and he must not continue working until safe conditions for work are restored.
- ! In the event that the mower is operated by a private user, faults arising during the operation of the mower must be remedied as soon as possible (by the user himself or with the assistance of authorised service technicians) and he must not continue working with the mower until safe conditions for work are restored.
- ! The user/driver must not independently perform any work on the construction of the mower, must not independently modify it and must not perform any unprofessional repairs.
- ! It is not permitted to perform any technical modifications to the mower and its accessories without the manufacturer's written consent. Unauthorised modifications may lead to hazardous work safety conditions and void the warranty. It is strictly forbidden to make any modifications to the mower that could lead to a change in the power output, speed of the combustion engine or travel speed. The mower is equipped with an electronic system that it is not permitted to modify or disengage. The software on the mower must never be replaced or modified.
- ! Do not remove safety labels or stickers from the mower.

## **2.1.2 SAFE OPERATION OF THE MOWER**

### **Before using the mower**

- ! Before putting the mower 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 work with the mower after consuming alcohol, drugs or medication affecting your perception.
- ! Do not work with the mower if you suffer from dizziness, fainting or if you are weakened or distracted in any other way.
- ! Prior to putting the mower into operation, always inspect its overall condition and all its functions. Primarily, check that all the safety elements, protective covers and the like are in their place and in full working order.



Do not use the riding mower if it is damaged or if any of its protective elements are missing. Do not remove or put out of operation any of the mower's protective elements.

- ! Remove all potential defects before using. Thoroughly check that the belts are tensioned, the blades are sharp and that the area inside the mowing deck is clear.
- ! Prior to starting work with the mower, inspect the area that you intend to mow.
- ! Always start the mower on level ground, and never on a slope.
- ! Start the engine only in a well-ventilated area. If starting the mower in a garage, ensure sufficient ventilation.
- ! Under no circumstances should you attempt to start the engine by short-connecting the starter terminals. Whenever the starter is engaged in a way other than by means of the normal electrical start up, the mower may start travelling.
- ! Never start the engine if you sense the smell of fuel – explosion hazard!
- ! Do not start the engine without an exhaust pipe.
- ! Before you start working with the mower, remove from the area that you intend to mow, all stones, pieces of wood, wire, bones, fallen branches and other items, which could be deflected during the mowing process. Always use protective gloves during this.

### **During operation of the mower**

- ! The mower must not be used for work on slopes that have an incline greater than **22° (40%)**.
- ! Transport of other passengers, animals or loads directly on the mower is forbidden. Transport of loads is only permitted on trailers approved by the mower's manufacturer.
- ! Even when leaving the mower for a short time, always remove the key from the ignition.
- ! If you are driving the mower away from the work area where you are mowing, always disengage the mowing deck and lift it to the transport position.

- ! When travelling, firmly hold the steering wheel with both hands (however, not too stiffly). Pay particular attention when travelling over grass areas and other uneven locations – the steering wheel may spontaneously turn as a result of impacts with holes, bumps, impacts, etc.
- ! Always attentively watch the area in front of the mower. Be especially careful of obstacles so that you can avoid them in time. Carefully watch out for recesses (holes) in the terrain and other hidden hazardous locations. It is easy to overlook obstacles in tall grass. Always travel at an appropriate speed.
- ! Pay special attention in broken terrain such as bushes, trees and similar obstacles behind which there could be other people, in particular children or animals.
- ! When an unauthorised person enters the area being mowed, immediately stop the the mower and turn off the mowing deck.
- ! Do not mow near piles of material, holes or banks. The riding mower may suddenly roll over if the wheel goes over the edge of a hole, trench or an edge that may collapse.
- ! When working, avoid mole mounds, concrete supports, tree stumps, garden beds and footpath kerbs, which must not come into contact with the blades and so cause damage to the mowing deck and the mower's mechanism
- ! Always try to drive around hidden objects such as lawn sprinklers, stakes, water valves, foundations, electrical cables, etc. that are buried in the grass turf. Never ride over these objects.
- ! In the event of an impact into a rigid object, stop and turn off the mowing deck and engine and inspect the entire mower, particularly the steering mechanism. If necessary perform repairs before starting up the engine again.
- ! Whenever possible avoid using the mower 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 mower could roll over.
- ! Do not attempt to maintain the stability of the mower by stepping on the ground.
- ! Only use the mower in daylight hours or with good artificial lighting.
- ! Do not work with the mower during rain, during a storm and especially when there is a risk of a lightning strike. Lightning can cause serious injury or death. Do not use the mower when a storm is approaching and lightning flashes can be seen or thunder can be heard, find safe shelter.
- ! Driving the mower on public roads is not permitted.
- ! Do not leave the engine running in closed areas. The exhaust fumes contain substances that are odourless but are fatally poisonous.
- ! Do not put your hands or legs underneath the mowing deck cover. Never put any part of your body near the rotating or moving parts of the mower. Do not attempt to use your hands or other temporary items to stop or slow down moving mowing blades!
- ! In the event that during operation you identify a fault on the fuel tank, fuel tank cap or on any part of the fuel supply (e.g. fuel lines), immediately turn off the engine.
- ! Always pay full attention to driving and other activities performed with the mower. The most common causes of loss of control over the mower 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 mower for purposes for which is was not designed.
- ! Always turn off the mowing deck and engine and take the key out of the ignition, when:
  - you are cleaning the mower
  - you are removing accumulated grass from the mowing deck
  - you have driven over a foreign object and it is necessary to check whether the mower has been damaged or it is necessary to remedy the damage
  - the mower is vibrating with unusual force and it is necessary to identify the cause of the vibrations
  - you are repairing the engine or other moving parts (also disconnect cables from the spark plugs)

### After finishing work with the mower

- ! Always park the mower on a level surface. Before getting off the mower, ensure that it has come to a complete stop. Keep in mind that the mowing blades will continue rotating several seconds after the engine is turned off before coming to a stop.
- ! Do not stay in the vicinity of the mower or under it, if it is lifted and is not sufficiently secured against falling or tipping over in the lifted position.
- ! The rotating blades are sharp and may cause injuries. Whenever handing the blades always use protective gloves or wrap the blades.
- ! Always maintain the mower and its accessories clean and in good technical condition.
- ! Remove any accumulated grass and dried material remains from the area of the engine or exhaust pipe, there exists a risk of these catching on fire from the hot parts.
- ! Regularly check the nuts and bolts securing the blades so that they are tightened with the appropriate amount of torque.
- ! 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 mower 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.

- ! This riding mower can be used on slopes with a maximum incline of up to 22° (40%).
- ! 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 mower to turn over. High grass may conceal hidden obstacles. Therefore, remove all foreign objects from the area where you wish to mow in advance.
- ! Select such a speed so that you do not need to stop when on a hill.
- ! Perform all movements on a slope slowly and smoothly. Do not make sudden changes to speed or direction.
- ! Avoid starting up or stopping on a slope. In the event that the wheels lose traction, turn off the power to the blades and drive slowly down the hill.
- ! Start driving very carefully and slowly when on a slope so that the mower does not "skip". Always reduce the mower'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 gearbox.

## 2.3 CHILD SAFETY



If the riding mower operator is not prepared for the presence of children then a tragic accident may happen.

The movement of a riding mower attracts the attention of children. Never assume that children will remain in the location where you last saw them.

- ! Do not allow children without supervision in areas where you are mowing grass.
- ! Always be prepared - if children approach then always immediately turn off the mower.
- ! 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 mower.
- ! Pay increased attention in places with limited visibility (near trees, bushes, walls, etc.).

## 2.4 FIRE SAFETY



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



Also acquaint yourself with the safety instructions provided in the user's manuals of the other manufacturers (battery, engine). These manuals are included with the mower.

- ! 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 mower.
- ! Allow the riding mower engine to cool down before parking it in an enclosed location.
- ! Pay increased attention when working with fuel, oil and other flammable substances. These are very flammable substances, the vapours of which are explosive. Do not smoke during this work.
- ! Never unscrew the fuel tank cap and refill with fuel while the engine is running, if the engine is hot or if the mower is in an enclosed location.
- ! Check the fuel lines before using and do not fill the petrol all the way up to the bottleneck of the tank. The heat generated by the engine, sun and the expansion of the fuel may lead to the fuel overflowing and a subsequent fire.
- ! Keep fuel in containers (canisters) intended and authorised for this purpose. Do not leave fuel in the vicinity of sources of sparks, an open fire, constant flames, heat sources and other sources of ignition. Never store fuel or the mower 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.

## 2.5 DANGEROUS PARTS OF THE MOWER – RESIDUAL HAZARDS

The riding mower is designed so that when properly operated in perfect technical condition, it poses no danger to the driver and his/her surroundings. Nevertheless, there may arise situations during operation, maintenance and adjustment that pose a danger to workers if they are not aware of them and do not adhere to the safety instruction here provided. These hazards represent so-called residual hazards – they are hazards that remain even after all preventive and protective measures have been considered and implemented.

Residual hazards are present during use, maintenance and adjustment of the mower. Therefore, every person that comes into work contact with the mower must know these hazards and must adhere to all recommendations for their mitigation.

### MOWING BLADES

- ! Rotating mowing blades are very sharp and coming into contact with them creates a serious risk of injury to limbs. Therefore, do not put your hands or legs underneath the mowing deck cover. Never put any part of your body near the rotating or moving blades. Do not attempt to use your hands or other temporary items to stop or slow down moving mowing blades!

### MOVING AND HOT PARTS

- ! When the engine is running, there are parts that are rotating and may cause serious injury to various parts of the body. When performing maintenance or adjustment of mower parts located underneath the hood or underneath the raised mower, it is thus necessary to pay increased attention and never to bring any part of the body in the vicinity of moving parts. Only a person with perfect knowledge of the principles of motion of these parts may perform their maintenance and adjustment. During operation, parts located under the hood heated up and when touched with an unprotected part of the body may result in serious burns. Therefore, before opening the hood for the purpose of performing maintenance or servicing tasks, always allow the mower to cool down and use safety gloves for protection.

## **DRIVER'S LOCATION**

- ! In the driver's location, there is a risk of falling from the platform or slipping as a result of inattentiveness. Therefore, always be careful when getting on or getting off the mower. Another hazard for the driver is fatigue, stress or erroneous behaviour caused by work overload, insufficient illumination of the mowed area or noise during operation. It is, therefore, necessary to always use hearing protection while using the mower, do not overload yourself and take breaks.

## **FUEL TANK**

- ! The fuel in the fuel tank is a highly flammable substance the vapours of which are explosive. When working with fuel or in the vicinity of the fuel tank (even when closed), never smoke, never come close with an open flame or with items that generate high temperatures.

### 3 PREPARATION FOR PUTTING INTO OPERATION



This chapter primarily serves the needs of the vendor's mechanics that prepare the mower for the user within the scope of pre-sale service.

In the event that you have received your mower already assembled and ready for operation, please skip directly to chapter 4.

In the event that you have unpacked the mower yourself, then it is necessary to prepare it for operation according to the instructions contained in this chapter. In the event that you are unsure about the procedure or you have insufficient equipment, tools or experience, please do not hesitate to contact the vendor of the mower for assistance.

We recommend performing all assembly works in a team of at least two people.

#### 3.1 UNPACKING AND INSPECTING THE CONTENTS

The riding mower is supplied on a wooden pallet in a package made from wooden boards. The mower is wrapped in plastic foil. Parts of the mower that had to be removed for transportation reasons are packaged in individual packages.



Inspect immediately after delivery that the riding mower 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 mower model is the same as you ordered. In the event of an irregularity do not unpack the mower and immediately report this discrepancy to the supplier.

#### 3.2 HANDLING THE DELIVERY

The package must only be handled by means of a forklift truck or pallet mover. Slide the forks into the hole in the pallet and move the mower to your selected location for its assembly or storage. Always transport only two packages.

The minimum load bearing capacity of the handling equipment is: **450 kg**



The wooden crate is not intended to be lifted by means of a crane.

Only persons with relevant authorisation and experience with the operation of the handling equipment may use it.

Due to the considerable weight of the packaged mower, we recommend at least two people for its handling.

#### 3.3 STORAGE BEFORE UNPACKING

In the event that the mower will not be unpacked and assembled immediately upon delivery, store it under the following conditions:

- Store the mower in its original packaging in a dry area protected against the effects of weather, which could result in the damage of the packaging and deterioration of condition.
- Do not tilt the wooden package on its side or, worse still, turn it upside down. Do not place any items on top of the package from which liquids could potentially leak.
- Do not disassemble the mower from the pallet and do not turn it on its side and do not lean it in a diagonal position.
- Do not place any other items or materials on top of the packed mower.
- When storing multiple packaged mowers then no more than four packages may be stacked on top of each other.

Recommended storage location specifications:

Temperature ..... from -10 °C to +35 °C  
Air humidity ..... <80 % at 21 °C  
Air cleanliness ..... Dust-free environment  
Other ..... Dry storage location

## 3.4 UNPACKING

- First remove the reinforcing straps from the packaging and remove all the individually packed assemblies.
- Using a suitable tool (crowbar, hammer, etc.) disassemble the wooden boards and remove all the remove all reinforcing elements and packaging. Ensure that no part of the mower or its assemblies are damaged.
- Remove the straps securing the mower on the pallet.
- Visually inspect the mower and the separate assemblies for damage that may have occurred during transport. In the event of any type of damage, immediately contact the supplier and do not continue with the assembly of the mower.
- Put all the individually packed assemblies to the side and unpack them.

## DISPOSAL OF PACKAGING MATERIALS

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

In the event that you are unsure about the disposal procedure, have this performed by a specialised company.

## 3.5 MOWER DOCUMENTATION

The mower is supplied with the following documentation:

- Packaging note
- User's manual
- User's manual for the engine
- User's manual for the battery
- Service log book

## 3.6 PREPARING FOR OPERATION

### 3.6.1 ASSEMBLY OF THE REMOVED AND SEPARATELY PACKED ASSEMBLIES

#### Seat springs

Install the seat springs as follows:



3.6.1

- Tilt out the seat.
- Unscrew the bolts holding down the seating spring under the bracket. Then install the springs so that they are above the bracket.



Do not sit on the seat unless the springs are installed back in functional condition! Risk of collision with parts of the hood and its damage.

#### Steering wheel

Install the steering wheel as follows:



3.6.2

- Steering wheel rod (1) has two holes enabling the steering wheel to be set to two heights. The steering wheel is secured in position using pins (2).
- From the factory, the pin is ready inside the steering wheel hole (3). Select a hole on the steering wheel rod and tap the pin through the steering wheel. To make the tapping in of the pin easier, a suitable metal rod can be used (diameter 6mm).
- Snap on the steering wheel cap (4).

### 3.6.3 TILTING FRAME ADJUSTMENT

The tilting frame can be set to any position using the quick coupling levers. Set the tilting frame as follows:



3.6.3

- Release the quick coupling levers on both sides of the frame (by 180°).
- Set the frame to the desired position and use the levers to clamp the frame in this position.



**THE TILTING FRAME DOES NOT SERVE AS MOWER ROLL-OVER PROTECTION FOR THE USER!**



It is appropriate to have the tilting frame in the upright position during work so that it provides protection against branches and bushes.

### 3.6.4 CONNECTING THE BATTERY

Connect the battery:



3.6.4

- Release the quarter-turn clip (1) on the front hood and tilt open the battery cover (2).
- Loosen the bolts on the pole terminals of the battery. Then:
  - Connect the **red** wire to the positive (+) terminal of the battery and secure in place with the bolt.
  - Connect the **brown** wire to the negative (-) terminal of the battery and secure in place with the bolt.



Connecting the wires in opposite to that described above will damage the mower.

When disconnecting the battery, always disconnect the negative (-) terminal of the battery first.



After connecting the battery, check its condition according to the user's manual drawn up by its manufacturer and which forms part of the mower's documentation. Respect all the instructions provided therein, especially when charging the battery.

### 3.6.5 CHECKING AND FILLING UP THE MOTOR OIL



Prior to checking and filling up the oil, the mower must be standing on a horizontal surface.

- Open the rear hood (procedure ➔ 4.2 (16) REAR HOOD OPENING SYSTEM and, based on the type of engine, find the oil dipstick (dipstick location ➔ user's manual of the engine manufacturer)).
- Screw out the oil dipstick, wipe it clean using a dry cloth, reinsert it and screw in. Then again screw it out and check the 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 top mark.
- The motor oil type is indicated in ➔ 1.4 TECHNICAL PARAMETERS of this user's manual or in the user's manual of the engine's manufacturer.

### 3.6.6 INSPECTING THE HYDRAULIC CIRCUIT

**Checking the oil level in the hydraulic circuit**



Prior to checking and filling up the oil, the mower must be standing on a horizontal surface.

The mower's hydraulic circuit is filled with the prescribed oil and bled of air at the factory. During the transportation of the mower, however, the oil level in the tank may decline and prior to putting the mower into operation it is appropriate to check the oil level. The tank is located in the rear part of the mower under the rear hood.



**3.6.6**

- Open the rear hood (procedure ➔ 4.2 (16) REAR HOOD OPENING SYSTEM).
- Check that the oil level is between the marks (3) on the body of the tank (1).
- If necessary, unscrew the cap (2) and fill up the necessary amount of the prescribed oil ( ➔ 1.4 TECHNICAL PARAMETERS).
- After checking and filling up, always wipe dry the area around the tank cap and the tank cap itself.

#### **Bleeding air from the hydraulic circuit**

The hydraulic circuit is completely bled during the first hours of operation of the mower. We recommend to "run in" the mower under light load for 1–2 hours. In the event that during the initial "run in" the character of the hydrophone sound changes, then the front axle may be aerated. In such an event please contact the nearest service centre.



Bleeding air from the front axle is performed while the mower is running and the wheels are rotating and requires special equipment that is not available for ordinary users. Due to the difficulty and dangerous nature of the task, the air bleeding procedure must be performed by a service centre.

#### **Performing a leak test on the hydraulic circuit**

Visually inspect the hydraulic circuits for oil leaks, namely the locations where fittings are connected to the axles. If you discover any leaks, inform your vendor or service centre.

### **3.6.7 CHECKING THE AIR PRESSURE IN THE TYRES**

The tyres are tubeless and fitted with standard car tyre valves. They can be inflated using a compressor or a standard hand pump.

Tyre pressure ➔ 1.4 TECHNICAL PARAMETERS.



A change in the tyre pressure may cause worse control and traction of the mower. This also changes the mowing height, therefore, regularly check the tyre pressure.

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

### **3.6.8 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 up the fuel.

The fuel tank is located under the front hood. The fuel tank cap slides out of the hood and thus for checking and refilling fuel it is not necessary to open the front hood.



Use only the fuel specified in the user's manual of the engine. Defects caused by the use of incorrect fuel are not covered by the warranty.

Only add fuel 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.

Respect the maximum permitted fuel tank level, i.e. the fuel level is in the lower level of the filler neck. Never fill up the fuel tank above this maximum level.

Ensure that fuel is not spilled when refilling. Spilled fuel can very easily catch on fire.

If fuel does spill, thoroughly wipe dry.

Always store the fuel out of the reach of children.

Never start up the mower without the fuel tank cap screwed on.

After being out of operation for an extended period of time, use 100-octane petrol to extend the lifetime of the fuel system.

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. The fuel level must under no condition be above the bottom level of the filler.
- After filling up the fuel tank always wipe dry the area around the fuel tank opening as well as the fuel tank opening itself.

### 3.6.9 INSTALLING THE OIL-FILLED RADIATOR (OPTIONAL EQUIPMENT)



It is necessary to have the oil radiator professionally installed and therefore we recommend seeking out an authorised service centre or the nearest vendor.

- Remove the deflector on the rear gearbox.
- Open the hood of the engine.
- Mount the radiator on the external left cover of the engine using the supplied nuts and bolts.
- Remove the by-pass hose on the left hand side of the gearbox. Plug the holes against oil and dirty material.
- Poke the radiator hoses through the engine chamber.
- Connect the hoses instead of the by-pass hoses. Front hose directly upwards, rear hose goes underneath the hydraulic pipe. Ensure that hoses are properly unbound from moving parts.
- Mount the hoses on to the radiator using a reduction adapter, sealing washers and flow-through bolts.
- Disconnect the electrical bundle from the engine and insert the radiator bundle into it. Ground the black cable of the radiator to the engine.
- Connect the electrical wiring of the radiator to the hoses.
- Start up the mower and add hydraulic oil into the tank.
- Return all the covers to their original location.

## 4 CONTROL AND SIGNALLING ELEMENTS OF THE MOWER

### 4.1 CONTROL AND SIGNALLING ELEMENTS – OVERVIEW



Prior to using the mower for the first time, it is necessary to acquaint one's self with all the elements and to understand their function and meaning.



**4.1**

- (1) Information display
- (2) Mowing deck engagement switch
- (3) Brake pedal
- (4) Parking brake
- (5) Differential lock pedal
- (6) Choke
- (7) Mowing deck elevation adjustment lever
- (8) Steering wheel ball
- (9) Tilting frame quick coupling levers
- (10) Switch box with key
- (11) Forward travel pedal
- (12) Engine speed control lever
- (13) Cruise control
- (14) Travel lever forward / reverse
- (15) Mowing deck engagement switch for reversing
- (16) Rear hood locking system
- (17) By-pass lever

## 4.2 CONTROL AND SIGNALLING ELEMENTS – DESCRIPTION AND FUNCTIONS

### (1) INFORMATION DISPLAY

The information display comprises of indicator lights that serve to signal the status of the mower's main functions and to display basic information.



	<b>WARNING TRIANGLE</b> Lit when starting-up conditions are not met together with the symbol of the unfulfilled condition.
	<b>PARK BRAKE AND DRIVING BRAKE</b> It is lit: When the brake pedal is stepped on or when the parking It is flashing while the warning triangle is lit: a starting-up condition has not been met (push down the brake pedal) It is flashing while the warning triangle is lit during travel: ATTENTION: Do no push down the brake during travel over the long term, risk of overheating of the drive mechanism.
	<b>NEUTRAL INDICATOR LIGHT</b> It is flashing while the warning triangle is lit: A starting-up condition has not been met (take your foot off the travel pedal)
	<b>PRESENCE OF THE DRIVER</b> It is lit: The driver is not present It is flashing while the warning triangle is lit: A starting-up condition is not met (sit down on the seat)
	<b>MOWING DECK</b> It is lit: the mowing deck is engaged It is flashing while the warning triangle is lit: A starting-up condition has not been met (turn off the mowing deck) It flashes after the mowing deck is turned off: run down of the mowing deck
	<b>CHARGING THE BATTERY*</b> The numerical value shows the current battery voltage. Empty pictogram: The battery is OK (12.6 - 14 V) and is recharging correctly Blue colour: The battery voltage is over 14V, if it remains lit for a long time while the mower is in operation, check the engine's recharging system. Red colour: The battery has a low voltage (up to 12.6 V), check the engines 's recharging system
	<b>COUNTER OF MOTOR HOURS**</b> Displays the number of motor hours.
	<b>ENGINE SPEED [rpm]***</b> When the mower is started up, the engine speed is shown for about 10 seconds.
	<b>SERVICE / EMERGENCY MODE</b> Mower requires a servicing task
	<b>HEADLIGHT INDICATOR LIGHT</b> It is lit when the mower's headlights are lit.



#### MOTOR OIL PRESSURE

It lights up red when the motor oil pressure drops. Check the motor oil level and fill it up if necessary.

\* = In the event that after starting the engine and running the mower at maximum rpm without the mowing deck engaged and without the lights turned on, when after approximately 1 minute of operation the red indicator light does not turn off or possibly a blue indicator does not turn on, then this indicates a malfunction of the recharging circuit and it is necessary to seek out a professional service centre.

\*\* = Tampering with the motor hours counter (sensing cable on the spark plug) results in loss of warranty.



#### ATTENTION:

In the event that for any reason the engine speed sensing cable is not connected (on the engine's spark plug), the engine will shut off after 30 seconds and the entire display will start to flash intermittently. In this case, it is possible to utilise the emergency travel function.

## (2) MOWING DECK ENGAGEMENT SWITCH

It is used to turn the mowing deck on or off.



Pushing the part of the switch with the symbol engages (turns on) the mowing deck.

Pushing the part of the switch without the symbol disengages (turns off) the mowing deck.

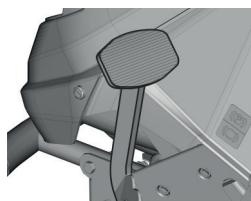


ATTENTION: If the mowing deck is engaged, it is not possible to start the engine.



ATTENTION: The mowing deck blades will not stop immediately when the mower is turned off but will continue to rotate for some time with inertia.

### (3) BRAKE PEDAL



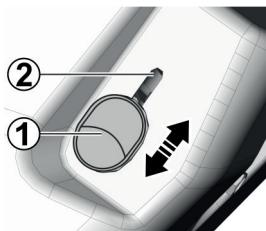
The brake pedal is located on the left side of the floor.

The pedal serves to quickly brake, to engage/disengage the parking brake or to turn off cruise control.

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

### (4) PARKING BRAKE

The parking brake serves to secure the mower against movement when parked.



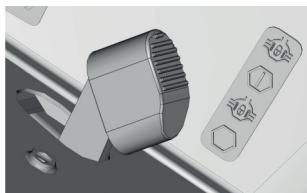
#### Engaging the brake:

Step on the brake pedal, shift the parking brake up to position (2) and release the pedal.

#### Disengaging the brake:

Step on the brake pedal. The brake will be automatically released and slide down to position (1).

### (5) DIFFERENTIAL LOCK PEDAL



When the pedal is pushed down, the lock is engaged.

When the pedal 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!

When the pedal is stepped on, the differential lock is engaged only after the half axle turns (reduced force on the pedal).

### (6) CHOKE



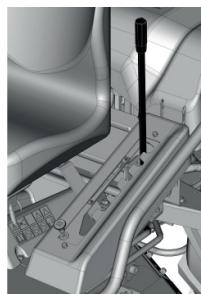
The choke helps to start up a cold engine.

It is activated by being pulled upwards and deactivated by being pushed down.



Kawasaki engines require the choke to be pulled out every time that the engine is started.

## (7) MOWING DECK ELEVATION ADJUSTMENT LEVER



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

The lever has 5 working positions (50–100 mm).

There is also 1 transport position, which is 120 mm above the ground.

**ATTENTION:** 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.

## (8) STEERING WHEEL BALL



Serves to improve handling of the steering wheel and thereby enables safer control of the mower not only in varied terrain.

## (9) TILTING FRAME QUICK COUPLING LEVERS



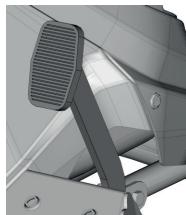
The quick coupling levers enable easier and faster adjustment of the tilting frame to the desired position (→ 3.6.3 TILTING FRAME ADJUSTMENT).

## (10) SWITCH BOX WITH KEY

	Symbol	Function	Abbreviation *
		Ignition is turned off, the engine is not running. If the engine is running then turning the ignition key to this position will turn the engine off.	STOP
		Turn on the headlights on the hood. Switching to this position will turn on the headlights.	HEADLIGHTS
		Ignition is turned off. Headlights are turned off.	ON
		Starting up the engine. Once the engine starts up, release the key. The key will automatically return to the ON position.	START

\* These abbreviations are used as substitutes for the symbols in this user's manual.

## (11) FORWARD TRAVEL PEDAL



The pedal is located on the right side of the floor. When stepped on, the mower will travel forwards

The more the pedal is pushed towards the floor, the faster the mower will be and vice versa. When the pedal is released it will automatically return to the neutral position and the mower will stop.



ATTENTION: It is forbidden to use the travel pedal with the brake pushed down.

## (12) ENGINE SPEED CONTROL LEVER

This lever is used to control the engine speed. The lever has the following positions:

	Symbol	Function	Abbreviation *
		Maximum engine speed	MAX
		Minimum engine speed (idle)	MIN

\* These abbreviations are used as substitutes for the symbols in this user's manual.



ATTENTION: The engine speed must always be set to MAX during operation.

## (13) CRUISE CONTROL

Cruise control maintains the set speed when the travel pedal is released for long straight runs.

Engaging cruise control:

- set the travel speed by pushing down on the travel pedal or shifting the travel lever forward
- shift the cruise control lever forward from position (1) to position (2)
- take your foot off the travel pedal or hand off the travel lever



Cruise control can be turned off in four ways:

- shifting the cruise control lever back to position (1)
- pushing on the travel pedal
- shifting the travel lever forward
- pushing on the brake pedal



Do not turn off the cruise control when travelling at a high speed!

## (14) TRAVEL LEVER FORWARD / REVERSE

Controls the drive to the wheels and regulates the speed of the mower in the direction of travel forward and reverse.

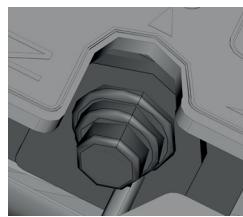
	Symbol	Function	Abbreviation *
	<b>F</b>	Moving the lever forward corresponds to a higher speed and vice versa.	F
	<b>N</b>	Neutral – the mower is still	N
	<b>R</b>	Moving the lever backwards corresponds to a higher speed and vice versa.	R

\* These abbreviations are used as substitutes for the symbols in this user's manual.

## (15) UNBLOCKING THE MOWING DECK WHEN REVERSING

The function serves to run (turn on) the mowing deck when reversing.

When you start travelling backwards with the mower (reversing), the mowing deck disengages automatically and the blades stop mowing grass. Pressing this switch using the travel lever will restart the mowing deck and you can continue mowing even while reversing.



You must press the switch:

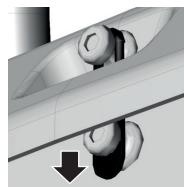
- with the mowing deck running, immediately before shifting the travel lever back to the R position (approx. 5 seconds)
- immediately after automatic disengagement of the mowing deck before the blades stop rotating (approx. 5 seconds).

When the travel direction is changed from reversing R to position N or F, the automatic disengagement of the mowing deck function is reactivated.



**ATTENTION:** Frequent disengagement of the mowing deck leads to rapid wearing out of the electromagnetic clutch and reduces its lifetime.

## (16) REAR HOOD OPENING SYSTEM



Opening the rear hood is very easy – simply pull on the bottom tab of the rubber staple, pull it off the pin on the frame and open the rear hood.

## (17) BY-PASS LEVER

The bypass lever serves to disengage the transmission for the rear wheel drive and is used when pushing or pulling the mower without using the engine. The lever is located on the mower's rear plate. It has these positions:

	Position	Rear wheel drive	Use
	0 (pushed in)	DISENGAGED	When pushing the mower, the engine is still
	1 (pulled out)	ENGAGED	When driving, the engine is running



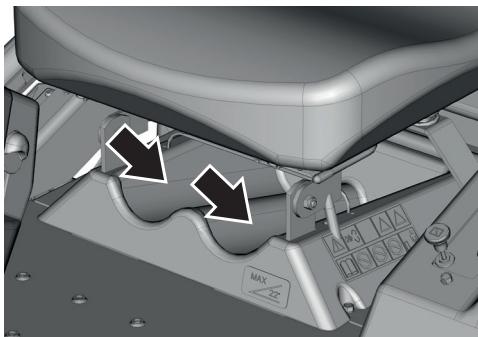
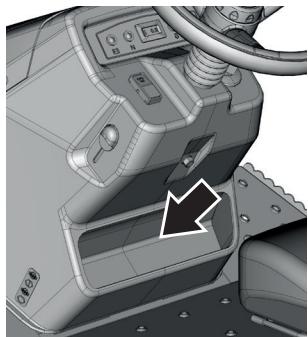
#### ATTENTION:

Only push the riding mower along horizontal surfaces – when pushing the mower on sloped surfaces there is a serious risk of uncontrolled downward travel!

Do not push the mower at high speed since energy continues to be transferred at the 4x4 drive to the drive mechanism!

## 4.3 ELEMENTS FOR THE PERSONAL NEEDS OF THE DRIVER

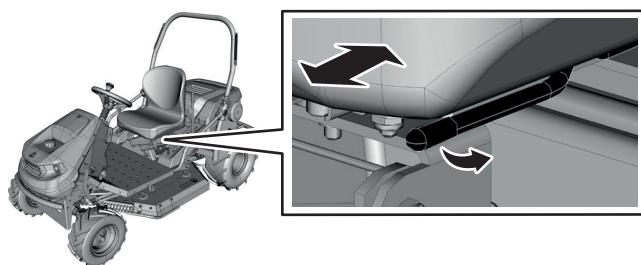
### 4.3.1 STORAGE COMPARTMENT



The work area of the driver is equipped with elements that contribute to the driver's comfort:

- Personal items tray (for ID, keys, mobile, etc.) underneath the steering wheel.
- Plastic PET bottle holder beneath the seat

### 4.3.2 ADJUSTING THE SEAT



For the comfort of the driver when controlling the mower, it is possible to adjust the position of the seat by sliding it forwards or backwards. To perform the adjustment, use the lever on the left hand side of the seat.

- sit down on the seat
- pull on the lever towards the left and hold it in this position
- slide the seat forwards or backwards and release the lever

### 4.3.3 ADJUSTING THE STEERING WHEEL

For the comfort of the driver when controlling the mower, it is possible to adjust the height of the steering wheel. The procedure is described in ➔ 3.6.1 ASSEMBLY OF THE REMOVED AND SEPARATELY PACKED ASSEMBLIES

## 5 OPERATING THE MOWER

### 5.1 INSPECTIONS BEFORE RIDING THE MOWER

Prior to the first and every subsequent ride, always check the following:

#### MOTOR OIL

Check the oil level in the engine and if necessary fill it up (► 3.6.5 CHECKING AND FILLING UP THE MOTOR OIL)

#### HYDRAULIC CIRCUIT

Check the condition and leak tightness of the hydraulic circuits, oil level in the circuit (► 6.5 KONTROLA HYDRAULICKÉHO OKRUHU)

#### TYRES

Check the condition and pressure of the tyres (► CHECKING THE AIR PRESSURE IN THE TYRES)

#### FUEL

Check the fuel level (► 3.6.7 FILLING THE FUEL TANK WITH FUEL)

#### BY-PASS

Check that the by-pass lever is in position 1 (► 4.2 (17))

#### ELECTRICAL CABLES

Visually inspect the condition of the electrical cables, particularly the power cables going to the battery. Have any damaged cables replaced by an expert.

#### BOLT CONNECTIONS

Manually check the firm tightness of all nuts, pins and bolts, particularly the mounting bolts of the mowing blades so that the mower always remains in a safe operating condition. For safety reasons, always immediately replace any worn out or damaged parts.

#### SWITCH UNDER THE SEAT

If you turn the key to the ON position whilst not sitting on the seat, the respective symbol MUST appear (► 4.2 (1) INFORMATION DISPLAY).

#### BRAKES

Check that the brakes work properly:

- Engage the parking brake.
- Set the by-pass lever to position 0.
- Try to push the mower forward. If the rear wheels rotate, then the brakes need to be serviced. Tighten the tensioning bolt on the brake bowden cable or seek out an authorised service centre that will adjust it.

#### FILTER

Check the status of the air filter (► user's manual of the engine manufacturer)

## 5.2 STARTING UP THE ENGINE

### 5.2.1 CONDITIONS FOR STARTING THE ENGINE

The engine of the riding mower can only be started under the following conditions:

- The driver must be sitting in the seat.
- The mowing deck engagement switch must be in the off position.
- The brake pedal must be pushed down or the parking brake must be engaged
- The travel lever must be in position N.

### 5.2.2 STARTING UP

After meeting the conditions, start the engine as follows:

- Set the throttle lever to position MAX.
- Pull out the choke.
- Turn the key to position LIGHTS and wait **at least 1 second**. During this time, diagnostics of the mower's electronic system are performed.
- Start up the engine by turning the key to position START. As soon as the engine starts up, release the ignition key. It will automatically return to the ON position.



The duration of starting up must not exceed 5 seconds, otherwise there is danger of damage to the switch. If you are unable to start up the engine, wait 10 seconds before attempting to start it again.

Never use fixed external starters to start the mower. This could damage the electrical wiring. It is possible to connect a higher capacity 12V battery.

- Push in the choke.
- Slowly move the throttle lever to position MIN.



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



Never leave a started engine running in a closed or poorly ventilated area. Exhaust fumes contain substances that are harmful to your health.

Keep your hands, legs and clothing away from moving parts and the exhaust pipe.

### 5.2.3 LEAVING THE MACHINE WHILE THE ENGINE IS RUNNING

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

Conditions for getting off the mower with the engine running:

- The mowing deck is disengaged.
- The travel lever is in position N and the parking brake is engaged.

## 5.2.4 EMERGENCY TRAVEL SYSTEM

The mower is equipped with a special emergency travel system that makes it possible to start the engine in an emergency and drive the mower back in the event of some kind of malfunction of the mower's electrical system that prevents the mower from being started.

Activating the emergency travel system:

- Sit on the seat.
- Push down the brake pedal.
- Set the key in the control cabinet to the ON position.
- 5x push the travel lever in position N towards yourself on the reversing while mowing sensor.

Subsequently, it is possible to start the mower and to drive to a location for transport to a service centre.



ATTENTION: It is not possible to engage the mowing deck when in the emergency travel mode.

## 5.3 TURNING OFF THE ENGINE

- Move the throttle lever to position MIN.
- If the mowing deck is turned on, turn it off.
- Turn off the engine by moving the key to position STOP and take the key out of the ignition switch.



Never stop the engine by merely getting off the seat. Leaving the key in the ignition switch in the ON position may cause a fault of the mower's electrical system.

Before turning off the engine, always 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.

Always remove the key from the ignition switch after turning off the engine. This will prevent an undesirable start up of the mower by an unauthorised person or children.

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



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

## 5.4 DRIVING THE MOWER

### 5.4.1 TRAVELLING FORWARD/REVERSING

#### Rules for driving the mower

- The parking brake must be disengaged, i.e. must be in the lower position. In the event that travel is activated while the parking brake is engaged, or if travel is activated while the brake pedal is also stepped on, a warning triangle and a brake symbol will appear. This signal serves as protection for the hydraulic drive and brakes against damage.
- The by-pass lever must be set to the travel position.
- When travelling to the mowing location, the mowing deck must be disengaged and raised in the highest (transport) position. In this position, it is possible to travel around with the mower without risking impact of the mowing deck with higher obstacles.



ATTENTION: When travelling over obstacles higher than 10 cm (kerbs, etc.) you must use ramps to avoid damaging the mowing deck and other parts of the mower.

- Avoid hard impacts of the front wheels against rigid obstacles, this may result in damage to the front axle, particularly when the mower is travelling at a high speed.

## ACCELERATING

- Set the throttle lever to the required engine speed.
- Slowly push down on the travel pedal forwards depending on the required travel speed.  
OR
- Slowly move the travel lever to the required direction of travel, i.e. to travel forward to position F, and to reverse to position R.

## SLOWING DOWN / SPEEDING UP

- If you wish to reduce your travelling speed, move the travel lever away from the direction of travel. When travelling forward, it is also possible to slow down by releasing the travel pedal.
- To increase the travelling speed move the travel lever towards the direction of travel. When travelling forward, it is also possible to speed up by gradually stepping down on the travel pedal.



ATTENTION: Risk of injury if the pedal is stepped on or the travel lever is moved too quickly!

## CHANGING TRAVEL DIRECTION FORWARD/REVERSE

- Prior to changing travel direction **always first fully stop the mower** by releasing the travel pedal or by moving the travel lever to position N.
  - ! If you do not stop the mower before changing the travel direction, there is a risk of damaging the travelling gear.  
Never use the travel pedal/lever and the brake pedal at the same time – this may damage the transmission.
- When changes in the travel direction from forward to reverse, slide the travel lever to position R
- To change the travel direction from forward to reverse, slide the travel lever to position F



Reversing with the mowing deck engaged ➔ 4.2 (15) or ➔ 5.5.4 MOWING GRASS WHILE REVERSING.

### 5.4.2 STOPPING TRAVEL

Stop the forward/reverse travel of the mower by gradually moving the travel lever to position N or releasing the travel pedal (only when travelling forwards) and stepping on the brake pedal.



If cruise control is activated and you push down the brake pedal, the travel lever will automatically move to position N.

### Engaging the brake

- Push down the brake pedal and slide the parking brake upwards. Release the brake pedal.

## DISENGAGING THE BRAKE

- Step on the brake pedal. The parking brake will automatically be released and will slide down.
  - ➔ If you wish to stop the mower but not turn off the engine ➔ 5.2.3 LEAVING THE MACHINE WHILE THE ENGINE IS RUNNING.

### 5.4.3 CRUISE CONTROL

When mowing extensive grass areas, which require long and direct forward travel, the cruise control can make your work significantly easier and more comfortable. Cruise control maintains the set travel speed without needing to use the travel lever/pedal.

#### ENGAGING CRUISE CONTROL

- Set the travel speed by stepping on the forward travel pedal.
- Shift the cruise control lever forward.
- Take your foot off the travel pedal.

#### DISENGAGING CRUISE CONTROL

- Shift the cruise control lever backwards.

OR

- Step on the travel pedal.

OR

- Step on the brake pedal

OR

- Shift the travel lever forwards.



Cruise control does not react to obstacle or to changes in travel surface properties. In the event that an obstacle is approaching, which cannot be driven around at the set travel speed, it is necessary to disengage the cruise control.

### 5.4.4 TRAVELLING ON A SLOPE

The mower may work on slopes with an incline of up to **22° (40%)**. when travelling on any slope up to the specified incline angles, it is always necessary to pay increased care and attention. Remember, there is no such thing as a safe slope.

When working on a slope, adhere to the following fundamentals:

- Always accelerate gradually on a slope and use the lowest travel speed. Accelerate and decelerate gradually and calmly. Drive in the same way.
- Brake gradually.
- Do not ride perpendicular to the slope. Only ride perpendicular to the contour, i.e. up and down.
- In the direction of the contour is permitted only when turning the mower. When turning, always reduce the travel speed and 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. Be especially careful when turning.
- If you stop on a slope, always use the parking brake.

### 5.4.5 PUSHING / PULLING THE MOWER

- If you wish to push or pull a mower with a running engine, push in the by-pass lever (→ 4.2 (17) BY-PASS LEVER) (position 0).



ATTENTION: Only push the riding mower along horizontal surfaces – when pushing the mower on sloped surfaces there is a serious risk of uncontrolled downward travel!

In order not to damage the travel mechanism, always pull or push the mower at a low speed.

- After pushing/pulling the mower away, slide out the by-pass lever (position 1). Now it is possible to travel with the mower in the standard manner.

## 5.5 ENGAGING AND DISENGAGING THE MOWING DECK

### 5.5.1 SETTING THE ELEVATION OF THE MOWING DECK FOR MOWING

The mowing deck elevation adjustment lever has 5 work positions. Each position moves the mowing deck approx. 12.5 mm higher or lower. The position can be selected before starting mowing and also while mowing.

- If you wish to set the mowing deck higher off the ground (grass will remain taller), slide the lever to the higher positions.
- If you wish to set the mowing deck closer to the ground (grass will remain shorter), slide the lever to the lower positions.

### 5.5.2 ENGAGING THE MOWING DECK

Conditions for engaging the mowing deck

- The driver is sitting in the seat.
- The mowing deck elevation adjustment lever is not in the transport position.

#### Engaging the mowing deck

- Move the throttle lever to the middle position.
- Set the height of the mowing deck.
- Push down the part of the mowing deck switch with the symbol. The mowing deck will be engaged. The mowing deck indicator light will be lit on the information panel.
- Move the throttle lever to position MAX.

#### Disengaging the mowing deck

- Move the throttle lever to position MIN.
- Push down the part of the switch without the symbol. The mowing deck will be disengaged.



If you leave the seat, the engine will automatically shut down and thereby the rotation of the mowing blades will also stop.

However, do not disengage 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. ATTENTION: The blades rotate for several seconds even after the mowing deck is disengaged.

### 5.5.3 TRAVELLING SPEED AND MOWING GRASS

To achieve the best possible mowing results, it is necessary to adapt travel speed to the condition of the mowed surface:

- It generally applies that the wetter, higher and more dense the grass is, the lower the travelling speed that should be used. When the mower is travelling too fast or higher demands are placed on it, the blade rotation speed declines as does the mowing quality. Always set the maximum engine speed.
- If the grass is very high, it is necessary to mow it twice or even several times. On the first run, mow with the mowing deck set to the highest position, on the second run set the mowing deck to the required height.
- Select the method of travel based on the form of the terrain and personal experience.

#### Recommended travelling speeds of the mower based on conditions

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

#### 5.5.4 MOWING GRASS WHILE REVERSING

When you start travelling backwards with the mower (reversing), the mowing deck disengages automatically and the blades stop mowing grass. This is not a defect but rather a safety function.

In the event of intentional and controlled reversing with the mowing deck engaged, it is possible to disengage this safety function by pressing the reversing with mowing button (→ 4.2 (15)). Pressing this switch using the travel lever will re-engage the mowing deck and you can continue mowing even while reversing.

You must press the switch:

- with the mowing deck running, immediately before shifting the travel lever back to the R position (approx. 5 seconds)
- immediately after automatic disengagement of the mowing deck before the blades stop rotating (approx. 5 seconds).

When the travel direction is changed from reversing to position N or F, the automatic disengagement of the mowing deck function is reactivated.



When using the reversing while mowing button, pay exceptional attention to the area behind the mower when reversing!

#### 5.6 AFTER FINISHING WORK

When you have finished work, drive the mower to your selected or by the operator designated parking location. Then:

- Engage the parking brake.
- Take the ignition key out of the switch box.
- Allow the engine to cool down and then clean it according to the instructions contained in → 6 MAINTENANCE AND ADJUSTMENT.

## 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 mower, 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 mower's manufacturer or an authorised service centre.



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

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

### PREPARING THE MOWER FOR MAINTENANCE

Prior to performing any inspection or maintenance, park the mower on a rigid and level surface. Then:

- engage the parking brake and, for greater safety, secure the mower against movement (e.g. using a suitable wedge, etc.).
- turn off the engine
- Take the ignition key out of the switch box
- in the event that the mower was running, allow it to cool down completely

### IMPORTANT INFORMATION REGARDING MAINTENANCE

#### Personal safety

- Prior to starting any maintenance or servicing works, again thoroughly study all instructions, prohibitions and recommendations provided in ➔ 2 WORK SAFETY AND HEALTH.
- When working use suitable work clothing and work footwear. Use suitable gloves when handling the mowing blades or for activities where there is a risk of cuts.
- Do not perform any major repairs if you do not have the necessary tools and respective knowledge or qualifications.

#### Engine

- Prior to carrying out inspections or maintenance in the area of the engine, exhaust pipe and exhaust muffler, allow the mower to cool down. The engine may have a temperature of up to 115 °C and higher. There is a danger of injury by burns!

#### Electrical parts

- Before starting to work on the electrical parts or in their vicinity, disconnect the negative cable (–) of the battery.

#### Fuel and oil

- Avoid spilling fuel, oils or other harmful substances.
- Dispose of used oil, fuel or other hazardous substances and materials in accordance with environmental protection regulations in force in your country.
- When working with fuel or oil, never smoke, handle an open fire or light, and do not perform tasks during which sparks are generated.

## 6.1 OVERVIEW OF INSPECTIONS AND MAINTENANCE

Explanations for table:

○ = Inspection / adjustment / supplement

● = Replacement

✗ = Cleaning

@ = As per manufacturer's manual

1 = Shorten the interval when the mower works at outdoor temperatures of approx. 35 °C or higher

2 = Shorten the interval when the mower operates in a dusty environment

ASSEMBLY	Before use	After use	INTERVAL / MOTOR HOURS			As necessary
			Every 50 or 1× per year	Every 100 or 1× per year	Every 300	
<b>BATTERY</b>						x / @
<b>ENGINE</b>						
- fuel	○					
- fuel system			○			
- oil and filter	○		●			@
- air filter		✗				●
- fuel filter				●		@
- cooling, fins		✗				
- spark plug						@
<b>HYDRAULIC CIRCUIT</b>						
- tightness	○					
- oil of hydrostatic transmission	○				●	
<b>MOWER</b>						
- complete assembly		✗				
- electrical wiring			○			
- bolt connections			○			
- tyres	○					
- travel drive belt	○					●
- switches				○		
- levers				○		
- pedals				○		
- bowdens draw bars				○		
<b>MOWING DECK</b>						
- covers		✗				
- mowing blades and beam	○	✗				
- incline of the mowing deck				○		
- mowing deck drive belt	○					●
- belt pulley			○			○
- bearings				○		
<b>FRONT AXLE AND STEERING</b>			○			

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

- adjustment of the incline of the mowing deck
- adjustment of the brake
- adjustment of the engine
- replacement of V-Belts

- bleeding of the hydraulic circuit (AC 92 4x4)
- adjustment of the front drive axle (AC 92 4x4)
- other problems with the hydraulic circuit (AC 92 4x4)
- in the event of other difficulties

## 6.2 INSPECTIONS AND MAINTENANCE BEFORE AND AFTER USE

### 6.2.1 BEFORE STARTING WORK

Before commencing work, always perform the inspections specified in ➔ 5.1 INSPECTIONS BEFORE RIDING OUT.

### 6.2.2 AFTER FINISHING WORK



Before performing inspections or maintenance in the area of the engine, always allow the mower to cool down. The engine may have a temperature of up to 115 °C and higher. There is a danger of burns!

## CLEANING

### Mower

- Remove all dirt and grass remains from the surface of the mower. For cleaning, use the scraper, hand-broom, soap water and a soft cleaning sponge. Ensure that water does not come into contact with the electrical parts of the mower, particularly with the devices on the main panel and battery.



For cleaning the surface of the mower, do not use solvents, abrasive cleaning products causing abrasion, etc. Such cleaning products may damage the plastics and metals of the mower.

- Open the hood and remove any remains of leaves or dirt inside the area. For cleaning, use a fine hand-broom or suitable wiping cloth. For cleaning the engine, never use pressurised water. Clean the engine and its parts according to the instructions contained in the user's manual from the engine's manufacturer.

## MOWING DECK

- Elevate the mowing deck to the transport position.
- Clean the exterior parts of the mowing deck.
- Lift (tilt out) the protective metal cover on the left or right side of the mowing deck cover. Clean out the entire area of the mowing deck.
- Remove accumulated grass clippings from the inner part of the mowing deck using a scraper.



When cleaning the inner parts of the mowing deck with the mowing blades, always use protective gloves.

Do not hit the mowing blades or other parts of the mowing deck with a hammer or similar implement in an attempt to remove grass/dirt deposits.

- In the event of greater soiling, which cannot be removed manually, it is possible to wash the mowing deck under running water or a current of water. Before washing it, park the mower on a suitable even surface.



When manually washing the mower with water or a current of water from a hose, ensure that the water does not come into contact with the electrical parts of the mower, particularly with the devices on the main panel and the electrical system. 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.)

Never wash the parts of the mower located under the front or rear hood using a current of water!

When cleaning the mower, never step on any part of the mowing deck.

## Inspections

When you have finished mowing, always inspect:

- The condition of the guard tubes on the mowing deck. Tubes serve as protection for part of the mowing deck and also as driver guards. In the event of excessive deformation, it is necessary to replace them.

## 6.3 REGULAR CHECKS, MAINTENANCE AND ADJUSTMENTS

### 6.3.1 LIFTING THE MOWER

For certain maintenance and adjustment tasks, it is necessary to have access to the bottom parts of the mower. If you don't have an inspection pit or a lifting platform, it is necessary to lift the mower by means of standard available lifting equipment such as a car jack, supports, drive-ramps or a cradle mower lift.



Ensure that the selected lifting mechanism is rated for the weight of the mower (► 1.4 TECHNICAL PARAMETERS).

Never lift the mower by the plastic components or lean it against them.

Due to the high weight of the mower, work performed on a tilted or raised mower require greater care. In the event that you are uncertain about the procedure for lifting the mower, please contact the vendor of an authorised service centre.

Lift the mower up as follows:

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



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

### 6.3.2 MOWING BLADES

#### Checking the condition of the blades

The mowing blades must be sharp, balanced, straight, undamaged and not deformed. Blunt, incorrectly sharpened, damaged or deformed mowing blades place increased load on the mowing deck. A worn out or damaged mowing blade may break, be ejected and cause serious injuries. For this reason, it is important to regularly inspect the condition of the mowing blades.



The intensity of wear on the mowing blades depends on the location and time of use. If the mower is used on sandy or rocky soil or is frequently used in dry weather, the mowing blades are subjected to a higher load and a higher level of wear occurs. In such a case, inspect the condition of the blades more often.

#### Most frequent type of wear:

- Blunt blades – cause poor cutting of vegetation, increase the stress and load on the entire mowing deck.
- Curved tips – result in unsatisfactory mowing between the rotors.
- Bent blade – results in varying mowing height of the vegetation and may tear out turf.

#### How to perform the inspection:

- Check the condition of the blades visually. It is ideal to use an inspection pit or a lifting platform and to check the blades directly on the mowing deck without having to remove it.
- Other options include visual inspection from the ground as follows:
  - Set the mowing deck to the transport position.
  - Tilt open the left or right side cover of the mowing deck upwards.
  - Visually inspect the condition of both blades.



Never inspect the blades while the mowing deck is running!

Always inspect the condition of the blades after the mower is turned off and they have stopped rotating.

## Removing mowing blades



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

If you do not have the necessary knowledge or tools, always contact the vendor or an authorised service centre.



**6.3.2**

- Elevate the mowing deck to the transport position.
- Tilt open the metal cover (1) on the left or right hand side of the mowing deck upwards.
- Screw out the self-locking M16 nut (3). Subsequently slide out the inserted M16 bolt (5) and remove the blade (6) and the washer (4). Repeat the same procedure also with the second blade.
- Check the condition of the break bolts (8). In the event of damage, replace them.
- To remove the blade carrier (2) straighten the edges of the safety plate (10) and loosen the nut M20 (7) with safety washer (9). Pull the carrier with holder off the shaft.

## Sharpening the blades

- Remove the blades as described in the previous chapter. Always clean both of the removed blades before sharpening them.
- The blades are equipped with two cutting edges, they can be turned around when blunt.
- First sharpen with a grinder and then with a file. Sharpen the mowing blade evenly. If necessary, the blade may be cooled using water during the sharpening process.



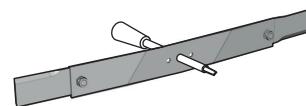
Never sharpen the blades directly on the mowing deck.

- After sharpening the pair of blades must be balanced. Proceed according to the following chapter.

## Balancing the blades after sharpening

Pay increased attention to levelling and balancing the blades. Blades that are not levelled and balanced may vibrate and thus cause damage to the engine or the mowing deck.

- Insert a screwdriver into the centre hole in the blade holder and set the blade into a horizontal position.
- If the blade remains in this position, it is balanced. In the event that one end of the blade is over balanced, then grind this side down and recheck the balance of the blade.



**ATTENTION:** When balancing by grinding, do not shorten the length of the blade!  
The permitted static imbalance may not be greater than 2 g.



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

## Blade replacement

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.



Always replace both the blades at the same time.

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

### Remounting the blades

- Fasten the sharpened, balanced or new blades to the blade holder using mounted M16 bolts, washers and M16 nuts (→ description in fig. 6.3.2 above). Prior to installing, check the condition of the washers and replace them with new ones if necessary. Tighten the M16 nuts using a torque wrench. Tightening torque → 1.4 TECHNICAL PARAMETERS.
- Attach the blade holder with both blades to the shaft via the tang, safety metal plate, washer and nut M20. Tighten the M20 nuts using a torque wrench. Tightening torque → 1.4 TECHNICAL PARAMETERS.
- After tightening, bend the edges of the safety metal plate around the nuts and bolts.



Never use the M16 nuts that were removed during the disassembly of the blades. Always use new, never used nuts. Only new nuts will ensure secure fastening in the holder with the blades.

### 6.3.3 MOWING DECK

#### Checking and balancing the mowing deck

To achieve the best mowing results, the mowing deck must be set to the correct incline angle relative to the ground, where the front side of the mowing deck is approximately 5-15 mm lower than the rear side.

For a good lifespan of the mowing deck belt, regularly inspect the direction of the belt pulleys C (in the bottom position), see text below.



6.3.3

- Park the mower on an even surface.
- Turn off the engine, pull the key out of the ignition, engage the parking brake and secure the entire mower against movement (e.g. using a suitable wedge, etc.).
- Check the tyre pressure and if necessary inflate them to the prescribed pressure value (→ 1.4 TECHNICAL PARAMETERS).
- Set the mowing deck to the lowest position.
- Measure the height difference C between the top plane of the mowing blade drive belt pulley (2) and the bottom edge of the electromagnetic clutch drive belt pulley (3). This distance must be within a tolerance of 0 – 10 mm.
- If the distance is different, adjust the mowing deck by loosening the nuts on the front arms (1) and slide the mowing deck up and down as required. ATTENTION: The sliding distance must be the same on both sides of the mowing deck!

#### Inspecting the mowing deck drive belt

Regularly inspect the tightness of bolt M12x30 that fastens the drive belt pulley of the mowing deck.



6.3.3a

- Set the mowing deck to the lowest position.
- The mowing deck drive belt pulley and belt are capped under a protective plastic cover (1). For the purpose of cleaning, inspection and adjustment, this cover can be removed by unscrewing the two screws (2) on the sides of the cover in the rear part (3). A released cover can be pulled out of the mower on the right hand side between the arms of the mounting frame.
- Check the condition and tightness of bolt (4) using a torque wrench. Tightening torque → 1.4 TECHNICAL PARAMETERS.

## Inspection of the mowing deck drive belt and its tensioning



6.3.3b

The mowing blades are driven by the belt (1) seated on the belt pulley of the electromagnetic clutch (2) and the belt pulley of the mowing deck (3). Because of sagging and wear and tear, the tension on the belt declines over time and it is necessary to re-tension it. Proceed as follows:

- Set the mowing deck to the lowest position.
- Tension the belt using the tensioning bolt with nut (4) so that the spring (5) has the correct length across the thread (⇒ 1.4 TECHNICAL PARAMETERS).

## Replacing the mowing deck drive belt



For mowing deck drive belt specifications, please contact the nearest authorised service centre or the supplier of your mower.

Regularly check the wear condition of the mowing deck drive belt. In the event of any damage, replace with a new one as soon as possible. Proceed as follows:



The following procedure utilizes figures 6.3.3a and 6.3.3b.

- Park the mower on an even surface.
- Set the mowing deck to the lowest position.
- Remove the plastic cover of the mowing deck drive belt.
- Push in the tensioning pulley and unhook the belt off of it.
- Release the belt limit stops on the belt pulley and electromagnetic clutch. Take off the mowing deck drive belt.
- Put a new belt on to the mowing deck drive belt pulley and the electromagnetic clutch belt pulley. Push in the tensioning pulley and put the belt on to it.
- Set the belt limit stops around the belt pulley and at the electromagnetic clutch so that they are 2-4 mm away from the belt.

## Removing the mowing deck from the mower

In the event that it is necessary to remove the entire mowing deck from the mower, proceed as follows:

- Park the mower on an even surface.
- Set the mowing deck to the lowest position.
- Remove the plastic cover of the mowing deck drive belt.
- Unhook the mowing deck belt from the tensioning pulley (⇒ 6.3.3b, position 4 and 5).
- Release the belt limit stops on the belt pulley and electromagnetic clutch. Take off the belt.
- Slide the cotter pins out of the pins and then remove the pins from the hitch of the mowing deck.
- Slide out the mowing deck to the right side and out of the mower.

## Remounting the mowing deck on the mower

Proceed in reverse sequence to the removal.

## 6.3.4 TRAVEL DRIVE BELT

### Checking and tensioning the travel drive belt



### 6.3.4

Regularly check the tension of the travel drive belt (1). The belt is mounted on the output engine belt pulley (2) and the input transmission belt pulley (3). Proceed as follows:

- Set the mowing deck to the lowest position.
- Check belt tension. The belt is correctly tensioned when a force of 4 kP acting on the middle distance between the belt pulleys (2) and (3) results in the belt bending by approximately 1.5 cm.
- Tension the belt using the tensioning bolt with nut (4) so that the spring (5) has the correct length across the thread (→ 1.4 TECHNICAL PARAMETERS).

## Replacing the travel drive belt

Replacing the travel drive belt is a relatively demanding operation, and it is better having an authorised service centre perform the task.

- Park the mower on an even surface.
- Set the mowing deck to the lowest position.
- Remove the plastic cover of the mowing deck drive belt.
- Remove the belt from the electromagnetic clutch (→ procedure in preceding chapters).
- Remove the limit stop of the electromagnetic clutch or the electromagnetic clutch itself.
- Loosen the tensioning pulley of the travel belt and remove the belt.
- Install the new belt and tension the tensioning pulley.
- Remove the limit stop of the electromagnetic clutch or the electromagnetic clutch itself.
- Install the belt of the mowing deck and adjust the limit stop of the belt.
- Install the cover of the mowing deck belt.



After the new belt is run-in, it is necessary to check its tension more frequently.

## 6.3.5 BATTERY



Before performing any task on the battery, always remove the key from the ignition.

When working on the battery, never smoke, handle an open fire or light, and do not perform tasks during which sparks are generated.

Never use a damaged battery.

Do not connect the battery terminals to each other, this could create a short circuit.



This chapter provides only basic battery maintenance instructions. Further details about inspections, maintenance and charging of the battery are included in a separate user's manual supplied by the battery's manufacturer.

## Cleaning

- Correct and regular maintenance of the battery will increase its lifespan. To achieve a long battery lifetime, keep its surface clean and dry.
- If necessary, disconnect the clamps (negative terminal first) and clean the clamps and terminal and reconnect the clamps (positive terminal first).
- Perform any other cleaning tasks according to the user's manual of the battery's manufacturer.

## Check

Check the battery status according to the user's manual of its manufacturer.

## Charging

If the battery voltage falls below a certain threshold, it will not be possible to start up the mower or to even light up the display on the panel and the mower's electronic system will not load up. If this happens, attempt to recharge the battery. A flat battery needs to be recharged as soon as possible, otherwise its cells may be irreparably damaged.



Prior to charging, read the user's manuals of the battery manufacturer and the charger manufacturer and proceed according to their instructions.



Never charge the battery while the engine is running.

Regularly charge the battery also when the mower has not been used for an extended amount of time. The battery must be fully charged prior to putting the mower into operation after an extended period of time.

## Replacement

In the event that it is no longer possible to charge the battery, it is necessary to replace it with a new one. Always use a battery of the same size and type.



The mower enables the connection and use of a 12 V battery with a higher capacity than that of the supplied battery.

- Loosen the bolts on the terminals fastened to the output cables and the battery.



ATTENTION: First disconnect the negative cable (–) and then the positive cable (+).

- Screw out the nuts from the battery holder and remove the battery from the battery compartment.
- Attach and connect the new battery in reverse sequence to its connection and removal (► 3.6.4 CONNECTING THE BATTERY)



ATTENTION: When connecting a new battery, it is always necessary to first connect the positive cable (+). The location of the terminals may differ based on the battery's manufacturer, therefore always first check which side the terminal is located on.

### 6.3.3 REPLACING THE FRONT LIGHT

The LED light is mounted inside the front hood and is accessible after it is removed. The light is a compact unit that is replaced as an entire piece.

- Loosen the plastic bolt of the battery cover.
- Remove the plastic quarter-turn clips on the sides of the front hood and take the hood off.
- Screw out the petrol cap and disconnect the connector to the lighting cable bundle.
- Disconnect the electrical connectors of both headlights.
- With one hand hold the light from the outer side of the hood (so that it does not fall on the ground) and use the other hand to open out the mount. Then take out the light through the hood. For installation proceed in the reverse sequence.

Bulb type ► 1.4 TECHNICAL PARAMETERS.

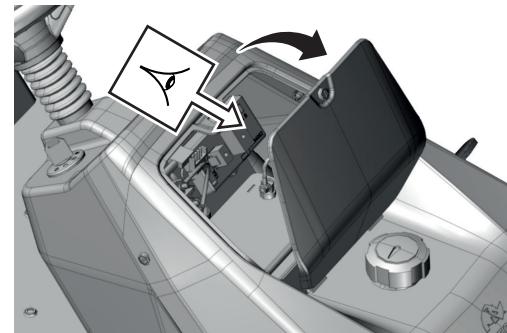
### 6.3.7 REPLACING A FUSE

If a fuse is damaged the engine will immediately shut off, the mowing deck will stop and all indicator lights on the dash board will turn off. In this case it is necessary to find the faulty fuse and replace it with a new one.



Under no circumstances should you replace a faulty fuse with a fuse that has a higher current rating!  
Under no condition may you bridge the fuses.

Fuses are accessible after tilting open the battery cover in the front hood.



- Remove the fuse and insert a new fuse with the same rating as the initial fuse. If even after replacing the fuse the engine or the mowing deck will not work, contact an authorised service centre.

### 6.3.8 ENGINE



This chapter provides only basic engine maintenance instructions. Further details about inspections, maintenance and replacement are included in a separate user's manual supplied by its manufacturer.

To ensure safe operation of the mower, regularly inspect the engine and its parts:

- whether it has any damaged or visibly worn out parts.
- whether material is ageing (cracks)
- correct adjustment and leak-tightness of all parts of the fuel system, such as fuel lines, fuel tank, fuel tank cap and couplers.

If necessary, have any faulty parts professionally replaced at an authorised service centre.

#### Checking and changing the motor oil

- Regularly check and fill up the motor oil as described in ➔ 4.2 PREPARING FOR OPERATION / CHECKING AND FILLING UP MOTOR OIL.
- Replace the oil in the intervals and according to the recommendations and procedures in the manufacturer's manual. Before changing the oil, prepare a container with a volume of at least 5 litres. Drain the oil while it is warm.



The type and amount of the new oil is specified in the user's manual of the engine's manufacturer or in ➔ 1.4 TECHNICAL PARAMETERS.



In the event that your skin comes into contact with the oil, we recommend thoroughly washing the location with water and soap.

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

Perform maintenance of the air filter according to the manufacturer's manual.



Never leave the engine running with a damaged or missing air filter. This rapidly wears out the engine.

#### Replacement of the fuel filter

Perform replacement of the fuel filter according to the manufacturer's manual.

## 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.



The procedure described below is only of an indicative nature. Prior to performing maintenance on the spark plug, refer to the user's manual of the manufacturer of the engine installed on your mower.

- Take off the spark plug cable and remove the spark plug using a wrench.
- Visually inspect the exterior appearance of the spark plug. If the spark plug is visibly significantly worn out or if the insulator is cracked or it is peeling, it is necessary to replace it.
- If the spark plug is soiled or is only slightly worn out, simply carefully clean it with a suitable wire brush.
- Using a gauge, measure and set the distance of the electrodes – the generally used distance between the electrodes is 0.7-0.8 mm, however, the precise distance is found in the 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.



In the event that it is necessary to replace the spark plug, proceed according to the user's manual of the engine's manufacturer.

## Maintenance of the engine cooling

- Regularly inspect the ventilation grilles on the rear hood to ensure that they are not clogged with dirt and grass remains, etc. If necessary clean the grilles.
- After opening the rear hood, inspect the cleanliness of the engine's ventilation grilles (fan cover) and the fins on the engine. If necessary, clean everything as this will prevent the engine from overheating and being damaged.



Perform further engine maintenance according to the separate user's manual supplied by the manufacturer of the respective engine.

### 6.3.9 REPLACING A WHEEL

In the event of a damaged wheel (hole, tear, cut, etc.) remove the damaged wheel and contact the vendor to arrange

a replacement wheel. Before removing the wheel:

- Position the mower on level ground.
- Turn off the engine, pull the key out of the ignition and engage the parking brake.

#### Removing a wheel

Wheel of the front axle:



6.3.9a

- Lift the mower using an appropriate jack on the side where you will perform the replacement. Locate the jack under a solid part of the frame of the mower. Using a wooden block, secure the mower to prevent it rolling off.
- Remove the protective cover (1) from the wheel.
- Using a suitable screwdriver remove the retaining ring (2) and remove the spacer washer (3).
- Pull the wheel off the shaft. On mower AC 92 4x4 also remove the key (4) from the shaft key slot.

## Wheel of the rear axle:



When removing wheels from the rear axle, always use wedges to secure the mower against movement.



6.3.9b

- Lift the mower using an appropriate jack on the side where you will perform the replacement. Locate the jack under a solid part of the frame of the mower. ATTENTION: Never lean the jack against the transmission, this could damage it! Using a wooden block, secure the mower to prevent it rolling off.
- Remove the protective cover (1) from the wheel.
- Using a suitable screwdriver remove the retaining ring (2) and remove the spacer washer (3).
- Pull the wheel off the shaft. Also remove the key (4) from the shaft key slot..

## Installing a wheel

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 wheels pay attention to the correct mutual alignment of the key on the shaft and the key slot on the wheel.

## 6.3.10 REPAIRING A TYRE PUNCTURE

The mower is equipped with tubeless tyres. In the event of a puncture, have this repaired at a specialised tyre repair shop or at an authorised vendor.

## 6.3.11 MAINTENANCE OF STEERING

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



6.3.11

- Loosen two nuts M14 (1) on the bolt of the eccentric.
- Place a suitable wrench on the eccentric (2) and turn it until looseness is limited to a minimum.
- Tighten both nuts M14 (1) to the prescribed torque (→1.4 TECHNICAL PARAMETERS).



Neglecting this maintenance may result in damage to steering components.

## 6.3.12 MAINTENANCE OF THE HYDRAULIC PARTS OF THE MOWER

### Performing a leak test on the hydraulic circuit

- Visually check the hydraulic circuits for oil leaks, namely the locations where fittings are connected to the hydraulic elements. In the event that oil is leaking even after tightening the screw coupling, inform your vendor or service centre.

### Check the oil level on the hydrostatic transmission

For the reliable operation of the hydrostatic 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.



Procedure for inspecting and filling up oil → 3.6.5 INSPECTION OF THE HYDRAULIC CIRCUIT.



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

### 6.3.13 MAINTENANCE OF THE OIL-FILLED RADIATOR (OPTIONAL EQUIPMENT)

#### Cleaning and inspections

For the correct function of the oil-filled radiator, it is necessary to maintain the radiator and its fins clean, therefore, regularly inspect its condition and clean it if necessary.

Regularly inspect the oil-filled radiator and its parts to check that oil is not leaking.

#### Checking the working order of the fan

The oil-filled radiator is equipped with an electric fan that ensures the delivery of fresh air to the radiator. The fan turns on approximately 1 minute after the mower is started. Furthermore, the electrical system of the oil-filled radiator is equipped with a micro-switch, which serves to control the operation of the fan. When the micro-switch is pressed, the fan must run for 10 seconds.

If the fan does not start, perform the following:

- Check the battery voltage – if the voltage is less than 12 V, the fan will not start.
- Check the 10 A fuse on the electrical system of the fan and replace it if necessary.

In the event that even thereafter the fan does not start, contact the nearest service centre.

## 6.4 LUBRICATION

Lubricate the respective parts of the mower according to the operating hour intervals presented on the figures below. In the event that the mower is operated in very dusty or sandy operating conditions, lubricate more frequently.



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

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

#### Explanations:

10 / 50 .....Interval in hours



.....Plastic lubricant A00



.....Oil SAE 30



Front axle

- Front wheel shafts through the lubricator on the wheel rim.
- Lubricate the knuckle pins through the lubricator on the axle.



The axle pin is self lubricating.



6.4a Pedals:

- Pedal rotation points.
- Travel lever rotation point.
- Differential lock pedal pivot pin.
- Parking stop pivot pin.



**6.4c**

Steering segment:

- Cogged steering segment
- Eccentric and angle joint of connecting steering draw rod



**6.4d**

Mowing deck lifting mechanism:

- Top and bottom pins of the arms.
- Lifting guide and vertical draw bars



**6.4e**

Rear axle (for lubrication it is necessary to remove the wheels):

- Rear wheel shafts.

## 7 TROUBLESHOOTING

This chapter provides the procedures for remedying the most frequent malfunctions and defects that you, as the user, may perform yourself. Other remedies, that are not specified here, will void the warranty.



Do not perform any repairs if you do not have the appropriate technical equipment and qualifications.

The manufacturer takes no responsibility for damages resulting from poorly performed unapproved repairs by the user.

### ENGINE PROBLEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>THE ENGINE IS NOT TURNING</b>	Incorrect procedure when starting the engine	<ul style="list-style-type: none"><li>Check the starting procedure.</li></ul>
	Burned fuse	<ul style="list-style-type: none"><li>Replace the fuse.</li></ul>
	Flat or faulty battery	<ul style="list-style-type: none"><li>Check the battery voltage, which must be 11.6 to 12.8 V. If the voltage is lower, charge the battery or replace it with a new one.</li></ul>
	Defective or clogged spark plug or incorrect gap between the electrodes	<ul style="list-style-type: none"><li>Clean the spark plug, adjust the gap between the electrodes.</li></ul>
	Loose or damaged electrical conductors, faulty switches of the electrical system	<ul style="list-style-type: none"><li>Check that all conductors are tightened and tighten if necessary. Replace damaged conductors or faulty conductors.</li></ul>
	Malfunction of engine or electrical system of the mower	<ul style="list-style-type: none"><li>Check the engine again according to the instructions in the User's manual of the engine manufacturer.</li><li>Have the electrical system checked at a specialised workshop.</li></ul>
<b>THE ENGINE TURNS, BUT WILL NOT START</b>	Not enough or no fuel in the fuel tank	<ul style="list-style-type: none"><li>Check the fuel level.</li></ul>
	Clogged fuel filter	<ul style="list-style-type: none"><li>Check the fuel filter and replace it if necessary.</li></ul>
	Choke was not pulled out	<ul style="list-style-type: none"><li>Pull out the choke lever.</li></ul>
	Malfunction of engine or electrical system of the mower	<ul style="list-style-type: none"><li>Check the engine again according to the instructions in the User's manual of the engine manufacturer.</li><li>Have the electrical system checked at a specialised workshop.</li></ul>
<b>THE ENGINE IS RUNNING, BUT THE MOWER DOES NOT MOVE WHEN THE TRAVEL LEVER IS SHIFTED OR THE TRAVEL PEDAL IS STEPPED ON</b>	Travel belt is loose	<ul style="list-style-type: none"><li>Check the tension of the belt and tension it if necessary.</li></ul>
	Not enough oil in the hydraulic circuit or an aerated circuit.	<ul style="list-style-type: none"><li>Check the oil level in the tank, bleed the air out of the hydraulic circuit.</li></ul>
	The parking brake is activated	<ul style="list-style-type: none"><li>Deactivate the parking brake by pushing on the brake pedal.</li></ul>
	The bypass for pushing the mower is activated.	<ul style="list-style-type: none"><li>Shift the by-pass lever to the travel position.</li></ul>
<b>ENGINE IS RATTLING OR KNOCKING</b>	Insufficient amount of oil or incorrect type of oil	<ul style="list-style-type: none"><li>Check the oil level in the engine.</li></ul>

## PROBLEMS WITH TRAVEL

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>A SCREECHING SOUND IS MADE WHEN TRAVELLING</b>	Worn out or damaged drive belt	<ul style="list-style-type: none"> <li>■ Check the condition of the belt and the tensioning pulley, and re-tension the belt if necessary.</li> <li>If the problem persists, immediately contact an authorised service centre.</li> </ul>
<b>EXTREME VIBRATIONS OCCUR WHEN TRAVELLING</b>	Damaged or deformed belt pulleys	<ul style="list-style-type: none"> <li>■ Check the condition of the belt pulleys of the engine and the mowing deck. Replace if necessary.</li> </ul>
	The space between the segment and the pinion is too great	<ul style="list-style-type: none"> <li>■ Check that the space between the pinion and the segment is not too large. If yes, adjust the cogged segment.</li> </ul>
	The travel drive belt is damaged	<ul style="list-style-type: none"> <li>■ Check whether the belt has any burned spaces or other irregularities. Replace it if necessary.</li> </ul>
	Travel belt is loose	<ul style="list-style-type: none"> <li>■ Check belt tension. Replace it if necessary.</li> </ul>
	Unbalanced mowing blades	<ul style="list-style-type: none"> <li>■ Check that the mowing blades are balanced. Balance or replace them if necessary.</li> </ul>
<b>THE TRAVEL DRIVE BELT OF THE MOWER IS SLIPPING</b>	The travel drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
	The travel drive belt is damaged or worn out	<ul style="list-style-type: none"> <li>■ Check the condition of the belt and replace it if necessary.</li> </ul>
	The engine belt pulley is damaged	<ul style="list-style-type: none"> <li>■ Check its condition and replace it if necessary.</li> </ul>
<b>THE TRAVEL DRIVE BELT OF THE MOWER IS CREAKING</b>	The travel drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
<b>THE TRAVEL DRIVE BELT JUMPS OUT DURING OPERATION</b>	The travel drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
	The route of the travel drive belt is incorrect	<ul style="list-style-type: none"> <li>■ Check the route of the belt. Adjust if necessary.</li> </ul>
	Damaged belt pulleys and pulleys	<ul style="list-style-type: none"> <li>■ Check whether the pulleys are damaged. Replace them if necessary.</li> <li>■ Check the pulley bearings.</li> </ul>

## MOWING DECK PROBLEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>THE MOWING DECK MOWS UNEVENLY</b>	Grass and dirt accumulated inside the mowing deck	<ul style="list-style-type: none"> <li>■ Remove the dirt from the underside of the mowing deck.</li> </ul>
	Blunt or deformed blades	<ul style="list-style-type: none"> <li>■ Check the condition of the blades and sharpen or replace as necessary.</li> <li>■ Check that the blades are properly fastened.</li> </ul>
	Damaged or worn out blade shaft.	<ul style="list-style-type: none"> <li>■ Inspect the shafts and the seating of the bearings. Replace them if they are damaged or overly worn.</li> </ul>
	The mowing deck drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of mowing deck drive belt.</li> </ul>
	Unbalanced mowing blades	<ul style="list-style-type: none"> <li>■ Check that the mowing blades are balanced. Balance or replace them if necessary</li> </ul>
	Incorrectly adjusted mowing deck	<ul style="list-style-type: none"> <li>■ Check and, if necessary, adjust the angle of the mowing deck.</li> </ul>
<b>WHEN MOWING, SOME VEGETATION REMAINS UNCUT</b>	Blunt or curved blades	<ul style="list-style-type: none"> <li>■ Check the condition of the blades and sharpen or replace as necessary.</li> <li>■ An unmowed strip may remain after mowing thick grass or grass with an excessively wet surface. If this happens, adjust the travel speed. The engine should run at maximum speed.</li> <li>■ Check the tension of mowing deck drive belt.</li> </ul>
	High travel speed	<ul style="list-style-type: none"> <li>■ Slow down and hold the engine at maximum speed.</li> </ul>
<b>THE MOWING DECK IS RIPPING OUT TURF</b>	Bent blades	<ul style="list-style-type: none"> <li>■ Check the condition of the blades and replace as necessary.</li> </ul>
	Blades are loose	<ul style="list-style-type: none"> <li>■ Tighten the blade bolts.</li> </ul>
	Inappropriate mowing height	<ul style="list-style-type: none"> <li>■ Check the mowing height and adjust if necessary. Turf is ripped out more frequently on uneven terrain.</li> </ul>
<b>MOWING DECK IS VIBRATING</b>	Damaged or cracked blades	<ul style="list-style-type: none"> <li>■ Check the condition of the blades and sharpen or replace as necessary.</li> </ul>
	Loosen the mowing deck pins	<ul style="list-style-type: none"> <li>■ Check the mounting of the mowing deck</li> </ul>
<b>THE MOWING DECK DRIVE BELT STOPS DURING OPERATION</b>	The belt is damaged	<ul style="list-style-type: none"> <li>■ Check the condition of the belt. Perhaps the belt jumped out of the belt pulley or it was damaged. Replace it if necessary.</li> </ul>
	The mowing deck drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
	Inappropriate mowing height	<ul style="list-style-type: none"> <li>■ Check the set mowing height, adjust if necessary.</li> </ul>
	High travel speed	<ul style="list-style-type: none"> <li>■ Slow down and hold the engine at maximum speed</li> </ul>
	A foreign object is preventing the movement of the belt	<ul style="list-style-type: none"> <li>■ Check the movement of the belt and remove all foreign objects or dirt if necessary.</li> </ul>
	Damaged belt pulleys	<ul style="list-style-type: none"> <li>■ Recheck all the belt pulleys. Buckled or cracked belt pulleys may cause problems. Replace if necessary.</li> </ul>
	Worn out parts of the tensioning mechanism	<ul style="list-style-type: none"> <li>■ Check the parts of the tensioning mechanism for wear and replace if necessary.</li> </ul>

## MOWING DECK PROBLEMS (continued)

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>MOWING DECK IS VIBRATING</b>	Damaged or cracked blades	<ul style="list-style-type: none"> <li>■ Check the condition of the blades and sharpen or replace as necessary.</li> </ul>
	Loosen the mowing deck pins	<ul style="list-style-type: none"> <li>■ Check the mounting of the mowing deck</li> </ul>
<b>THE MOWING DECK DRIVE BELT STOPS DURING OPERATION</b>	The belt is damaged	<ul style="list-style-type: none"> <li>■ Check the condition of the belt. Perhaps the belt jumped out of the belt pulley or it was damaged. Replace it if necessary.</li> </ul>
	The mowing deck drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
	Inappropriate mowing height	<ul style="list-style-type: none"> <li>■ Check the set mowing height, adjust if necessary.</li> </ul>
	A foreign object is preventing the movement of the belt	<ul style="list-style-type: none"> <li>■ Check the movement of the belt and remove all foreign objects or dirt if necessary.</li> </ul>
	Damaged belt pulleys	<ul style="list-style-type: none"> <li>■ Recheck all the belt pulleys. Buckled or cracked belt pulleys may cause problems. Replace if necessary.</li> </ul>
	Worn out parts of the tensioning mechanism	<ul style="list-style-type: none"> <li>■ Check the parts of the tensioning mechanism for wear and replace if necessary.</li> </ul>
<b>THE MOWING DECK DRIVE BELT IS SLIPPING THROUGH</b>	The grass is too high or wet	<ul style="list-style-type: none"> <li>■ If the grass is too tall or wet, the mowing deck drive belts may slip through.</li> </ul>
	The belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
	Worn out or damaged spring of the mowing deck belt tensioning mechanism	<ul style="list-style-type: none"> <li>■ Check the spring of the mowing deck belt tensioning mechanism. Replace the spring if it is overstretched or damaged.</li> </ul>
<b>THE MOWING DECK DRIVE BELT IS BEING EXCESSIVELY WORN OUT</b>	A foreign object is preventing the movement of the belt	<ul style="list-style-type: none"> <li>■ Check all the points along the route of the belts. Check whether the movement of the belts is not prevented by a foreign object. If yes, remove the foreign object.</li> </ul>
	Damaged belt pulleys	<ul style="list-style-type: none"> <li>■ Check the belt pulleys, if they are damaged, replace them.</li> </ul>
	Inappropriate angle of the mowing deck	<ul style="list-style-type: none"> <li>■ Check the mowing deck angle setting, adjust it if necessary.</li> </ul>
	The belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>■ Check the tension of the belt and tension it if necessary.</li> </ul>
<b>THE BLADES CAN-NOT BE PUT INTO MOTION</b>	The mowing blade drive belt is worn out or damaged.	<ul style="list-style-type: none"> <li>■ Check the condition of the belt and replace it if necessary. If it is loose, tension it.</li> </ul>
	Damaged spring of the tensioning mechanism	<ul style="list-style-type: none"> <li>■ Check the condition of the spring of the tensioning mechanism and replace it if necessary.</li> </ul>
	A foreign object is preventing the movement of the blades	<ul style="list-style-type: none"> <li>■ Check whether the movement of the blades is not prevented by a foreign object. If yes, remove the foreign object.</li> </ul>
	Electromagnetic clutch is not engaging	<ul style="list-style-type: none"> <li>■ Inspect the clutch and wear and tear.</li> <li>■ Check the electrical system.</li> </ul>

## MOWING DECK PROBLEMS (continued)

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>THE BLADES STOP WITH A DELAY</b>	The drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>Check the tension of the belt and tension it if necessary.</li> </ul>
	Incorrectly functioning electromagnetic clutch	<ul style="list-style-type: none"> <li>Check that the electromagnetic clutch disengages properly. If the clutch is not working properly have it replaced or repaired at an authorised service centre.</li> </ul>
<b>EXTREME VIBRATIONS ARE GENERATED WHEN THE MOWING DECK DRIVE IS ENGAGED</b>	Damaged blades	<ul style="list-style-type: none"> <li>Check the blades and ensure that they are straight, unbent and balanced. In the event of deformation, replace them.</li> </ul>
	Damaged blade drive belt	<ul style="list-style-type: none"> <li>Check that the belt does not have burned areas or irregularities, which could cause the vibrations. If the belt is damaged, replace it.</li> </ul>
	Incorrectly functioning electromagnetic clutch	<ul style="list-style-type: none"> <li>Check that the electromagnetic clutch switches properly. If the clutch is not working properly have it replaced or repaired at an authorised service centre.</li> </ul>
	Damaged engine belt pulley	<ul style="list-style-type: none"> <li>Check the inside surface of the pulley on the engine. If it is coarse or has cracks, it is necessary to replace the pulley.</li> </ul>
	Remove the accumulated material from the underside of the mowing deck	<ul style="list-style-type: none"> <li>Check whether grass has accumulated on the underside of the mowing deck. It is necessary to remove this grass.</li> </ul>
	Engine mount fault	<ul style="list-style-type: none"> <li>Check that the engine mounting bolts are pulled tight. Tighten bolts or replace as necessary.</li> </ul>
	The drive belt is insufficiently tensioned	<ul style="list-style-type: none"> <li>Check belt tension. Replace it if necessary.</li> </ul>

## OTHER PROBLEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
<b>THE MOWER CANNOT BE PUSHED OR ONLY WITH DIFFICULTY</b>	The bypass lever is in the incorrect position	<ul style="list-style-type: none"> <li>Check the position of the by-pass lever.</li> </ul>
<b>THE MOWER IS HARD TO STEER OR CONTROL</b>	Incorrect pressure in the tyres	<ul style="list-style-type: none"> <li>Check the tyre pressure.</li> </ul>
	Steering malfunction	<ul style="list-style-type: none"> <li>Check the cogged tolerance on the segment.</li> <li>Check the steering rods.</li> </ul>
<b>IT IS NOT POSSIBLE TO START THE MOWER IN THE NORMAL WAY</b>	Malfunction of the electrical system	<ul style="list-style-type: none"> <li>Check the error messages on the display.</li> <li>Use the emergency travel system and drive the mower to a location where it can be repaired.</li> </ul>

## 7.1 ORDERING SPARE PARTS

We recommend that you use exclusively original spare parts, which ensure safety and lifetime of the mower. 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 mower's type label underneath the seat. Also provide the year of manufacture as shown on the product identification label under the seat.

### FREQUENTLY WORN OUT PARTS

Certain parts of the mowing deck are subject to standard wear and tear during use even when the mower is used in accordance with this user's manual. Therefore, based on the manner and duration of use, these parts must always be replaced in a timely manner.

Among others, these part include:

- mowing blades
- travel drive belt
- mowing blade drive belt
- fuses
- battery
- tyres
- spark plug

## 7.2 WARRANTY

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

## 8 POST-SEASONAL MAINTENANCE, PUTTING THE MOWER OUT OF OPERATION

At the end of the season or when not using your riding mower for more than 30 days, make sure to prepare your mower 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 fuel tank inside of buildings or poorly ventilated areas, where there are fuel vapours, open flames, sparking or pilot flames, fireplaces, central heating, dry rags, etc. Handle fuel and lubricants with care as they are highly flammable and careless handling may cause you serious burns or damage to property. Only empty the petrol tank into approved containers outdoors away from open flames.

### 8.1 RECOMMENDED PROCEDURE FOR PREPARING THE RIDING MOWER FOR STORAGE

- Thoroughly clean the entire mower, especially inside the mowing deck (→ 6 MAINTENANCE AND ADJUSTMENTS).



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

- To prevent corrosion, repair and apply paint to dented areas.
- Replace faulty or worn out parts and tighten all loose nuts and bolts.
- Flush out the fuel system lines with petrol having an octane number of 100.
- 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 LUBRICATION).
- Take out the battery (→ 6.3.5 BATTERY), clean it and fully charge it. 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 MOWER AT THE END OF ITS LIFETIME

### 9.1 DISPOSAL

When the operational life of the mower is over, it is necessary to dispose of it correctly. The mower can be disposed of in two ways:

a) Hand the mower over to an authorised company as scrap metal, car wrecker, secondary waste collection point etc.. You will receive documented confirmation of the handover for disposal.

b) Dispose of the mower 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 mower into the smallest possible parts.
- 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.



### 9.2 OLD TYRE COLLECTION (ONLY FOR THE CZECH REPUBLIC)

The price of the product includes costs related to the collection and disposal of used tyres. The final user is obliged to hand over used tyres at the collection points of ELTMA s.r.o.

Collection points are listed at [www.ELTMA.cz](http://www.ELTMA.cz).

# 10 ES STATEMENT OF COMPLIANCE (original)

pursuant to: **EP and Council Directive No. 2006/42/EC (Government directive NV 176/2008 Coll.)**

**EP and Council Directive No. 2014/30/EC (Government directive NV 117/2016 Coll.)**

**EP and Council Directive No. 2000/14/EC (Government directive NV 9/2002 Coll.)**

**A. We:** Seco Industries, s.r.o., Jungmannova 11, Valdické Předměstí, 506 01 Jičín

ID No.: 05391423

**issue the following statement:**

**B. Mechanical equipment**

- name: Riding mower
- model: **AC 92, AC 92 4x4**
- serial number: **NC000001-NC999999**

**Description:**

The AC 92 is a four-wheel self-propelled riding mower with a Briggs & Stratton Vanguard 23, Briggs & Stratton 7220 Pxi, Loncin LC2P77F and Kawasaki FS651V engine. The power drive from the engine is transferred by a V-belt to the travel drive transmission 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 spread out on the ground.

**C. Legislation forming the basis for assessment of compliance:**

ČSN EN ISO 12100, ČSN EN ISO 5395-1,3, ČSN EN ISO 14982:2009

**D. Assessment of compliance was performed according to the designated procedure in:**

- EP and Council Directive No. 2006/42/EC, Annex VIII (eqv. Annex no. 8, NV No. 176/2008 Coll.)
- EP and Council Directive No. 2014/30/EC, Annex II ,(eqv. Annex no. 2, NV No. 117/2016 Coll.)
- EP and Council Directive No. 2000/14/EC, Annex VI ,(eqv. Annex no. 5, NV No. 9/2002 Coll.)

Státní zkušebna strojů a.s. (SZS, a.s.), NB 1016

Třanovského 622/11

163 04 Prague 6 Řepy, Czech Republic

**E. Assessment of compliance performed by:**

Státní zkušebna strojů a.s. (SZS, a.s.)

Třanovského 622/11, 163 04 Prague 6 Řepy, Czech Republic

**F. We confirm that:**

- this mechanical equipment meets all respective provisions of the aforementioned directives (NV)
- 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.
- guaranteed emission level of acoustic power LwA is 100 dB(A)

Measured mean values of acoustic power depending on the engine used:

ENGINE	Speed (min <sup>-1</sup> )	Measured value of acoustic power [dB(A)]
Briggs & Stratton Vanguard 23	3000	98
Briggs & Stratton 7220 Pxi	3000	98
Loncin LC2P77F	3000	98
Kawasaki FS651 V	3000	98

Technical Documentation in the scope pursuant to annex VII for the Directive 2006/42/EC a pursuant to Directive 2000/14/EC is kept at the place of business of the manufacturer:

Seco Industries, s.r.o. Jungmannova 11

Valdické Předměstí

506 01 Jičín



In Jičín, 17.4.2024

Ing. Aleš Housa  
Mechanical Engineering Division Director

## UK DECLARATION OF CONFORMITY (original)

Manufacturer:	<b>SECO Industries s.r.o.</b>
Address:	Jungmannova 11, 506 01 Jičín, Czech Republic
ID:	60193450
Name and address of the person authorised to compile the technical file (according to Supply of Machinery (Safety) Regulations 2008), and name and address of the person, who keeps the technical documentation (according to Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001):	<b>SECO Industries s.r.o.</b> Jungmannova 11, 506 01 Jičín, Czech Republic
Product (Machine) – Type:	<b>Riding mower – AC 92, AC 92 4x4</b>
Model:	AC 92, AC 92 4x4
Serial number:	NC000001-NC999999
Description:	Self-propelled mower controlled by seated operator, with petrol engine
We declare that the machinery fulfils all the relevant provisions of the mentioned Directives (Government Provisions):	Supply of Machinery (Safety) Regulations 2008 Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001 (2001 No. 1701) Electromagnetic Compatibility Regulations 2016
The harmonized technical standards and the technical standards applied to the conformity assessment:	EN ISO 12100, EN ISO 5395-1, EN ISO 5395-3, EN ISO 4413, EN ISO 13857, EN ISO 14982:2009, EN ISO 11201, EN ISO 3744.
To the conformity assessment applied procedure:	Pursuant to the Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001, Schedule 9 (equivalent to Annex VI to, Directive 2000/14/EC)
The conformity assessment carried out by:	The Government Testing Laboratory of Machines J.S.C., NB 1016 Třanovského 622/11, CZ-163 04 Praha 6-Řepy, Czech Republic.
Guaranteed sound power level:	$L_{WAG} = 100$ dB

Measured sound power level:		
Briggs & Stratton Vanguard 23	3000	98
Briggs & Stratton 7220 Pxi	3000	98
Loncin LC2P77F	3000	98
Kawasaki FS651 V	3000	98

Note: All regulations were applied in wording of later amendments and modifications valid at the time of this declaration issue without any citation of them.

Place and date of issue:

Jičín 17.4.2024

Signed by the person entitled to deal in the name of producer:

Name: Ing. Aleš Housa

Signature:

